At baseline, the Bem Sex Role Inventory femininity scores were slightly higher than masculinity scores for both cohorts and were similar to Bem North American female normative scores. The scores did not change in either group over time.

At baseline, the scores for the CCEI individual domains (free floating anxiety, phobic anxiety, somatic anxiety, depression, hysteria, and obsessionality) were similar for the cohorts. The total CCEI scores for the two cohorts were consistent with moderate symptoms (Birchnell et al. 1988). Over the two year interval, total CCEI scores increased for standard wait group and approached the relatively severe symptom category. During the same interval, scores dropped into the asymptomatic rage for the post-operative patients.

The investigator-designed survey assessed changes in social and sexual activity of the prior two years, but the authors only compared patients in a given cohort to themselves. Though the researchers did not conduct statistical studies to compare the differences between the two cohorts, they did report increased participation in some, but not all, types of social activities such as sports (solo or group), dancing, dining out, visiting pubs, and visiting others. Sexual interest also increased. By contrast, pre-operative patients did not increase their participation in these activities.

2. External Technology Assessments

a. CMS did not request an external technology assessment (TA) on this issue.

b. There were no AHRQ reviews on this topic.

c. There are no Blue Cross/Blue Shield Health Technology Assessments written on this topic within the last three years.

d.

There were two publications in the COCHRANE database, and both were tangentially related. Both noted that there are gaps in the clinical evidence base for gender reassignment surgery.
Twenty Years of Public Health Research: Inclusion of Lesbian, Gay, Bisexual, and Transgender Populations Boehmer U. Am J Public Health. 2002; 92: 1125–30.

"Findings supported that LGBT issues have been neglected by public health research and that research unrelated to sexually transmitted diseases is lacking."

A systematic review of lesbian, gay, bisexual and transgender health in the West Midlands region of the UK compared to published UK research. West Midlands Health Technology Assessment Collaboration. Health Technology Assessment Database. Meads, et al., 2009. No.3.

"Further research is needed but must use more sophisticated designs with comparison groups. This systematic review demonstrated that there are so many gaps in knowledge around LGBT health that a wide variety of studies are needed."

e. There were no National Institute for Health and Care Excellence (NICE) reviews/guidance documents on this topic.

f.

There was a technology assessment commissioned by the New Zealand Ministry of Health and conducted by New Zealand Health Technology Assessment (NZHTA) (Christchurch School of Medicine and the University of Otago).

Tech Brief Series: Transgender Re-assignment Surgery Day P. NZHTA Report. February 2002;1(1). http://nzhta.chmeds.ac.nz/publications/trans_gender.pdf

The research questions included the following:
1. Are there particular subgroups of people with transsexualism who have met eligibility criteria for gender reassignment surgery (GRS) where evidence of effectiveness of that surgery exists?

2. If there is evidence of effectiveness, what subgroups would benefit from GRS?"

The authors concluded that there was not enough evidence to answer either of the research questions.

3. Medicare Evidence Development & Coverage Advisory Committee (MEDCAC) Meeting

CMS did not convene a MEDCAC meeting.

4. Evidence-Based Guidelines

a. American College of Obstetricians and Gynecologists (ACOG)

Though ACOG did not have any evidence-based guidelines on this topic, they did have the following document:
Health Care for Transgender Individuals: Committee Opinion
Committee on Health Care for Underserved Women; The American College of Obstetricians and Gynecologists. Dec 2011, No. 512. Obstet Gyncol. 2011;118:1454-8.

"Questions [on patient visit records]

should be framed in ways that do not make assumptions about gender identity, sexual orientation, or behavior. It is more appropriate for clinicians to ask their patients which terms they prefer. Language should be inclusive, allowing the patient to decide when and what to disclose. The adoption and posting of a nondiscrimination policy can also signal health care providers and patients alike that all persons will be treated with dignity and respect. Assurance of confidentiality can allow for a more open discussion, and confidentiality must be ensured if a patient is being referred to a different health care provider. Training staff to increase their knowledge and sensitivity toward transgender patients will also help facilitate a positive experience for the patient."

b. American Psychiatric Association

Report of the American Psychiatric Association Task Force on Treatment of Gender Identity Disorder. Byne, W, Bradley SJ, Coleman E, Eyler AE, Green R, Menvielle EJ, Meyer-Bahlburg HFL, Richard R. Pleak RR, Tompkins DA. Arch Sex Behav. 2012; 41:759–96.

The American Psychiatric Association (APA) was unable to identify any Randomized Controlled Trials (RTCs) regarding mental health issues for transgender individuals.

"There are some level B studies examining satisfaction/regret following sex reassignment (longitudinal follow-up after an intervention, without a control group); however, many of these studies obtained data retrospectively and without a control group (APA level G). Overall, the evidence suggests that sex reassignment is associated with an improved sense of well-being in the majority of cases, and also indicates correlates of satisfaction and regret. No studies have directly compared various levels of mental health screening prior to hormonal and surgical treatments on outcome variables; however, existing studies suggest that comprehensive mental health screening may be successful in identifying those individuals most likely to experience regrets."

Relevant Descriptions of APA Evidence Coding System/Levels:

[B] Clinical trial. A prospective study in which an intervention is made and the results of that intervention are tracked longitudinally. Does not meet standards for a randomized clinical trial."

[G] Other. Opinion-like essays, case reports, and other reports not categorized above."

c. Endocrine Society

Endocrine Treatment of Transsexual Persons: an Endocrine Society Clinical Practice Guideline.

Hembree WC, Cohen-Kettenis P, Delemarre-van de Waal HA, Gooren LJ, Meyer WJ 3rd, Spack NP, Tangpricha V, Montori VM; Endocrine Society. J Clin Endocrinol Metab. 2009; 94:3132-54.

This guideline primarily addressed hormone management and surveillance for complications of that management. A small section addressed surgery and found the quality of evidence to be low.

"This evidence-based guideline was developed using the Grading of Recommendations, Assessment, Development, and Evaluation (GRADE) system to describe the strength of recommendations and the quality of evidence, which was low or very low."

d. World Professional Association for Transgender Health (WPATH)

Standards of Care for the Health of Transsexual, Transgender, and Gender-Nonconforming People (Version 7). Coleman E, Bockting W, Botzer M, Cohen-Kettenis P, DeCuypere G, Feldman J, Fraser L, Green J, Knudson G, Meyer WJ, Monstrey S, Adler RK, Brown GR, Devor AH, Ehrbar R, Ettner R, Eyler E, Garofalo R, Karasic DH, Lev AI, Mayer G, Meyer-Bahlburg H, Hall BP, Pfäfflin F, Rachlin K, Robinson B, Schechter LS, Tangpricha V, van Trotsenburg M, Vitale A, Winter S, Whittle S, Kevan R. Wylie KR, Zucker K.
www.wpath.org/_files/140/files/Standards%20of%20Care,%20V7%20Full%20Book.pdf
Int J Transgend. 2011;13:165–232.

The WPATH is "an international, multidisciplinary, professional association whose mission is to promote evidence-based care, education, research, advocacy, public policy, and respect in transsexual and transgender health."

WPATH reported, "The standards of care are intended to be flexible in order to meet the diverse health care needs of transsexual, transgender, and gender-nonconforming people. While flexible, they offer standards for promoting optimal health care and guiding the treatment of people experiencing gender dysphoria—broadly defined as discomfort or distress that is caused by a discrepancy between a person's gender identity and that person's sex assigned at birth (and the associated gender role and/or primary and secondary sex characteristics) (Fisk, 1974; Knudson, De Cuypere, & Bockting, 2010b)."

The WPATH standards of care (SOC) "acknowledge the role of making informed choices and the value of harm-reduction approaches."

The SOC noted, "For individuals seeking care for gender dysphoria, a variety of therapeutic options can be considered. The number and type of interventions applied and the order in which these take place may differ from person to person (e.g., Bockting, Knudson, & Goldberg, 2006; Bolin, 1994; Rachlin, 1999; Rachlin, Green, & Lombardi, 2008; Rachlin, Hansbury, & Pardo, 2010). Treatment options include the following:

- Changes in gender expression and role (which may involve living part time or full time in another gender role, consistent with one's gender identity);
- Hormone therapy to feminize or masculinize the body;
- Surgery to change primary and/or secondary sex characteristics (e.g., breasts/chest, external and/or internal genitalia, facial features, body contouring);
- Psychotherapy (individual, couple, family, or group) for purposes such as exploring gender identity, role, and expression; addressing the negative impact of gender dysphoria and stigma on mental health; alleviating internalized transphobia; enhancing social and peer support; improving body image; or promoting resilience."

e. American Psychological Association

Suggested citation until formally published in the American Psychologist: American Psychological Association. (2015): *Guidelines for Psychological Practice with Transgender and Gender Nonconforming People Adopted by the Council of Representatives, August 5 & 7, 2015. www.apa.org/practice/guidelines/transgender.pdf*

"The purpose of the Guidelines for Psychological Practice with Transgender and Gender Nonconforming People (hereafter Guidelines) is to assist psychologists in the provision of culturally competent, developmentally appropriate, and trans-affirmative psychological practice with TGNC people."

"These Guidelines refer to psychological practice (e.g., clinical work, consultation, education, research, training) rather than treatment."

5. Other Reviews

a. Institute of Medicine (IOM)

The Health of Lesbian, Gay, Bisexual, and Transgender People: Building a Foundation for Better Understanding. Robert Graham (Chair); Committee on Lesbian, Gay, Bisexual, and Transgender Health Issues and Research Gaps and Opportunities. (Study Sponsor: The National Institutes of Health). Issued March 31, 2011. http://www.nationalacademies.org/hmd/Reports/2011/The-Health-of-Lesbian-Gay-Bisexual-and- Transgender-People.aspx

"To advance understanding of the health needs of all LGBT individuals, researchers need more data about the demographics of these populations, improved methods for collecting and analyzing data, and an increased participation of sexual and gender minorities in research. Building a more solid evidence base for LGBT health concerns will not only benefit LGBT individuals, but also add to the repository of health information we have that pertains to all people."

"Best practices for research on the health status of LGBT populations include scientific rigor and respectful involvement of individuals who represent the target population. Scientific rigor includes incorporating and

monitoring culturally competent study designs, such as the use of appropriate measures to identify participants and implementation processes adapted to the unique characteristics of the target population. Respectful involvement refers to the involvement of LGBT individuals and those who represent the larger LGBT community in the research process, from design through data collection to dissemination."

b. National Institutes of Health (NIH)

National Institutes of Health Lesbian, Gay, Bisexual, and Transgender (LGBT) Research Coordinating Committee. Consideration of the Institute of Medicine (IOM) report on the health of lesbian, gay, bisexual, and transgender (LGBT) individuals. Bethesda, MD: National Institutes of Health; 2013. http://report.nih.gov/UploadDocs/LGBT%20Health%20Report_FINAL_2013-01-03-508%20compliant.pdf

In response to the IOM report, the NIH LBGT research Coordinating Committee noted that most of the health research for this set of populations is "focused in the areas of Behavioral and Social Sciences, HIV (human immunodeficiency virus)/AIDS, Mental Health, and Substance Abuse. Relatively little research has been done in several key health areas for LGBT populations including the impact of smoking on health, depression, suicide, cancer, aging, obesity, and alcoholism."

6. Pending Clinical Trials

ClinicalTrials.gov
There is one currently listed and recently active trial directed at assessment of the clinical outcomes pertaining to individuals who have had gender reassignment surgery. The study appears to be a continuation of work conducted by investigators cited in the internal technology assessment.

NCT01072825 (Ghent, Belgium sponsor) European Network for the Investigation of Gender Incongruence (ENIGI) is assessing the physical and psychological effects of the hormonal treatment of transgender subjects in two years prior to reassignment surgery and subsequent to surgery. This observational cohort study started in 2010 and is still in progress.

7. Consultation with Outside Experts

Consistent with the authority at 1862(l)(4) of the Act, CMS consulted with outside experts on the topic of treatment for gender dysphoria and gender reassignment surgery.

Given that the majority of the clinical research was conducted outside of the United States, and some studies either took place in or a suggested continuity-of-care and coordination-of-care were beneficial to health outcomes, we conducted expert interviews with centers across the U.S. that provided some form of specialty-focused or coordinated care for transgender patients. These interviews informed our knowledge about the current healthcare options for transgender people, the qualifications of the professionals involved, and the uniqueness of treatment options. We are very grateful to the organizations that made time to discuss treatment for gender dysphoria with us.

From our discussions with the all of the experts we spoke with, we noted the following practices in some centers: (1) specialized training for all staff about transgender healthcare and transgender cultural issues; (2) use of an intake assessment by either a social worker or health care provider that addressed physical health, mental health, and other life factors such as housing, relationship, and employment status; (3) offering primary care services for transgender people in addition to services related to gender-affirming therapy/treatments; (4) navigators who connected patients with name-change information or other legal needs related to gender; (5) counseling for individuals, groups, and families; (6) an informed-consent model whereby individuals were often referred to as "clients" instead of "patients," and (7) an awareness of depression among transgender people (often measured with tools such as the Adult Outcomes Questionnaire and the Patient Health Questionnaire).

8. Public Comments

We appreciate the thoughtful public comments we received on the proposed decision memorandum. In CMS' experience, public comments sometimes cite the published clinical evidence and give CMS useful information. Public comments that give information on unpublished evidence such as the results of individual practitioners or patients are less rigorous and therefore less useful for making a coverage determination. CMS uses the initial public comments to inform its proposed decision. CMS responds in detail to the public comments on a proposed decision when issuing the final decision memorandum. All comments that were submitted without personal health information may be viewed in their entirety by using the following link: https://www.cms.gov/medicare-coverage-database/details/nca-view-public-comments.aspx?NCAId=282&ExpandComments=n#Results

a. Initial Comment Period: December 3, 2015 – January 2, 2016

During the initial comment period, we received 103 comments. Of those, 78% supported coverage of gender reassignment surgery, 15% opposed, and 7% were neutral. The majority of comments supporting coverage were from individuals and advocacy groups.

b. Second Comment Period: June 2, 2016 – July 2, 2016

During the second 30-day public comment period, we received a total of 45 public comments, 7 of which were not posted on the web due to personal health information content. Overall, 82% supported coverage of gender reassignment surgery, 11% opposed, and 7% were neutral or silent in their comment whether they supported or opposed coverage. Half of the comments were submitted by individuals who expressed support for coverage of gender reassignment surgery (51%). We also received comments from physicians, providers, and other health professionals who specialize in healthcare for transgender individuals (17%). We received one comment from a municipality, the San Francisco Department of Public Health. Associations (American Medical Association, American College of Physicians, American Academy of Nursing, American Psychological Association, and LBGT PA Caucus) and advocates (Center for American Progress with many other signatories, Jamison Green & Associates) also submitted comments.

Below is a summary of the comments CMS received. In some instances, commenters identified typographical errors, context missed, and opportunities for CMS to clarify wording and classify articles for ease of reading in the memorandum. As noted earlier, when appropriate and to the extent possible, we updated the decision memorandum to reflect those corrections, improved the context, and clarified the language. In light of public comments, we re-evaluated the evidence and our summaries. We updated our summaries of the studies and clarified the language when appropriate.

1. Contractor Discretion and National Coverage Determination

Comment: Some commenters, including advocates, associations, and providers, supported CMS' decision for MAC contractor discretion/case-by-case determination for gender reassignment surgery. One stakeholder stated, "We agree with the conclusion that a NCD is not warranted at this time."

Response: We appreciate the support and understanding among stakeholders for our proposed decision to have the MACs determine coverage on a case-by-case basis. We have clarified in this final decision memorandum that

coverage is available for gender reassignment surgery when determined reasonable and necessary and not otherwise excluded by any other relevant statutory requirements by the MAC on a case-by-case basis. "The case-by-case model affords more flexibility to consider a particular individual's medical condition than is possible when the agency establishes a generally applicable rule." (78 Fed. Reg. 48165 (August 7, 2013)).

Comment: Some commenters cautioned that CMS' choice to not issue a NCD at this time must not be interpreted as a national non-coverage determination or used in any way to inappropriately restrict access to coverage for transgender Medicare beneficiaries or other transgender individuals. Multiple commenters indicated their disappointment that CMS did not propose a National Coverage Determination (NCD) and, instead, chose to continue to have local MACs make the coverage decisions on a case-by-case basis. Commenters stated this could result in variability in coverage.

Response: We appreciate the comments. We are not issuing a NCD at this time because the available evidence for gender reassignment surgery provides limited data on specific health outcomes and the characteristics of specific patient populations that might benefit from surgery. In the absence of a NCD, the MAC's use the same statutory authority as NCDs, section 1862(a)(1)(A) of the Social Security Act (the Act). Under section 1862(a)(1)(A) an item or service must be reasonable and necessary for the diagnosis or treatment of illness or injury or to improve the functioning of a malformed body member. While CMS did not have enough evidence to issue a NCD, we believe the MACs will be able to make appropriate coverage decisions on a case-by-case basis taking into account individual characteristics of the Medicare beneficiary.

Comment: Some commenters sought a NCD that would establish guidelines for coverage and include elements such as a prescribed set of surgeries and a shared decision making element.

Response: For the reasons stated above, we are not issuing a NCD at this time and, therefore, are not establishing specific gender reassignment surgery coverage guidelines for the Medicare program. We generally agree that shared decision-making is a fundamental approach to patient-centered health care decisions and strongly encourage providers to use these types of evidence based decision aids. We have not found a shared decision aid on GRS and encourage the development of this necessary element to conduct formal shared-decision making.

Comment: Some commenters expressed concern that there is a misunderstanding of transgender individuals as having a disorder or being abnormal. Some commenters indicated a history of bias and discrimination within society as a whole that has occurred when transgender individuals have sought health care services from the medical community. Some commenters are concerned that the decision not to make a NCD will subject individuals seeking these services to corporate bias by Medicare contractors.

Response: We acknowledge the public comments and that there has been a transformation in the treatment of individuals with gender dysphoria over time. In this NCA, we acknowledge that gender dysphoria is a recognized Diagnostic and Statistical Manual of Mental Disorders (DSM) condition. With respect to the concern about potential bias by Medicare contractors, we have no reason to expect that the judgments made on specific claims will be influenced by an overriding bias, hostility to patients with gender dysphoria, or discrimination. Moreover, the Medicare statue and our regulations provide a mechanism to appeal an adverse initial decision if a claim is denied and those rights may include the opportunity for judicial review. We believe the Medicare appeals process would provide an opportunity to correct any adverse decision that was perceived to have been influenced by bias.

Comment: Commenters mentioned the cost of gender reassignment surgery could influence MAC decision making.

Response: The decisions on whether to cover gender reassignment surgery in a particular case are made on the basis of the statutory language in section 1862 of the Social Security Act that establish exclusions from coverage and would not depend on the cost of the procedure.

2. Coverage with Evidence Development and Research

Comment: In our proposed decision memorandum, we specifically invited comments on whether a study could be developed that would support coverage with evidence development (CED). One organization commented, "We strongly caution against instituting a CED protocol." Commenters were opposed to coverage limited in clinical trials, suggesting that such coverage would restrict access to care. Several commenters provided suggested topics for clinical research studies for the transgender population. For example, one commenter suggested a study of non-surgical treatment for transgender children prior to puberty.

Response: While we appreciate the comments supporting further research, in general, for gender reassignment surgery, we agree that CED is not the appropriate coverage pathway at this time. While CED is an important mechanism to support research and has the potential to be used to help address gaps in the current evidence, we are not aware of any available, appropriate studies, ongoing or in development, on gender reassignment surgery for individuals with gender dysphoria that could be used to support a CED decision.

3. Gender Reassignment Surgery as Treatment

Comment: One group of commenters requested that CMS consider that, "The established medical consensus is that GRS is a safe, effective, and medically necessary treatment for many individuals with gender dysphoria, and for some individuals with severe dysphoria, it is the only effective treatment."

Response: We acknowledge that GRS may be a reasonable and necessary service for certain beneficiaries with gender dysphoria. The current scientific information is not complete for CMS to make a NCD that identifies the precise patient population for whom the service would be reasonable and necessary.

4. Physician Recommendations

Comment: Several commenters stated that gender reassignment surgery should be covered as long as it was determined to be necessary, or medically necessary by a beneficiary's physician.

Response: Physician recommendation is one of many potential factors that the local MAC may consider when determining whether the documentation is sufficient to pay a claim.

5. WPATH Standards of Care

Comment: Several commenters suggested that CMS should recommend the WPATH Standards of Care (WPATH) as the controlling guideline for gender reassignment surgery. They asserted it could satisfy Medicare's reasonable and necessary criteria for determining coverage on a case-by-case basis.

Response: Based on our review of the evidence and conversations with the experts and patient advocates, we are aware some providers consult the WPATH Standards of Care, while others have created their own criteria and requirements for surgery, which they think best suit the needs of their patients. As such, and given that WPATH acknowledges the guidelines should be flexible, we are not in the position to endorse exclusive use of WPATH for coverage. The MACs, Medicare Advantage plans, and Medicare providers can use clinical guidelines they determine useful to inform their determination of whether an item or service is reasonable and necessary. When making this determination, local MACs may take into account physician's recommendations, the individual's clinical characteristics, and available clinical evidence relevant to that individual.

6. Scope of the NCA Request

Comment: One commenter stated that CMS did not address the full scope of the NCA request.

Response: The formal request for a NCD is publicly available on our tracking sheet. (https://www.cms.gov/Medicare/Coverage/DeterminationProcess/downloads/id282.pdf) The letter did not explicitly seek a national coverage determination related to counseling or hormone therapies, but focused on surgical remedies. CMS is aware that beneficiaries with gender dysphoria use a variety of therapies.

Comment: Other commenters stated the scope of the proposed decision is unnecessarily broad because it discussed therapies other than surgery. They suggested this discussion could lead to the unintended consequence of restricting access to those services for transgender Medicare beneficiaries and other transgender individuals.

Response: As we noted in our proposed decision, our decision focused only on gender reassignment surgery. In the course of reviewing studies related to those surgeries, occasionally authors discussed other therapies that were mentioned in our summaries of the evidence. To the extent possible, we have modified our decision to eliminate the discussion of other therapies which were not fully evaluated in this NCA.

7. NCA Question

Comment: Some commenters expressed concern about the phrasing of the question in this NCA.

Response: The phrasing of the research question is consistent with most NCAs and we believe it is appropriate.

8. Evidence Summary and Analysis

Comment: Several commenters disagreed with our summary of the clinical evidence and analysis. A few commenters contended that the overall tone of the review was not neutral and seemed biased or flawed. One commenter noted that the Barrett publication was available on the Internet.

Response: We appreciate the comments that identified technical errors, and we made the necessary revisions to this document. However, we disagree with the contention that our evidence review was not neutral and seemed biased or flawed. We believe that the summary and analysis of the clinical evidence are objective. As with previous NCAs, our review of the evidence was rigorous and methodical. Additionally, we reviewed the Barrett publication, but it did not meet our inclusion criteria to be included in the Evidence section.

9. Evidence Review with Transgender Experts

Comment: Several commenters requested that CMS re-review the clinical evidence discussed in the proposed decision memorandum with outside experts in the field of transgender health and transition/gender reassignment -related surgeries. Several offered the expertise within their organization to assist in this effort.

Response: We appreciate these comments and the transgender health community's willingness to participate. For this NCA we discussed gender reassignment surgery protocols with experts, primarily in coordinated care settings. Additionally, the public comment periods provide opportunities for expert stakeholder input. According to our process for all NCAs, we do not jointly review evidence with external stakeholders but have carefully reviewed the very detailed comments submitted by a number of outside experts in transgender health care.

10. Previous Non-Coverage NCD

Comment: One commenter noted that they thought research studies for gender reassignment surgery could not take place when the old NCD that prohibited coverage for gender reassignment surgery was in effect.

Response: CMS does not directly conduct clinical studies or pay for research grants. Some medical services are non-covered by Medicare; however, national non-coverage does not preclude research via a number of avenues and other funding entities such as the National Institutes of Health. In this instance, the previous NCD did not preclude interested parties from funding research for gender reassignment surgery that could have been generalizable to the Medicare population.

11. How the Medicare Population Differs from the General Population

Comment: One commenter questioned how the Medicare population differed from the general population, and why any differences would be important in our decision-making.

Response: The Medicare population is different from the general population in age (65 years and older) and/or disability as defined by the Social Security Administration. Due to the biology of aging, older adults may respond to health care treatments differently than younger adults. These differences can be due to, for example, multiple health conditions or co-morbidities, longer duration needed for healing, metabolic variances, and impact of reduced mobility. All of these factors can impact health outcomes. The disabled Medicare population, who are younger than age 65, is different from the general population and typical study populations due to the presence of the causes of disability such as psychiatric disorders, musculoskeletal health issues, and cardiovascular issues.

12. Medicare Evidence Development & Coverage Advisory Committee (MEDCAC)

Comment: One commenter suggested CMS should have convened a MEDCAC for this topic.

Response: We appreciate the comment. Given the limited evidence, we did not believe a MEDCAC was warranted according to our guidance document entitled "Factors CMS Considers in Referring Topics to the Medicare Evidence Development & Coverage Advisory Committee" (https://www.cms.gov/Regulations-and-Guidance/Guidance/FACA/MEDCAC.html).

13. §1557 of the Affordable Care Act (ACA)

Comment: Some commenters asserted that by not explicitly covering gender reassignment surgery at the national level, CMS was discriminating against transgender beneficiaries in conflict with Section 1557 of the Accountable Care Act (ACA).

Response: This decision does not affect the independent obligation of covered entities, including the Medicare program and MACs, to comply with Section 1557 in making individual coverage decisions. In accordance with Section 1557, MACs will apply neutral nondiscriminatory criteria when making case-by-case coverage determinations related to gender reassignment surgery.

14. Medicaid

Comment: Some commenters observed that some states cover gender reassignment surgery through Medicaid or require commercial insurers operating in the state to cover the surgery.

Response: We appreciate the information about Medicaid and state requirements; however, State decisions are separate from Medicare coverage determinations. We make evidence-based determinations based on our statutory standards and processes.

15. Commercial Insurers

Comment: In several instances, commenters told us that the healthcare industry looks to CMS coverage determinations to guide commercial policy coverage.

Response: CMS makes evidence-based national coverage determinations based on our statutory standards and processes as defined in the Social Security Act, which may not be the same standards that are used in commercial insurance policies or by other health care programs. In addition as noted above, the Medicare population is different (e.g., Medicare covers 95% of adults 65 and older) than the typical population under

commercial insurers. We do not issue coverage decisions to drive policy for other health organizations' coverage in one way or the other.

16. Healthcare for Transgender Individuals

Comment: Numerous professional associations wrote to CMS to explain their support for access to healthcare for transgender individuals.

Response: CMS recognizes that transgender beneficiaries have specific healthcare needs. Many health care treatments are available. We encourage all beneficiaries to utilize their Medicare benefits to help them achieve their best health.

17. Intended Use of the Decision Memorandum

Comment: Several commenters expressed concern that the analysis provided in the proposed and final decision memorandums may be used by individuals, entities, or payers for purposes unrelated to Medicare such as denial of coverage for transgender-related surgeries.

Response: The purpose of the decision memoranda is to memorialize CMS' analysis of the evidence, provide responses to the public comments received, and to make available the clinical evidence and other data used in making our decision consistent with our obligations under the § 1862 of the Act. The NCD process is open and transparent and our decisions are publicly available. Congress requires that we provide a clear statement of the basis for our determinations. The decision memoranda are an important part of the record of the NCD. Our focus is the Medicare population which, as noted above, is different than the general population in a number of ways. Other entities may conduct separate evidence reviews and analyses that are suited for their specific populations.

18. Cost Barriers to Care and Effects

Comment: A few commenters stated that without Medicare coverage, surgery is difficult to afford and there may be a risk of negative consequences for the individual. One commenter suggested that CMS should consider prior-authorization for these surgeries.

Response: CMS is aware that paying out-of-pocket for medical care is a strain on a beneficiary's finances. We are also aware of beneficiaries' hesitancy to undergo surgery prior to knowing whether or not Medicare will pay the claim. Gender reassignment surgeries are not the only procedures whereby payment is not determined until after the provider submits the claim to Medicare. Importantly, documentation for the claims need to be explicit about what procedures were performed and include the appropriate information in the documentation to justify using the code or codes for surgery. Of note, CMS has claims data that indicate Medicare has paid for gender reassignment surgeries in the recent past. Determining which services are designated for prior-authorization is outside of the scope of the NCA process.

19. Surgical Risks and Benefits

Comment: A number of commenters conveyed the benefits of gender reassignment surgery, while other commenters expressed concern that gender reassignment surgery was harmful.

Response: We appreciate these comments.

20. Expenditure of Federal Funds

Comment: Some commenters opposed spending Medicare program funds on gender reassignment surgery for a variety of reasons. For example, some commenters believe it is an "elective" procedure. Other commenters suggested that funds should first be spent on other priorities such as durable medical equipment (DME) or mobility items such as power chairs; increasing reimbursement to providers; or that spending should be limited to the proportion to the transgender adult population in the Medicare program.

Response: The purpose of this NCA is to determine whether or not CMS should issue a NCD to cover surgery for patients who have gender dysphoria. NCAs do not establish payment amounts or spending priorities and, therefore, these comments are outside the scope of this consideration.

VIII. CMS Analysis

National coverage determinations are determinations by the Secretary with respect to whether or not a particular item or service is covered nationally under § 1862(l)(6) of the Act. In general, in order to be covered by Medicare, an item or service must fall within one or more benefit categories contained within Part A or Part B and must not be otherwise excluded from coverage.

Moreover, in most circumstances, the item or service must be reasonable and necessary for the diagnosis or treatment of illness or injury or to improve the functioning of a malformed body member (§1862(a)(1)(A)). The Supreme Court has recognized that "[t]he Secretary's decision as to whether a particular medical service is 'reasonable and necessary' and the means by which she implements her decision, whether by promulgating a generally applicable rule or by allowing individual adjudication, are clearly discretionary decisions." Heckler v. Ringer, 466 U.S. 602, 617 (1984). See also, 78 Fed. Reg. 48,164, 48,165 (August 7, 2013)

When making national coverage determinations, we consider whether the evidence is relevant to the Medicare beneficiary population. In considering the generalizability of the results of the body of evidence to the Medicare population, we carefully consider the demographic characteristics and comorbidities of study participants as well as the provider training and experience. This section provides an analysis of the evidence, which included the published medical literature and guidelines pertaining to gender dysphoria, that we considered during our review to answer the question:

Is there sufficient evidence to conclude that gender reassignment surgery improves health outcomes for Medicare beneficiaries with gender dysphoria?

CMS carefully considered all the studies listed in this decision memorandum to determine whether they answered the question posed in this NCA. While there appears to be many publications regarding gender reassignment surgery, it became clear that many of the publications did not meet our inclusion/exclusion criteria as explained earlier in the decision memorandum.

Thirty-three papers were eligible based on our inclusion/exclusion criteria for the subsequent review (Figure 1). All studies reviewed had potential methodological flaws which we describe below.

A. Quality of the Studies Reviewed

Overall, the quality and strength of evidence were low due to mostly observational study designs with no comparison groups, subjective endpoints, potential confounding (a situation where the association between the intervention and outcome is influenced by another factor such as a co-intervention), small sample sizes, lack of validated assessment tools, and considerable lost to follow-up (Appendices C and F). The impact of a specific therapeutic intervention can be difficult to determine when there are multiple serial treatments such as psychotherapy, hormone treatment and surgery. To reduce confounding, outcome assessment just prior to and after surgery such as in a longitudinal study would be helpful. The objective endpoints included psychiatric treatment, attempted suicide, requests for surgical reversal, morbidity (direct and indirect adverse events), and mortality (Appendix F). CMS agrees with the utility of these objective endpoints. Quality of life, while important, is more difficult to measure objectively (Appendix E).

Of the 33 studies reviewed, published results were conflicting – some were positive; others were negative. Collectively, the evidence is inconclusive for the Medicare population. The majority of studies were non-longitudinal, exploratory type studies (i.e., in a preliminary state of investigation or hypothesis generating), or did not include concurrent controls or testing prior to and after surgery. Several reported positive results but the potential issues noted above reduced strength and confidence. After careful assessment, we identified six studies that could provide useful information (Figure 1). Of these, the four best designed and conducted studies that assessed quality of life before and after surgery using validated (albeit non-specific) psychometric studies did not demonstrate clinically significant changes or differences in psychometric test results after GRS. (Heylens et al., 2014; Ruppin, Pfafflin, 2015; Smith et al., 2005; Udeze et al., 2008) (Appendix C Panel A and Appendix G.)

Two studies (three articles) assessed functional endpoints (request for surgical reassignment reversal and morbidity/mortality) (Dhejne et al., 2011; Dhejne et al., 2014 along with Landén et al., 1998) (Figure 1 and Appendix C, Panel A and Appendix G). Although the data are observational, they are robust because the Swedish national database is comprehensive (including all patients for which the government had paid for surgical services) and is notable for uniform criteria to qualify for treatment and financial coverage by the government. Dhejne et al. (2014) and Landén et al. (1998) reported cumulative rates of requests for surgical reassignment reversal or change in legal status of 3.3% while Dhejne et al. (2014) reported 2.2%. The authors indicated that the later updated calculation had the potential to be an underestimate because the most recent surgical cohorts were larger in size and had shorter periods of follow-up.

Dhejne et al., (2011) tracked all patients who had undergone reassignment surgery (mean age 35.1 years) over a 30 year interval and compared them to 6,480 matched controls. The study identified increased mortality and psychiatric hospitalization compared to the matched controls. The mortality was primarily due to completed suicides (19.1-fold greater than in control Swedes), but death due to neoplasm and cardiovascular disease was increased 2 to 2.5 times as well. We note, mortality from this patient population did not become apparent until after 10 years. The risk for psychiatric hospitalization was 2.8 times greater than in controls even after adjustment for prior psychiatric disease (18%). The risk for attempted suicide was greater in male-to-female patients regardless of the gender of the control. Further, we cannot exclude therapeutic interventions as a cause of the observed excess morbidity and mortality. The study, however, was not constructed to assess the impact of gender reassignment surgery *per se*.

We believe at minimum study designs should have a pre-test/post-test longitudinal design accompanied by characterization of all patients lost to follow-up over the entire treatment series as well as those patients who did not complete questionnaires, and the use of psychometric quality-of-life tools which are well validated with linkage to "hard" (objective) patient outcomes in this particular patient population (Trentacosti 2007, PRO 2009) (Appendices C and D).

Patient Care

Clinical evidentiary questions regarding the care of patients with gender dysphoria remain. Many of the publications focused on aspects of surgical technique as opposed to long-term patient outcomes. The specific type(s) of gender/sex reassignment surgery (e.g., genital, non-genital) that could improve health outcomes in adults remain(s) uncertain because most studies included patients who had undertaken one or more of a spectrum of surgical procedures or did not define the specific types of surgical procedures under study. Furthermore, surgical techniques have changed significantly over the last 60 years and may not reflect current practice (Bjerrome Ahlin et al., 2014; Doornaert, 2011; Green, 1998; Pauly, 1968; Selvaggi et al., 2007; Selvaggi, Bellringer, 2011; Tugnet et al., 2007; Doornaert, 2011).

The WPATH care recommendations present a general framework and guidance on the care of the transgender individual. The standards of care are often cited by entities that perform gender reassignment surgery. WPATH notes, "More studies are needed that focus on the outcomes of current assessment and treatment approaches for gender dysphoria." Appendix D in the WPATH Standards of Care briefly describes their evidence base and acknowledges the historical problems with evidentiary standards, the preponderance of retrospective data, and the confounding impact of multiple interventions, specifically distinguishing the impact of hormone therapy from surgical intervention.

Additionally, CMS met with several stakeholders and conducted several interviews with centers that focus on healthcare for transgender individuals in the U.S. Primary care rather than gender reassignment surgery was often the main focus. Few of the U.S.-based reassignment surgeons we could identify work as part of an integrated practice, and few provide the most complex procedures.

Psychometric Tools

CMS reviewed psychometric endpoints because gender dysphoria (inclusive of prior nomenclature) describes an incongruence between the gender assigned at birth and the gender(s) with which the person identifies.

The psychometric tools used to assess outcomes have limitations. Most instruments that were specific for gender dysphoria were designed by the investigators themselves or by other investigators within the field using limited populations and lacked well documented test characterization. (Appendices E and F) By contrast, test instruments with validation in large populations were non-specific and lacked validation in the gender dysphoric patient populations. (Appendices E and F). In addition, the presentation of psychometric results must be accompanied by enough information about the test itself to permit adequate interpretation of test results. The relevant diagnostic cut-points for scores and changes in scores that are clinically significant should also be scientifically delineated for interpretation.

Generalizability

It is difficult to generalize these study results to the current Medicare population. Many of the studies are old given they were conducted more than 10 years ago. Most of these studies were conducted outside of the U.S. in very different medical systems for treatment and follow-up. Many of the programs were single-site centers without replication elsewhere. The study populations were young and without significant physical or psychiatric co -morbidity (Appendix D). As noted earlier, psychiatric co-morbidity may portend poor outcomes (Asscheman et al., 2011; Landén et al., 1998).

Knowledge Gaps

This patient population faces complex and unique challenges. The medical science in this area is evolving. This review has identified gaps in the evidentiary base as well as recommendations for good study designs. The Institute of Medicine, the National Institutes of Health, and others also identified many of the gaps in the data. (Boehmer, 2002; HHS-HP, 2011; IOM, 2011; Kreukels-ENIGI, 2012; Lancet, 2011; Murad et al., 2010; NIH-LGBT, 2013) The current or completed studies listed in ClinicalTrials.gov are not structured to assess these gaps. These gaps have been delineated as they represent areas in which patient care can be optimized and are opportunities for much needed research.

B. Health Disparities

Four studies included information on racial or ethnic background. The participants in the three U.S. based studies were predominantly Caucasian (Beatrice, 1985; Meyer, Reter, 1979; Newfield et al., 2006). All of the participants

in the single Asian study were Chinese (Tsoi, 1993). Additional research is needed in this area.

C. Summary

Based on an extensive assessment of the clinical evidence as described above, there is not enough high quality evidence to determine whether gender reassignment surgery improves health outcomes for Medicare beneficiaries with gender dysphoria and whether patients most likely to benefit from these types of surgical intervention can be identified prospectively.

The knowledge on gender reassignment surgery for individuals with gender dysphoria is evolving. Much of the available research has been conducted in highly vetted patients at select care programs integrating psychotherapy, endocrinology, and various surgical disciplines. Additional research of contemporary practice is needed. To assess long-term quality of life and other psychometric outcomes, it will be necessary to develop and validate standardized psychometric tools in patients with gender dysphoria. Further, patient preference is an important aspect of any treatment. As study designs are completed, it is important to include patient-centered outcomes.

Because CMS is mindful of the unique and complex needs of this patient population and because CMS seeks sound data to guide proper care of the Medicare subset of this patient population, CMS strongly encourages robust clinical studies with adequate patient protections that will fill the evidence gaps delineated in this decision memorandum. As the Institute of Medicine (IOM, 2011) importantly noted: "Best practices for research on the health status of LGBT populations include scientific rigor and respectful involvement of individuals who represent the target population. Scientific rigor includes incorporating and monitoring culturally competent study designs, such as the use of appropriate measures to identify participants and implementation processes adapted to the unique characteristics of the target population. Respectful involvement refers to the involvement of LGBT individuals and those who represent the larger LGBT community in the research process, from design through data collection to dissemination."

IX. Decision

Currently, the local Medicare Administrative Contractors (MACs) determine coverage of gender reassignment surgery on a case-by-case basis. We have a received a complete, formal request to make a national coverage determination on surgical remedies for gender identity disorder (GID), now known as gender dysphoria. The Centers for Medicare & Medicaid Services (CMS) is not issuing a National Coverage Determination (NCD) at this time on gender reassignment surgery for Medicare beneficiaries with gender dysphoria because the clinical evidence is inconclusive for the Medicare population.

In the absence of a NCD, coverage determinations for gender reassignment surgery, under section 1862(a)(1)(A) of the Social Security Act (the Act) and any other relevant statutory requirements, will continue to be made by the local MACs on a case-by-case basis. To clarify further, the result of this decision is not national non-coverage rather it is that no national policy will be put in place for the Medicare program. In the absence of a national policy, MACs will make the determination on whether or not to cover gender reassignment surgery based on whether gender reassignment surgery is reasonable and necessary for the individual beneficiary after considering the individual's specific circumstances. For Medicare beneficiaries enrolled in Medicare Advantage (MA) plans, the initial determination of whether or not surgery would be reasonable and necessary will be made by the MA plans.

Consistent with the request CMS received, the focus of this National Coverage Analysis (NCA) was gender reassignment surgery. Specific types of surgeries were not individually assessed. We did not analyze the clinical evidence for counseling or hormone therapy treatments for gender dysphoria. As requested by several public commenters, we have modified our final decision memorandum to remove language that was beyond the scope of the specific request. We are not making a national coverage determination relating to counseling, hormone therapy treatments, or any other potential treatment for gender dysphoria.

While we are not issuing a NCD, CMS encourages robust clinical studies that will fill the evidence gaps and help inform which patients are most likely to achieve improved health outcomes with gender reassignment surgery, which types of surgery are most appropriate, and what types of physician criteria and care setting(s) are needed to ensure that patients achieve improved health outcomes.

A. Appendix A

Diagnostic & Statistical Manual of Mental Disorders (DSM) Criteria for Disorders of Gender Identity since 1980

DSM Version	Condition Name	Criteria	Criteria	Comments
DSM III 1980 *Chapter: Psychosexual Disorders*	***Trans-sexualism*** *302.5x [Gender Identity Disorder of Child-hood (302.6)]*	Required A (cross-gender identification) and B (aversion to one's natal gender) criteria Dx excluded by physical intersex condition Dx excluded by another mental disorder, e.g., schizophrenia	Sense of discomfort and inappropriateness about one's anatomic sex. Wish to be rid of one's own genitals and to live as a member of the other sex. The disturbance has been continuous (not limited to periods of stress) for at least 2 years.	Further characterization by sexual orientation Distinguished from Atypical Gender Identity Disorder 302.85

DSM Version	Condition Name	Criteria	Criteria	Comments
DSM III-Revised 1987 *TS classified as an Axis II dx (personality disorders and mental retardation) in a different chapter. GID included under Disorders Usually First Evident in Infancy, Childhood, Adolescence*	***Trans-sexualism*** *(TS) (302.50) [GID of C]*	Required A and B criteria	Persistent discomfort and sense of inappropriateness about one's assigned sex. Persistent preoccupation for at least 2 years with getting rid of one's 1º and 2º sex characteristics and acquiring the sex characteristics of the other sex. Has reached puberty	Further characterization by sexual orientation Distinguished from Gender Identity Disorder of Adolescence or Adulthood, Non-trans-sexual Type •e.g., cross-dressing not for the purposes of sexual excitement Gender Identity Disorder Not Otherwise Specified 302.6 •e.g., intersex conditions Gender Identity Disorder Not Otherwise Specified 302.85 •e.g., persistent preoccupation with castration or penectomy w/o desire to acquire the sex traits of the other sex
	GID of adulthood, non-trans-sexual type, added			
DSM IV 1994 *Chapter: Sexual & Gender Identity Disorders*	***Gender Identity Disorder*** in Adolescents and Adults (302.85) (Separate criteria & code for children, but same name)	Required A and B criteria Dx excluded by physical intersex condition	Cross-gender identification •e.g., Stated desire to be another sex •e.g., Desire to live or be treated as a member of the other sex •e.g., conviction that he/she has the typical feelings and reactions of the other sex •e.g., frequent passing as the other sex Persistent discomfort with his/her sex or sense of inappropriateness in the gender role of that sex. •e.g., belief the he/she was born the wrong sex •e.g., preoccupation with getting rid of 1º and 2º sex characteristics &/or acquiring sexual traits of the other sex •Clinically significant distress or impairment in social, occupational, or other important areas of functioning	Further characterization by sexual orientation Distinguished from Gender Identity Disorder Not Otherwise Specified 302.6 •e.g., intersex conditions •e.g., stress related cross-dressing •e.g., persistent preoccupation with castration or penectomy w/o desire to acquire the sex traits of the other sex
DSM IV-Revised 2000 *Chapter: Sexual & Gender Identity Disorders*	***Gender Identity Disorder*** (Term trans-sexual-ism eliminated)	Required A & B criteria Dx excluded by physical intersex condition	Cross-gender identification •e.g., stated desire to be the other sex •e.g., desire to live or be treated as the other sex •e.g., conviction that he/she has the typical feelings & reactions of the other sex	Outcome may depend on time of onset Further characterization by sexual orientation Distinguished from Gender Identity Disorder Not Otherwise Specified 302.6

DSM Version	Condition Name	Criteria	Criteria	Comments
			•e.g., frequent passing as the other sex Persistent discomfort with his or her sex OR sense of inappropriateness in the gender role of that sex •e.g., belief the he/she was born the wrong sex •e.g., preoccupation with getting rid of 1º and 2º sex characteristics &/or acquiring sexual traits of the other sex Clinically significant distress or impairment in social, occupational, or other important areas of functioning	•e.g., intersex conditions •e.g., stress related cross-dressing •e.g., persistent preoccupation with castration or penectomy w/o desire to acquire the sex traits of the other sex
DSM V 2013 *Separate Chapter from Sexual Dysfunctions & Paraphilic Disorders*	***Gender Dysphoria*** *(302.85)*	Gender nonconformity itself not considered to be a mental disorder The dysphoria associated with the gender incongruence is Eliminates A & B criteria Considers gender incongruence to be a spectrum Considers intersex/ "disorders of sex development" to be a subsidiary and not exclusionary to dx of GD	•Marked discordance between natal 1º and 2º sex characteristics* and experienced/expressed gender •Conviction that he/she has the typical feelings & reactions of the other sex (or some alternative gender) •Marked desire to be the other sex (or some alternative gender) •Marked desire to desire be treated as the other sex (or some alternative gender) •Marked desire to be rid of natal 1º and 2º sex characteristics** •Marked desire to acquire 1º and 2º sex characteristics of the other sex (or some alternative gender) Clinically significant distress or impairment in social, occupational, or other important areas of functioning * or in young adolescents, the anticipated 2º sex characteristics ** or in young adolescents, prevent the development of the anticipated 2º sex characteristics ≥ 6 month marked discordance between natal gender & experienced/expressed gender as demonstrated by ≥ 6 criteria: •Strong desire to be of the other gender or an insistence that one is of another gender.	Includes diagnosis for post transition state to permit continued treatment access Includes disorders of sexual development such as congenital hyperplasia and androgen insensitivity syndromes

DSM Version	Condition Name	Criteria	Criteria	Comments
			•Strong preference for cross-gender roles in make-believe play. •Strong preference for the toys, games, or activities of the other gender. •Strong preference for playmates of the other gender. •In boys, strong preference for cross-dressing; in girls, strong preference for wearing masculine clothing •In boys, rejection of masculine toys, games, activities, avoidance of rough and tumble play; in girls, rejection of feminine toys, games, and activities.	
	Unspecified Gender Dysphoria (302.6) (F64.9)		This category applies to presentations in which sx c/w gender dysphoria that cause clinically significant distress or impairment, but do not meet the full criteria for gender dysphoria & the reason for not meeting the criteria is not provided.	
	Specified Gender Dysphoria 302.6 (F64.8)		If the reason that the presentation does not meet the full criteria is provided then this dx should be used	

C/W=consistent with Dx=diagnosis GD=gender dysphoria Sx=symptoms TS=transsexual 1º=primary 2º=secondary

B. Appendix B

1. General Methodological Principles of Study Design

When making national coverage determinations, CMS evaluates relevant clinical evidence to determine whether or not the evidence is of sufficient quality to support a finding that an item or service is reasonable and necessary. The overall objective for the critical appraisal of the evidence is to determine to what degree we are confident that: 1) the specific assessment questions can be answered conclusively; and 2) the intervention will improve health outcomes for patients.

We divide the assessment of clinical evidence into three stages: 1) the quality of the individual studies; 2) the

generalizability of findings from individual studies to the Medicare population; and 3) overarching conclusions that can be drawn from the body of the evidence on the direction and magnitude of the intervention's potential risks and benefits.

The methodological principles described below represent a broad discussion of the issues we consider when reviewing clinical evidence. However, it should be noted that each coverage determination has its unique methodological aspects.

Assessing Individual Studies

Methodologists have developed criteria to determine weaknesses and strengths of clinical research. Strength of evidence generally refers to: 1) the scientific validity underlying study findings regarding causal relationships between health care interventions and health outcomes; and 2) the reduction of bias. In general, some of the methodological attributes associated with stronger evidence include those listed below:

- Use of randomization (allocation of patients to either intervention or control group) in order to minimize bias.
- Use of contemporaneous control groups (rather than historical controls) in order to ensure comparability between the intervention and control groups.
- Prospective (rather than retrospective) studies to ensure a more thorough and systematical assessment of factors related to outcomes.
- Larger sample sizes in studies to demonstrate both statistically significant as well as clinically significant outcomes that can be extrapolated to the Medicare population. Sample size should be large enough to make chance an unlikely explanation for what was found.
- Masking (blinding) to ensure patients and investigators do not know to which group patients were assigned (intervention or control). This is important especially in subjective outcomes, such as pain or quality of life, where enthusiasm and psychological factors may lead to an improved perceived outcome by either the patient or assessor.

Regardless of whether the design of a study is a randomized controlled trial, a non-randomized controlled trial, a cohort study or a case-control study, the primary criterion for methodological strength or quality is the extent to which differences between intervention and control groups can be attributed to the intervention studied. This is known as internal validity. Various types of bias can undermine internal validity. These include:

- Different characteristics between patients participating and those theoretically eligible for study but not participating (selection bias).
- Co-interventions or provision of care apart from the intervention under evaluation (performance bias).
- Differential assessment of outcome (detection bias).
- Occurrence and reporting of patients who do not complete the study (attrition bias).

In principle, rankings of research design have been based on the ability of each study design category to minimize these biases. A randomized controlled trial minimizes systematic bias (in theory) by selecting a sample of participants from a particular population and allocating them randomly to the intervention and control groups. Thus, in general, randomized controlled studies have been typically assigned the greatest strength, followed by non-randomized clinical trials and controlled observational studies. The design, conduct and analysis of trials are important factors as well. For example, a well-designed and conducted observational study with a large sample size may provide stronger evidence than a poorly designed and conducted randomized controlled trial with a small sample size. The following is a representative list of study designs (some of which have alternative names) ranked from most to least methodologically rigorous in their potential ability to minimize systematic bias:

Randomized controlled trials
Non-randomized controlled trials
Prospective cohort studies
Retrospective case control studies
Cross-sectional studies
Surveillance studies (e.g., using registries or surveys)
Consecutive case series
Single case reports

When there are merely associations but not causal relationships between a study's variables and outcomes, it is important not to draw causal inferences. Confounding refers to independent variables that systematically vary with the causal variable. This distorts measurement of the outcome of interest because its effect size is mixed with the effects of other extraneous factors. For observational, and in some cases randomized controlled trials, the method in which confounding factors are handled (either through stratification or appropriate statistical modeling) are of particular concern. For example, in order to interpret and generalize conclusions to our population of Medicare patients, it may be necessary for studies to match or stratify their intervention and control groups by patient age or co-morbidities.

Methodological strength is, therefore, a multidimensional concept that relates to the design, implementation and analysis of a clinical study. In addition, thorough documentation of the conduct of the research, particularly study selection criteria, rate of attrition and process for data collection, is essential for CMS to adequately assess and consider the evidence.

Generalizability of Clinical Evidence to the Medicare Population

The applicability of the results of a study to other populations, settings, treatment regimens and outcomes assessed is known as external validity. Even well-designed and well-conducted trials may not supply the evidence needed if the results of a study are not applicable to the Medicare population. Evidence that provides accurate information about a population or setting not well represented in the Medicare program would be considered but would suffer from limited generalizability.

The extent to which the results of a trial are applicable to other circumstances is often a matter of judgment that depends on specific study characteristics, primarily the patient population studied (age, sex, severity of disease and presence of co-morbidities) and the care setting (primary to tertiary level of care, as well as the experience and specialization of the care provider). Additional relevant variables are treatment regimens (dosage, timing and route of administration), co-interventions or concomitant therapies, and type of outcome and length of follow-up.

The level of care and the experience of the providers in the study are other crucial elements in assessing a study's external validity. Trial participants in an academic medical center may receive more or different attention than is typically available in non-tertiary settings. For example, an investigator's lengthy and detailed explanations of the potential benefits of the intervention and/or the use of new equipment provided to the academic center by the study sponsor may raise doubts about the applicability of study findings to community practice.

Given the evidence available in the research literature, some degree of generalization about an intervention's potential benefits and harms is invariably required in making coverage determinations for the Medicare population. Conditions that assist us in making reasonable generalizations are biologic plausibility, similarities between the populations studied and Medicare patients (age, sex, ethnicity and clinical presentation) and similarities of the intervention studied to those that would be routinely available in community practice.

A study's selected outcomes are an important consideration in generalizing available clinical evidence to Medicare coverage determinations. One of the goals of our determination process is to assess health outcomes. These outcomes include resultant risks and benefits such as increased or decreased morbidity and mortality. In order to make this determination, it is often necessary to evaluate whether the strength of the evidence is adequate to draw conclusions about the direction and magnitude of each individual outcome relevant to the intervention under study. In addition, it is important that an intervention's benefits are clinically significant and durable, rather than marginal or short-lived. Generally, an intervention is not reasonable and necessary if its risks outweigh its benefits.

If key health outcomes have not been studied or the direction of clinical effect is inconclusive, we may also evaluate the strength and adequacy of indirect evidence linking intermediate or surrogate outcomes to our outcomes of interest.

Assessing the Relative Magnitude of Risks and Benefits

Generally, an intervention is not reasonable and necessary if its risks outweigh its benefits. Health outcomes are one of several considerations in determining whether an item or service is reasonable and necessary. CMS places greater emphasis on health outcomes actually experienced by patients, such as quality of life, functional status, duration of disability, morbidity and mortality, and less emphasis on outcomes that patients do not directly experience, such as intermediate outcomes, surrogate outcomes, and laboratory or radiographic responses. The direction, magnitude, and consistency of the risks and benefits across studies are also important considerations. Based on the analysis of the strength of the evidence, CMS assesses the relative magnitude of an intervention or technology's benefits and risk of harm to Medicare beneficiaries.

Appendix C

Patient Population: Enrolled & Treated with Sex Reassignment Surgery Loss of Patients & Missing Data

Panel A (Controlled Studies)

Author	Study Type	Recruitment Pool	Enrolled	% GRS	Completion
Dhejne 2011	Longitudinal Controlled	804 w GD	324	324 (100%)	-
Dhejne 2014 Landén	Longitudinal for test variable Controlled	767 applied for SRS 25 applications denied. 61 not granted full legal status 15 formal applications for surgical reversal	681	681 (100%)	NA: Clinical data extracted retrospectively in earlier paper
Heylens	Longitudinal Controlled	90 applicants for SRS 33 excluded 11 later excluded had not yet received SRS by study close.	57 (46)	46 (80.7%) Only those w SRS evaluated	Psycho-social survey missing data for 3 at baseline & 4 after SRS. SCL90 not completed by 1 at baseline, 10 after hormone tx, & 4 after SRS missing data for another 1.1% to 11.1%.
Kockott	Longitudinal Controlled	80 applicants for SRS 21 excluded	59	32 (54.2%) went to surgery	1 preoperative patient was later excluded b/c lived completely in aspired gender w/o SRS. Questions on financial sufficiency not answered by 1 surgical pt.

Author	Study Type	Recruitment Pool	Enrolled	% GRS	Completion
					Questions on sexual satisfaction & gender contentment not answered by 1 & 2 patients awaiting surgery respectively.
Mate-Kole 1990	Longitudinal Controlled	40 sequential patients of accepted patients. The number in the available patient pool was not specified.	40	20 (50%) went to surgery	-
Meyer	Longitudinal Controlled	Recruitment pool: 100 50 were excluded.	50	15 (30%) had undergone surgery 14 (28%) underwent surgery later	The assessments of all were complete
Rakic	Longitudinal Controlled	92 were evaluated 54 were excluded from surgery 2 post SRS were lost to follow-up 2 post SRS were excluded for being in the peri-operative period	32	32 (100%)	Questionnaire completed by all.
Ruppin	Longitudinal Controlled	The number in the available patient pool was not specified. 140 received recruitment letters. 69 were excluded	71	69 (97.2%)	The SCL-90, BSRI, FPI-R, & IPP tests were not completed by 9, 34, 13, &16 respectively. Questions about romantic relationships, sexual relationships, friendships, & family relationships were not answered by 1, 3, 2, & 23 respectively. Questions regarding gender security & regret & were not answered by 1& 2 respectively.
Smith	Longitudinal Controlled	The number in the available adult patient pool was not specified. 325 adult & adolescent applicants for SRS were recruited. 103 were excluded from additional tx	162	162 (100%)	36 to 61 (22.2%-37.6% of those adults w pre-SRS data) did not complete various post-SRS tests.
Udeze Megeri	Longitudinal Controlled	International patient w GD 546 & post SRS 318. 40 M to F subjects were prospectively selected.	40	40 (100%)	-
Ainsworth	Internet/convention Survey Cross-sectional Controlled	Number of incomplete questionnaires not reported	247	72 (29.1%) 75 (30.6%) facial 147 (59.5%) had received neither facial nor reassignment surgery	-
Beatrice	Cross-sectional		40	10 (25%)	

Author	Study Type	Recruitment Pool	Enrolled	% GRS	Completion
	Controlled	14 excluded for demographic matching reasons			The assessments were completed by all
Haraldsen	Cross-sectional Controlled	Recruitment pool: 99	86	59 (68.6%)	-
Kraemer	Cross-sectional Controlled	The number in the available patient pool was not specified.	45	22 (48.9%)	-
Kuhn	Cross-sectional Controlled	The number in the available patient pool was not specified.	75	55 (73.3%)	-
Mate-Kole 1988	Cross-sectional Controlled	150 in 3 cohorts. Matched on select traits. The number in the available patient pool was not specified.	150	50 (66.7%)	-
Wolfradt	Cross-sectional Controlled	The number in the available patient pool was not specified.	90	30 (33.3%)	-

Panel B (Surgical Series: No Concurrent Controls)

Author	Study Type	Recruitment Pool	Enrolled	% GRS	Completion
Blanchard et al.	Cross-sectional Control: Normative test data	294 clinic patients w GD had completed study questionnaire 116 authorized for GRS. 103 completed GRS & 1 yr post-operative. 24 excluded	79	79(100%)	-
Weyers et al.	Cross-sectional Control: Normative test data	>300 M to F patients had undergone GRS 70 eligible patients recruited 20 excluded	50	50 (100%)	SF-26 not completed by 1
Wierckx et al.	Cross-sectional except for recall questions Control: Normative test data	79 F to M patients had undergone GRS & were recruited. 3 additional non-clinic patients were recruited by other patients. 32 excluded initially; 1 later.	49	49 (100%)	SF-36 test not completed by 2. Questions regarding sexual re -lationship, sex function, & surgical satisfaction were answered by as few as 27, 28, 32 respectively.
Eldh et al.	Cross-sectional except for 1 variable Control: Self for 1 variable-employ-ment	136 were identified. 46 excluded	90	90 (100%)	Questions regarding gender iden-tity, sex life, acceptance, & overall satisfaction were not answered by 13, 14, 14 & 16 respectively. Employment data missing for 11.
Hess et al.	Cross-sectional		119	119 (100%)	

Author	Study Type	Recruitment Pool	Enrolled	% GRS	Completion
	No control	254 consecutive eligible patients post GRS identified & sent surveys. 135 excluded.			Questions regarding the esthetics, functional, and social outcomes of GRS were not answered by 16 to 28 patients.
Lawrence	Cross-sectional No control	727 eligible patients were recruited. 495 were excluded	232	232 (100%)	-
Salvador et al.	Cross-sectional No control	243 had enrolled in the clinic 82 completed GRS 69 eligible patients were identified. 17 excluded.	52	52 (100%)	-
Tsoi	Cross-sectional No control	The number in the available patient pool was not specified.	81	81 (100%)	-

Panel C (Mixed Treatment Series: No Direct Control Groups)

Author	Study Type	Recruitment Pool	Enrolled	% GRS	Completion
Gómez-Gil et al. 2012	Cross-sectional No direct control: Analysis of variance	200 consecutive patients were recruited. 13 declined participation or were excluded for incomplete questionnaires.	187	79 (42.2%)	See prior box.
Hepp et al.	Cross-sectional No direct control: Analysis of variance	The number in the available patient pool was not specified.	31	7 (22.6%)	HADS test not completed by 1
Motmans et al.	Cross-sectional No direct control: Analysis of variance & regression	255 with GD were identified. 77 were excluded.	148 (140)	Not clearly stated. At least 103 underwent some form of GRS.	8 later excluded for incomplete SF-36 tests. 37 w recent GRS or hormone initiation were excluded from analysis of SF-36 results103.
Newfield et al.	Internet survey Cross-sectional No direct control: Analysis of variance	Number of incomplete questionnaires not reported 446 respondents; 384 U.S respondents 62 non-U.S. respondents excluded from SF-36 test results 8 U.S. respondents excluded	376 (U.S.)	139 to 150 (37.0-39.9%) in U.S.	-
Gomez-Gil et al. 2014	Cross-sectional No direct control: Analysis w regression	The number in the available patient pool was not specified. 277 were recruited. 25 excluded	252(193)	80 (41.4%) non-genital surgery	59 were excluded for incomplete questionnaires. See prior box.
Asscherman	Longitudinal		1331	1177 (88.4%)	-

Author	Study Type	Recruitment Pool	Enrolled	% GRS	Completion
	No analysis by tx status	The number in the available patient pool was not specified.			
Johansson et al.	Cross-sectional except for 1 variable No analysis by tx status except for 1 question	60 eligible patients 18 excluded.	42	32 (76.2% of enrolled & 53.3% of eligible) (genital surgery)	-
Leinung et al.	Cross-sectional No analysis by tx status	242 total clinic patients	242	91 (37.6%)	Employment status data missing for 81 of all patients

*Data obtained via a survey on a website and distributed at a conference
B/C=because
BSRI=Bem Sex Role Inventory
F=Female
FP-R=Freiberg Personality Inventory
GD=Gender dysphoria
GID=Gender identity disorder
HADS=Hospital Anxiety & Depression Scale
IPP=Inventory of Interpersonal Problems
M=Male
NA=Not applicable
SCL-90=Symptom Checklist-90
SF-36=Short Form 36
GRS=Sex reassignment surgery
Tx=Treatment
W/o=without

Appendix D

Demographic Features of Study Populations

Panel A (Controlled Studies)

Author	Age (years; mean, S.D., range)	Gender	Race
Ainsworth	Only reassignment surgery:50 (no S.D.) Only facial surgery: 51 (no S.D.) Both types of surgery: 49 (no S.D.) Neither surgery: 46 (no S.D.)	247 M to F	-
Beatrice	Pre-SRS M to F: 32.5 (27-42), Post-SRS: 35.1 (30-43)	20 M to F plus 20 M controls	100% Caucasian

Author	Age (years; mean, S.D., range)	Gender	Race
Dehjne 2011	Post-SRS: all 35.1±9.7 (20-69), F to M 33.3+8.7 (20–62), M to F 36.3+ 10.1(21–69)	133 (41.0%) F to M, 191 (59.0%) M to F; ratio 1:1.4	-
Dhejne 2014 Landén	F to M SRS cohort: median age 27 M to F SRS cohort: median age 32 F to M applicants for reversal: median age 22 M to F applicants for reversal: median age 35	767 applicants for legal/surgical reassignment 289 (37.7%) F to M, 478 (62.3%) M to F; ratio 1:1.6 681 post SRS & legal change 252 (37.0%) F to M, 429 (63.0%) M to F; ratio 1:1.7 15 applicants for reversal 5 (33.3%) F to M, 10 (66.7%) M to F; ratio 1:2	-
Haraldsen	Pre-SRS & Post-SRS: F to M 34±9.5, F to M 33.3±10.0 Post-SRS cohort reportedly older. No direct data provided.	Pre & Post SRS 35 (40.7%) F to M, 51 (59.3%) M to F; ratio 1:1.5	-
Heylens	-	11 (19.3% of 57) F to M, 46 (80.7%); ratio 1:4.2 (80.7% underwent surgery)	-
Kockott	Pre-SRS (continued wish for surgery): 31.7±10.2 Post-SRS: 35.5±13.1	Pre-SRS (continued wish for surgery) 3 (25%) F to M, 9 (75%) M to F; ratio 1:3 Post SRS: 14 (43.8%) F to M, 18 (56.2%) M to F; ratio 1:1.3	-
Kraemer	Pre-SRS: 33.0±11.3, Post-SRS: 38.2±9.0	Pre-SRS 7 F to M (30.4%), 16 M to F (69.6%); ratio 1:2.3 Post-SRS 8 F to M (36.4%), 14 M to F (63.6%); ratio 1:1.8	-
Kuhn	All post SRS: median (range): 51 (39-62) (long-term follow-up)	3 (5.4%) F to M, 52 (94.5%) M to F; ratio 1:17.3.	-
Mate-Kole 1988	Initial evaluation: 34, Pre-SRS: 35, Post-SRS: 37	150 M to F	-
Mate-Kole 1990	Early & Usual wait SRS: 32.5 years (21-53)	40 M to F	-
Meyer	Pre-SRS: 26.7 Delayed, but completed SRS: 30.9 Post-SRS: 30.1	Pre-SRS: 5 (23.8%) F to M, 16 (76.2%) M to F; ratio 1:3.2 Delayed, but completed SRS: 1 (7.1%) F to M, 13 (92.9%) M to F; ratio 1:13 Post-SRS: 4 (26.7%) F to M, 11 (73.3%) M to F; ratio 1:2.8	86% Caucasian
Rakic	All: 26.8±6.9 (median 25.5, range 19-47), F to M: 27.8±5.2 (median 27, range 23-37), M to F: 26.4±7.8 (median 24, range 19-47).	10 (31.2%) F to M, 22 (68.8%) M to F; ratio 1:2.2	-
Ruppin	All: 47.0±10.42 (but 2 w/o SRS) (13.8±2.8 yrs post legal name change) (long-term follow-up) F to M: 41.2±5.78, M to F 52.9±10.82	36 (50.7%) F to M, 35 (49.3%) M to F; ratio 1:0.97	-
Smith	Time of surgical request for post-SRS: 30.9 (range 17.7-68.1) Time of follow-up for post-SRS: 35.2 (range 21.3-71.9)	Pre-SRS: 162: 58 (35.8%) F to M, 104 [64.2%] M to F; ratio 1:1.8 Post-SRS: 126: 49 (38.9%) F to M, 77 (61.1%) M to F; ratio 1:1.6	-
Udeze Megeri	M to F: 47.33±13.26 (range 25-80).	40 M to F	-
Wolfradt	Patients & controls: 43 (range 29-67).	30 M to F plus 30 F controls plus 30 M controls.	-

*Data obtained via a survey on a website and distributed at a conference SD=Standard deviation

Panel B (Surgical Series: No Concurrent Controls)

Author	Age (years; mean, S.D., range)	Gender	Caucasian
Blanchard et al.	F to M: 32.6, M to F w M partner preference: 33.2, F to M w F partner preference: 47.7 years	Post-GRS: 47 (45.6%) F to M, 56 (54.4%) M to F; ratio 1:1.19. In study: 38 (48.1%) F to M, 32 (40.5%) M to F w M partner preference, 9 (11.4%) M to F w F partner preference; ratio 1:0.8: 0.2	-
Weyers et al.	Post-GRS M to F: 43.1 ±10.4 (long-term follow-up)	50 M to F	-
Wierckx et al.	Time of GRS: 30±8.2 years (range 16 to 49) Time of follow-up: 37.1 ±8.2.4 years (range 22 to 54)	49 M to F	-
Eldh et al.	-	50 (55.6%) F to M, 40 (44.4%) M to F; ratio 1:0.8 There is 1 inconsistency in the text suggesting that these should be reversed.	-
Hess et al.	-	119 M to F	-
Lawrence	Time of GRS: 44±9 (range 18-70)	232 M to F	-
Salvador et al.	Time of follow-up for post-GRS: 36.28±8.94 (range 18-58) (Duration of follow-up: 3.8±1.7 [2-7])	52 M to F	-
Tsoi	Time of initial visit: All: 24.0±4.5, F to M: 25.4±4.4 (14-36), M to F: 22.9±4.6 (14-36). Time of GRS: All: 25.9±4.14, F to M: 27.4±4.0 (20-36), M to F: 24.7+4.3 (20-36).	36 (44.4%) F to M, 45 (55.6%) M to F; ratio 1:1.25	0% 100% Asian

Panel C (Mixed Treatment Series: No Direct Control Groups)

Author	Age (years; mean, S.D., range)	Gender	Caucasian
Gómez-Gil et al. 2012	W & W/O GRS: All: 29.87±9.15 (range 15-61), W/O hormone tx: 25.9±7.5, W current hormone tx: 33.6±9.1. (At hormone initiation: 24.6±8.1).	W/O hormone tx: 38 (56.7%) F to M, 29 (43.3%) M to F; ratio 1:0.8. W hormone tx: 36 (30.0%) F to M, 84 (70.0%) M to F; ratio 1:2.3. Post-GRS: 29 (36.7%) F to M, 50 (63.3%) M to F; ratio 1:1.7.	-
Hepp et al.	W & W/O GRS: 32.2±10.3	W & W/O GRS: 11 (35.5%) F to M; 20 (64.5%) M to F; ratio 1:1.8.	-
Motmans et al.	W & W/O GRS: All (n=140) : 39.9±10.2, F to M: 37.0±8.5, M to F: 42.3±10.4	W & W/O GRS: N=140 63(45.0%) F to M, 77 (55.0%) M to F; ratio 1:1.2 N=103 49 (47.6%) F to M; 54 (52.4%) M toF; ratio 1:1.1	-
Newfield et al.	W & W/O GRS: U.S.+ non-U.S. : 32.8±11.2, U.S. 32.6±10.8	W & W/O GRS: U.S.+ non-U.S.: F to M, 438, U.S.: F to M: 376	89% of 336 respondents Caucasian
Gomez-Gil, et al. 2014	W & W/O Non-genital GRS: 31.2±9.9 (range 16-67).		-

Author	Age (years; mean, S.D., range)	Gender	Caucasian
		W & W/O Non-genital GRS: 74 (38.3%) F to M, 119 (61.7%) M to F; ratio1:1.6.	
Asscherman	Time of hormone tx: F to M: 26.1±7.6 (16–56), M to F: 31.4±11.4 (16–76)	Met hormone tx requirements: 365 (27.4%) F to M, 966 (72.6%) M to F; ratio 1:2.6. Post-GRS: 343 (29.1%) F to M, 834 (70.9%) M to F; ratio 1:2.4.	-
Johanssen	Time of initial evaluation: F toM: 27.8 (18-46), M to F 37.3 (21-60). Time of GRS: F to M: 31.4 (22-49), M to F 38.2 (22-57). Time of follow-up for post-GRS: F to M: 38.9 (28-53), M to F 46.0 (25-69) (Long-term follow-up)	Approved for GRS: 21 (35%) F to M, 39 (65%) M to F; ratio 1:1.9) Post GRS: 14 (43.8%) F to M; 18 (56.2%) M to F; ratio 1:1.3)	-
Leinung et al.	Time of hormone initiation : F to M: 27.5, M to F 35.5	W & W/O GRS: 50 (20.7%) F to M, 192 M to F (79.3%); ratio 1:3.8. Post-GRS: 32 F to M (35.2%); 59 (64.8%) M to F; ratio 1:1.8.	-

Appendix E

Psychometric and Satisfaction Survey Instruments

Instrument Name and Developer	Development and Validation Information
APGAR Family Adaptability, Partner-ship Growth, Affection, and Resolve *Smilkstein*	Published in 1978 Initial data: 152 families in the U.S. A "friends" component was added in 1983. Utility has challenged by many including Gardner 2001
Beck Depression Inventory *Beck, Ward, Mendelson, Mock, & Erbaugh*	Published initially in 1961 with subsequent revisions It was initially evaluated in psychiatric patients in the U.S.A. Salkind (1969) evaluated its use in 80 general outpatients in the UK. Itis copyrighted and requires a fee for use
Bem Sex Role Inventory *Bem*	Published 1974 Initial data: 100 Stanford Undergraduates 1973 update: male 444; female 279 1978 update: 470; female 340
Body Image Questionnaire *Clement & Lowe*	Validity study published 1996 (German) Population: 405 psychosomatic patients, 141 medical students, 208 sports students
Body Image Scale *Lindgren & Pauly* *(Kuiper, Dutch adaptation 1991)*	1975 Initial data: 16 male and 16 female transsexual patients in Oregon
Crown Crisp Experiential Index (formerly Middlesex Hospital Questionnaire)	Developed circa 1966 Manual published 1970

Instrument Name and Developer	Development and Validation Information
Crown & Crisp	Initial data: 52 nursing students while in class in the UK
(2nd) European Quality of Life Survey *Anderson, Mikuliç, Vermeylen, Lyly-Yrjanainen, & Zigante,*	Published in 2007 The pilot survey was tested in the UK and Holland with 200 interviews. The survey was revised especially for non-response questions. Another version was tested in 25 persons of each of the 31 countries to be surveyed. Sampling methods were devised. 35,634 Europeans were ultimately surveyed. Additional updates
Female Sexual Function Index *Rosen, Brown, Heiman, Leiblum, Meston, Shabsigh, Ferguson, D'Agostino* *Wiegel, Meston, & Rosen*	Published in 2000 Initial data: 131 normal controls & 128 age-matched subjects with female sexual arousal disorder from 5 U.S. research centers. Updated 2005: the addition of those with hypoactive sexual desire disorder, female sexual orgasm disorder, dyspareunia/vaginismus, & multiple sexual dysfunctions (n=568), plus more controls (n=261).
Fragebogen zur Beurteilung des eigenen Korpers *Strauss*	Published 1996 (German)
Freiberg Personality Inventory *Fahrenberg, Hampel, & Selg*	7th edition published 2001, 8th edition in 2009 (Not in PubMed) German equivalent of MMPI
"gender identity disorder in childhood" *Smith, van Goozen, Kuiper, & Cohen-Kettenis*	11 items derived from the Biographical Questionnaire for Trans-sexuals (Verschoor Poortinga 1988) (Modified by authors of the Smith study)
Gender Identity Trait Scale *Altstotter-Gleich*	Published 1989 (German)
General Health Questionnaire *Goldberg & Blackwell (initial study)* *Goldberg & Williams (manual)*	Initial publication 1970 Manual published ?1978, 1988 (Not in PubMed) Initial data: 553 consecutive adult patients in a single UK primary care practice were assessed. Sample of 200 underwent standardized psychiatric interview. Developed to screen for hidden psychological morbidity. Proprietary test. Now 4 versions.
Hospital Anxiety & Depression Scale *Zigmond & Snaith*	Published in 1983 Initial data: Patients between 16 & 65 in outpatient clinics in the UK >100 patients; 2 refusals. 1st 50 compared to 2nd 50.
Inventory of Interpersonal Problems *Horowitz*	Published 1988 Initial data: 103 patients about to undergo psychotherapy; some patients post psycho-therapy (Kaiser Permanente-San Francisco) Proprietary test
King's Health Questionnaire *Kelleher, Cardozo, Khullar, & Salvatore*	1997 Initial data: 293 consecutive women referred for urinary incontinence evaluation in London Comparison to SF-36
Minnesota Multi-phasic Personality Inventory *Hathaway & McKinley*	Published in 1941 Updated in 1989 with new, larger, more diverse sample.

Instrument Name and Developer	Development and Validation Information
Butcher, Dahlstrom, Graham, & Tellegen	MMPI-2: 1,138 men & 462 women from diverse communities & several geographic regions in the U.S.A. The test is copyrighted.
Modified Androphia-Gynephilia Index	Neither the underlying version or the Blanchard modified version could be located in PubMed (Designed by the author of the Blanchard et al. study)
"post-operative functioning 13 items" *Doorn, Kuiper, Verschoor, Cohen-Kettenis*	Published 1996 (Dutch) (Not in PubMed) (Designed by 1 of the authors of the Smith study)
"post-operative functioning 21 items" *Doorn, Kuiper, Verschoor, Cohen-Kettenis*	Published 1996 (Dutch) (Not in PubMed) (Designed by 1 of the authors of the Smith study)
Scale for Depersonalization Experiences *Wolfradt*	Unpublished manuscript 1998 (University of Halle) (Designed by 1 of the authors of the Wolfradt study)
"sex trait function" *Cohen-Kettenis & van Goozen*	Published 1997 Assessed in 22 adolescents (Designed by 1 of the authors of the Smith Study)
Self-Esteem Scale *Rosenberg*	Published 1965 (Not in PubMed) Initial data: 5,024 high-school juniors & seniors from 10 randomly selected New York schools
Short-Form 36 *RAND* *Ware & Sherbourne1992* *McHorney, Ware, & Raczek 1993*	Originally derived from the Rand Medical Outcomes Study (n=2471 in version 1; 6742 in version 2 1989). The earliest test version is free. Alternative scoring has been developed. There is a commercial version with a manual.
Social Anxiety & Distress Scale *Watson & Friend*	Initial publication in1969 Requires permission for use
Social Support Scale *Van Tilburg 1988*	Published 1988 (Dutch) (Not in PubMed)
Spielberger State & Trait Anxiety Questionnaire *Spielberger, Gorsuch, Lushene, Vagg, & Jacobs*	Current format published in 1983 Proprietary test
Symptom Checklist-90 *Derogatis, Lipman, Covi* *Derogatis & Cleary*	Published in 1973 & 1977 Reportedly with normative data for psychiatric patients (in- & out-patient) & normal subjects in the U.S. Has undergone a revision Requires qualification for use
Tennessee Self-Concept Scale *Fitts & Warren*	In use prior to 1988 publication. Initial data: 131 psychiatric day care patients. Updated manual published 1996. Update population >3000 with age stratification. No other innformation available. Requires qualification for use
Utrecht Gender Dysphoria Scale *Cohen-Kettenis & van Goozen*	Published in 1997 Initial population: 22 transgender adolescents who underwent reassignment surgery. (Designed by 1 of the authors of the Smith study)

Instrument Name and Developer	Development and Validation Information
WHO-Quality of Life (abbreviated version) *Harper for WHO group*	Field trial version released 1996 Tested in multiple countries. The Seattle site consisted of 192 of the 8294 subjects tested). Population not otherwise described. The minimal clinically important difference has not been determined. Permission required

Althof et al., 1983; Greenberg, Frank, 1965; Gurtman, 1996; Lang, Vernon, 1977; Paap et al., 2012; Salkind et al., 1969; Vacchiano, Strauss, 1968.

Appendix F

Endpoint Data Types and Sources

Panel A (Controlled Studies)

Author	National Data	Instrument w Substantive Normative Data	Instrument w/o Substan-tive &/or Accessible Normative Data	Investigator-designed	Other	Other
Dhejne 2011	Yes	-	-	-	-	Mortality (Suicide, Cardiovascular Disease [possible adverse events from Hormone Tx], Cancer), Psych hx & hospitalization, Suicide attempts
Dhejne Landén	Yes	-	-	-	Includes demographics*	Education, Employment, Formal application for reversal of status, Psych dx & tx, Substance abuse** More elements in earlier paper
Beatrice	-	MMPI form R, TSCS	-	-	Demographic	Education, Income, Relationships
Haraldsen	-	SCL-90/90R	-	-	Demographic	

Author	National Data	Instrument w Substantive Normative Data	Instrument w/o Substantive &/or Accessible Normative Data	Investigator-designed	Other	Other
						DSM Axis 1, II, V (GAF), Substance abuse
Heylens	-	SCL-90	-	Yes-2	Demographic	Employment, Relationships, Substance abuse, Suicide attempts
Ainsworth	-	Likely SF-36v2*	-	Yes-1	Demographic	-
Ruppin	-	SCL-90R	BSRI, FPI-R, IIP	Yes-2	Demographic	Adverse events from surgery, Employment, Psych tx, Relationships, Substance abuse
Smith	-	MMPI-short, SCL-90?R	BIS, UGDS, ? Cohen-Kettenis', Doorn's x2, (Gid-c, SSS)	Yes-1 or 2	Demographic	Adverse events from surgery, Employment, Relationships
Udeze Megeri	-	SCL-90R	BDI, GHQ, HADS,STAI-X1, STAI-X2	-	-	Psych eval & ICD-10 dx
Kuhn	-	-	KHQ	Yes-1	Demographic	Relationships
Mate-Kole 1990	-	-	BSRI, CCEI	Yes-1	Demographic	Employment (relative change), Psych hx, Suicide hx
Wolfradt	-	-	BIQ, GITS, SDE, SES	Yes-1	-	-
Kraemer	-	-	FBeK	-	Demographic	-
Mate-Kole 1988	-	-	BSRI, CCEI	-	Demographic	Employment, Psych hx, Suicide hx,
Kockott	-	-	-	Yes-1	Demographic	Employment, Income, Relationships, Suicide attempts
Meyer	-	-	-	Yes-1	Demographic	Education, Employment, Income, Psych tx, Phallus removal request
Rakic	-	-	-	Yes-1	Demographic	Employment, Relationships

Panel B (Surgical Series: No Concurrent Controls)

Author	National Data	Instrument w Substantive Normative Data	Instrument w/o Sub-stantive &/or Accessible Normative Data	Investigator-designed	Other	Other
Weyers	-	SF-36	FSFI	Yes-2	Demographic	Hormone levels, Adverse events from surgery, Relationships
Blanchard	-	SCL-90R	(AG)	Yes-1	Demographic	Education, Employment, Income, Relationships, Suicide (Incidental finding)
Wierckx	-	SF-36	-	Yes-3	Demographic	Hormone levels, Adverse events from surgery, Relationships
Eldh	-	-	-	Yes-1	-	Adverse events from surgery, Employment, Relationships, Suicide attempts
Hess	-	-	-	Yes-1	-	-
Lawrence	-	-	-	Yes-4	Demographic	Adverse events from surgery
Salvador	-	-	-	Yes-1	Demographic	Relationships
Tsoi	-	-	-	Yes-1	Demographic	Education, Employment, Relationships (relative change)

Panel C (Mixed Treatment Series: No Direct Control Groups)

Author	National Data	Instrument w Substantive Normative Data	Instrument w/o Sub-stantive &/or Accessible Normative Data	Investigator-designed	Other	Other
Asscheman et al.	Yes	-	-	-	Demographic	

Author	National Data	Instrument w Substantive Normative Data	Instrument w/o Sub-stantive &/or Accessible Normative Data	Investigator-designed	Other	Other
						Mortality (HIV, Possible adverse events from Hormone Tx, Substance abuse, Suicide)
Motmans et al.	-	SF36 EQOLS (2nd)	-	-	Demographic	Education, Employment, Income, Relationships
Newfield et al.	-	SF-36v2	-	-	Demographic	Income
Gómez-Gil et al. 2014	-	WHOQOL-BREF	APGAR	Yes-1	Demographic	Education, Employment, Relationships
Gómez-Gil et al. 2012	-	-	HADS, SADS	-	Demographic	Education, Employment, Living arrangements
Hepp et al.	-	-	HADS	-	Demographic	DSM Axis 1& II Psych dx
Johansson et al.	-	-	-	Yes-1	Demographic	Axis V change (Pt & Clinician) Employment (relative change) Relationship (relative change)
Leinung et al.	-	-	-	-	Demographic	Employment, Disability, DVT, HIV status, Psych dx

*Listed as San Francisco-36 in manuscript
** From medical charts & verdicts ?=Possibly self-designed
AG=Androphilia-Gynephilia Index (investigator designed 1985) (used more for classification)
APGAR=Family Adaptability, Partnership growth, Affection, and Resolve
BDI=Beck Depression Inventory
BIQ=Body Image Questionnaire
BIS=Body Image Scale
BSRI=Bem Sex Role Inventory
CCEI=Crown Crisp Experiential Index
Cohen-Kettenis'= Sex trait function (An author helped design)
Dorn's x2= Post-operative functioning 13 items (An author helped design)
Post-operative functioning 21 items (An author helped design)
EQOLS (2nd)=2nd European Quality of Life Survey
FBeK=Fragebogen zur Beurteilung des eigenen Korpers
FPI-R=A version of the Freiberg Personality Inventory
FSFI+Female Sexual Function Index
GHQ=General Health Questionnaire
Gid-c=Gender identity disorder in childhood (used more for predictors) (An author helped design)
GITS=Gender Identity Trait Scale
HADS=Hospital Anxiety Depression Scale

IIP=Inventory of Interpersonal Problems
KHQ=King's Health Questionnaire
MMPI=Minnesota Multi-phasic Personality Inventory
SADS=Social Anxiety & Distress Scale
SCL-90 (±R)=A version of the Symptom Checklist 90
SDE=Scale for Depersonalized Experiences (An author designed)
SES=Self-Esteem Scale
SF-36 (v2)=Short Form-36(version2)
SSS=Social Support Scale (used more for predictors)
STAI-X1, STAI-X2=Spielberger State and Trait Anxiety Questionnaire
TSCS=Tennessee Self-Concept Scale
UGDS=Utrecht Gender Dysphoria Scale (An author helped design)
WHOQOL-BREF=World Health Organization-Quality of Life (abbreviated version)

Appendix G.

Longitudinal Studies Which Used Patients as Their Own Controls and Which Used Psychometric Tests with Extensive Normative Data or Longitudinal Studies Which Used National Data Sets

Author	Test	Patient and Data Loss	Results
	Psychometric Test		
Heylens et al. Belgium 2014	SCL-90R	90 applicants for SRS were recruited. •8 (8.9%) declined participation. •12 (13.3%) excluded b/c GID-NOS dx. •12 (13.3%) did not complete the treatment sequence b/c of psychiatric/physical co-morbidity, personal decision for no tx, or personal decision for only hormone tx. •1 (1.1%) committed suicide during follow-up. 57 (63.3% of recruited) entered the study. •1 (12.2% of initial recruits) had not yet received SRS by study close. **46 (51.1% of recruited) underwent serial evaluation** •The test was not completed by 1 at t=0, 10 at t=1 (after hormone tx), & 4 at t=2 (after SRS) **missing data for another 1.1% to 11.1%.**	At t=0, the mean global "psychoneuroticism" SCL-90R score, along with scores of 7 of 8 subscales, were statistically more pathologic than the general population. After hormone tx, the mean score for global "psychoneuroticism" normalized & remained normal after reassignment surgery.
Ruppin,Pfafflin, Germany 2015	SCL-90R	The number in the available patient pool was not specified.	

Author	Test	Patient and Data Loss	Results
		140 received recruitment letters. •2 (1.4% of those with recruitment letters) had died. •1 (0.7%) was institutionalized. •5 (3.6%) were ill. •8 (5.7%) did not have time. •8 (5.7%) stated that GD was no longer an issue. •8 (5.7%) provided no reason. •28 (20.0%) declined further contact. •9 (6.4%) were lost to follow-up. **71 (50.7%) agreed to participate.** **•2 (1.4%) had not undergone SRS** •The test was not completed by 9. **missing data for another 6.4%.**	At t=0, the "global severity index "SCL-90R score was 0.53±0.49. At post-SRS follow-up the score had decreased to 0.28±0.36. The scores were statistically different from one another, but are of limited biologic significance given the range of the score for this scale: 0-4. In the same way, all of the subscale scores were statistically different, but the effect size was reported as large only for "interpersonal sensitivity": 0.70±0.67 at t=0 and 0.26±0.34 post-SRS.
Smith et al. Holland 2005	MMPI SCL-90	The number in the available adult patient pool was not specified. 325 adult & adolescent applicants for SRS were recruited. •103 (31.7%) were not eligible to start hormone tx & real-life experience. •34 (10.7%) discontinued hormone tx 162 (an unknown percentage of the initial recruitment) provided pre-SRS test data. **•36 to 61 (22.2%-37.6% of those adults w pre-SRS data) did not complete post-SRS testing.**	Most of the MMPI scales were already in the normal range at the time of initial testing. At t=0, the global "psychoneuroticism" SCL-90 score, which included the drop-outs, was 143.0±40.7. At post SRS-follow-up, the score had decreased to 120.3±31.4. The scores were statistically different from one another, but are of limited biologic significance given the range of the score for this scale: 90 to 450, with higher scores consistent with more psychological instability.
Udeze, et al. 2008 Megeri, Khoosal 2007 UK	SCL-90R	The number in the available patient pool was not specified. 40 subjects were prospectively selected. •Post-operative testing was conducted within 6 months to minimize previously determined loss rates.	At t=0, the mean raw global score was 48.33. At post-SRS follow-up, the mean score was 49.15.

Author	Test	Patient and Data Loss	Results
			There were no statistically significant changes in the global score or for any of the subscales.
	National Databases		
Dehjne Sweden 2011	Swedish National Records	804 with GID in Sweden 1973 to 2003 were identified. •480 (59.7%) did not apply or were not approved for SRS 324 (40.3%) underwent SRS. •All were followed. 3240 controls of the natal sex and 3240 controls of the reassigned gender were randomly selected from national records	All cause mortality was higher (n=27[8%]) than in controls (H.R 2.8 [1.8-4.3]) even after adjustment for covariants. Divergence in survival curves was observed after 10 years. The major contributor was completed suicide (n=10 [3%]; adjusted H.R. 19.1 [5.8-62.9]). Suicide attempts were more common (n= 29 [9%]) than in controls (adjusted H.R. 4.9 [2.9–8.5]). Hospitalizations for psychiatric conditions (not related to gender dysphoria) were more common n= 64 [20%] than in controls (H.R. 2.8 [2.0–3.9]) even after adjusting for prior psychiatric morbidity.
Dhejne et al. 2014 Landén et al. 1998 Sweden	Swedish National Registry	767 applied for SRS/legal status (1960-2010) •25 (3.3%) applications denied. •61 (8.0%) not granted full legal status 681 (88.7%) underwent SRS. •All were followed.	15 formal applications for reversal to natal/original gender (2.2% of the SRS population) were identified thus far (preliminary number). (Does not reflect other manifestations of regret such as suicide.)

GID-NOS=Gender Identity Disorder-Not Otherwise Specified HR=Hazard Ratio SRS=Sex reassignment surgery Tx=Treatment Back to Top

Bibliography

ACA 2010: Patient Protection and Affordable Care Act, Pub. L. No. 111 -148, §3502, 124 Stat. 119, 124 (2010).

Ahmed SF, Morrison S, Hughes IA. Intersex and gender assignment; the third way? *Arch Dis Child*. 2004 Sep;89(9):847-50. PMID:> 15321864.

Ainsworth T, Spiegel J. Quality of life of individuals with and without facial feminization surgery or gender reassignment surgery. *Qual Life Res.* 2010 Sep;19(7):1019-24. Epub 2010 May 12. PMID: 20461468.

Altstotter-Gleich, C. (1989). *Theoriegeleitete Itemkonstruktion und -auswahl: Eine Modifikation des Einsatzes der Repertory-Grid-Technik dargestellt am Beispiel der Erfassung der Geschlechtsidentitat* [Theory oriented item construction and selection: A modification of the use of the Repertory-Grid- Technique as shown at the exemple of the assessment of gender identity], Verlag fur empirische Padagogik, Landau. German. (Not in PubMed)

Althof SE, Lothstein LM, Jones P, Shen J. An MMPI subscale (Gd): to identify males with gender identity conflicts. *J Pers Assess.* 1983 Feb;47(1):42-9. PMID: 6834232.

American College of Obstetricians and Gynecologists (ACOG). Committee on Health Care for Underserved Women. Committee Opinion No. 512: Health care for transgender individuals. *Obstet Gynecol.* 2011 Dec;118(6):1454-8.

American Medical Association House of Delegates resolution 122 (A-08) proposal *Removing Financial Barriers to Care for Transgender Patients*. 2008.

American Psychological Association (APA). Guidelines for Psychological Practice with Transgender and Gender Nonconforming People. *American Psychologist*: 2015: Adopted by the Council of Representatives, August 5& 7, 2015. www.apa.org/practice/guidelines/transgender.pdf (publication pending).

Antoszewski B, Bratoś R, Sitek A, Fijałkowska M. Long-term results of breast reduction in female-to- male transsexuals. *Pol Przegl Chir.* 2012 Mar;84(3):144-51. PMID: 22659357.

Arcelus J, Bouman WP, Van Den Noortgate W, Claes L, Witcomb G, Fernandez-Aranda F. Systematic review and meta-analysis of prevalence studies in transsexualism. *Eur Psychiatry*. 2015 Sep;30(6):807-15. Epub 2015 May 26. PMID: 26021270.

Asscheman H, Gooren LJ; Eklund PL. Mortality and morbidity in transsexual patients with cross- gender hormone treatment. *Metabolism*. 1989 Sep;38(9):869-73. PMID: 2528051.

Asscheman H, Giltay EJ, Megens JA, de Ronde WP, van Trotsenburg MA, Gooren LJ. A long-term follow-up study of mortality in transsexuals receiving treatment with cross-sex hormones. *Eur J Endocrinol*. 2011 Apr;164(4):635 -42. Epub 2011 Jan 25. PMID: 21266549.

Asscheman H, T'Sjoen G, Lemaire A, Mas M, Meriggiola M, Mueller A, Kuhn A, Dhejne C, Morel- Journel N, Gooren L. Venous thrombo-embolism as a complication of cross-sex hormone treatment of male-to-female transsexual subjects: a review. *Andrologia.* 2014 Sep;46(7):791-5. Epub 2013 Aug 15. PMID: 23944849.

Atkins D, Best D, Briss PA, Eccles M, Falck-Ytter Y, Flottorp S, Guyatt GH, Harbour RT, Haugh MC, Henry D, Hill S, Jaeschke R, Leng G, Liberati A, Magrini N, Mason J, Middleton P, Mrukowicz J, O'Connell D, Oxman AD, Phillips B, Schünemann HJ, Edejer T, Varonen H, Vist GE, Williams JW Jr, Zaza S; GRADE Working Group. Grading quality of evidence and strength of recommendations. *BMJ.* 2004 June;328(19):1490–4. PMID: 15205295.

Auer M, Fuss J, Stalla G, Athanasoulia A. Twenty years of endocrinologic treatment in transsexualism: analyzing the role of chromosomal analysis and hormonal profiling in the diagnostic work-up. *Fertil Steril* 2013 Oct;100(4):1103-10. Epub 2013 Jun 27.

Auerbach JD. The iPrEx results: lifting hopes, raising questions. *BETA.* 2010 Summer-Fall;22 (4):47-9. PMID: 21591604.

Baba T, Endo T, Ikeda K, Shimizu A, Honnma H, Ikeda H, Masumori N, Ohmura T, Kiya T, Fujimoto T, Koizumi M, Saito T. Distinctive features of female-to-male transsexualism and prevalence of gender identity disorder in Japan. *J Sex Med.* 2011 Jun;8(6):1686-93. Epub 2011 Apr 7. PMID: 21477021.

Balshem H, Helfand M, Schünemann HJ, Oxman AD, Kunz R, Brozek J, Vist GE, Falck-Ytter Y, Meerpohl J, Norris S, Guyatt GH. GRADE guidelines: 3. Rating the quality of evidence. *J Clin Epidemiol.* 2011 Apr;64(4):401-6. Epub 2011 Jan 5. PMID: 21208779.

Bandini E, Fisher AD, Ricca V, Ristori J, Meriggiola MC, Jannini EA, Manieri C, Corona G, Monami M, Fanni E, Galleni A, Forti G, Mannucci E, Maggi M. Childhood maltreatment in subjects with male-to-female gender identity disorder. *Int J Impot Res.* 2011 Nov-Dec;23(6):276-85. Epub 2011 Aug 11. PMID: 21833007.

Bao AM, Swaab DF. Sexual differentiation of the human brain: relation to gender identity, sexual orientation and neuropsychiatric disorders. *Front Neuroendocrinol.* 2011 Apr;32(2):214-26. Epub 2011 Feb 18. PMID: 21334362.

Baral S, Poteat T, Strömdahl S, Wirtz A, Guadamuz T, Beyrer C. Worldwide burden of HIV in transgender women: a systematic review and meta-analysis. *Lancet Infect Dis.* 2013 Mar;13(3):214- 22. Epub 2012 Dec 21. PMID: 23260128.

Barlow DH, Abel GG, Blanchard EB. Gender identity change in transsexuals. Follow-up and replications. *Arch Gen Psychiatry.* 1979 Aug;36(9):1001-7. PMID: 464738.

Barrett J. (1998) *Psychological and social function before and after phalloplasty.* University of London. Institute of Psychiatry. Thesis (MSc). King's College London. Catalogue #000457428 or *IJT.* 1998; 2:1 or http://gendertrust.org.uk/wp-content/uploads/2013/02/13-Psychological-and-Social-Function-Before-and-After-Phal..pdf.

Barrington C, Wejnert C, Guardado ME, Nieto AI, Bailey GP. Social network characteristics and HIV vulnerability among transgender persons in San Salvador: identifying opportunities for HIV prevention strategies. *AIDS Behav.* 2012 Jan;16(1):214-24. PMID: 464738.

Bartlett NH, Vasey PL. A retrospective study of childhood gender-atypical behavior in Samoan fa'afafine. *Arch Sex Behav.* 2006 Dec;35(6):659-66. Epub 2006 Aug 15. PMID: 16909317.

Bartolucci C, Gómez-Gil E, Salamero M, Esteva I, Guillamón A, Zubiaurre L, Molero F, Montejo A. Sexual quality of life in gender-dysphoric adults before genital sex reassignment surgery. *J Sex Med* .2015 Jan;12(1):180-8. Epub 2014 Nov 17. PMID: 25401972.

Baumeister S, Sohn M, Domke C, Exner K. [Phalloplasty in female-to-male transsexuals: experience from 259 cases]. *Handchir Mikrochir Plast Chir.* 2011 Aug;43(4):215-21. Epub 2011 Aug 11. PMID: 21837614.

Beatrice J. A psychological comparison of heterosexuals, transvestites, preoperative transsexuals, and postoperative transsexuals. *J Nerv Ment Dis.* 1985 Jun;173(6):358-65. PMID: 3998721.

Beck A, Ward C, Mendelson M, Mock J, Erbaugh J. An inventory for measuring depression. *Arch Gen Psychiatry* .1961 Jun;4:561-71. PMID: 13688369.

Bentz EK, Hefler LA, Kaufmann U, Huber JC, Kolbus A, Tempfer CB. A polymorphism of the CYP17 gene related to sex steroid metabolism is associated with female-to-male but not male-to- female transsexualism. *Fertil Steril.* 2008 Jul;90(1):56-9. Epub 2007 Sep 4. PMID: 17765230.

Bentz EK, Pils D, Bilban M, Kaufmann U, Hefler LA, Reinthaller A, Singer CF, Huber JC, Horvat R, Tempfer CB. Gene expression signatures of breast tissue before and after cross-sex hormone therapy in female-to-male transsexuals. *Fertil Steril.* 2010 Dec;94(7):2688-96. Epub 2010 May 26. PMID: 20537635.

Bem, S. L. (1974). The measurement of psychological androgyny. *Journal of Consulting and Clinical Psychology.* 1974; 42:155-162. (Not in PubMed)

Berry MG, Curtis R, Davies D. Female-to-male transgender chest reconstruction: a large consecutive, single-surgeon experience. *J Plast Reconstr Aesthet Surg.* 2012 Jun;65(6):711-9. Epub 2011 Dec 19. PMID: 22189204.

Besnier, N. (1994). Polynesian gender liminality through time and space. In G.Herdt (Ed.), *Third> sex, third gender: Beyond sexual dimorphism in culture and history*. New York: Zone Books.

Birtchnell J, Evans C, Kennard J. The total score of the Crown-Crisp Experiential Index: a useful and valid measure of psychoneurotic pathology. *Br J Med Psychol.* 1988 Sep;61 (Pt 3):255-66. PMID: 3179248.

Bith-Melander P, Sheoran B, Sheth L, Bermudez C, Drone J, Wood W, Schroeder K. Understanding sociocultural and psychological factors affecting transgender people of color in San Francisco. *J Assoc Nurses AIDS Care.* 2010 May-Jun;21(3):207-20. PMID: 20416495.

Bjerrome Ahlin H, Kölby L, Elander A, Selvaggi G. Improved results after implementation of the Ghent algorithm for subcutaneous mastectomy in female-to-male transsexuals. *J Plast Surg Hand Surg*. 2014 Dec;48(6):362-7. Epub 2014 Mar 11. PMID: 24611803.

A-Blanchard R, Steiner BW, Clemmensen LH. Gender dysphoria, gender reorientation, and the clinical management of transsexualism. *J Consult Clin Psychol.* 1985 Jun;53(3):295-304. PMID: 4008715.

B-Blanchard R. Typology of male-to-female transsexualism. *Arch Sex Behav.* 1985 Jun;14(3):247-61. PMID: 4004548.

C-Blanchard RJ, Blanchard DC, Flannelly KJ. Social desirability response set and systematic distortion in the self-report of adult male gender patients. *Behav Processes.* 1985 Aug;11(2):209-13. doi: 10.1016/0376-6357(85)90062-2. PMID: 24895927.

D-Blanchard, R. (1985). *Research methods for the typological study of gender disorders in males*. In B. W. Steiner (Ed.), Gender dysphoria: Development, research, management (pp. 227-257). New York: Plenum Press.

Blanchard R, Clemmensen LH, Steiner BW. Heterosexual and homosexual gender dysphoria. *Arch Sex Behav.* 1987 Apr;16(2):139-52. PMID: 3592961.

Blanchard R, Steiner BW, Clemmensen LH, Dickey R. Prediction of regrets in postoperative transsexuals. *Can J Psychiatry.* 1989 Feb;34(1):43-5. PMID: 2924248.

Bockting W, Coleman E, De Cuypere G. Care of transsexual persons. *N Engl J Med.* 2011 Jun 30;364 (26):2559-60; author reply 2560. PMID: 21714669.

Bodlund O, Armelius K. Self-image and personality traits in gender identity disorders: an empirical study. *J Sex Marital Ther.* 1994 Winter;20(4):303-17. PMID: 7897678.

Bodlund O, Kullgren G. Transsexualism general outcome and prognostic factors: a five-year follow- up study of nineteen transsexuals in the process of changing sex. *Arch Sex Behav.* 1996 Jun;25 (3):303-16. PMID: 8726553.

Boehmer AL, Brinkmann AO, Sandkuijl LA, Halley DJ, Niermeijer MF, Andersson S, de Jong FH, Kayserili H, de Vroede MA, Otten BJ, Rouwé CW, Mendonça BB, Rodrigues C, Bode HH, de Ruiter PE, Delemarre-van de Waal HA, Drop SL. 17Beta-hydroxysteroid dehydrogenase-3 deficiency: diagnosis, phenotypic variability, population genetics, and worldwide distribution of ancient and de novo mutations. *J Clin Endocrinol Metab.* 1999 Dec;84(12):4713-21. PMID: 10599740.

Boehmer U. Twenty years of public health research: inclusion of lesbian, gay, bisexual, and transgender populations. *Am J Public Health*. 2002 Jul;92(7):1125-30. PMID: 12084696.

Bonifacio HJ, Rosenthal SM. Gender Variance and Dysphoria in Children and Adolescents. *Pediatr Clin North Am*. 2015 Aug;62(4):1001-16. Epub 2015 Jun 11. PMID: 26210629.

Borsboom D, Mellenbergh GJ, van Heerden J. The theoretical status of latent variables. *Psychol Rev.* 2003 Apr;110(2):203-19. PMID: 12747522.

Bouman M, van Zeijl M, Buncamper M, Meijerink W, van Bodegraven A, Mullender M. Intestinal vaginoplasty revisited: a review of surgical techniques, complications, and sexual function. *J Sex Med*. 2014 Jul;11(7):1835-47. Epub 2014 Apr 4. PMID: 24697986.

Bowman E, Oprea G, Okoli J, Gundry K, Rizzo M, Gabram-Mendola S, Manne U, Smith G, Pambuccian S, Bumpers HL. Pseudoangiomatous stromal hyperplasia (PASH) of the breast: a series of 24 patients. *Breast J.* 2012 May-Jun;18(3):242-7. PMID: 22583194.

Broderick JP. Devices and clinical trials: overview and equipoise. *Stroke.* 2013 Jun;44(6 Suppl 1):S3-6. PMID: 23709721.

Brown L (Ed.). (1997) *Two Spirit People: American Indian, lesbian women and gay men*. Routledge.

Bye L, Gruskin E, Greenwood, G, Albright V, Krotki K. California Lesbians, Gays, Bisexuals, and Transgender (LGBT) Tobacco Use Survey – 2004. *Sacramento, CA: California Department of Health Services*, 2005. (Not in PubMed)

Byne, W, Bradley SJ, Coleman E, Eyler AE, Green R, Menvielle EJ, Meyer-Bahlburg HFL, Richard R. Pleak RR, Tompkins DA. American Psychiatric Association. Report of the American Psychiatric Association Task Force on Treatment of Gender Identity Disorder. *Arch Sex Behav* 2012 Aug;41(4):759-96. PMID: 22854940.

Callens N, De Cuypere G, Van Hoecke E, T'sjoen G, Monstrey S, Cools M, Hoebeke P. Sexual quality of life after hormonal and surgical treatment, including phalloplasty, in men with micropenis: a review. *J Sex Med*. 2013 Dec;10(12):2890-903. Epub 2013 Aug 23. PMID: 23981815.

Callens N, Hoebeke P. Phalloplasty: A panacea for 46, XY disorder of sex development conditions with penile deficiency? *Endocr Dev.* 2014;27:222-33. Epub 2014 Sep 9. PMID: 25247659.

Cameron D. Language, gender, and sexuality: Current issues and new directions. *Applied Linguistics.* 2005; 26(4):482-502. (Not in PubMed)

Casella R, Bubendorf L, Schaefer D, Bachmann A, Gasser T, Sulser T. Does the prostate really need androgens to grow? Transurethral resection of the prostate in a male-to-female transsexual 25 years after sex-changing operation. *Urol Int*. 2005;75(3):288-90. PMID: 16215322.

Cantor JM. New MRI studies support the Blanchard typology of male-to-female transsexualism. *Arch Sex Behav.* 2011 Oct;40(5):863-4. PMID: 21739338.

Cebula H, Pham TQ, Boyer P, Froelich S. Regression of meningiomas after discontinuation of cyproterone acetate in a transsexual patient. *Acta Neurochir (Wien).* 2010 Nov;152(11):1955-6. Epub 2010 Sep 3. PMID: 20811919.

Cerwenka S, Nieder T, Cohen-Kettenis P, De Cuypere G, Haraldsen I, Kreukels B, Richter-Appelt H. Sexual behavior of gender-dysphoric individuals before gender-confirming interventions: a European multicenter study. *J Sex Marital Ther* 2014;40(5):457-71. PMID: 24846436.

Chan AW, Altman DG. Epidemiology and reporting of randomised trials published in PubMed journals. *Lancet.* 2005 Mar 26-Apr 1;365(9465):1159-62. PMID: 15794971.

Chen S, McFarland W, Thompson HM, Raymond HF. Transmen in San Francisco: what do we know from HIV test site data? *AIDS Behav.* 2011 Apr;15(3):659-62. PMID: 21153048.

Chinas, B. (1995). Isthmus Zapotec attitudes toward sex and gender anomalies. In S. O. Murray (Ed.), *Latin American male homosexualities* (pp. 293-302). Albuquerque,NM: University of New> Mexico Press.

Chiong W. The real problem with equipoise. *Am J Bioeth.* 2006 Jul-Aug;6(4):37-47. PMID: 16885104.

CHIS 2009: California Health Interview Survey, 2009. "AskCHIS" via the UCLA Center for Health Policy Research date website ask.chis.ucla.edu/.

Chong JM. Social assessment of transsexuals who apply for sex reassignment therapy. *Soc Work Health Care.* 1990;14(3):87-105. PMID: 2367927.

Claes L, Bouman W, Witcomb G, Thurston M, Fernandez-Aranda F, Arcelus J. Non-suicidal self- injury in trans people: associations with psychological symptoms, victimization, interpersonal functioning, and perceived social support. *J Sex Med.* 2015 Jan;12(1):168-79. Epub 2014 Oct 6. PMID: 25283073.

Clement U, Löwe B. [Validation of the FKB-20 as scale for the detection of body image distortions in psychosomatic patients]. *Psychother Psychosom Med Psychol.* 1996 Jul;46(7):254-9. German. PMID: 8765897.

Clements-Nolle K, Marx R, Katz M. Attempted suicide among transgender persons: The influence of gender-based discrimination and victimization. *J Homosex.* 2006;51(3):53-69. PMID: 17135115.

CMS Office of Minority Health. New Directions in CMS Disparities Research: Sexual Orientation & Gender Identity. 2015. Academy Health Annual Research Meeting, Minneapolis, Minnesota.

CMS Office of Minority Health. If You Build It, They Will Come: Accessing and Utilizing HHS LGBTI Data and Information Products. 2015. Gay and Lesbian Medical Association Meeting, Portland, Oregon.

Cohen-Kettenis PT, van Goozen SH. Sex reassignment of adolescent transsexuals: a follow-up study. *J Am Acad Child Adolesc Psychiatry.* 1997 Feb;36(2):263-71. PMID: 9031580.

A Cohen-Kettenis P. Psychological long-term outcome in intersex conditions. *Horm Res.* 2005;64 Suppl 2:27-30. PMID: 16286767.

B Cohen-Kettenis PT.Gender change in 46 XY persons with 5alpha-reductase-2 deficiency and 17beta-hydroxysteroid dehydrogenase-3 deficiency. *Arch Sex Behav.* 2005 Aug;34(4):399-410. PMID: 16010463.

Cohen-Kettenis P, Pfäfflin F. The DSM diagnostic criteria for gender identity disorder in adolescents and adults. *Arch Sex Behav.* 2010 Apr;39(2):499-513. PMID: 19838784.

Colizzi M, Costa R, Pace V, Todarello O. Hormonal treatment reduces psychobiological distress

in gender identity disorder, independently of the attachment style. *J Sex Med.* 2013 Dec;10(12):3049-58. Epub 2013 Apr 9. PMID: 23574768.

Colizzi M, Costa R, Todarello O. Transsexual patients' psychiatric comorbidity and positive effect of cross-sex hormonal treatment on mental health: results from a longitudinal study. *Psychoneuroendocrinology.* 2014 Jan;39:65-73. Epub 2013 Oct 10. PMID: 24275005.

Colizzi M, Costa R, Scaramuzzi F, Palumbo C, Tyropani M, Pace V, Quagliarella L, Brescia F, Natilla LC, Loverro G, Todarello O. Concomitant psychiatric problems and hormonal treatment induced metabolic syndrome in gender dysphoria individuals: a 2 year follow-up study. *J Psychosom Res.* 2015 Apr;78(4):399-406. Epub 2015 Feb 10. PMID: 25691225.

Coleman E, Colgan P, Gooren L. Male cross-gender behavior in Myanmar (Burma): A description of the acault. *Arch Sex Behav.* 1992 Jun;21(3):313-21. PMID: 1535191.

Coleman E, Bockting W, Botzer M, Cohen-Kettenis P, DeCuypere G, Feldman J, Fraser L, Green J, Knudson G, Meyer WJ, Monstrey S, Adler RK, Brown GR, Devor AH, Ehrbar R, Ettner R, Eyler E, Garofalo R, Karasic DH, Lev AI, Mayer G, Meyer-Bahlburg H, Hall BP, Pfäfflin F, Rachlin K, Robinson B, Schechter LS, Tangpricha V, van Trotsenburg M, Vitale A, Winter S, Whittle S, Kevan R. Wylie KR, Zucker K. World Professional Association for Transgender Health (formerly the Harry Benjamin International Gender Dysphoria Association). Standards of Care for the Health of Transsexual, Transgender, and Gender- Nonconforming People (Version 7). *Int J Transgend.* 2011;13:165–232. © 2012 World Professional Association for Transgender Health (WPATH). (not in Pubmed) www.wpath.org/uploaded_files/140/files/Standards%20of%20Care,%20V7%20Full%20Book.pdf.

Conron KJ, Scott G, Stowell GS, Landers SJ. Transgender health in Massachusetts: results from

a household probability sample of adults. *Am J Public Health.* 2012 Jan;102(1):118-22. Epub 2011 Nov 28. PMID: 22095354.

Corsello SM, Di Donna V, Senes P, Luotto V, Ricciato MP, Paragliola RM, Pontecorvi A. Biological aspects of gender disorders. *Minerva Endocrinol.* 2011 Dec;36(4):325-39. PMID: 22322655.

Costa L M, Matzner A. (2007). *Male bodies, women's souls: Personal narrative of Thailand's transgendered youth.* Routledge.

Costantino A, Cerpolini S, Alvisi S, Morselli P, Venturoli S, Meriggiola M. A prospective study on sexual function and mood in female-to-male transsexuals during testosterone administration and after sex reassignment surgery. *J Sex Marital Ther.* 2013;39(4):321-35. Epub 2013 Mar 7. PMID: 23470169.

Cregten-Escobar P, Bouman M, Buncamper M, Mullender M. Subcutaneous mastectomy in female-to-male transsexuals: a retrospective cohort-analysis of 202 patients. *J Sex Med* 2012 Dec;9(12):3148- 53. PMID: 23470169.

Crown S, Crisp AH. A short clinical diagnostic self-rating scale for psychoneurotic patients. The Middlesex Hospital Questionnaire (M.H.Q.). *Br J Psychiatry.* 1966 Sep;112(490):917-23. PMID: 5970912.

Crown S, Duncan KP, Howell RW. Further evaluation of the Middlesex Hospital Questionnaire (M.H.Q.). *Br J Psychiatry.* 1970 Jan;116(530):33-7. PMID: 5411005.

Crown S. The Middlesex Hospital Questionnaire (MHQ) in clinical research. A review. *Mod Probl Pharmacopsychiatry*. 1974;7(0):111-24. PMID: 4607280.

Cupisti S, Giltay EJ, Gooren LJ, Kronawitter D, Oppelt PG, Beckmann MW, Dittrich R, Mueller A. The impact of testosterone administration to female-to-male transsexuals on insulin resistance and lipid parameters compared with women with polycystic ovary syndrome. *Fertil Steril.* 2010 Dec;94 (7):2647-53. Epub 2010 May 7. PMID: 20451188.

Day P. Tech Brief Series. *Trans-gender reassignment surgery.* New Zealand Health technpology Assessment. (NZHTA). The clearinghouse forhealth outcomes and health technology assessment. February 2002 Volume 1 Number 1. http://nzhta.chmeds.ac.nz/publications/trans_gender.pdf.

De Cuypere G, T'Sjoen G, Beerten R, Selvaggi G, De Sutter P, Hoebeke P, Monstrey S, Vansteenwegen A, Rubens R. Sexual and physical health after sex reassignment surgery. *Arch Sex Behav.* 2005 Dec;34(6):679-90. PMID: 16362252.

De Cuypere G, Elaut E, Heylens G, van Maele G, Selvaggi G, T'Sjoen G, Rubens R, Hoebeke R, Monstrey S. Long-

term follow-up: psychosocial outcome of Belgian transsexuals after sex reassignment surgery. *J Sexol.* 2006;15:126-33. (Not in PubMed)

De Cuypere G, Van Hemelrijck M, Michel A, Carael B, Heylens G, Rubens R, Hoebeke P, Monstrey S. Prevalence and demography of transsexualism in Belgium. *Eur Psychiatry.* 2007 Apr;22(3):137- 41. Epub 2006 Dec 26. PMID: 17188846.

Deeks JJ, Dinnes J, D'Amico R, Sowden AJ, Sakarovitch C, Song F, Petticrew M, Altman DG; International Stroke Trial Collaborative Group; European Carotid Surgery Trial Collaborative Group. Evaluating non-randomised intervention studies. *Health Technol Assess.* 2003;7(27):iii-x, 1-173. PMID: 14499048.

Deipolyi AR, Han SJ, Parsa AT. Development of a symptomatic intracranial meningioma in a male- to-female transsexual after initiation of hormone therapy. *J Clin Neurosci.* 2010 Oct;17(10):1324-6. Epub 2010 Jul 1. PMID: 20594855.

Derogatis LR, Lipman RS, Covi L. SCL-90: an outpatient psychiatric rating scale preliminary report. *Psychopharmacol Bull.* 1973 Jan;9(1):13-28. PMID: 4682398.

A-Derogatis LR, Lipman RS, Rickels K, Uhlenhuth EH, Covi L. The Hopkins Symptom Checklist (HSCL): a self-report symptom inventory. *Behav Sci.* 1974 Jan;19(1):1-15. PMID:

B-Derogatis LR, Lipman RS, Rickels K, Uhlenhuth EH, Covi L. The Hopkins Symptom Checklist (HSCL). A measure of primary symptom dimensions. *Mod Probl Pharmacopsychiatry.* 1974;7(0):79- 110. PMID: 4607278.

Derogatis LR, Cleary PA. Factorial invariance across gender for the primary symptom dimensions of the SCL-90. *Br J Soc Clin Psychol.* 1977 Nov;16(4):347-56 PMID: 588890.

Derogatis LR, Meyer JK, Vazquez N. A psychological profile of the transsexual. I. The male. *J Nerv Ment Dis.* 1978 Apr;166(4):234-54. PMID: 650186.

Deutsch M, Bhakri V, Kubicek K. Effects of cross-sex hormone treatment on transgender women and men. *Obstet Gyneco.* 2015 Mar;125(3):605-10. PMID: 25730222.

de Vries A, Kreukels B, Steensma T, Doreleijers T, Cohen-Kettenis P. Comparing adult and adolescent transsexuals: an MMPI-2 and MMPI-A study. *Psychiatry Res* 2011 Apr 30;186 (2-3):414-8. PMID: 20801524.

Dhejne C, Lichtenstein P, Boman M, Johansson A, Långström N, Landén M. Long-term follow-up of transsexual persons undergoing sex reassignment surgery: cohort study in Sweden. *PLoS One* 2011;6 (2):e16885. Epub 2011 Feb 22. PMID: 21364939.

Dhejne C, Öberg K, Arver S, Landén M. An analysis of all applications for sex reassignment surgery in Sweden, 1960-2010: prevalence, incidence, and regrets. *Arch Sex Behav.* 2014 Nov;43(8):1535-45. Epub 2014 May 29. PMID: 24872188.

Dhillon R, Bastiampillai T, Krishnan S, Opray N, Tibrewal P. Transgender late onset psychosis: the role of sex hormones. *Aust N Z J Psychiatry*. 2011 Jul;45(7):603. Epub 2011 May 5. PMID: 21542781.

Diamond M. Developmental, sexual and reproductive neuroendocrinology: historical, clinical and ethical considerations. *Front Neuroendocrinol.* 2011 Apr;32(2):255-63. Epub 2011 Feb 18. PMID: 21310174.

Dittrich R, Binder H, Cupisti S, Hoffmann I, Beckmann M, Mueller A. Endocrine treatment of male- to-female transsexuals using gonadotropin-releasing hormone agonist. *Exp Clin Endocrinol Diabetes.* 2005 Dec;113(10):586-92. PMID: 16320157.

Djordjevic ML, Stanojevic DS, Bizic MR. Rectosigmoid vaginoplasty: clinical experience and outcomes in 86 cases. *J Sex Med*. 2011 Dec;8(12):3487-94. Epub 2011 Oct 13. PMID: 21995738.

Djordjevic ML, Bizic MR. Comparison of two different methods for urethral lengthening in female to male (metoidioplasty) surgery. *J Sex Med*. 2013 May;10(5):1431-8. Epub 2013 Feb 27. PMID: 23444841.

Doorduin T, van Berlo W. Trans people's experience of sexuality in the Netherlands: a pilot study. *J Homosex*.2014;61(5):654-72. PMID: 24295055.

Doorn CD, Poortinga J, Verschoor AM. Cross-gender identity in transvestites and male transsexuals. *Arch Sex Behav.* 1994 Apr;23(2):185-201. PMID: 8018022.

Doornaert M, Hoebeke P, Ceulemans P, T'Sjoen G, Heylens G, Monstrey S. Penile reconstruction with the radial forearm flap: an update. *Handchir Mikrochir Plast Chir*. 2011 Aug;43(4):208-14. Epub 2011 Aug 11.

A-Dos Ramos Farías MS, Picconi MA, Garcia MN, González JV, Basiletti J, Pando Mde L, Avila MM. Human papilloma virus genotype diversity of anal infection among trans (male to female transvestites, transsexuals or transgender) sex workers in Argentina. *J Clin Virol.* 2011 Jun;51 (2):96-9. Epub 2011 Apr 20. PMID: 21511521.

B-Dos Ramos Farías MS, Garcia MN, Reynaga E, Romero M, Vaulet ML, Fermepín MR, Toscano MF, Rey J, Marone R, Squiquera L, González JV, Basiletti J, Picconi MA, Pando MA, Avila MM. First report on sexually transmitted infections among trans (male to female transvestites, transsexuals, or transgender) and male sex workers in Argentina: high HIV, HPV, HBV, and syphilis prevalence. *Int J Infect Dis.* 2011 Sep;15(9):e635-40. Epub 2011 Jul 13. PMID: 21742530.

DSM: American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders: DSM-5*. Washington, D.C: American Psychiatric Association.

Dubois L. Associations between transition-specific stress experience, nocturnal decline in ambulatory blood pressure, and C-reactive protein levels among transgender men. *Am J Hum Biol* 2012 Jan- Feb;24(1):52-61. Epub 2011 Nov 28. PMID: 22120883.

Duisin D, Nikolić-Balkoski G, Batinić B. Sociodemographic profile of transsexual patients. *Psychiatr Danub.* 2009 Jun;21(2):220-3. PMID: 19556952.

Duišin D, Batinić B, Barišić J, Djordjevic ML, Vujović S, Bizic M. Personality disorders in persons with gender identity disorder. *ScientificWorldJournal.* 2014;2014:809058. Epub 2014 May 13. PMID: 24959629.

Dunn, OJ. Multiple Comparisons Among Means. *J Am Statis Assoc*. 1961 Mar; 56(293): 52- 64. (Not in PubMed) www.jstor.org/stable/2282330.

Elamin M, Garcia M, Murad M, Erwin P, Montori V. Effect of sex steroid use on cardiovascular risk in transsexual individuals: a systematic review and meta-analyses. *Clin Endocrinol (Oxf)*. 2010 Jan;72 (1):1-10. Epub 2009 May 16. PMID: 19473174.

Elaut E, Bogaert V, De Cuypere G, Weyers S, Gijs L, Kaufman J, T'Sjoen G. Contribution of androgen receptor sensitivity to the relation between testosterone and sexual desire: An exploration in male-to-female transsexuals. *J Endocrinol Invest*. 2010 Jan;33(1):37-41. Epub 2009 Jul 20. PMID: 19620824.

Eldh J, Berg A, Gustafsson M. Long-term follow up after sex reassignment surgery. *Scand J Plast Reconstr Surg Hand Surg.* 1997 Mar;31(1):39-45. PMID: 9075286.

Ettner R. Care of the elderly transgender patient. *Curr Opin Endocrinol Diabetes Obes* 2013 Dec;20 (6):580-4. PMID: 24468762.

Europe QOL 2010 Anderson R, Mikuliç B, Vermeylen G, Lyly-Yrjanainen M, Zigante V. European Foundation for the Improvement of Living and Working Conditions. *Second European Quality of Life Survey: Family life and work -Overview.* EF0902. December 13, 2010. www.eurofound.europa.eu/publications/report/2009/quality-of-life/second-european-quality-of-life-survey-overview.

Europe QOL 2011 Kotowska IE, Matysiak A, Styrc M, Pailhe A, Solaz, A Vignoli D. European Foundation for the Improvement of Living and Working Conditions. *Second European Quality of Life Survey: Family life and work.* EF1002. August 22, 2011. NLM classification: WC 503.6. www.eurofound.europa.eu/publications/report/2010/quality-of-life-social-policies/second-european-quality-of-life-survey-family-life-and-work.

Fares WH. The 'availability' bias: underappreciated but with major potential implications. *Crit Care.* 2014 Mar 12;18(2):118. PMID: 25029621.

Ferring D, Filipp SH. Messung des Selbstwertgefuhls: Befunde zu Reliabilitat, Validitat und Stabilitat der Rosenberg-Skala [Measurement of self-esteem: Findings on reliability, validity, and stability of the Rosenberg Scale]. *Diagnostica.* 1996; 42: 284–292. German. (Not in PubMed)

Ferron P, Young S, Boulanger C, Rodriguez A, Moreno J. Integrated care of an aging HIV-infected male-to-female transgender patient. *J Assoc Nurses AIDS Care.* 2010 May-Jun;21(3):278-82. Epub 2010 Mar 19. PMID: 20303795.

Fisher AD, Bandini E, Casale H, Ferruccio N, Meriggiola MC, Gualerzi A, Manieri C, Jannini E, Mannucci E, Monami M, Stomaci N, Delle Rose A, Susini T, Ricca V, Maggi M. Sociodemographic and clinical features of gender identity disorder: an Italian multicentric evaluation. *J Sex Med.* 2013 Feb;10(2):408-19. Epub 2012 Nov 21. PMID: 23171237.

Flanagan BM, Philpott S, Strosberg MA. Protecting participants of clinical trials conducted in the intensive care unit. *J Intensive Care Med.* 2011 Jul-Aug;26(4):237-49. PMID: 21764767.

Fleming M, Steinman C, Bocknek G. Methodological problems in assessing sex-reassignment surgery: a reply to Meyer and Reter. *Arch Sex Behav.* 1980 Oct;9(5):451-6. PMID: 7447685.

Fleming M, Cohen D, Salt P, Jones D, Jenkins S. A study of pre- and postsurgical transsexuals: MMPI characteristics. *Arch Sex Behav.* 1981 Apr;10(2):161-70. PMID: 7247725.

Flores A, Herman J, Gates G, Brown T. (2016) *How many adults identify as transgender in the United States?* Los Angeles, CA: The Williams Institute.

Frances AJ, Nardo JM. ICD-11 should not repeat the mistakes made by DSM-5. *Br J Psychiatry.* 2013 Jul;203(1):1 -2. PMID: 23818530.

Frade-Costa EM, Bilharinho Mendonca B. Clinical management of transsexual subjects. *Arq Bras Endocrinol Metab*. 2014;58(2):188-96. (Not in PubMed)

Franco T, Miranda L, Franco D, Zaidhaft S, Aran M. Male-to-female transsexualsurgery: experience at the UFRJ University Hospital. *Rev Col Bras Cir.* 2010 Dec;37(6):426-34. PMID: 21340258.

Fuss J, Biedermann S, Stalla G, Auer M. On the quest for a biomechanism of transsexualism: is there a role for BDNF? *J Psychiatr Res*. 2013 Dec;47(12):2015-7. Epub 2013 Sep 7. PMID: 23915300.

Futterweit W. Endocrine therapy of transsexualism and potential complications of long-term treatment. *Arch Sex Behav.* 1998 Apr;27(2):209-26. PMID: 9562902.

Garaffa G, Raheem AA, Ralph DJ. An update on penile reconstruction. *Asian J Androl*. 2011 May;13 (3):391-4. PMID: 22426595.

Garaffa G, Gentile V, Antonini G, Tsafrakidis P, Raheem AA, Ralph DJ. Penile reconstruction in the male. *Arab J Urol.* 2013 Sep;11(3):267-71. Epub 2013 Jun 12. PMID: 26558091.

Garcia-Falgueras A, Swaab DF. Sexual hormones and the brain: an essential alliance for sexual identity and sexual orientation. *Endocr Dev*. 2010;17:22-35. Epub 2009 Nov 24. PMID: 19955753.

Garcia-Falgueras A, Ligtenberg L, Kruijver FP, Swaab DF. Galanin neurons in the intermediate nucleus (InM) of the human hypothalamus in relation to sex, age, and gender identity. *J Comp Neurol.* 2011 Oct 15;519(15):3061 -84. PMID: 21618223.

García-Malpartida K, Martín-Gorgojo A, Rocha M, Gómez-Balaguer M, Hernández-Mijares A. Prolactinoma induced by estrogen and cyproterone acetate in a male-to-female transsexual. *Fertil Steril.* 2010 Aug;94(3):1097.e13-5. Epub 2010 Mar 12. PMID: 20227072.

Garrels L, Kockott G, Michael N, Preuss W, Renter K, Schmidt G, Sigusch V, Windgassen K. Sex ratio of transsexuals in Germany: the development over three decades. *Acta Psychiatr Scand.* 2000 Dec;102(6):445-8. PMID: 11142434.

Gaspari L, Paris F, Philibert P, Audran F, Orsini M, Servant N, Maïmoun L, Kalfa N, Sultan C. 'Idiopathic' partial androgen insensitivity syndrome in 28 newborn and infant males: impact of prenatal exposure to environmental endocrine disruptor chemicals? *Eur J Endocrinol.* 2011 Oct;165 (4):579-87. Epub 2011 Jul 25. PMID: 21788424.

Gates GJ. How many people are lesbian, gay, bisexual, and transgender? 2011. (Not in PubMed) williamsinstitute@law.ucla.edu.

Giami A, Le Bail J. HIV infection and STI in the trans population: a critical review. *Rev Epidemiol Sante Publique.* 2011 Aug;59(4):259-68. Epub 2011 Jul 20. PMID: 21767925.

Glezer A, McNiel D, Binder R. Transgendered and incarcerated: a review of the literature, current policies and laws, and ethics. *J Am Acad Psychiatry Law.* 2013;41(4):551-9. PMID: 24335329.

A-Goddard JC, Vickery RM, Terry TR. Development of feminizing genitoplasty for gender dysphoria. *J Sex Med.* 2007 Jul;4(4 Pt 1):981-9. Epub 2007 Apr 19. PMID: 17451484.

B-Goddard JC, Vickery RM, Qureshi A, Summerton DJ, Khoosal D, Terry TR. Feminizing genitoplasty in adult transsexuals: early and long-term surgical results. *BJU Int.* 2007 Sep;100(3):607- 13. PMID: 17669144.

Godlewski J. Transsexualism and anatomic sex ratio reversal in Poland. *Arch Sex Behav.* 1988 Dec;17(6):547-8. PMID: 3265612.

Goldberg DP, Blackwell B. Psychiatric illness in general practice. A detailed study using a new method of case identification. *Br Med J.* 1970 May 23;1(5707):439-43. PMID: 5420206.

Goldman M. Spring 2008 - Stat C141/ Bioeng C141 - Statistics for Bioinformatics. Course Website: http://www.stat.berkeley.edu/users/hhuang/141C-2008.html. Section Website: http://www.stat.berkeley.edu/users/mgoldman.

Gómez-Gil E, Trilla García A, Godás Sieso T, Halperin Rabinovich I, Puig Domingo M, Vidal Hagemeijer A, Peri Nogués JM. Estimation of prevalence, incidence and sex ratio of transsexualism in Catalonia according to health care demand. *Actas Esp Psiquiatr.* 2006 Sep-Oct;34(5):295-302. Spanish. PMID: 17117339.

Gómez-Gil E, Vidal-Hagemeijer A, Salamero M. MMPI-2 characteristics of transsexuals requesting sex reassignment: comparison of patients in prehormonal and presurgical phases. *J Pers Assess.* 2008 Jul;90(4):368-74. PMID: 18584445.

Gómez-Gil E, Trilla A, Salamero M, Godás T, Valdés M. Sociodemographic, clinical, and psychiatric characteristics of transsexuals from Spain. *Arch Sex Behav.* 2009 Jun;38(3):378-92. Epub 2008 Feb 21. PMID: 18288600.

Gómez-Gil E, Esteva I, Almaraz M, Pasaro E, Segovia S, Guillamon A. Familiality of gender identity disorder in non-twin siblings. *Arch Sex Behav.* 2010 Apr;39(2):546-52. Epub 2009 Jul 29. PMID: 19639402.

Gómez-Gil E, Esteva I, Carrasco R, Almaraz MC, Pasaro E, Salamero M, Guillamon A. Birth order and ratio of brothers to sisters in Spanish transsexuals. *Arch Sex Behav.* 2011 Jun;40(3):505-10. Epub 2010 Mar 16. PMID: 20232130.

A-Gómez-Gil E, Gómez A, Cañizares S, Guillamón A, Rametti G, Esteva I, Vázquez A, Salamero- Baró M. Clinical utility of the Bem Sex Role Inventory (BSRI) in the Spanish transsexual and nontranssexual population. *J Pers Assess.* 2012;94(3):304-9. Epub 2012 Jan 13. PMID: 22242861.

B-Gómez-Gil E, Zubiaurre-Elorza L, Esteva I, Guillamon A, Godás T, Cruz Almaraz M, Halperin I, Salamero M. Hormone-treated transsexuals report less social distress, anxiety and depression. *Psychoneuroendocrinology.*

2012 May;37(5):662-70. Epub 2011 Sep 19. PMID: 21937168.

Gómez-Gil E, Zubiaurre-Elorza L, de Antonio I, Guillamon A, Salamero M. Determinants of quality of life in Spanish transsexuals attending a gender unit before genital sex reassignment surgery. *Qual Life Res.* 2014 Mar;23(2):669-76. Epub 2013 Aug 13. PMID: 23943260.

Gooren L. Hormone treatment of the adult transsexual patient. *Horm Res.* 2005;64 Suppl 2:31-6. PMID: 16286768.

Gooren L. Clinical practice. Care of transsexual persons. *N Engl J Med.* 2011 Mar 31;364(13):1251-7. PMID: 21449788.

A-Gooren L, Giltay E. Men and women, so different, so similar: observations from cross-sex hormone treatment of transsexual subjects. *Andrologia*. 2014 Jun;46(5):570-5. Epub 2013 May 19. PMID: 23682909.

B-Gooren L. Management of female-to-male transgender persons: medical and surgical management, life expectancy. *Curr Opin Endocrinol Diabetes Obes.* 2014 Jun;21(3):233-8. PMID: 24755998.

C-Gooren LJ, Wierckx K, Giltay EJ. Cardiovascular disease in transsexual persons treated with cross- sex hormones: reversal of the traditional sex difference in cardiovascular disease pattern. *Eur J Endocrinol*. 2014 Jun;170(6):809-19. Epub 2014 Mar 10. PMID: 24616414.

D-Gooren L, Lips P. Conjectures concerning cross-sex hormone treatment of aging transsexual persons. *J Sex Med.* 2014 Aug;11(8):2012-9. Epub 2014 Apr 29. PMID: 24775178.

E-Gooren L, Morgentaler A. Prostate cancer incidence in orchidectomised male-to-female transsexual persons treated with oestrogens. *Andrologia.* 2014 Dec;46(10):1156-60. Epub 2013 Dec 12. PMID: 24329588.

Gorin-Lazard A, Baumstarck K, Boyer L, Maquigneau A, Gebleux S, Penochet J, Pringuey D, Albarel F, Morange I, Loundou A, Berbis J, Auquier P, Lançon C, Bonierbale M. Is hormonal therapy associated with better quality of life in transsexuals? A cross-sectional study. *J Sex Med.* 2012 Feb;9 (2):531-41. Epub 2011 Dec 6. PMID: 22145968.

Gorin-Lazard A, Baumstarck K, Boyer L, Maquigneau A, Penochet J, Pringuey D, Albarel F, Morange I, Bonierbale M, Lançon C, Auquier P. Hormonal therapy is associated with better self- esteem, mood, and quality of life in transsexuals. *J Nerv Ment Dis.* 2013 Nov;201(11):996-1000. PMID: 24177489.

Grant JE, Flynn M, Odlaug BL, Schreiber LR. Personality disorders in gay, lesbian, bisexual, and transgender chemically dependent patients. *Am J Addict.* 2011 Sep-Oct;20(5):05-11. Epub 2011 Jul 18. PMID: 21838838.

Green R. Sexual functioning in post-operative transsexuals: male-to-female and female-to-male. *Int J Impot Res.* 1998 May;10 Suppl 1:S22-4. PMID: 9669217.

Greenberg G, Frank G. Response set in the Tennessee Department of Mental Health Self Concept Scale. *J Clin Psychol.* 1965 Jul;21:287-8. PMID: 14332192.

Greenberg RP, Laurence L. A comparison of the MMPI results for psychiatric patients and male applicants for transsexual surgery. *J Nerv Ment Dis.* 1981 May;169(5):320-3. PMID: 7217944.

Gurtman MB. Interpersonal Problems and the Psychotherapy Context: The Construct Validity of the Inventory of Interpersonal Problems. *Psychological Assessment.*1996; 8 (3):241-55. (Not in PubMed)

Guadamuz TE, Wimonsate W, Varangrat A, Phanuphak P, Jommaroeng R, McNicholl JM, Mock PA, Tappero JW, van Griensven F. HIV prevalence, risk behavior, hormone use and surgical history among transgender persons in Thailand. *AIDS Behav.* 2011 Apr;15(3):650-8. PMID: 21104008.

A-Guyatt GH, Oxman AD, Vist GE, Kunz R, Falck-Ytter Y, Alonso-Coello P, Schünemann HJ; GRADE Working Group. GRADE: an emerging consensus on rating quality of evidence and> strength of recommendations. *BMJ.* 2008 Apr 26;336(7650):924-6. PMID: 18436948.

B-Guyatt GH, Oxman AD, Kunz R, Vist GE, Falck-Ytter Y, Schünemann HJ; GRADE Working Group. What is "quality of evidence" and why is it important to clinicians? *BMJ.* 2008 May 3;336 (7651):995-8. PMID: 18456631.

C-Guyatt GH, Oxman AD, Kunz R, Falck-Ytter Y, Vist GE, Liberati A, Schünemann HJ; GRADE Working Group. Going from evidence to recommendations. *BMJ.* 2008 May 10;336(7652): 1049-51. Erratum in: *BMJ.* 2008 Jun 21;336(7658). PMID: 18467413.

A-Guyatt GH, Oxman AD, Kunz R, Atkins D, Brozek J, Vist G, Alderson P, Glasziou P, Falck-Ytter Y, Schünemann HJ. GRADE guidelines: 2. Framing the question and deciding on important outcomes. *J Clin Epidemiol.* 2011 Apr;64(4):395-400. Epub 2010 Dec 30. PMID: 21194891.

B-Guyatt GH, Oxman AD, Vist G, Kunz R, Brozek J, Alonso-Coello P, Montori V, Akl EA, Djulbegovic B, Falck-Ytter Y, Norris SL, Williams JW Jr, Atkins D, Meerpohl J, Schünemann HJ. GRADE guidelines: 4. Rating the quality of evidence study limitations (risk of bias). *J Clin Epidemiol.* 2011 Apr;64(4):407-15. doi: 10.1016/j.jclinepi.2010.07.017. Epub 2011 Jan 19. PMID: 21247734.

C-Guyatt GH, Oxman AD, Montori V, Vist G, Kunz R, Brozek J, Alonso-Coello P, Djulbegovic B, Atkins D, Falck-Ytter Y, Williams JW Jr, Meerpohl J, Norris SL, Akl EA, Schünemann HJ. GRADE guidelines: 5. Rating the quality of evidence publication bias. *J Clin Epidemiol.* 2011 Dec;64 (12):1277-82. Epub 2011 Jul 30. PMID: 21802904.

D-Guyatt GH, Oxman AD, Kunz R, Woodcock J, Brozek J, Helfand M, Alonso-Coello P, Glasziou P, Jaeschke R, Akl EA, Norris S, Vist G, Dahm P, Shukla VK, Higgins J, Falck-Ytter Y, Schünemann HJ; GRADE Working Group. GRADE guidelines: 7. Rating the quality of evidence inconsistency. *J Clin Epidemiol.* 2011 Dec;64(12):1294-302. Epub 2011 Jul 31. PMID: 21803546.

E-Guyatt GH, Oxman AD, Kunz R, Woodcock J, Brozek J, Helfand M, Alonso-Coello P, Falck-Ytter Y, Jaeschke R, Vist G, Akl EA, Post PN, Norris S, Meerpohl J, Shukla VK, Nasser M, Schünemann HJ; GRADE Working Group. GRADE guidelines: 8. Rating the quality of evidence indirectness. *J Clin Epidemiol.* 2011 Dec;64(12):1303-10. Epub 2011 Jul 30. PMID: 21802903.

Haas AP, Eliason M, Mays VM, Mathy RM, Cochran SD, D'Augelli AR, Silverman MM, Fisher PW, Hughes T, Rosario M, Russell ST, Malley E, Reed J, Litts DA, Haller E, Sell RL, Remafedi G, Bradford J, Beautrais AL, Brown GK, Diamond GM, Friedman MS, Garofalo R, Turner MS, Hollibaugh A, Clayton PJ. Suicide and suicide risk in lesbian,

gay, bisexual, and transgender populations: review and recommendations. *J Homosex*. 2011;58(1):10-51. PMID: 21213174.

Hage JJ, De Graaf FH. Addressing the ideal requirements by free flap phalloplasty: some reflections on refinements of technique. *Microsurgery.* 1993;14(9):592-8. PMID: 8289643.

Hage JJ, Karim RB. Ought GIDNOS get nought? Treatment options for nontranssexual gender dysphoria. *Plast Reconstr Surg*. 2000 Mar;105(3):1222-7. PMID: 10724285.

Hale JC. Ethical problems with the mental health evaluation standards of care for adult gender variant prospective patients. *Perspectives in Biology and Medicine*. 2007Autumn;50(4):491-505. (Not in PubMed)

Haraldsen IR, Dahl AA. Symptom profiles of gender dysphoric patients of transsexual type compared to patients with personality disorders and healthy adults. *Acta Psychiatr Scand.* 2000 Oct;102(4):276- 81. PMID: 11089727.

Hare L, Bernard P, Sánchez FJ, Baird PN, Vilain E, Kennedy T, Harley VR. Androgen receptor repeat length polymorphism associated with male-to-female transsexualism. *Biol Psychiatry.* 2009 Jan 1;65(1):93-6. Epub 2008 Oct 28. PMID: 18962445.

Hathaway S, Briggs P. Some normative data on new MMPI scales. *J Clin Psychol.* 1957 Oct;13 (4):364-8. PMID: 13463138.

Hathaway SR,Reynolds PC,Monachesi ED. Follow-up of the later careers and lives of 1,000 boys who dropped out of high school. *J Consult Clin Psychol.* 1969 Jun;33(3):370-80. PMID: 4389336.

Hebbar S, Pandey H, Chawla A. Understanding King"s Health Questionnaire (KHQ) in assessment of female urinary incontinence. Int J Res Med Sci 2015;3:531-8.

Hembree WC, Cohen-Kettenis P, Delemarre-van de Waal HA, Gooren LJ, Meyer WJ 3rd, Spack NP, Tangpricha V, Montori VM; Endocrine Society. Endocrine Treatment of Transsexual Persons: an Endocrine Society Clinical Practice Guideline. *J Clin Endocrinol Metab.* 2009;94:3132-54. PMID: 19509099.

Hembree WC. Guidelines for pubertal suspension and gender reassignment for transgender adolescents. *Child Adolesc Psychiatr Clin N Am.* 2011 Oct;20(4):725-32. PMID: 22051008.

Hepp U, Klaghofer R, Burkhard-Kübler R, Buddeberg C. [Treatment follow-up of transsexual patients. A catamnestic study]. *Nervenarzt.* 2002 Mar;73(3):283-8. German. PMID: 11963265.

Hepp U, Kraemer B, Schnyder U, Miller N, Delsignore A. Psychiatric comorbidity in gender identity disorder. *J Psychosom Res.* 2005 Mar;58(3):259-61. PMID: 15865950.

Herbst J, Jacobs E, Finlayson T, McKleroy V, Neumann M, Crepaz N. Estimating HIV prevalence and risk behaviors of transgender persons in the United States: a systematic review. *AIDS Behav.* 2008 Jan;12(1):1-17. Epub 2007 Aug 13. PMID: 17694429.

Heresová J, Pobisová Z, Hampl R, Stárka L. Androgen administration to transsexual women. II. Hormonal changes. *Exp Clin Endocrinol.* 1986 Dec;88(2):219-23. PMID: 3556412.

Hormonal changes. *Exp Clin Endocrinol.* 1986 Dec;88(2):219-23. PMID: 3556412.

Hess J, Rossi Neto R, Panic L, Rübben H, Senf W. Satisfaction with male-to-female gender reassignment surgery. *Dtsch Arztebl Int.* 2014 Nov 21;111(47):795-801. PMID: 25487762.

A-Heylens G, Verroken C, De Cock S, T'Sjoen G, De Cuypere G. Effects of different steps in gender reassignment therapy on psychopathology: a prospective study of persons with a gender identity disorder. *J Sex Med.* 2014 Jan;11(1):119-26. Epub 2013 Oct 28. PMID: 24344788.

B-Heylens G, Elaut E, Kreukels BP, Paap MC, Cerwenka S, Richter-Appelt H, Cohen-Kettenis PT, Haraldsen I, De Cuypere G. Psychiatric characteristics in transsexual individuals: multicentre study in four European countries. *Br J Psychiatry.* 2014 Feb;204(2):151-6. Epub 2013 May 9. PMID: 23869030.

HHS-HP: US Department of Health and Human Services. Lesbian, gay, bisexual and transgender health: objectives. Healthy People 2020. www.healthypeople.gov/2020/topics objectives2020/overview.aspx?topicid=25.

HHS-2011: US Department of Health and Human Services.Affordable Care Act to improve data collection, reduce health disparities. www.hhs.gov/news/press/2011pres/06/20110629a.html.

Hines M, Ahmed SF, Hughes IA. Psychological outcomes and gender-related development in complete androgen insensitivity syndrome. *Arch Sex Behav.* 2003 Apr;32(2):93-101. PMID: 12710824.

Hoekzema E, Schagen SE, Kreukels BP, Veltman DJ, Cohen-Kettenis PT, Delemarre-van de Waal H, Bakker J. Regional volumes and spatial volumetric distribution of gray matter in the gender dysphoric brain. *Psychoneuroendocrinology.* 2015 May;55:59-71. Epub 2015 Jan 30. PMID: 25720349.

Hoenig J, Kenna J, Youd A. A follow-up study of transsexualists: social and economic aspects. *Psychiatr Clin (Basel).* 1970;3(2):85-100. PMID: 5424767.

Hoenig J, Kenna JC, Youd A. Surgical treatment for transsexualism. *Acta Psychiatr Scand.* 1971;47 (1):106-33 or 36. PMID: 5096332 or 5148350.

Hoenig J, Kenna J. Epidemiological aspects of transsexualism. *Psychiatr Clin (Basel).* 1973;6(2):65- 80. PMID: 4705331.

Hoffman B. An Overview of Depression among Transgender Women. *Depress Res Treat.* 2014;2014:394283. Epub 2014 Mar 13. PMID: 24744918.

Hopewell S, Loudon K, Clarke MJ, Oxman AD, Dickersin K. Publication bias in clinical trials due to statistical significance or direction of trial results. *Cochrane Database Syst Rev*. 2009 Jan 21; (1):MR000006. PMID: 19160345.

Hopewell S, Dutton S, Yu LM, Chan AW, Altman DG. The quality of reports of randomised trials in 2000 and 2006: comparative study of articles indexed in PubMed. *BMJ*. 2010 Mar 23;340:c723. PMID: 20332510.

Hopewell S, Hirst A, Collins GS, Mallett S, Yu LM, Altman DG. Reporting of participant flow diagrams in published reports of randomized trials. *Trials*. 2011 Dec 5;12:253. PMID: 22141446.

Horbach S, Bouman M, Smit J, Özer M, Buncamper M, Mullender M. Outcome of Vaginoplasty in Male-to-Female Transgenders: A Systematic Review of Surgical Techniques. *J Sex Med.* 2015 Jun;12(6):1499-512. Epub 2015 Mar 26. PMID: 25817066.

Horowitz LM, Rosenberg SE, Baer BA, Ureño G, Villaseñor VS. Inventory of interpersonal problems: psychometric properties and clinical applications. *J Consult Clin Psychol.* 1988 Dec;56 (6):885-92. PMID: 3204198.

Hoshiai M, Matsumoto Y, Sato T, Ohnishi M, Okabe N, Kishimoto Y, Terada S, Kuroda S. Psychiatric comorbidity among patients with gender identity disorder. *Psychiatry Clin Neurosci.* 2010 Oct;64(5):514-9. Epub 2010 Aug 19. PMID: 20727112.

A-Hunt DD, Hampson JL. Follow-up of 17 biologic male transsexuals after sex-reassignment surgery. *Am J Psychiatry*. 1980 Apr;137(4):432-8. PMID: 7361928.

B-Hunt DD, Hampson JL. Transsexualism: a standardized psychosocial rating format for the evaluation of results of sex reassignment surgery. *Arch Sex Behav.* 1980 Jun;9(3):255-63. PMID: 7396697.

Hunt DD, Carr JE, Hampson JL. Cognitive correlates of biologic sex and gender identity in transsexualism. *Arch Sex Behav.* 1981 Feb;10(1):65-77. PMID: 7011255.

Inoubli A, De Cuypere G, Rubens R, Heylens G, Elaut E, Van Caenegem E, Menten B, T'Sjoen G. Karyotyping, is it worthwhile intranssexualism? *J Sex Med*. 2011 Feb;8(2):475-8. Epub 2010 Nov 29. PMID: 21114769.

A-Imperato-McGinley J. 5alpha-reductase-2 deficiency and complete androgen insensitivity: lessons from nature. *Adv Exp Med Biol*. 2002;511:121-31; discussion 131-4. PMID: 12575759.

B- Imperato-McGinley J, Zhu YS. Androgens and male physiology the syndrome of 5 alpha- reductase-2 deficiency. *Mol Cell Endocrinol*. 2002 Dec 30;198(1-2):51-9. PMID: 12573814.

Insel T. Director's Blog: Transforming Diagnosis. April 29, 2013. http://www.nimh.nih.gov/about/director/2013/transforming-diagnosis.shtml.

Insel T. The NIMH Research Domain Criteria (RDoC) Project: precision medicine for psychiatry. *Am J Psychiatry.* 2014 Apr;171(4):395-7. PMID: 24687194.

IOM 2011 Robert Graham (Chair); Committee on Lesbian, Gay, Bisexual, and Transgender Health Issues and Research Gaps and Opportunities. Institute of Medicine (IOM). (Study Sponsor: The National Institutes of Health). The Health of Lesbian, Gay, Bisexual, and Transgender People: Building a Foundation for Better Understanding. Issued March 31, 2011. http://thefenwayinstitute.org/documents/lgbthealthreportbriefembargoed.pdf.

Jackson PA. Thai research on male homosexuality and transgenderism and the cultural limits of Foucaultian analysis. *J Hist Sex.* 1997 Jul;8(1):52-85. PMID: 11619530.

Jackson, Peter A.. An explosion of Thai identities: peripheral genders and the limits of queer theory. *Culture, Health, & Sexuality*, 2000;2(4):405-24. Taylor & Francis. (Not in PubMed)

Jackson PA. Pre-gay, post-queer: Thai perspectives on proliferating gender/sex diversity in Asia. *J Homosex*. 2001;40(3-4):1-25. PMID: 11386329.

Jacobeit J, Gooren L, Schulte H. Safety aspects of 36 months of administration of long-acting intramuscular testosterone undecanoate for treatment of female-to-male transgender individuals. *Eur J Endocrinol.* 2009 Nov;161(5):795-8. Epub 2009 Sep 11. PMID: 19749027.

Jacobs, S-E, Thomas W, and Lang S (Eds.). (1997). *Two-spirit people: Native American gender identity, sexuality, and spirituality*. Urbana: University of Illinois Press.

Jain A, Bradbeer C. Gender identity disorder: treatment and post-transition care in transsexual adults. *Int J STD AIDS.* 2007 Mar;18(3):147-50. PMID: 17362542.

Jarolím L, Sedý J, Schmidt M, Nanka O, Foltán R, Kawaciuk I. Gender reassignment surgery in male-to-female transsexualism: A retrospective 3-month follow-up study with anatomical remarks. *J Sex Med.* 2009 Jun;6(6):1635-44. Epub 2009 Mar 30. PMID: 19473463.

Johansson A, Sundbom E, Höjerback T, Bodlund O. A five-year follow-up study of Swedish adults with gender identity disorder. *Arch Sex Behav. 2010* Dec;39(6):1429-37. Epub 2009 Oct 9. PMID: 19816764.

Jokić-Begić N, Lauri Korajlija A, Jurin T. Psychosocial adjustment to sex reassignment surgery: a qualitative examination and personal experiences of six transsexual persons in Croatia. *Scientific World Journal.* 2014;2014:960745. Epub 2014 Mar 25. PMID: 24790589.

Joseph A, Shabir I, Marumadi E, Dada R, Ammini A, Mehta M. Psychosexual outcomes in three siblings with partial androgen insensitivity syndrome: impact of nature versus nurture. *J Pediatr Endocrinol Metab.* 2013;26(9-10):915-20. PMID: 23729553.

Judge C, O'Donovan C, Callaghan G, Gaoatswe G, O'Shea D. Gender dysphoria - prevalence and co- morbidities in an Irish adult population. *Front Endocrinol (Lausanne)* 2014;5:87. Epub 2014 Jun 13. PMID: 24982651.

Jürgensen M, Hiort O, Holterhus PM, Thyen U. Gender role behavior in children with XY karyotype and disorders of sex development. *Horm Behav*. 2007 Mar;51(3):443-53. Epub 2007 Jan 12. PMID: 17306800.

Keenan JP, Wheeler MA, Gallup GG Jr, Pascual-Leone A. Self-recognition and the right prefrontal cortex. *Trends Cogn Sci*. 2000 Sep;4(9):338-344. PMID: 10962615.

Kelleher CJ, Cardozo LD, Khullar V, Salvatore S. A new questionnaire to assess the quality of life of urinary incontinent women. *Br J Obstet Gynaecol.* 1997 Dec;104(12):1374-9. PMID: 9422015.

Khan L. Transgender health at the crossroads: legal norms, insurance markets, and the threat of healthcare reform. *Yale J Health Policy Law Ethics*. 2011 Summer;11(2):375-418. PMID: 22136012.

Khandelwal A, Agarwal A, Jiloha RC. A 47,XXY female with gender identity disorder. *Arch Sex Behav.* 2010 Oct;39(5):1021-3. PMID: 20464469.

Knight R. Fragmentation, fluidity, and transformation: nonlinear development in middle childhood. *Psychoanal Study Child.* 2011;65:19-47. PMID: 26027138.

Kockott G, Fahrner EM. Transsexuals who have not undergone surgery: a follow-up study. *Arch Sex Behav.* 1987 Dec;16(6):511-22. PMID:> 3426393.

Kockott G, Fahrner EM. Male-to-female and female-to-male transsexuals: a comparison. *Arch Sex Behav.* 1988 Dec;17(6):539-46. PMID: 3223814.

Kohlberg, L. "A Cognitive-Developmental Analysis of Children's Sex-Role Concepts and Attitudes." In E. E. Maccoby (ed.). *The Development of Sex Differences.* Stanford, Calif.: Stanford University Press, 1966.

Kraemer B, Delsignore A, Schnyder U, Hepp U. Body image and transsexualism. *Psychopathology.* 2008;41(2):96-100. Epub 2007 Nov 23. PMID: 18033979.

Krege S, Bex A, Lümmen G, Rübben H. Male-to-female transsexualism: a technique, results and long-term follow -up in 66 patients. *BJU Int*. 2001 Sep;88(4):396-402. PMID: 11564029.

Kreukels B, Haraldsen, De Cuypere G, Richter-Appelt H, Gijs L, Cohen-Kettenis P. A European network for the investigation of gender incongruence: the ENIGI initiative. *Eur Psychiatry*. 2012 Aug;27(6):445-50. Epub 2010 Jul 9. PMID: 20620022.

Kröhn W, Bertermann H, Wand H, Wille R. [Transsexualism: a long-term follow-up after sex reassignment surgery (author's transl)]. *Nervenarzt*. 1981 Jan;52(1):26-31. PMID: 7219610.

Kronawitter D, Gooren LJ, Zollver H, Oppelt PG, Beckmann MW, Dittrich R, Mueller A. Effects of transdermal testosterone or oral dydrogesterone on hypoactive sexual desire disorder in transsexual women: results of a pilot study. *Eur J Endocrinol.* 2009 Aug;161(2): 363-8. Epub 2009 Jun 4. PMID: 19497984.

Kruijver FP, Fernández-Guasti A, Fodor M, Kraan EM, Swaab DF. Sex differences in androgen receptors of the human mamillary bodies are related to endocrine status rather than to sexual orientation or transsexuality. *J Clin Endocrinol Metab*. 2001 Feb;86(2):818-27. PMID: 11158052.

Kuiper B, Cohen-Kettenis P. Sex reassignment surgery: a study of 141 Dutch transsexuals. *Arch Sex Behav*. 1988 Oct;17(5):439-57. PMID: 3219066.

Kuhn A, Hiltebrand R, Birkhäuser M. Do transsexuals have micturition disorders? *Eur J Obstet Gynecol Reprod Biol.* 2007 Apr;131(2):226-30. Epub 2006 May 5. PMID: 16678333.

Kuhn A, Bodmer C, Stadlmayr W, Kuhn P, Mueller M, Birkhäuser M. Quality of life 15 years after sex reassignment surgery for transsexualism. *Fertil Steril.* 2009 Nov;92(5):1685-1689.e3. Epub

2008 Nov 6. PMID: 18990387.

Kuhn A, Santi A, Birkhäuser M. Vaginal prolapse, pelvic floor function, and related symptoms 16 years after sex reassignment surgery in transsexuals. *Fertil Steril.* 2011 Jun;95(7):2379-82. Epub 2011 Apr 2. PMID: 21458798.

Kunz R, Oxman AD. The unpredictability paradox: review of empirical comparisons of randomised and non-randomised clinical trials. *BMJ.* 1998 Oct 31;317(7167):1185-90. PMID: 9794851.

Kunz R, Vist G, Oxman AD. Randomisation to protect against selection bias in healthcare trials. *Cochrane Database Syst Rev.* 2007 Apr 18;(2):MR000012. Update in: *Cochrane Database Syst Rev.* 2011; (4) MR000012. PMID: 17443633.

Kupfer DJ, Kuhl EA, Regier DA. Two views on the new DSM-5: DSM-5: a diagnostic guide relevant to both primary care and psychiatric practice. *Am Fam Physician.* 2013 Oct 15;88(8):Online. PMID: 24364581.

Kuper LE, Nussbaum R, Mustanski B. Exploring the diversity of gender and sexual orientation identities in an online sample of transgender individuals. *J Sex Res.* 2012;49(2-3):244-54. Epub 2011 Jul 28. PMID: 21797716.

Lader EW, Cannon CP, Ohman EM, Newby LK, Sulmasy DP, Barst RJ, Fair JM, Flather M, Freedman JE, Frye RL, Hand MM, Jesse RL, Van de Werf F, Costa F; American Heart Association. The clinician as investigator: participating in clinical trials in the practice setting: Appendix 2: statistical concepts in study design and analysis. *Circulation.* 2004 Jun 1;109(21):e305-7. PMID: 15173053.

Lament C. Transgender Children: Conundrums and Controversies A Introduction to the Section. *Psychoanal Study Child* 2014;68:13-27. PMID: 26173324.

Lancet Editorial-No Authors . Health of lesbian, gay, bisexual, and transgender populations. *Lancet.* 2011 April 9;377: 1211. PMID:2 1481690.

A - Landén M, Wålinder J, Hambert G, Lundström B. Factors predictive of regret in sex reassignment. *Acta Psychiatr Scand.* 1998 Apr;97(4):284-9. PMID: 9570489.

B – Landén M, Walinder J, Lundstrom B. Clinical characteristics of a total cohort of female and male applicants for sex reassignment: a descriptive study. Acta Psychiatr Scand 1998: 97: 189-194.

Lang, S. (1998). *Men as Women, Women as Men: Changing Gender in Native American Cultures*. Austin, TX: University of Texas Press.

Lang RJ, Vernon PE. Dimensionality of the perceived self: the Tennessee Self Concept Scale. *Br J Soc Clin Psychol.* 1977 Nov;16(4):363-71. PMID: 588892.

Lawrence AA. Changes in sexual orientation in six male-to-female (MtF) transsexuals. *Arch Sex Behav.* 1999 Dec;28(6):581-3. PMID:> 10650442.

Lawrence A. Factors associated with satisfaction or regret following male-to-female sex reassignment surgery. *Arch Sex Behav.* 2003 Aug;32(4):299-315. PMID: 12856892.

Lawrence A. Sexuality before and after male-to-female sex reassignment surgery. *Arch Sex Behav.* 2005 Apr;34(2):147-66. PMID: 15803249.

Lawrence A. Patient-reported complications and functional outcomes of male-to-female sex reassignment surgery. *Arch Sex Behav.* 2006 Dec;35(6):717-27. Epub 2006 Nov 16. PMID: 17109225.

A-Lawrence AA. Sexual orientation versus age of onset as bases for typologies (subtypes) for gender identity disorder in adolescents and adults. *Arch Sex Behav*. 2010 Apr;39(2):514-45. Epub 2010 Feb 6. PMID: 20140487.

B-Lawrence AA. Societal individualism predicts prevalence of nonhomosexual orientation in male- to-female transsexualism. *Arch Sex Behav*. 2010 Apr;39(2):573-83. Epub 2008 Dec 9. PMID: 19067152.

Leavitt F, Berger JC, Hoeppner JA, Northrop G. Presurgical adjustment in male transsexuals with and without hormonal treatment. *J Nerv Ment Dis.* 1980 Nov;168(11):693-7. PMID: 6255090.

A-Leclère F, Casoli V, Weigert R. Outcome of Vaginoplasty in Male-to-Female Transgenders: A Systematic Review of Surgical Techniques. *J Sex Med.* 2015 Jul;12(7):1655-6. Epub 2015 Jun 11. PMID: 26096230.

B-Leclère FM, Casoli V, Weigert R. Vaginoplasty in Male-to-Female Transsexual Surgery: A Training Concept Incorporating Dissection Room Experience to Optimize Functional and Cosmetic Results. *J Sex Med.* 2015 Oct;12(10):2074-83. PMID: 26481600.

Leinung M, Urizar M, Patel N, Sood S. Endocrine treatment of transsexual persons: extensive personal experience. *Endocr Pract*. 2013 Jul-Aug;19(4):644-50. PMID: 23512380.

Lief HI, Hubschman L. Orgasm in the postoperative transsexual. *Arch Sex Behav.* 1993 Apr;22 (2):145-55. PMID: 8476334.

Lindemalm G, Körlin D, Uddenberg N. Long-term follow-up of "sex change" in 13 male-to-female transsexuals. *Arch Sex Behav.* 1986 Jun;15(3):187-210. PMID: 3729700.

Lindemalm G, Körlin D, Uddenberg N. Prognostic factors vs. outcome in male-to-female transsexualism. A follow-up study of 13 cases. *Acta Psychiatr Scand.* 1987 Mar;75(3):268-74. PMID: 3591409.

Lindgren TW, Pauly IB. A body image scale for evaluating transsexuals. *Arch Sex Behav*. 1975 Nov;4(6):639-56. PMID: 1212093.

Lioudaki E, Ganotakis ES, Mikhailidis DP, Nair DR. The estrogenic burden on vascular risk in male- to-female transsexuals. *Curr Pharm Des.* 2010;16(34):3815-22. PMID: 21128891

Lobato MI, Koff WJ, Manenti C, da Fonseca Seger D, Salvador J, da Graça Borges Fortes M, Petry AR, Silveira E, Henriques AA. Follow-up of sex reassignment surgery in transsexuals: a Brazilian cohort. *Arch Sex Behav*. 2006 Dec;35(6):711-5. PMID: 17075731.

Lothstein LM. The aging gender dysphoria (transsexual) patient. *Arch Sex Behav.* 1979 Sep;8 (5):431-44. PMID: 496624.

Lothstein LM, Roback H. Black female transsexuals and schizophrenia: a serendipitous finding? *Arch Sex Behav.* 1984 Aug;13(4):371-86. PMID: 6487080.

Lothstein LM. Psychological testing with transsexuals: a 30-year review. *J Pers Assess.* 1984 Oct;48 (5):500-7. PMID: 6389823.

Lundström B, Pauly I, Wålinder J. Outcome of sex reassignment surgery. *Acta Psychiatr Scand.* 1984 Oct;70(4):289-94. PMID: 6388248.

Maccoby EE. The role of gender identity and gender constancy in sex-differentiated development. *New Dir Child Dev.* 1990 Spring;(47):5-20. PMID: 2194142.

Maimoun L, Philibert P, Cammas B, Audran F, Bouchard P, Fenichel P, Cartigny M, Pienkowski C, Polak M, Skordis N, Mazen I, Ocal G, Berberoglu M, Reynaud R, Baumann C, Cabrol S, Simon D,

Kayemba-Kay's K, De Kerdanet M, Kurtz F, Leheup B, Heinrichs C, Tenoutasse S, Van Vliet G, Grüters A, Eunice M, Ammini AC, Hafez M, Hochberg Z, Einaudi S, Al Mawlawi H, Nuñez CJ, Servant N, Lumbroso S, Paris F, Sultan C. Phenotypical, biological, and molecular heterogeneity of 5α-reductase deficiency: an extensive international experience of 55 patients. *J Clin Endocrinol Metab.* 2011 Feb;96(2):296-307. Epub 2010 Dec 8. PMID: 21147889.

Marks I, Green R, Mataix-Cols D. Adult gender identity disorder can remit. *Compr Psychiatry*. 2000 Jul-Aug;41(4):273-5. PMID: 10929795.

Marshall E, Claes L, Bouman WP, Witcomb GL, Arcelus J. Non-suicidal self-injury and suicidality in trans people: A systematic review of the literature. *Int Rev Psychiatry*. 2015 Sep 2:1-12. [Epub ahead of print]. PMID: 26329283.

Matarazzo B, Barnes S, Pease J, Russell L, Hanson J, Soberay K, Gutierrez P. Suicide risk among lesbian, gay, bisexual, and transgender military personnel and veterans: what does the literature tell us? *Suicide Life Threat Behav.* 2014 Apr;44(2):200-17. Epub 2014 Feb 3. PMID: 24494604.

Mate-Kole C, Freschi M, Robin A. Aspects of psychiatric symptoms at different stages in the treatment of transsexualism. *Br J Psychiatry.* 1988 Apr;152:550-3. PMID: 3167409.

Mate-Kole C, Freschi M, Robin A. A controlled study of psychological and social change after surgical gender reassignment in selected male transsexuals. *Br J Psychiatry.* 1990 Aug;157:261-4. PMID: 2224377.

Maycock L, Kennedy H. Breast care in the transgender individual. *J Midwifery Womens Health.* 2014 Jan-Feb;59(1):74-81. Epub 2013 Nov 13. PMID: 24224502.

McHorney CA, Ware JE, Raczek AE. The MOS 36-Item Short-Form Health Survey (SF-36): II. Psychometric and clinical tests of validity in measuring physical and mental health constructs. *Med Care*. 1993 Mar;31(3):247-63. PMID: 8450681.

McHugh PR, Slavney PR. Mental illness comprehensive evaluation or checklist? *N Engl J Med.* 2012 May 17;366(20):1853-5. PMID: 22591291.

Meads C, Pennant M, McManus J, Bayliss S. West Midlands Health Technology Assessment Collaboration. A systematic review of lesbian, gay, bisexual and transgender health in the West Midlands region of the UK compared to published UK research. *Health Technology Assessment Database.* 2009. No.3. www.birmingham.ac.uk/Documents/college-

mds/haps/projects/WMHTAC/REPreports/2009/LGBThealth030409finalversion.pdf.

Medraś M, Jóźków P. Transsexualism diagnostic and therapeutic aspects. *Endokrynol Pol.* 2010 Jul-Aug;61(4):412-6. PMID: 20806188.

Megeri D, Khoosal D. Anxiety and depression in males experiencing gender dysphoria. *Sexual and Relationship Therapy*. 2007 Feb; 22(1):77-81. (Not in PubMed)

Melendez RM, Exner TA, Ehrhardt AA, Dodge B, Remien RH, Rotheram-Borus MJ, Lightfoot M, Hong D. Health and health care among male-to-female transgender persons who are HIV positive. *Am J Public Health.* 2006 Jun;96(6):1034-7. Epub 2005 Aug 30. PMID: 16131645.

Mepham N, Bouman W, Arcelus J, Hayter M, Wylie K. People with gender dysphoria who self- prescribe cross-sex hormones: prevalence, sources, and side effects knowledge. *J Sex Med.* 2014 Dec;11(12):2995-3001. Epub 2014 Sep 11. PMID: 25213018.

Meriggiola M, Jannini E, Lenzi A, Maggi M, Manieri C. Endocrine treatment of transsexual persons: an Endocrine Society Clinical Practice Guideline: commentary from a European perspective. *Eur J Endocrinol.* 2010 May;162(5):831-3. Epub 2010 Feb 11. PMID: 20150325.

Meriggiola M, Berra M. Long-term cross-sex hormone treatment is safe in transsexual subjects. *Asian J Androl.* 2012 Nov;14(6):813-4. Epub 2012 Aug 27. PMID: 22922319.

Meriggiola M, Berra M. Safety of hormonal treatment in transgenders. *Curr Opin Endocrinol Diabetes Obes*. 2013 Dec;20(6):565-9. PMID: 24468759.

A-Meriggiola MC, Gava G. Endocrine care of transpeople part I. A review of cross-sex hormonal treatments, outcomes and adverse effects in transmen. *Clin Endocrinol (Oxf)*. 2015 Nov;83(5):597-606. Epub 2015 Mar 25. PMID: 25692791.

B-Meriggiola MC, Gava G. Endocrine care of transpeople part II. A review of cross-sex hormonal treatments, outcomes and adverse effects in transwomen. *Clin Endocrinol (Oxf).* 2015 Nov;83(5):607- 15. Epub 2015 Mar 25. PMID: 25692882.

Meyer J, Knorr N, Blumer D. Characterization of a self-designated transsexual population. *Arch Sex Behav* 1971 Sep;1(3):219-30. PMID: 24179067.

A-Meyer JK. Sex assignment and reassignment: intersex and gender identity disorders. Foreword. *Clin Plast Surg*. 1974 Apr;1(2):199-200. PMID: 4426156.

B-Meyer JK. Psychiatric considerations in the sexual reassignment of non-intersex individuals. *Clin Plast Surg*. 1974 Apr;1(2):275-83. PMID: 4426161.

C-Meyer JK, Hoopes JE. The gender dysphoria syndromes. A position statement on so-called "transsexualism". *Plast Reconstr Surg*. 1974 Oct;54(4):444-51. PMID: 4416283.

D- Meyer JK. Clinical variants among applicants for sex reassignment. *Arch Sex Behav.* 1974 Nov;3 (6):527-58. PMID: 4429437.

Meyer JK, Reter DJ. Sex reassignment. Follow-up. *Arch Gen Psychiatry*. 1979 Aug;36(9): 1010-5. PMID: 464739.

Meyer WJ, Finkelstein JW, Stuart CA, Webb A, Smith ER, Payer AF, Walker PA. Physical and hormonal evaluation of transsexual patients during hormonal therapy. *Arch Sex Behav*. 1981 Aug;10 (4):347-56. PMID: 6794543.

Meyer WJ, Webb A, Stuart CA, Finkelstein JW, Lawrence B, Walker PA. Physical and hormonal evaluation of transsexual patients: a longitudinal study. *Arch Sex Behav* 1986 Apr;15(2):121-38. PMID: 22051002.

Meyer-Bahlburg HF. Gender outcome in 46,XY complete androgen insensitivity syndrome: comment on T'Sjoen et al. (2010). *Arch Sex Behav.* 2010 Dec;39(6):1221-4. PMID: 20552263.

Meyer-Bahlburg HF. Gender monitoring and gender reassignment of children and adolescents with a somatic disorder of sex development. *Child Adolesc Psychiatr Clin N Am.* 2011 Oct;20(4):639-49. PMID: 22051002. Epub 2011 Sep 23.

Miach PP, Berah EF, Butcher JN, Rouse S. Utility of the MMPI-2 in assessing gender dysphoric patients. *J Pers Assess.* 2000 Oct;75(2):268-79. PMID: 11020144.

Michel A, Mormont C, Legros JJ. A psycho-endocrinological overview of transsexualism. *Eur J Endocrinol.* 2001 Oct;145(4):365-76. PMID: 11580991.

Michel A, Ansseau M, Legros J, Pitchot W, Cornet J, Mormont C. Comparisons of two groups of sex-change applicants based on the MMPI. *Psychol Rep* 2002 Aug;91(1):233-40. PMID: 12353786.

Miles C, Green R, Hines M. Estrogen treatment effects on cognition, memory and mood in male-to- female transsexuals. *Horm Behav.* 2006 Dec;50(5):708-17. Epub 2006 Aug 1. PMID: 16884726.

Miller FG, Brody H. A critique of clinical equipoise: Therapeutic misconception in the ethics of clinical trials. *Hastings Center Report.* 2003; May-June. Report 33, No. 3: 19-28. PMID: 12854452.

Miller FG. Equipoise and the Ethics of Clinical Research Revisited. *The American Journal of Bioethics.* 2006; 6:4, 59-61. PMID: 16885110.

Miller PB, Weijer C. Trust based obligations of the state and physician-researchers to patient- subjects. *J Med Ethics.* 2006 Sep;32(9):542-7. PMID: 16943338.

A-Moher D, Hopewell S, Schulz KF, Montori V, Gøtzsche PC, Devereaux PJ, Elbourne D, Egger M, Altman DG. CONSORT 2010 explanation and elaboration: updated guidelines for reporting parallel group randomised trials. *BMJ.* 2010 Mar 23;340:c869. PMID: 20332511.

B-Moher D, Hopewell S, Schulz KF, Montori V, Gøtzsche PC, Devereaux PJ, Elbourne D, Egger M, Altman DG; Consolidated Standards of Reporting Trials Group. CONSORT 2010 Explanation and elaboration: Updated guidelines for reporting parallel group randomised trials. *J Clin Epidemiol.* 2010 Aug;63(8):e1-37. Epub 2010 Mar 25. Erratum in *J Clin Epidemiol.* 2012 Mar;65(3):351. PMID: 20346624.

Monstrey S, Hoebeke P, Selvaggi G, Ceulemans P, Van Landuyt K, Blondeel P, Hamdi M, Roche N, Weyers S, De Cuypere G. Penile reconstruction: is the radial forearm flap really the standard technique? *Plast Reconstr Surg.* 2009 Aug;124(2):510-8. PMID: 19644267.

Monstrey S, Ceulemans P, Hoebeke P. Sex Reassignment Surgery in the Female-to-Male Transsexual. *Semin Plast Surg.* 2011 Aug;25(3):229-44. PMID: 22851915.

Moreno-Pérez O, Esteva De Antonio I; Grupo de Identidad y Diferenciación Sexual de la SEEN (GIDSEEN). [Clinical practice guidelines for assessment and treatment of transsexualism. SEEN Identity and Sexual Differentiation Group (GIDSEEN)]. *Endocrinol Nutr.* 2012 Jun-Jul;59(6):367-82. Epub 2012 Apr 26. Spanish. PMID: 22542505.

Moser C. Blanchard's Autogynephilia Theory: a critique. *J Homosex.* 2010;57(6):790-809. PMID: 20582803.

Motmans J, Meier P, Ponnet K, T'Sjoen G. Female and male transgender quality of life: socioeconomic and medical differences. *J Sex Med.* 2012 Mar;9(3):743-50. Epub 2011 Dec 21. PMID: 22188877.

Motmans J, Ponnet K, De Cuypere G. Sociodemographic characteristics of trans persons in Belgium: A secondary data analysis of medical, state, and social data. *Arch Sex Behav.* 2015 Jul;44(5):1289-99. Epub 2014 Oct 10. PMID: 25300904.

Mueller A, Haeberle L, Zollver H, Claassen T, Kronawitter D, Oppelt P, Cupisti S, Beckmann M, Dittrich R. Effects of intramuscular testosterone undecanoate on body composition and bone mineral density in female-to-male transsexuals. *J Sex Med.* 2010 Sep;7(9):3190-8. PMID: 20584125.

Murad MH, Elamin MB, Garcia MZ, Mullan RJ, Murad A, Erwin PJ, Montori VM. Hormonal therapy and sex reassignment: a systematic review and meta-analysis of quality of life and psychosocial outcomes. *Clin Endocrinol (Oxf)*. 2010 Feb;72(2):214-31. Epub 2009 May 16. PMID: 19473181.

Nanda S. The hijras of India: cultural and individual dimensions of an institutionalized third gender role. *J Homosex*. 1985 Summer;11(3-4):35-54. PMID: 4093603.

Nanda, S. (1999). *Neither man nor woman: The hijras of India*. Belmont, CA: Wadsworth Publishing.

Nanda S. (2014, 2nd edition) *Gender Diversity: Cross cultural variations*. Long Grove, IL: Waveland Press.

NIH FY 2016-2020 Strategic Plan to Advance Research on the Health and Well-being of Sexual and Gender Minorities. 2015 http://edi.nih.gov/sites/default/files/EDI_Public_files/sgm-strategic-plan.pdf

NIH-LGBT 2013: National Institutes of Health Lesbian, Gay, Bisexual, and Transgender (LGBT) Research Coordinating Committee. Consideration of the Institute of Medicine (IOM) report on the health of lesbian, gay, bisexual, and transgender (LGBT) individuals. Bethesda, MD: National Institutes of Health; 2013. http://report.nih.gov/UploadDocs/LGBT%20Health%20Report_FINAL_2013-01-03-508%20compliant.pdf.

Nemoto T, Iwamoto M, Perngparn U, Areesantichai C, Kamitani E, Sakata M. HIV-related risk behaviors among kathoey (male-to-female transgender) sex workers in Bangkok, Thailand. *AIDS Care.* 2012;24(2):210-9. Epub 2011 Jul 25. PMID: 21780964.

Newfield E, Hart S, Dibble S, Kohler L. Female-to-male transgender quality of life. *Qual Life Res.* 2006 Nov;15(9):1447-57. Epub 2006 Jun 7. PMID: 16758113.

Newsom J. Latent variable. *USP 655 SEM. Winter 2015.* (Portland State quantitative methods)www.upa.pdx.edu/IOA/newsom/semclass/ho_latent.pdf.

Nieder T, Herff M, Cerwenka S, Preuss W, Cohen-Kettenis P, De Cuypere G, Haraldsen I, Richter- Appelt H. Age of onset and sexual orientation in transsexual males and females. *J Sex Med.* 2011 Mar;8(3):783-91. Epub 2010 Dec 8. PMID: 21143416.

Nuttbrock L, Hwahng S, Bockting W, Rosenblum A, Mason M, Macri M, Becker J. Lifetime risk factors for HIV/sexually transmitted infections among male-to-female transgender persons. J *Acquir Immune Defic Syndr.* 2009 Nov 1;52(3):417-21. PMID: 19550351.

Nuttbrock L, Bockting W, Rosenblum A, Hwahng S, Mason M, Macri M, Becker J. Gender abuse, depressive symptoms, and HIV and other sexually transmitted infections among male-to-female transgender persons: a three-year prospective study. *Am J Public Health* 2013 Feb;103(2):300-7. Epub 2012 Jun 14. Erratum in: *Am J Public Health.* 2015 Feb;105(2):e5. PMID: 22698023.

NZHTA 2002: Day P. Tech Brief Series. *Trans-gender reassignment surgery.* New Zealand Health technpology Assessment. (NZHTA). The clearinghouse forhealth outcomes and health technology assessment. February 2002 Volume 1 Number 1. http://nzhta.chmeds.ac.nz/publications/trans_gender.pdf.

Odgaard-Jensen J, Vist GE, Timmer A, Kunz R, Akl EA, Schünemann H, Briel M, Nordmann AJ, Pregno S, Oxman AD. Randomisation to protect against selection bias in healthcare trials. *Cochrane Database Syst Rev*.2011 Apr 13;(4):MR000012. PMID: 21491415.

O'Gorman EC. A preliminary report on transsexualism in Northern Ireland. *Ulster Med J.* 1981;50 (1):46–9. PMID: 7233635.

Okabe N, Sato T, Matsumoto Y, Ido Y, Terada S, Kuroda S. Clinical characteristics of patients with gender identity disorder at a Japanese gender identity disorder clinic. *Psychiatry Res.* 2008 Jan 15;157 (1-3):315-8. Epub 2007 Oct 23. PMID: 17959255.

Olson J, Forbes C, Belzer M. Management of the transgender adolescent. *Arch Pediatr Adolesc Med.* 2011 Feb;165(2):171-6. PMID: 21300658.

Olsson SE, Jansson I, Moller A. Men as women. Experiences from five case after administrative, hormonal, and

surgical treatment. *Nord J Psychiatry.* 1996;50(5):395-9. (Not in PubMed)

Olsson S, Möller A. On the incidence and sex ratio of transsexualism in Sweden, 1972-2002. *Arch Sex Behav.* 2003 Aug;32(4):381-6. PMID: 12856899.

Olsson S, Möller A. Regret after sex reassignment surgery in a male-to-female transsexual: a long- term follow-up. *Arch Sex Behav.* 2006 Aug;35(4):501-6. Epub 2006 Aug 11. PMID: 16900416.

Operario D, Nemoto T. HIV in transgender communities: syndemic dynamics and a need for multicomponent interventions. *J Acquir Immune Defic Syndr.* 2010 Dec;55 Suppl 2:S91-3. PMID: 21406995.

Operario D, Nemoto T, Iwamoto M, Moore T. Unprotected sexual behavior and HIV risk in the context of primary partnerships for transgender women. *AIDS Behav.* 2011 Apr;15(3):674-82. PMID: 21604064.

Orel N. Investigating the needs and concerns of lesbian, gay, bisexual, and transgender older adults: the use of qualitative and quantitative methodology. *J Homosex.* 2014;61(1):53-78. PMID: 24313253.

Oster JM, Shastri P, Geyer C. Cerebral venous sinus thrombosis after gender reassignment surgery. *Gend Med.* 2010 Jun;7(3):270-5. PMID: 20638632.

Ott J, van Trotsenburg M, Kaufmann U, Schrögendorfer K, Haslik W, Huber JC, Wenzl R. Combined hysterectomy/salpingo-oophorectomy and mastectomy is a safe and valuable procedure for female-to- male transsexuals. *J Sex Med.* 2010 Jun;7(6):2130-8. Epub 2010 Mar 3. PMID: 20233279.

Paap MC, Meijer RR, Cohen-Kettenis PT, Richter-Appelt H, de Cuypere G, Kreukels BP, Pedersen G, Karterud S, Malt UF, Haraldsen IR. Why the factorial structure of the SCL-90-R is unstable: comparing patient groups with different levels of psychological distress using Mokken Scale Analysis. *Psychiatry Res.* 2012 Dec 30;200(2-3):819 -26. Epub 2012 Apr 9. PMID: 22494703.

Palmer D, Dietsch A, Searl J. Endoscopic and stroboscopic presentation of the larynx in male-to- female transsexual persons. *J Voice.* 2012 Jan;26(1):117-26. Epub 2011 Apr 7. PMID: 21477987.

Palmer JR, Wise LA, Robboy SJ, Titus-Ernstoff L, Noller KL, Herbst AL, Troisi R, Hoover RN. Hypospadias in sons of women exposed to diethylstilbestrol in utero. *Epidemiology.* 2005 Jul;16 (4):583-6. PMID: 15951681.

Palmer JR, Herbst AL, Noller KL, Boggs DA, Troisi R, Titus-Ernstoff L, Hatch EE, Wise LA, Strohsnitter WC, Hoover RN. Urogenital abnormalities in men exposed to diethylstilbestrol in utero: a cohort study. *Environ Health.* 2009 Aug 18;8:37. PMID: 19689815.

Pauly IB. The current status of the change of sex operation. *J Nerv Ment Dis.* 1968 Nov;147(5):460- 71. PMID: 5726920.

Pauly IB. Outcome of sex reassignment surgery for transsexuals. *Aust N Z J Psychiatry* 1981 Mar;15 (1):45-51. PMID: 6942832.

Pelusi C, Costantino A, Martelli V, Lambertini M, Bazzocchi A, Ponti F, Battista G, Venturoli S, Meriggiola M. Effects of three different testosterone formulations in female-to-male transsexual persons. *J Sex Med.* 2014 Dec;11(12):3002-11. Epub 2014 Sep 24. PMID: 25250780.

Perez KM, Titus-Ernstoff L, Hatch EE, Troisi R, Wactawski-Wende J, Palmer JR, Noller K, Hoover RN; National Cancer Institute's DES Follow-up Study Group. Reproductive outcomes in men with prenatal exposure to diethylstilbestrol. *Fertil Steril.* 2005 Dec;84(6):1649-56. PMID: 16359959.

Perrone A, Cerpolini S, Maria Salfi N, Ceccarelli C, De Giorgi L, Formelli G, Casadio P, Ghi T, Pelusi G, Pelusi C, Meriggiola M. Effect of long-term testosterone administration on the endometrium of female-to-male (FtM) transsexuals. *J Sex Med.* 2009 Nov;6(11):3193-200. Epub 2009 Jun 29. PMID: 19570144.

Persson D. Unique challenges of transgender aging: implications from the literature. *J Gerontol Soc Work.* 2009 Aug-Sep;52(6):633-46. PMID: 19598043.

Phillips J, Frances A, Cerullo MA, Chardavoyne J, Decker HS, First MB, Ghaemi N, Greenberg G, Hinderliter AC, Kinghorn WA, LoBello SG, Martin EB, Mishara AL, Paris J, Pierre JM, Pies RW, Pincus HA, Porter D, Pouncey C, Schwartz MA, Szasz T, Wakefield JC, Waterman GS, Whooley O, Zachar P. The six most essential questions in psychiatric diagnosis: a pluralogue part 1: conceptual and definitional issues in psychiatric diagnosis. *Philos Ethics Humanit Med.* 2012 Jan 13;7:3. PMID: 22243994.

Phillips J, Frances A, Cerullo MA, Chardavoyne J, Decker HS, First MB, Ghaemi N, Greenberg G, Hinderliter AC, Kinghorn WA, LoBello SG, Martin EB, Mishara AL, Paris J, Pierre JM, Pies RW, Pincus HA, Porter D, Pouncey C, Schwartz MA, Szasz T, Wakefield JC, Waterman GS, Whooley O, Zachar P. The six most essential questions in psychiatric diagnosis: a pluralogue part 2: Issues of conservatism and pragmatism in psychiatric diagnosis. *Philos Ethics Humanit Med.* 2012 Jul 5;7:8. PMID: 22512887.

Phillips J, Frances A, Cerullo MA, Chardavoyne J, Decker HS, First MB, Ghaemi N, Greenberg G, Hinderliter AC, Kinghorn WA, LoBello SG, Martin EB, Mishara AL, Paris J, Pierre JM, Pies RW, Pincus HA, Porter D, Pouncey C, Schwartz MA, Szasz T, Wakefield JC, Waterman GS, Whooley O, Zachar P. The six most essential questions in psychiatric diagnosis: a pluralogue part 3: issues and alternative approaches in psychiatric diagnosis. *Philos Ethics Humanit Med.* 2012 May 23;7:9. PMID: 22621419.

Phillips J, Frances A, Cerullo MA, Chardavoyne J, Decker HS, First MB, Ghaemi N, Greenberg G, Hinderliter AC, Kinghorn WA, LoBello SG, Martin EB, Mishara AL, Paris J, Pierre JM, Pies RW, Pincus HA, Porter D, Pouncey C, Schwartz MA, Szasz T, Wakefield JC, Waterman GS, Whooley O, Zachar P. The six most essential questions in psychiatric diagnosis: a pluralogue. Part 4: general conclusion. *Philos Ethics Humanit Med.* 2012 Dec 18;7:14. PMID: 23249629.

PRO Guidance 2009: U.S. Department of Health and Human Services; Food and Drug Administration, Center for Drug Evaluation and Research (CDER), Center for Biologics Evaluation and Research (CBER), Center for Devices and Radiological Health (CDRH). *Guidance for Industry. Patient-reported outcome measures: Use in medical product development to support labeling claims.* December 2009. http://www.fda.gov/downloads/Drugs/.../Guidances/UCM193282.pdf.

Quirós C, Patrascioiu I, Mora M, Aranda GB, Hanzu FA, Gómez-Gil E, Godás T, Halperin I. Effect of cross-sex hormone treatment on cardiovascular risk factors in transsexual individuals. Experience in a specialized unit in Catalonia. *Endocrinol Nutr.* 2015 May;62(5):210-6. Epub 2015 Mar 16. PMID: 25790747.

Rachlin Katherine. Factors Which Influence Individual's Decisions When Considering Female-To- Male Genital Reconstructive Surgery. *IJT.* 1999 Jul-Sept;3(3). (Not in PubMed) http://www.symposion.com/ijt/ijt990302.htm

Rakic Z, Starcevic V, Maric J, Kelin K. The outcome of sex reassignment surgery in Belgrade: 32 patients of both sexes. *Arch Sex Behav*. 1996 Oct;25(5):515-25. PMID: 8899143.

A-Rametti G, Carrillo B, Gómez-Gil E, Junque C, Segovia S, Gomez Á, Guillamon A. White matter microstructure in female to male transsexuals before cross-sex hormonal treatment. A diffusion tensor imaging study. *J Psychiatr Res.* 2011 Feb;45(2):199-204. Epub 2010 Jun 8. PMID: 20562024.

B-Rametti G, Carrillo B, Gómez-Gil E, Junque C, Zubiarre-Elorza L, Segovia S, Gomez Á, Guillamon A. The microstructure of white matter in male to female transsexuals before cross-sex hormonal treatment. A DTI study. *J Psychiatr Res.* 2011 Jul;45(7):949-54. Epub 2010 Dec 30. PMID: 21195418.

Randell JB. Transvestitism and trans-sexualism. A study of 50 cases. *Br Med J*. 1959 Dec 26; 2 (5164): 1448–52. PMID: 14436154.

Randell J. Indications for reassignment surgery. *Archives of Sexual Behavior*. 1971; 1(2):153-61. (Not in PubMed)

Randell J. (1969). *Pre-operative and post-operative status of transsexuals* (Chapter 26) in Green R, Money J (eds):Trans-sexualism and Sex reassignment. Baltimore: Johns Hopkins Press.

Rappaport R. Intersex management: what is achieved and what is needed. Commentary to Thyen et al.: epidemiology and initial management of ambiguous genitalia at birth in Germany (*Horm Res.* 2006;66:195-203). *Horm Res*. 2006;66(4):204-5. Epub 2006 Jul 27. PMID: 16877871.

Reed HM. Aesthetic and functional male to female genital and perineal surgery: feminizing vaginoplasty. *Semin Plast Surg*. 2011 May;25(2):163-74. PMID: 22547974.

Rehman J, Lazer S, Benet AE, Schaefer LC, Melman A. The reported sex and surgery satisfactions of 28 postoperative male-to-female transsexual patients. *Arch Sex Behav.* 1999 Feb;28(1):71-89. PMID: 10097806.

Reisner S, Poteat T, Keatley J, Cabral M, Mothopeng T, Dunham E, Holland C, Max R, Baral S. Global heath burden and needs of transgender populations: a review. *Lancet*. Epub 16 June 2016. http://dx.doi.org/10.1016/S0140-6736(16)00684-X

Roback HB, Lothstein LM. The female mid-life sex change applicant: a comparison with younger female transsexuals and older male sex change applicants. *Arch Sex Behav*. 1986 Oct;15(5):401-15. PMID: 3789904.

Roscoe W. (1991). *The Zuni Man-Woman*. Albuquerque: University of New Mexico Press.

Roscoe, W. (1998). *Changing Ones: Third and Fourth Genders in Native North America*. New York: St. Martin's Press.

Rosen R, Brown C, Heiman J, Leiblum S, Meston C, Shabsigh R, Ferguson D, D'Agostino R Jr. The Female Sexual Function Index (FSFI): a multidimensional self-report instrument for the assessment of female sexual function. *J Sex Marital Ther*. 2000 Apr-Jun;26(2):191-208. PMID: 10782451.

Rosenberg, M. (1965). *Society and the Adolescent Self-Image*, Princeton University Press, Princeton.

Ross MW, Wålinder J, Lundström B, Thuwe I. Cross-cultural approaches to transsexualism. A comparison between Sweden and Australia. *Acta Psychiatr Scand.* 1981 Jan;63(1):75-82. PMID: 7234467.

Ross MW, Need JA. Effects of adequacy of gender reassignment surgery on psychological adjustment: a follow-up of fourteen male-to-female patients. *Arch Sex Behav.* 1989 Apr;18(2):145-53. PMID: 2712690.

Rubin SO. Sex-reassignment surgery male-to-female. Review, own results and report of a new technique using the glans penis as a pseudoclitoris. *Scand J Urol Nephrol Suppl.* 1993;154:1-28. PMID: 8140401.

Ruppin U, Pfäfflin F. Long-term follow-up of adults with gender identity disorder. *Arch Sex Behav.* 2015 Jul;44(5):1321-9. Epub 2015 Feb 18. PMID: 25690443.

Russell ST, Ryan C, Toomey RB, Diaz RM, Sanchez J. Lesbian, gay, bisexual, and transgender adolescent school victimization: implications for young adult health and adjustment. *J Sch Health.* 2011 May;81(5):223-30. PMID: 21517860.

Safer J, Tangpricha V. Out of the shadows: it is time to mainstream treatment for transgender patients. *Endocr Pract.* 2008 Mar;14(2):248-50. PMID: 18308667.

Salkind MR. Beck depression inventory in general practice. *J R Coll Gen Pract*. 1969 Nov;18 (88):267-71. PMID: 5350525.

Salvador J, Massuda R, Andreazza T, Koff WJ, Silveira E, Kreische F, de Souza L, de Oliveira MH, Rosito T, Fernandes BS, Lobato MI. Minimum 2-year follow up of sex reassignment surgery in Brazilian male-to-female transsexuals. *Psychiatry Clin Neurosci.* 2012 Jun;66(4):371-2. PMID: 22624747.

Savic I, Garcia-Falgueras A, Swaab DF. Sexual differentiation of the human brain in relation to gender identity and sexual orientation. *Prog Brain Res*. 2010;186:41-62. PMID: 21094885.

Schaeffer CE. The Kutenai female berdache: Courier, guide, prophetess, and warrior. *Ethnohistory*. 1965;12 (3): 193–236. (Not in PubMed)

Schlatterer K, Yassouridis A, von Werder K, Poland D, Kemper J, Stalla GK. A follow-up study for estimating the effectiveness of a cross-gender hormone substitution therapy on transsexual patients. *Arch Sex Behav*. 1998 Oct;27(5):475-92. PMID: 9795728.

Schroder M, Carroll RA. New women: Sexological outcomes of male-to-female gender reassignment surgery. JSET. 1999;24(3):137-46. (Not in PubMed)

Seal L, Franklin S, Richards C, Shishkareva A, Sinclaire C, Barrett J. Predictive markers for mammoplasty and a comparison of side effect profiles in transwomen taking various hormonal regimens. *J Clin Endocrinol Metab.* 2012 Dec;97(12):4422-8. Epub 2012 Oct 9. PMID: 23055547.

Selvaggi G, Monstrey S, Ceulemans P, T'Sjoen G, De Cuypere G, Hoebeke P. Genital sensitivity after sex reassignment surgery in transsexual patients. *Ann Plast Surg*. 2007 Apr;58(4):427-33. PMID: 17413887.

Selvaggi G, Bellringer J. Gender reassignment surgery: an overview. *Nat Rev Urol.* 2011 May;8 (5):274-82. Epub 2011 Apr 12. PMID: 21487386.

Selvaggi G, Dhejne C, Landen M, Elander A. The 2011 WPATH Standards of Care and Penile Reconstruction in Female-to-Male Transsexual Individuals. *Adv Urol*. 2012;2012:581712. Epub 2012 May 14. PMID: 22654902.

Shao T, Grossbard ML, Klein P. Breast cancer in female-to-male transsexuals: two cases with a review of physiology and management. *Clin Breast Cancer.* 2011 Dec;11(6):417-9. Epub 2011 Aug 10. PMID: 21831723.

Shechner T. Gender identity disorder: a literature review from a developmental perspective. *Isr J Psychiatry Relat Sci*. 2010;47(2):132-8. PMID: 20733256.

Shields J, Cohen R, Glassman J, Whitaker K, Franks H, Bertolini I. Estimating population size and demographic characteristics of lesbian, gay, bisexual, and transgender youth in middle school. *J Adolesc Health*. 2013 Feb;52(2):248-50. Epub 2012 Aug 15. PMID: 23332492.

Simopoulos E, Khin Khin E. Fundamental principles inherent in the comprehensive care of transgender inmates. *J Am Acad Psychiatry Law.* 2014;42(1):26-36. PMID: 24618516.

Slabbekoorn D, van Goozen SH, Sanders G, Gooren LJ, Cohen-Kettenis PT. The dermatoglyphic characteristics of transsexuals: is there evidence for an organizing effect of sex hormones. *Psychoneuroendocrinology.* 2000 May;25(4):365-75. PMID: 10725613.

Slabbekoorn D., Van Goozen S., Gooren L., Cohen-Kettenis P. Effects of Cross-Sex Hormone Treatment on Emotionality in Transsexuals. *IJT.* 2001 Jul-Sept; 5(3):20 pages.http://www.symposion.com/ijt/ijtvo05no03_02.htm.

Slaby RG, Frey KS. Development of gender constancy and selective attention to same-sex models. *Child Dev.* 1975 Dec;46(4):849-56. PMID: 1201664.

Smilkstein G. The family APGAR: a proposal for a family function test and its use by physicians. *J Fam Pract.* 1978 Jun;6(6):1231-9. PMID: 660126.

Smilkstein G, Ashworth C, Montano D. Validity and reliability of the family APGAR as a test of family function. *J Fam Pract.* 1982 Aug;15(2):303-11. PMID:7097168.

Smith YL, van Goozen SH, Cohen-Kettenis PT. Adolescents with gender identity disorder who were accepted or rejected for sex reassignment surgery: a prospective follow-up study. *J Am Acad Child Adolesc Psychiatry.* 2001 Apr;40(4):472-81. PMID: 11314574.

A-Smith YL, Van Goozen SH, Kuiper AJ, Cohen-Kettenis PT. Sex reassignment: outcomes and predictors of treatment for adolescent and adult transsexuals. *Psychol Med.* 2005 Jan;35(1):89-99. PMID: 15842032.

B-Smith Y, van Goozen S, Kuiper A, Cohen-Kettenis P. Transsexual subtypes: clinical and theoretical significance. *Psychiatry Res.* 2005 Dec 15;137(3):151-60. Epub 2005 Nov 17. PMID: 16298429.

A-Sørensen T. A follow-up study of operated transsexual males. *Acta Psychiatr Scand.* 1981 May;63 (5):486-503. PMID: 7315491.

B-Sørensen T. A follow-up study of operated transsexual females. *Acta Psychiatr Scand.* 1981 Jul;64 (1):50-64. PMID: 7315494.

Sørensen T, Hertoft P. Male and female transsexualism: the Danish experience with 37 patients. *Arch Sex Behav* 1982 Apr;11(2):133-55. PMID: 7125885.

Steensma TD, McGuire JK, Kreukels BP, Beekman AJ, Cohen-Kettenis PT. Factors associated with desistence and persistence of childhood gender dysphoria: a quantitative follow-up study. *J Am Acad Child Adolesc Psychiatry*. 2013 Jun;52(6):582-90. Epub 2013 May 3. PMID: 23702447.

Stieglitz KA. Development, risk, and resilience of transgender youth. *J Assoc Nurses AIDS Care.* 2010 May-Jun;21(3):192-206Epub 2010 Mar 29. PMID: 20347346.

Steinle K. Hormonal management of the female-to-male transgender patient. *J Midwifery Womens Health.* 2011 May-Jun;56(3):293-302. PMID: 21535376.

Stephens SC, Bernstein KT, Philip SS. Male to female and female to male transgender persons have different sexual risk behaviors yet similar rates of STDs and HIV. *AIDS Behav.* 2011 Apr;15(3):683-6. PMID: 20694509.

Stinson B. A study of twelve applicants for transsexual surgery. *Ohio State Med J.* 1972 Mar;68 (3):245-9. PMID: 4401539.

Stojanovic B, Djordjevic ML. Anatomy of the clitoris and its impact on neophalloplasty (metoidioplasty) in female transgenders. *Clin Anat.* 2015 Apr;28(3):368-75. Epub 2015 Mar 4. PMID: 25740576.

Strauss B, Richter-Appelt H (1995) *Fragebogen zur Beurteilung des eigenen Körpers (FBeK), Handanweisung.* Hogrefe, Göttingen Bern Toronto Seattle.

Stroumsa D. The state of transgender health care: policy, law, and medical frameworks. *Am J Public Health* . 2014 Mar;104(3):e31-8. Epub 2014 Jan 16. PMID: 24432926.

Sultan B. Transsexual prisoners: how much treatment is enough? *New Engl Law Rev.* 2003 Summer;37(4):1195-230. PMID: 15295855.

Sundbom E, Bodlund O. Prediction of outcome in transsexualism by means of the Defense Mechanism Test and multivariate modeling: a pilot study. *Percept Mot Skills.* 1999 Feb;88(1):3-20. PMID: 10214627.

Swaab DF. Sexual differentiation of the human brain: relevance for gender identity, transsexualism and sexual orientation. *Gynecol Endocrinol.* 2004 Dec;19(6):301-12. PMID: 15724806.

Swaab DF, Garcia-Falgueras A. Sexual differentiation of the human brain in relation to gender identity and sexual orientation. *Funct Neurol.* 2009 Jan-Mar;24(1):17-28. PMID: 19403051.

Terada S, Matsumoto Y, Sato T, Okabe N, Kishimoto Y, Uchitomi Y. Suicidal ideation among patients with gender identity disorder. *Psychiatry Res.* 2011 Nov 30;190(1):159-62. Epub 2011 May 25. PMID: 21612827.

Terada S, Matsumoto Y, Sato T, Okabe N, Kishimoto Y, Uchitomi Y. Factors predicting psychiatric co-morbidity in gender-dysphoric adults. *Psychiatry Res.* 2012 Dec 30;200(2-3):469-74. Epub 2012 Aug 9. PMID: 22884214.

Titus-Ernstoff L, Perez K, Hatch EE, Troisi R, Palmer JR, Hartge P, Hyer M, Kaufman R, Adam E, Strohsnitter W, Noller K, Pickett KE, Hoover R. Psychosexual characteristics of men and women exposed prenatally to diethylstilbestrol. *Epidemiology*. 2003 Mar;14(2):155-60. PMID: 12606880.

Torres A, Gómez-Gil E, Vidal A, Puig O, Boget T, Salamero M. Gender differences in cognitive functions and influence of sex hormones. *Actas Esp Psiquiatr.* 2006 Nov-Dec;34(6):408-15. Spanish. PMID: 17117339.

Tourbach SA, Hunter-Smith D, Morrison WA. Long anterior urethral reconstruction using a jejunal free flap. *J Plast Surg Hand Surg*. 2011 Feb;45(1):54-6. PMID: 21446801.

Traish AM, Gooren LJ. Safety of physiological testosterone therapy in women: lessons from female- to-male transsexuals (FMT) treated with pharmacological testosterone therapy. *J Sex Med*. 2010 Nov;7(11):3758-64. Epub 2010 Aug 16. PMID: 20722789.

Trentacosti AM. *Epoietin alpha: FDA overview of patient reported outcome (PRO) claims*. 2007. www.fda.gov/ohrms/dockets/ac/07/slides/2007-4315s1-09-FDA-Trentacosti.ppt.

Trum H, Hoebeke P, Gooren L. Sex reassignment of transsexual people from a gynecologist's and urologist's perspective. *Acta Obstet Gynecol Scand.* 2015 Jun;94(6):563-7. Epub 2015 Mar 29. PMID: 25721104.

T'Sjoen G, Weyers S, Taes Y, Lapauw B, Toye K, Goemaere S, Kaufman J. Prevalence of low bone mass in relation to estrogen treatment and body composition in male-to-female transsexual persons. *J Clin Densitom.* 2009 Jul-Sep;12(3):306-13. Epub 2009 Jan 3. PMID: 19121966.

T'Sjoen G, De Cuypere G, Monstrey S, Hoebeke P, Freedman F, Appari M, Holterhus P, Van Borsel J, Cools M. Male gender identity in complete androgen insensitivity syndrome. *Arch Sex Behav.* 2011 Jun;40(3):635-8. Epub 2010 Apr 1. PMID: 20358272.

TSjoen G, Van Caenegem E, Wierckx K. Transgenderism and reproduction. *Curr Opin Endocrinol Diabetes Obes.* 2013 Dec;20(6):575-9. PMID: 24468761.

Tsoi WF, Kok LP, Long FY. Male transsexualism in Singapore: a description of 56 cases. *Br J Psychiatry*. 1977 Oct;131:405-9. PMID: 922268.

Tsoi WF. The prevalence of transsexualism in Singapore. *Acta Psychiatr Scand.* 1988 Oct;78 (4):501-4. PMID: 3265846.

Tsoi WF. Male and female transsexuals: a comparison. *Singapore Med J.* 1992 Apr;33(2):182-5. PMID: 1621125.

Tsoi WF. Follow-up study of transsexuals after sex-reassignment surgery. *Singapore Med J.* 1993 Dec;34(6):515-7. PMID: 8153713.

Tsoi WF, Kok LP, Yeo KL, Ratnam SS. Follow-up study of female transsexuals. *Ann Acad Med Singapore.* 1995 Sep;24(5):664-7. PMID: 8579306.

Tsushima WT, Wedding D. MMPI results of male candidates for transsexual surgery. *J Pers Assess.* 1979. Aug;43(4):385-7. PMID: 383946.

Tugnet N, Goddard JC, Vickery RM, Khoosal D, Terry TR. Current management of male-to-female gender identity disorder in the UK. *Postgrad Med J.* 2007 Oct;83(984):638-42. PMID: 17916872.

Udeze B, Abdelmawla N, Khoosal D, Terry T. Psychological functions in male-to-female people before and after surgery. *Sexual and Relationship Therapy*. 2008 May; 23(2):141-5. (Not in PubMed)

Urban R, Teng N, Kapp D. Gynecologic malignancies in female-to-male transgender patients: the need of original gender surveillance. *Am J Obstet Gynecol.* 2011 May;204(5):e9-e12. Epub 2011 Feb 26. PMID: 21354550.

Vacchiano RB, Strauss PS. The construct validity of the Tennessee self concept scale. *J Clin Psychol.* 1968 Jul;24(3):323-6. PMID: 5661752.

Van Caenegem E, Wierckx K, Taes Y, Dedecker D, Van de Peer F, Toye K, Kaufman J, T'Sjoen G. Bone mass, bone geometry, and body composition in female-to-male transsexual persons after long-term cross-sex hormonal therapy. *J Clin Endocrinol Metab.* 2012 Jul;97(7):2503-11. Epub 2012 May 7. PMID: 22564669.

A-Van Caenegem E, Taes Y, Wierckx K, Vandewalle S, Toye K, Kaufman J, Schreiner T, Haraldsen I. T'Sjoen G. Low bone mass is prevalent in male-to-female transsexual persons before the start of cross-sex hormonal therapy and gonadectomy. *Bone*. 2013 May;54(1):92-7. Epub 2013 Jan 28. PMID: 23369987.

B-Van Caenegem E, Verhaeghe E, Taes Y, Wierckx K, Toye K, Goemaere S, Zmierczak H, Hoebeke P, Monstrey S, T'Sjoen G. Long-term evaluation of donor-site morbidity after radial forearm flap phalloplasty for transsexual men. *J Sex Med.* 2013 Jun;10(6):1644-51. Epub 2013 Mar 27. PMID: 23534878.

Van Caenegem E, Wierckx K, Taes Y, Schreiner T, Vandewalle S, Toye K, Lapauw B, Kaufman J, T'Sjoen G. Body composition, bone turnover, and bone mass in trans men during testosterone treatment: 1-year follow-up data from a prospective case-controlled study (ENIGI). *Eur J Endocrinol*. 2015 Feb;172(2):163-71. PMID: 25550352.

Van Caenegem E, Wierckx K, Elaut E, Buysse A, Dewaele A, Van Nieuwerburgh F, De Cuypere G, T'Sjoen G. Prevalence of Gender Nonconformity inFlanders, Belgium. *Arch Sex Behav.* 2015 Jul;44 (5):1281-7. Epub 2015 Jan 15. PMID: 25588709.

VanderLaan DP, Vokey JR, Vasey PL. Is Transgendered Male Androphilia Familial in Non-Western Populations? The Case of a Samoan Village. *Arch Sex Behav.* 2013; 42:361–70. PMID: 23187702.

Van Kesteren PJ, Gooren LJ, Megens JA. An epidemiological and demographic study of transsexuals in The Netherlands. *Arch Sex Behav.* 1996 Dec;25(6):589-600. PMID: 8931882.

Van Kesteren PJ, Asscheman H, Megens JA, Gooren LJ. Mortality and morbidity in transsexual subjects treated with cross-sex hormones. *Clin Endocrinol (Oxf).* 1997 Sep;47(3):337-42. PMID: 9373456.

Vasey PL, Bartlett NH. What can the Samoan "Fa'afafine" teach us about the Western concept of gender identity disorder in childhood? *Perspect Biol Med.* 2007 Autumn;50(4):481-90. PMID: 17951883.

Veatch RM. Indifference of subjects: An alternative to equipoise in randomized clinical trials. *Soc Phil Policy*. 2002; 19:295-323. PMID: 12678091.

Veale J. Prevalence of transsexualism among New Zealand passport holders. *Aust N Z J Psychiatry*. 2008 Oct;42(10):887-9. PMID: 18777233.

Vrouenraets LJ, Fredriks AM, Hannema SE, Cohen-Kettenis PT, de Vries MC. Early Medical Treatment of Children and Adolescents With Gender Dysphoria: An Empirical Ethical Study. *J Adolesc Health*. 2015 Oct;57(4):367-73. Epub 2015 Jun 25. PMID: 26119518.

Vujovic S, Popovic S, Sbutega-Milosevic G, Djordjevic M, Gooren L. Transsexualism in Serbia: a twenty-year follow-up study. *J Sex Med.* 2009 Apr;6(4):1018-23. Epub 2008 Mar 4. PMID: 18331254.

Vujović S, Popović S, Mrvošević Marojević L, Ivović M, Tančić-Gajić M, Stojanović M, Marina LV, Barać M, Barać B, Kovačević M, Duišin D, Barišić J, Djordjević ML, Micić D. Finger length ratios in Serbian transsexuals. *Scientific World Journal.* 2014 May 20;2014:Article 763563. 4 pages. PMID: 24982993.

Walinder J, Thuwe I. *A social-psychiatric follow- up study of 24 sex-reassigned transsexuals*. Gothenburg: Scandinavian University Books, Akademiforlaget. 1975.

Walinder J, Lundstrom B, Thuwe I. Prognostic factors in the assessment of male transsexuals for sex reassignment. *Br J Psychiatry.* 1978:132: 16-20. (Not in PubMed)

Ware JE, Sherbourne CD. The MOS 36-item short-form health survey (SF-36). I. Conceptual framework and item selection. *Med Care.* 1992 Jun;30(6):473-83. PMID: 1593914.

Watson D, Friend R. Measurement of social-evaluative anxiety. *J Consult Clin Psychol*. 1969 Aug;33(4):448-57. PMID: 5810590.

Winter S, Diamond M, Green J, Karasic D, Reed T, Whittle S, Wylie K. Transgender people: health at the margins of society. *Lancet*. Epub 16 June 2016 http://dx.doi.org/10.1016/S0140-6736(16)00683-8

Weigert R, Frison E, Sessiecq Q, Al Mutairi K, Casoli V. Patient satisfaction with breasts and psychosocial, sexual, and physical well-being after breast augmentation in male-to-female transsexuals. *Plast Reconstr Surg*. 2013 Dec;132(6):1421-9. PMID: 24281571.

A-Weyers S, Elaut E, De Sutter P, Gerris J, T'Sjoen G, Heylens G, De Cuypere G, Verstraelen H. Long-term assessment of the physical, mental, and sexual health among transsexual women. *J Sex Med.* 2009 Mar;6(3):752-60. Epub 2008 Nov 17. PMID: 19040622.

B-Weyers S, Decaestecker K, Verstraelen H, Monstrey S, T'Sjoen G, Gerris J, Hoebeke P, Villeirs G. Clinical and transvaginal sonographic evaluation of the prostate in transsexual women. *Urology.* 2009 Jul;74(1):191-6. Epub 2009 Apr 23. PMID: 19395005.

WHO 1996: Harper A. Manual for World Health Organization Quaility of Life Abbreviated. Director Dr. J. Orley. http://www.who.int/mental_health/media/en/76.pdf.

WHO 2011: Carlos F. Caceres CF, GerbaseA, Ying-Ru Lo Y-R, Rodolph M (key drafters). *Prevention and treatment of HIV and other sexually transmitted infections among men who have sex with other men and transgender people.Recommendations for a public health approach*. World Health Organization. 2011. http://www.who.int/hiv/pub/guidelines/msm_guidelines2011/en/.

WHO 2014: Chris Beyrer C, Kamarulzaman A (co-chairs.) World Health Organization. *Consolidated guidelines on HIV prevention, diagnosis, treatment, and care for key populations*. July 2014. www.who.int/hiv/pub/guidelines/keypopulations/en/.

WHO 2015: Poteat T, Keatley J. (key drafters). *Policy Brief: Transgender People and HIV.* World Health Organization. July 2015. http://www.who.int/hiv/pub/transgender/transgender-hiv-policy/en/.

Wiegel M, Meston C, Rosen R. The female sexual function index (FSFI): cross-validation and development of clinical cutoff scores. *J Sex Marital Ther.* 2005 Jan-Feb;31(1):1-20. PMID: 15841702.

A-Wierckx K, Elaut E, Van Caenegem E, Van De Peer F, Dedecker D, Van Houdenhove E, T'Sjoen G. Sexual desire in female-to-male transsexual persons: exploration of the role of testosterone administration. *Eur J Endocrinol*. 2011 Aug;165(2):331-7. Epub 2011 May 20. PMID: 21602316.

B-Wierckx K, Van Caenegem E, Elaut E, Dedecker D, Van de Peer F, Toye K, Weyers S, Hoebeke P, Monstrey S, De Cuypere G, T'Sjoen G. Quality of life and sexual health after sex reassignment surgery in transsexual men. *J Sex Med*. 2011 Dec;8(12):3379-88. Epub 2011 Jun 23. PMID: 21699661.

Wylie K, Knudson G, Khan S, Bonierbale M, Watanyusakul S, Baral S. Serving transgender people: clinical care considerations and service delivery models in transgender health. *Lancet*. Epub 16 June 2016. http://dx.doi.org/10.1016/S0140-6736(16)00682-6

A-Wierckx K, Van Caenegem E, Pennings G, Elaut E, Dedecker D, Van de Peer F, Weyers S, De Sutter P, T'Sjoen G. Reproductive wish in transsexual men. *Hum Reprod.* 2012 Feb;27(2):483-7. Epub 2011 Nov 28. PMID: 22128292.

B-Wierckx K, Mueller S, Weyers S, Van Caenegem E, Roef G, Heylens G, T'Sjoen G. Long-term evaluation of cross -sex hormone treatment in transsexual persons. *J Sex Med.* 2012 Oct;9(10):2641- 51. Epub 2012 Aug 20. PMID: 22906135.

C-Wierckx K, Stuyver I, Weyers S, Hamada A, Agarwal A, De Sutter P, T'Sjoen G. Sperm freezing in transsexual women. *Arch Sex Behav*. 2012 Oct;41(5):1069-71. PMID: 22968492.

Wierckx K, Elaut E, Declercq E, Heylens G, De Cuypere G, Taes Y, Kaufman J, T'Sjoen G. Prevalence of cardiovascular disease and cancer during cross-sex hormone therapy in a large cohort of trans persons: a case-control study. *Eur J Endocrinol*. 2013 Oct;169(4):471-8. Epub 2013 Sep 13. PMID: 23904280.

A-Wierckx K, Elaut E, Van Hoorde B, Heylens G, De Cuypere G, Monstrey S, Weyers S, Hoebeke P, T'Sjoen G. Sexual desire in trans persons: associations with sex reassignment treatment. *J Sex Med.* 2014 Jan;11(1):107-18. Epub 2013 Oct 24. PMID: 24165564.

B-Wierckx K, Gooren L, T'Sjoen G. Clinical review: Breast development in trans women receiving cross-sex hormones. *J Sex Med.* 2014 May;11(5):1240-7. Epub 2014 Mar 12. PMID: 24618412.

Williamson C. Providing care to transgender persons: a clinical approach to primary care, hormones, and HIV management. *J Assoc Nurses AIDS Care*. 2010 May-Jun;21(3):221-9. Epub 2010 Apr 3. PMID: 20363651.

Wilson CA, Davies DC. The control of sexual differentiation of the reproductive system and brain. *Reproduction.* 2007 Feb;133(2):331-59. PMID: 17307903.

Wilson EC, Garofalo R, Harris DR, Belzer M. Sexual risk taking among transgender male-to-female youths with different partner types. *Am J Public Health*. 2010 Aug;100(8):1500-5. Epub 2009 Nov 12. PMID: 20622176.

Wilson E, Pant SB, Comfort M, Ekstrand M. Stigma and HIV risk among Metis in Nepal. *Cult Health Sex.* 2011 Mar;13(3):253-66. PMID: 21058085.

Wilson P, Sharp C, Carr S.The prevalence of gender dysphoria in Scotland: a primary care study. *Brit J Gen Pract*. 1999; 49 (449): 991–2. PMID: 10824346.

Wilson RC, Nimkarn S, Dumic M, Obeid J, Azar MR, Najmabadi H, Saffari F, New MI. Ethnic- specific distribution of mutations in 716 patients with congenital adrenal hyperplasia owing to 21- hydroxylase deficiency. *Mol Genet Metab.* 2007 Apr;90(4):414-21. Epub 2007 Feb 1. Erratum in: *Mol Genet Metab*. 2008 Feb;93(2):219. Azar, Maryam [corrected to Azar, Maryam Razzaghy]. PMID: 17275379.

A-Wise LA, Palmer JR, Hatch EE, Troisi R, Titus-Ernstoff L, Herbst AL, Kaufman R, Noller KL, Hoover RN. Secondary sex ratio among women exposed to diethylstilbestrol in utero. *Environ Health Perspect*. 2007 Sep;115(9):1314-9. PMID: 17805421.

B-Wise LA, Titus-Ernstoff L, Palmer JR, Hoover RN, Hatch EE, Perez KM, Strohsnitter WC, Kaufman R, Anderson D, Troisi R. Time to pregnancy and secondary sex ratio in men exposed prenatally to diethylstilbestrol. *Am J Epidemiol.* 2007 Oct 1;166(7):765-74. Epub 2007 Jun 27. PMID: 17596265.

Wise TN, Meyer JK. The border area between transvestism and gender dysphoria: transvestitic applicants for sex reassignment. *Arch Sex Behav.* 1980 Aug;9(4):327-42. PMID: 7416946.

Wolfradt U, Engelmann S. Depersonalization, fantasies, and coping behavior in clinical context. *J Clin Psychol.* 1999 Feb;55(2):225-32. PMID: 10100823.

Wolfradt U, Neumann K. Depersonalization, self-esteem and body image in male-to-female transsexuals compared to male and female controls. *Arch Sex Behav.* 2001 Jun;30(3):301-10 PMID: 11330119.

WPATH 2001 Meyer III W, Bockting WO, Cohen-Kettenis P, Coleman E, DiCeglie D, Devor H, Gooren L, Hage JJ, Kirk S, Kuiper B., Laub D., Lawrence A., Menard Y., Monstrey S, Patton J, Schaefer L., Webb A, Wheeler CC .*The Harry Benjamin International Gender Dysphoria Association's Standards Of Care For Gender Identity Disorders.* (6th version) February, 2001. http://www.wpath.org/site_page.cfm?pk_association_webpage_menu=1351&pk_association_webpage=4655.

WPATH 2012 Coleman E, Bockting W, Botzer M, Cohen-Kettenis P, DeCuypere G, Feldman J, Fraser L, Green J, Knudson G, Meyer WJ, Monstrey S, Adler RK, Brown GR, Devor AH, Ehrbar R, Ettner R, Eyler E, Garofalo R, Karasic DH, Istar Lev A, Mayer G, Meyer-Bahlburg H, Paxton Hall B, Pfäfflin F, Rachlin K, Robinson B, Schechter LS, Tangpricha V, van Trotsenburg M, Vitale A, Winter S, Whittle S, Wylie KR, Zucker K. *Standards of care for the health of transsexual, transgender, and gender-nonconforming people.* (7th version) 2012. http://www.wpath.org/site_page.cfm? pk_association_webpage_menu=1351&pk_association_webpage=3926.

Wroblewski P, Gustafsson J, Selvaggi G. Sex reassignment surgery for transsexuals. *Curr Opin Endocrinol Diabetes Obes.* 2013 Dec;20(6):570-4. PMID: 24468760.

Wyler J, Battegay R, Krupp S, Rist M, Rauchfleisch U. [Transsexualism and its therapy]. *Schweiz Arch Neurol Neurochir Psychiatr.* 1979;124(1):43-58. PMID: 482895.

Yahyaoui R, Esteva I, Haro-Mora J, Almaraz M, Morcillo S, Rojo-Martínez G, Martínez J, Gómez- Zumaquero J, González I, Hernando V, Soriguer F. Effect of long-term administration of cross-sex hormone therapy on serum and urinary uric acid in transsexual persons. *J Clin Endocrinol Metab.* 2008 Jun;93(6):2230-3. Epub 2008 Mar 18. PMID: 18349066.

Yik Koon, T. (2002). *The Mak Nyahs: Malaysian Male to Female Transsexuals*. (Chapter 4) Eastern Universities Press.

Zhu, Y, Imperato-McGinley, J, Male Sexual Differentiation Disorder and 5α-Reductase-2 Deficiency. *Glob. libr. women's med.*, (ISSN: 1756-2228) 2008; DOI 10.3843/GLOWM.10350. (Not in PubMed.)

Zigmond AS, Snaith RP. The hospital anxiety and depression scale. *Acta Psychiatr Scand.* 1983 Jun;67(6):361-70. PMID: 6880820.

Zimmermann A, Zimmer R, Kovacs L, Einödshofer S, Herschbach P, Henrich G, Tunner W, Biemer E, Papadopulos N. [Transsexuals' life satisfaction after gender transformation operations]. *Chirurg*. 2006 May;77(5):432-8. German. Erratum in *Chirurg*. 2006 Jun;77(6):530. PMID: 16437228.

Zoni AC, González MA, Sjögren HW. Syphilis in the most at-risk populations in Latin America and the Caribbean: a systematic review. *Int J Infect Dis*. 2013 Feb;17(2):e84-92. Epub 2012 Oct 12. PMID: 23063547.

Zucker KJ, Bradley SJ, Hughes HE. Gender dysphoria in a child with true hermaphroditism. *Can J Psychiatry.* 1987 Oct;32(7):602-9. PMID: 3676994.

A-Zucker KJ, Bradley SJ, Kuksis M, Pecore K, Birkenfeld-Adams A, Doering RW, Mitchell JN, Wild J. Gender constancy judgments in children with gender identity disorder: evidence for a developmental lag. *Arch Sex Behav*. 1999 Dec;28(6):475-502. PMID: 10650437.

B-Zucker KJ. Intersexuality and gender identity differentiation. *Annu Rev Sex Res.* 1999;10:1-69. PMID: 10895247.

Zucker K, Cohen-Kettenis P, Drescher J, Meyer-Bahlburg H, Pfäfflin F, Womack W. Memo outlining evidence for change for gender identity disorder in the DSM-5. *Arch Sex Behav*. 2013 Jul;42(5):901- 14. PMID: 23868018.

Back to Top

Clinical Endocrinology (2010) 72, 214–231 doi: 10.1111/j.1365-2265.2009.03625.x

ORIGINAL ARTICLE

Hormonal therapy and sex reassignment: a systematic review and meta-analysis of quality of life and psychosocial outcomes

Mohammad Hassan Murad*,†, Mohamed B. Elamin*, Magaly Zumaeta Garcia*, Rebecca J. Mullan*, Ayman Murad‡, Patricia J. Erwin*,§ and Victor M. Montori*,¶

*Knowledge and Encounter Research Unit, †Division of Preventive Medicine, Mayo Clinic, Rochester, MN, USA, ‡Department of Psychiatry, Centre Hospitalier de Rouffach, France, §Mayo Clinic Libraries and ¶Division of Endocrinology, Diabetes, Metabolism, Nutrition, Mayo Clinic, Rochester, MN, USA

Summary

Objective To assess the prognosis of individuals with gender identity disorder (GID) receiving hormonal therapy as a part of sex reassignment in terms of quality of life and other self-reported psychosocial outcomes.

Methods We searched electronic databases, bibliography of included studies and expert files. All study designs were included with no language restrictions. Reviewers working independently and in pairs selected studies using predetermined inclusion and exclusion criteria, extracted outcome and quality data. We used a random-effects meta-analysis to pool proportions and estimate the 95% confidence intervals (CIs). We estimated the proportion of between-study heterogeneity not attributable to chance using the I^2 statistic.

Results We identified 28 eligible studies. These studies enrolled 1833 participants with GID (1093 male-to-female, 801 female-to-male) who underwent sex reassignment that included hormonal therapies. All the studies were observational and most lacked controls. Pooling across studies shows that after sex reassignment, 80% of individuals with GID reported significant improvement in gender dysphoria (95% CI = 68–89%; 8 studies; I^2 = 82%); 78% reported significant improvement in psychological symptoms (95% CI = 56–94%; 7 studies; I^2 = 86%); 80% reported significant improvement in quality of life (95% CI = 72–88%; 16 studies; I^2 = 78%); and 72% reported significant improvement in sexual function (95% CI = 60–81%; 15 studies; I^2 = 78%).

Conclusions Very low quality evidence suggests that sex reassignment that includes hormonal interventions in individuals with GID likely improves gender dysphoria, psychological functioning and comorbidities, sexual function and overall quality of life.

(Received 18 April 2009; returned for revision 4 May 2009; finally revised 6 May 2009; accepted 7 May 2009)

Correspondence: M. Hassan Murad, Division of Preventive Medicine, Mayo Clinic College of Medicine, 200 First Street SW, Rochester, Minnesota 55905, USA. Tel.: (+1) 507 284 3097; Fax: (+1) 507-284-0909; E-mail: Murad.Mohammad@mayo.edu

Introduction

Therapy with cross-sex hormones is used as a primary sex reassignment intervention or as an adjunct to sex reassignment surgery in individuals with gender identity disorder (GID). Hormonal therapies clearly exert a rapid and direct effect on gender specific behaviours such as aggressiveness, arousal, verbal fluency and visuospatial abilities.[1] Several studies have reported sex reassignment to be associated with favourable changes in family, psychological and social life, sexual relationships and gender dysphoria, defined as the distress that originates from the difference between one's biological sex and one's basic sense of being a male or a female.[2–4]

Despite these putative benefits, individuals with GID who undergo this transition continue to have high prevalence of psychiatric comorbidities such as depression and anxiety disorders, as well as a suicide rate that is higher than that of the general population.[2,5] Hormonal therapies may also be associated with adverse effects that should be considered in addition to other costs and burdens of treatments. These adverse events have improved with the use of newer transdermal preparations and the routine administration of lower doses,[6,7] but may continue to be of concern to patients and providers.

We sought to systematically review the literature for the best available evidence regarding the benefits and risks of hormonal therapy administered in this context. In this manuscript, we summarize the available evidence about benefits in terms of self-reported outcomes such as the resolution of gender dysphoria and the effects on sexual function, psychiatric comorbidities and quality of life.

Methods

The report of this protocol-driven systematic review adheres to the standards for reporting Meta-analysis Of Observational Studies in Epidemiology (MOOSE).[8]

Eligibility criteria

We considered studies to be eligible for this review if they enrolled male-to-female (MF) or female-to-male (FM) individuals

who received endocrine interventions as a part of sex reassignment.

We included studies regardless of their language or sample size; and anticipating that these studies will likely be nonrandomized (observational) and uncontrolled, we included all study designs except single case reports. We excluded review articles, commentaries and letters that did not contain original data, andstudies of individuals with GID in which there was no mention of endocrine interventions or protocols involving hormone therapy; and studies with follow-up duration of less than 3 months.

Study identification

An expert reference librarian designed and conducted the electronic search strategy with input from study investigators with expertise in conducting systematic reviews. To identify eligible studies, we searched electronic databases (Ovid MEDLINE, Ovid Embase, Ovid PsycInfo, Thomson Scientific Web of Science and Elsevier Scopus) from 1966 to February 2008.

The search strategy employed a combination of controlled vocabulary for the concept of transsexualism (where available: Ovid MEDLINE and Ovid Embase), and text words. The concept of 'transgender' was developed using a combination of database specific vocabulary such as transsexualism or sex reversal, gonadal in concert with textwords: transsexual, transgender, transperson, sexual transition, sexual (or gender) reassignment, gender dysphoria, sexual dysphoria, gender identity, cross-gender, MF or FM, male-to-female and female-to-male. The terms for quality of life included various quality-of-life scales (qol, hrqol, qaly, quality adjusted), depression, regret, well-being, satisfaction, adjustment, self-esteem, body image, suicide, health status, mental status, sexual behaviour, sexual dysfunction. Where available, the controlled vocabulary was enhanced with the textwords. A detailed list of subject headings and text words is available upon request.

In addition, we sought additional references from bibliographies of eligible studies and content experts. Teams of reviewers working independently and in duplicates screened all abstracts and titles and, upon retrieval of candidate studies, reviewed the full text publications and determined study eligibility.

Disagreements were resolved by consensus (the two reviewers discussed the discrepancy and reached a decision) or arbitration (if disagreement was not resolved by the two reviewers, a third reviewer adjudicated the difference). We estimated chance-adjusted agreement amongst reviewers using the kappa statistic.

Data collection

Teams of reviewers were worked independently and in duplicate using standardized forms extracted descriptive, methodological and outcome data from all eligible studies.

Data collected from studies included a description of the population (MF or FM, comorbid psychiatric conditions, mean age and number of participants), description of the exposure (type, dose, route and duration of hormonal treatment), study design and quality components, and data corresponding to the outcomes of interest: (1) resolution of gender dysphoria, (2) status of psychiatric comorbidities, (3) quality of life and (4) satisfaction with sexual function.

Quality assessment

We employed the GRADE approach[9,10] to rate the quality of research evidence, taking into account the elements that can strengthen the quality of observational studies such as strong associations, direction of confounding and dose–response relationships.[10] For each study, we assessed how the population was selected, how the exposure (hormone therapy) documented (self-report *vs.* medical chart documentation), whether outcomes were assessed via self-report or clinical/structured interview, the duration and adequacy of study follow up, and the proportion of participants lost to follow up. We assessed chance-adjusted agreement on study quality using the kappa statistic with disagreements resolved by consensus or arbitration.

Statistical analysis

We planned to perform random effect meta-analysis[11] to pool association measures (odds ratios) from controlled studies and proportions from uncontrolled studies. We planned to explore treatment effects in all transsexuals as well as to explore effect in MF and FM populations separately. To quantify inconsistency in treatment effects across studies, we used the I^2 statistic,[12] which represents the proportion of variability across trials that is not attributable to random error or chance. StatsDirect 2·5·4 (StatsDirect Statistical Software Ltd., UK, 2005) was used for statistical analysis.

Results

Study identification

Figure 1 depicts the study selection process. Twenty-eight studies proved eligible for inclusion in this review. These studies enrolled 1833 participants (1091 MF, 801 FM). In general, MF individuals were older than FM individuals (mean age: 38 and 31, respectively). The majority of the 27 included studies originated from Europe and nine of them were translated from German, French and Turkish. Agreement among reviewers about study selection assessed by Kappa statistic was 0·84. Study characteristics are described in Table 1.

Methodological quality

None of the studies were randomized and only three were controlled.[13–15] However, controls in Smith *et al.*,[13] were individuals who refused treatment or did not quite fit the diagnostic criteria of GID, which weakens the inference from this comparison.

Twenty studies were cross-sectional and eight were longitudinal. The exposure (hormonal therapy) was self-reported in most studies and the details of treatments were in general not reported. In all of the included studies but five,[4,14–17] data were presented

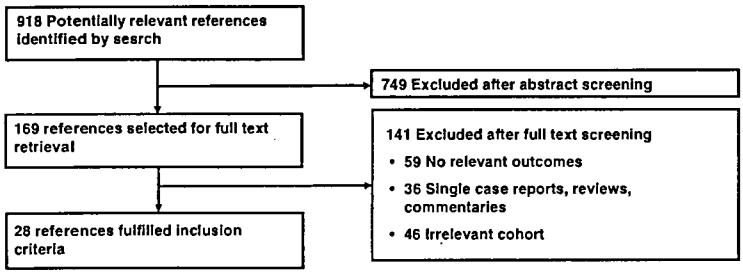


Fig. 1 The process of study selection.

for sex reassignment as a whole (hormonal therapy + sexual reassignment surgery); therefore, it was difficult to separate the impact of hormones from that of surgery. In one study,[18] hormonal therapy was administered with regular psychotherapy interventions making the assessment of hormone effects similarly challenging. The outcomes were ascertained by structured interview or clinical exam in 21 studies and by a questionnaire in seven studies, one of them conducted through an Internet site. Follow-up averaged 6 years, which we considered to be adequate to assess outcomes of interest in all but one study.[17] Agreement among reviewers about study quality assessed by Kappa statistic ranged from 0·64 to 1·0.

Outcomes

Table 2 describes reported outcomes in included trials.

Resolution of gender dysphoria

Pooling across studies shows that after sex reassignment, 80% of individuals with GID reported significant improvement in gender dysphoria (95% CI = 68–89%; 8 studies; I^2 = 82%). Proportion in MF subgroup is 71% (41–93%) and in FM subgroup is 86% (65–98%).

When measured by the Utrecht Gender Dysphoria Scale (UGDS/UGS), FM and MF individuals had minimal gender dysphoria remaining after transition, which was comparable to gender concordant controls without GID[2,19,20] and better than dysphoria in untreated individuals with GID.[13] They reported good satisfaction with the new assigned sex,[4,20–23] physical appearance,[4,13,19,23,24] had no doubts about their new gender role or their ability about maintaining this role in the future.[4] Satisfaction with primary and secondary sex characteristics was significantly higher when pre- and posttransition therapy data were compared.[19,20] Most individuals in these studies did not report regrets about transition therapy.[2,13,20,25] In one study, however, 3/17 individuals regretted sex reassignment and 2/3 sought reversal procedures.[26]

Compared with FM, MF individuals had more remaining gender dysphoria after the transition.[2] Homosexual MF individuals reported more regrets about the transition than those who were nonhomosexual.[19]

Psychiatric comorbidities

Pooling across studies shows that after sex reassignment, 78% of individuals with GID reported significant improvement in psychiatric symptoms (95% CI = 56–94%; 7 studies; I^2 = 86%). This proportion in the MF subgroup is 70% (33–96%) and in the FM subgroup is 84% (73–92%).

Psychiatric comorbidities were fairly prevalent in individuals with GID. A cross-sectional study showed a lifetime prevalence of Axis I diagnoses (mood disorders, anxiety disorders, somatoform disorders, schizophrenia, substance abuse and eating disorders) of 71% and current prevalence of 39%; a third of these participants were on hormonal therapy.[5] The cross-sectional design of the study limits inference about the temporal relationship between the exposure and the outcomes.

Male-to-female and FM individuals had the same psychological functioning level as measured by the Symptom Checklist inventory (SCL-90), which was also similar to the psychological functioning level of the normal population[2] and better than that of untreated individuals with GID.[13] Similar results were demonstrated using the short form of the Minnesota Multiphasic Personality Inventory, which measures Negativism, Somatization, Shyness, Psychopathology and Extroversion.[13,15,19,20] A comparative assessment of MF individuals using hormones *vs.* those who were not, showed that they had less psychopathology. The neurotic and psychotic disturbances they had were also considered to fall within the normal limits. Longer duration of hormone use was associated with better psychological adjustment.[15] Postsex reassignment, 76% of MF and 81% of FM reported improvement of their global psychological condition.[27]

Suicide attempt rates decreased after sex reassignment but stayed higher than the normal population rate.[2,18,24,28] In one study, although most individuals reported improvement in their psychological status (19/23); the remaining individuals worsened and had increased intake of alcohol and anxiolytics.[29]

Individuals with a pre-existing or more severe psychopathology were found to have retained more psychological symptoms and worse outcomes posttransition.[2,19] Similarly, nonhomosexual individuals had worse psychological outcomes.[19] MF individuals experienced negative emotions more intensely than FM both before and after hormone treatment.[17]

Quality of life

Pooling across studies shows that after sex reassignment, 80% of individuals with GID reported significant improvement in quality of life (95% CI = 0·72–0·88; 16 studies; I^2 = 78%). This proportion in the MF subgroup is 84% (68–95%) and in the FM subgroup is 78% (67–87%).

Table 1. Baseline characteristics and study quality

Author, year	Total no./ intervention/ control	Participants	Age (year)	Hormonal therapy	Mean duration of hormone treatment	Length of follow up†	Study design	Exposure ascertainments	Outcome ascertainment	Loss to follow up†
Hoenig, 1971[35]	9/NA/NA	MF 6; FM 3; Post-SRS cohort from Canada	33·3 (25–45)	7 of 9 on hormone therapy; MF: Stilboestrol (4); Hormone Implant (1); FM: Testosterone (2)	NR	3·75 years (1–10).	Cross-sectional	Self-report	Interview, questionnaire	11%
Wyler, 1979[36]	18/NA/NA	12 MF; 6 FM; 16/18 post-SRS; 2 had Klinefelter syndrome	MF 29 (19–49); FM 25 (21–31)	All individuals took HR; Type not specified	At least one year	2 years (2–45 months)	Cross-sectional	NR	Not reported	39%
Leavit, 1980[15]	61/42/19	42 MF on hormones; 19 MF, not on hormones	24·6 (18–35)	Oral and parenteral oestrogens	At least one year	NR	Cross-sectional	NR	Interview, questionnaire	NR
Kröhn, 1981[24]	24/NA/NA	18 MF; 6 FM; Post-SRS	MF 22–55; FM 25–38	All FM and All but 1 MF on HR; type not specified	NR	4–5 years	Cross-sectional	MF: NR; FM: authors prescribed and administered HR	Semi-structured interview + psychological tests + physical examination	NR
Sorensen, 1981[29]	23/NA/NA	Danish MF at least 1 year after SRS	25–55	All of them on various oestrogen formulations	NR	6 years	Cross-sectional	Chart-review	Standardized questionnaire	10%
Kuiper, 1988[4]	141/141/200	Treatment group: MF (105; 55 completed treatment and 50 were incomplete, i.e. only on hormones); FM (36; 25 completed treatment and 11 were incomplete, i.e. only on hormones); Control group: (body image): 100 male and 100 female students, Netherlands	MF 32; FM 28·3; All 35	Majority on HR	>2 years	NA	Cross-sectional	Self-report	Semi-structured interview, questionnaire	0
Pfäfflin, 1990[27]	85/NA/NA	42 MF; 43 FM; Post-SRS	MF 39 (25–68); FM 35 (21–65)	Taken by 41 MF and 42 FM. Type not reported. 15 MF and 2 FM began HR by themselves (not prescribed by a physician)	NR	MF 5·1 postgenital surgery; FM 6·7 years postbreast surgery	Single cohort, pre and post	Chart review and self report	Chart review, semi-structured interview by 2 examiners, Physical exam, and questionnaire	NR

Table 1. *Continued*

Author, year	Total no./ intervention/ control	Participants	Age (year)	Hormonal therapy	Mean duration of hormone treatment	Length of follow up†	Study design	Exposure ascertainments	Outcome ascertainment	Loss to follow up†
Kaube, 1991[28]	30/NA/NA	10 MF; 20 FM; All are post-SRS	MF: 40 (29–49); FM: 33 (24–42)	All individuals received hormonal therapy before and after surgery	NR	3·6 years (0·8–11)	Cross-sectional	NR	Semi-structured interview	53%
Yuksel, 1991[18]	21/6/NA	5 MF and 16 FM Pre SRS Turkish individuals	24 (18–40)	6/21 received HR; type not specified	NR	4 years	Single cohort, pre and post	NR	Clinical interview	NR
Tsoi, 1993[22]	81/NA/NA	45 MF and 36 FM transsexuals from Singapore, 2–5 years post-SRS	26	Individuals were on hormones, type is not reported	NR	NA	Cross-sectional	NR	Semi-structured questionnaire	NR
Olsson, 1996[25]	5/NA/NA	Post-SRS Swedish MF	NR	All received HR Type not specified	NR	11·4 years (Range: 6–15)	Cross-sectional	Self report	Interview	0
Cohen-Kettenis, 1997[20]	22/NA/NA	7 MF and 15 FM; >1 year after SRS	17·5 pretest; 22 posttest	12 started HR between 16–18; Type not specified	NR	1–5 years	Single cohort, pre and post	Self report and chart review	Clinical interview	0
Rauchfleisch, 1998[26]	17/NA/NA	13 MF and 4 FM were contactable out of a cohort of 69	MF: 32·8 years (19–50) FM: 33	All had HR, generally one year before SRS; type not reported	Not reported	Post-SRS (MF 14 years and FM 9·5 years)	Cross-sectional	Self report	Semi-structured interview	75%
Rehman, 1999[31]	28/NA/NA	Post-SRS MF	38	All received HR Type not specified.	7 years	NA	Cross-sectional	NR	Questionnaire	0
Schroder, 1999[34]	17/NA/NA	MF, 11-year Post-SRS, 80% Caucasians	46	All had history of HR but 84% were currently on it. Regimens consisted of oestrogens, progesterone, or both	NR	NA	Cross-sectional	Self report	Survey, structured interview, photoplethysmography	NR
Slabbekoorn, 2001[17]	101/NA/NA	MF (54); FM (47); Netherlands	MF 32·9; FM 25·7; All 27	MF: oral cyproterone acetate PO 50 mg twice a day in combination with either ethynyl-estradiol PO, 0·05 mg; Twice a day (32) or 17ß oestradiol-plasters TD, 0·1 mg/day (22). FM: Testosterone esters IM, 250 mg/2 weeks (42); undecanoate testosterone PO, 200 mg/day (5)	14 weeks	14 weeks	Single cohort, pre and post	Self report	Questionnaire, interview	0

Table 1. *Continued*

Author, year	Total no./ intervention/ control	Participants	Age (year)	Hormonal therapy	Mean duration of hormone treatment	Length of follow up†	Study design	Exposure ascertainments	Outcome ascertainment	Loss to follow up†
Smith, 2001[13]	41/20/14	Treatment group: 7 MF and 13 FM who were 1–4 years post-SRS. Controls were male and female applicants for SRS who were denied/ declined treatment due to not fulfilling diagnostic criteria	17 at pretest and 21 at posttest	All individuals in treatment group had hormonal therapy. Type and dosage not reported	NR	1–4 years for treatment group and 1–7 years for controls	Prospective controlled cohort study	Self report	Semi-structured interview	17%
Hepp, 2002[33]	29/NA/NA	30 MF and 17 FM were contactable out of a cohort of 47 identified by billing codes of transsexual who consulted in their clinic between 1990 and 1995	30 (19–51)	29/47 currently on HR, type not reported	67 months (19–114)	NA	Cross-sectional	Self report	Face-to-face interviews (25); phone interview (8); questionnaire (29). Semi-structured interview for all patients (33) including the International diagnosis checklist for personality disorders; psychometric tests only for those post-SRS (25)	30%
De Cuypere, 2005[3]	55/NA/NA	MF: 32; FM: 23; Dutch speaking, underwent SRS between1986–2001 in Belgium	MF 41·5; FM 33·2; All 38	MF: Cyproterone acetate, estradiol, conjugated oestrogens, estradiol + cyproterone acetate, and oestrogen + progesterone. 1 participant on no HR. FM: Progestin, lynestrenol, IM testosterone, and oral testosterone undecanoate. 1 participant on no HR.	Reversible Castration (1 year); pre SRS HR (at least 1 year)	MF: 3·8; FM: 6·2; Both groups: 4·8 years	Single cohort, pre and post	Self report	Structure interview, questionnaire	0
Hepp, 2005[33]	31/NA/NA	20 MF + 11 FM; 7/31 had SRS, attendants of outpatient psychiatric programme for transgender identity disorder in Switzerland	33	10/31 were on hormones, type not specified	2·7 years (2 months–12 years)	NA	Cross-sectional	NR	Structured clinical interview applying standardized diagnostic criteria	NR

Table 1. *Continued*

Author, year	Total no./ intervention/ control	Participants	Age (year)	Hormonal therapy	Mean duration of hormone treatment	Length of follow up†	Study design	Exposure ascertainments	Outcome ascertainment	Loss to follow up†
Smith, 2005[19]	325/ 188/NA	Individuals who completed hormone and SRS at an Amsterdam clinic; MF 117; FM 71	MF 38·6; FM 29·6; All 35·2	NR	Average duration of hormones prior to SRS (all): 20·4 months (range 12–73 months)	NA	Single cohort, pre and post	Self report	Semi-structured interview, questionnaire	58%
De Cuypere, 2006[2]	62/62; 87 Dutch females and 58 Ducth males were controls for gender dysphoria; 86 Norwegian transsexuals were controls for QoL	35 MF and 27 FM, Dutch speaking transsexuals, >1 year post-SRS	MF 41·4 FM 33·3	Individuals were on dual-phase hormonal schedule (Reversible first then irreversible), types not reported	NR	MF: mean 4·1; FM: Mean:7·6	Cross-sectional	Chart review	Clinical examination by physicians and psychologists was obtained in most individuals, only 6 filled a questionnaire	28%
Lawrence, 2006[37]	232/NA/ NA	232 MF	44	Most were on hormones and stopped before SRS, details NR	NR	3 years post-SRS	Cross-sectional	Self report	Mailed survey	57%
Miles, 2006[16]	64/NA /NA	MF desiring SRS from UK: First group (HR+) was tested before are after starting HR (27); Second group (HR) stopped HR as a prerequisite before SRS tested on and then off HR (27); Control group for repeated testing (20), on HR > 3 months	45	Ethinylestradiol, Ethinylestradiol/ Androcur, Premarin, Premarin/ cyproterone acetate, Premarin/Provera	HR+ 3–12 months after starting HR; HR−: 8 weeks after stopping; Control: 3–12 months after starting HR	2–12 months	Cohort study, pre and post	Self report	Questionnaire	0
Newfield, 2006[14]	446, 248, 117	FM, only data from 384 US participants was analysed, data compared between FM who received hormones *vs.* FM who did not and *vs.* national norms	32·6	Testosterone replacement, details not reported	NR	NA	Cross-sectional, with a control group of FM that did not receive testosterone	Internet survey	Internet survey	NR

Table 1. *Continued*

Author, year	Total no./ intervention/ control	Participants	Age (year)	Hormonal therapy	Mean duration of hormone treatment	Length of follow up†	Study design	Exposure ascertainments	Outcome ascertainment	Loss to follow up†
Revol, 2006[21]	63/NA /NA	MF post-SRS	33 (22–56)	All received HR; Initial phase of cyproterone acetate followed by life-long oestrogen therapy	Not reported	NA	Cross-sectional	Chart review; HR prescribed by same team	Questionnaire; physical examination	65%
Zimmermann, 2006[23]	40/NA /NA	24 MF and 16 FM s/p SRS > 6 months were contactable out of a cohort of 90; group has relatively high level of education and a socio-economic status	38 (23–51)	All had HR; type end dose not reported	Not reported	3·1 years (0·5–19 years)	Cross-sectional	Chart review (Prescribed by the same team)	Questionnaire	56%
Kuhn, 2007[30]	25/NA /NA	18 MF and 7 FM from Switzerland, median 12 years after SRS.	MF 48; FM 38	17/18 MF were on estradiol; 3 were on Finasteride and 3 were on cyproterone acetate; All FM on Testosterone (6 parenteral, 1 oral)	NR	Median: 13 years for MF, 12 years for FM; For all individuals: 16 years	Cross-sectional	Self report	Clinical exam and interview; study focus was mainly on genitourinary aspects of QoL	NR

MF: male-to-female transsexuals; FM: female-to-male transsexuals.
†In cross-sectional studies, we meant by length of follow the time between sex reassignment and study; and by loss to follow-up, the number of patients who were contactable out of initial study cohort.

Table 2. Outcomes of interest

Author, year	Resolution of gender dysphoria	Quality of life	Sexual function	Psychiatric comorbidity
Hoenig, 1971[35]	General social adjustment: stable in only 2/9	Employed: 5/8; On National Assistance: 3/8 no; Family attitude: supportive or sympathetic 6/6	7/8 were sexually active	
Wyler, 1979[36]		MF: reported improved communication (4/8), stable relationships (5/8) and better professional integration (7/8); FM: 2/2 had stable relationships with women	4/8 MF reported inadequate vagina for intercourse	MF: 7/8 reported feeling psychologically better after transition; 1 became depressed (he had attempted suicide before SRS); FM: 2/2 reported improvement
Leavitt, 1980[15]				MF treated with oestrogens displayed less psychopathology as demonstrated on MMPI inventory
Kröhn, 1981**[24]	Physical appearance: self-reported (examiner reported); MF at least satisfactory in 16/18 (13/18); FM at least satisfactory in 6/6 (6/6)	Socioeconomic situation: MF at least satisfactory in 14/18 (15/18); FM at least satisfactory in 5/6 (5/6)	MF at least satisfactory in 18/18 (14/18). FM at least satisfactory in 6/6 (6/6); 5/6 FM live in monogamy with heterosexual women and reported orgasm by clitoral stimulation. MF: 14 were sexually active, 6 had stable partner relationships, 1 remained married but had relations with men. Half reported good lubrication of their neovagina during sexual excitation. Histological examination showed metaplasia of original penis skin. Authors think this functional adaptation was due to oestrogen effect and sexual activity	Psychological state: MF at least satisfactory in 17/18 (16/18); FM at least satisfactory in 6/6 MF: occasional depressive mood in 7 (less frequent than before surgery), decrease of suicidal thoughts in 3 individuals, transient suicidal thoughts in only three subjects, no suicide attempts. Values of personality tests moved on the single personality scales at least to the limit of expected statistical range
Sorensen, 1981[29]	More than half of the participants were unhappy with appearance (14/23 hair growth on face, 5/23 baldness) and 11/23 desired additional cosmetic surgery	14/23 unemployed. No change in social status class using the Institute of Social Research classification. Economic conditions: the majority considered their economic situation satisfactory.	9/23 were sexually active within 6 months postoperatively, 8/23 after 6 months, 6/23 had no sexual life postoperatively; 13/23 were sexually satisfied	3/29 attempted suicide, 4 of the noncore group found their psychic condition aggravated. ($P < 0{\cdot}05$) and 19 found it improved or unchanged. 1 admitted to a psychiatric institution. five reported taking anxiolytics in larger doses now than preoperatively and 4/23 had greater use of alcohol
Kuiper, 1988[4]	136 (97·1%) reported no or hardly any doubts about their own gender identity. Satisfaction with own behavior as a man or a woman: 106 (75%) satisfied or very satisfied; Ability to pass as a member of the new gender: FM 33 (95%); MF 84 (80%) describe integration as good or very good; Confidence in ability to maintain new gender role: 118 (83·6%) have confidence	92 (65·2%) happy/very happy; 33 (23·4%) moderately happy and 16 (11·3%) unhappy. Feeling happy correlated with improved psychosocial functioning. No individuals ascribed feelings of dysphoria to intrapsychic problems attending to new gender role		After treatment, 1 FM and 15 MF attempted suicide

Table 2. *Continued*

Author, year	Resolution of gender dysphoria	Quality of life	Sexual function	Psychiatric comorbidity
Pfäfflin, 1990*[27]		76·6% of FM and 47·4% of MF had a stable job. Results of examiners assessment, mean (SD). Social situation: MF (N = 42): Pre-SRS 1·71 (0·92); Post- SRS 3·31 (0·68); Change 1·60 (0·68); FM (N = 43): Pre-SRS 1·91 (0·78); Post- SRS 3·14 (0·98); Change 1·65 (1·09); Professional (employment) situation: MF (N = 40): Pre-SRS 1·90 (1·01); Post- SRS 3·03 (1·19); Change 1·13 (1·34); FM (N = 43): Pre-SRS 2·18 (0·9); Post- SRS 3·35 (0·97); Change 1·26 (1·05)	23 MF and 31 FM had a stable partner at time of follow-up; 5 MF and 4 FM had no sexual relations	33 MF and 35 FM consider their global psychological condition to be good or very good. Psychological situation as evaluated by examiners: MF (N = 42): Pre-SRS 1·26 (0·63); Post-SRS 3·55 (0·67); Change 2·29 (0·83); FM (N = 43): Pre-SRS 1·47 (0·63); Post-SRS 3·51 (0·77); Change 2·07 (0·92)
Kaube, 1991[28]	7/10 MF gave up mammary augmentation because of satisfactory oestrogen-induced mammary augmentation	15/30 reported partnership situation improved; 14/30 reported situation unchanged; 1 (MF) had no partner; 27/30 declared they coped well with life after SRS. 3 declared there was no difference; 26/30 satisfied with results of HR and 21/30 satisfied with global results of SRS	25/30 considered sexuality to be important in their life. 24 of them declared their sexual life to be more satisfactory than before. 1 (who had had penectomy) was unsatisfied	Suicide attempts before SRS: 3 MF (1 attempt per individuals); 8 FM (mean 4 times per individuals). Suicide attempts after SRS: 2 FM (1 for each individuals) and none of the MF. All individuals s denied alcohol and drug abuse and hospitalization for Psychiatric reasons
Yuksel, 1991[18]		Professional and employment situation improved from 11/21 reporting good situation to 16/21; relationships with family markedly improved and they became more accepting and supportive; participants were adherent to treatment and became role models for newer applicants		Suicidal rates improved (no quantification of outcome)
Tsoi, 1993[22]	Satisfaction with sex status MF(37/45); FM (29/36)	Satisfaction with work and finance was MF (43/45) and FM (34/36)	Satisfaction with sexual activity was MF (29/45) and FM (22/36). More MF(41/45) were satisfied with new sex organs compared with FM (14/36)	
Olsson, 1996[25]	0/5 expressed direct regret	Social relationships were to a great extent unchanged after SRS; 3/5 had a tendency to decreased socializing post and felt not totally accepted; 3/5 continued to be successful in their occupations; 3/5 expressed their displeasure with HR and associated it with 1) being a reminder of condition, 2) feeling unwell, 3) poor sexuality	Post-SRS, all were sexually active; 2/5 reported reduced sexual activity	

Table 2. *Continued*

Author, year	Resolution of gender dysphoria	Quality of life	Sexual function	Psychiatric comorbidity
Cohen-Kettenis, 1997[20]	None of the subjects indicated regrets UGDS scores: MF: pre mean = 48·4 (SD = 7·5); post mean 15·8 (4·3); $P < 0·001$. FM: pre 52·9 (5·4); post 14·5 (2·9); $P < 0·001$	89% felt accepted and supported socially	71% expressed satisfaction with sex life; 14% neutral view	Short version of Dutch MMPI: scores were similar to Dutch normative data with statistically significant improvement in extroversion suggesting a tendency to be more active towards social contacts. There were significant increase in dominance and self-esteem and decrease in inadequacy
Rauchfleisch, 1998[26]	Most individuals reported they were doing well. 3 MF regretted SRS and 2 had a reversal procedure after follow-up interview. One of them is schizophrenic.	Social conditions and quality of life of the 13 MF had significantly deteriorated; 9 of them depend on life annuity or on social welfare assistance. They were socially very isolated. Results in FM were slightly better; 2 of them are fully professionally active and lived in constant personal relationships of several years of duration	8 MF not being able to experience sexual pleasure. Only 3 MF describe their libido adequate	10 MF suffered from anxiety, depression or addictions. 1 MF developed schizophrenia post-SRS; 2 FM suffered from depression and addiction and likely had affective lability Authors report discrepancy between satisfaction with SRS and depression
Rehman, 1999[31]		27 of 28 reported life becoming easier and more comfortable	14/28 reported satisfaction with sexual function	2/28 reported suicidal feelings shortly after surgery. The others, including those who expressed suicidal feelings prior to SRS, reported feeling more psychologically stable
Schroder, 1999[34]			16/17 MF reported being engaged in partnered sexual activities. 9/17 reported sexual satisfaction and the mean rating was 5·4 (scale from 0–10, higher is better)	
Slabbekoorn, 2001[17]			Sexual Interest: MF mean score (SD) 4·1(2·8) pre-HR and 4·7 (2·9) HR. 4·9 (2·9) and 6·2(2·8), respectively	AIM and SAQ tools: MF experienced significantly more positive emotions ($P < 0·05$), whereas FM experienced significantly more aggressive ($P < 0·01$) and sexual feelings ($P < 0·05$) than they actually expected as a result of HR. There were no changes over time, but a group difference was found for negative emotions. Overall, MF expected and experienced more feelings of being tired and flat, tense and nervous, gloomy and depressed, having changeable moods than FM

Table 2. *Continued*

Author, year	Resolution of gender dysphoria	Quality of life	Sexual function	Psychiatric comorbidity
Smith, 2001[13]	UGS scale; mean (SD); Treatment: Pretest 51·7 (6·3); posttest 14·8 (3·2); Controls: 46·7 (13·9); 31·1 (14·9); *P* 0·002	The Affect Balance Scale (only the negative components of the scale used); Treatment (mean = 4·4, SD = 3·2); Control: (mean = 6·2, SD = 2·6); (*P* = NS)	7/10 were sexually satisfied; 11/16 achieved orgasm regularly	Dutch versions of short MMPI and the SCL-90. The control group had more psychological dysfunctional profile than treated group. Neither group showed significant differences between pretest and posttest.
Hepp, 2002***[33]	Subscales of the FbeK: mean (SD) in MF/FM/ total/norm values. FBeK-insecurity/ unpleasant sensations 3·4(2·3)/4·4(3·8)/3·7(2·9) /5·3(4·1); FBeK-attractiveness/ self-confidence: 10·2(2·0) /9·3(2·0)/10·0(2·0)/8·9(2·9); FBeK-body-accentuation/ sensitivity: 11·4(3·1)/8·0(1·2)/ 10·2(3)/11·1(3·8). No norms available for the FSI, scores go from 1 (best social integration) to 5 (worst social integration); FSI: 1·9(0·5)/ 1·6(0·4)/1·8(0·5)	No. of individuals who lived in stable relationship increased from 8 (at first referral) to 17 at follow-up. Improvement most noticed in FM group. FM patients kept their job more often than MF and occasionally got promotion/ advancement. MF more often changed job or were demoted. Authors think it is partially due to female hormones which could induce affective lability. FLZ-Global satisfaction with life: 56(34·8)/78·9(25·3)/ 64·3(33)/60·5(37·3); FLZ-Satisfaction with health: 72·9(45·4)/91·6(20·1)/ 79·7(38·6)/74·4(41·5)		HADS-Anxiety: 4·7(4·8)/ 5(3·7)/4·8(4·3)/5·8(3·2); HADS-Depression: 3(3)/2(1·9)/2·6 (2·7)/3·4(2·6)
De Cuypere, 2005[3]		Transsexuals had more stable relationships after SRS + HR (52·7%) compared to before (35·5%); *P* = 0·025; FM had more difficulty in starting a new relationship after transition.	After SRS + HR, 80% all participants expressed their satisfaction with their relational and sexual life; 5/55 (9%) reported not having any sexual activity (3 MF and 2 FM). For those who had sexual activity, 30 (60%) were very satisfied with their sex life, 18% remained neutral, and 22% were dissatisfied.	25% of MF were treated for depression
Hepp, 2005[33]				HADS scale: No Axis I diagnosis current 19 (12MFT, 7FMT), lifetime 9 (4MF, 5FM); Mood disorders: current 4 (4MF, 0FM), lifetime 14 (11MF, 3FM); Schizophrenia and other psychotic disorders: current 0, Lifetime 2 (2FM), substance related disorders: current 3 (3MF), lifetime 14 (10MF, 4FM); Anxiety disorders: current: 8 (4MF, 4FM), lifetime 7 (3MF, 4FM); Somatoform disorders: current 3 (3MF), eating disorders: lifetime 1 (1 FM)

Table 2. *Continued*

Author, year	Resolution of gender dysphoria	Quality of life	Sexual function	Psychiatric comorbidity
Smith, 2005[19]	Low posttest scores represent a virtual absence of gender dysphoria after SRS. UGS [mean (SD)]. Pretest 54·3 (7·1); Posttest 14·8 (3); ($P < 0·001$). Lindgren and Pauly's Body Dissatisfaction Scale: 98 (91·6%) were satisfied with their appearance. Primary sex characteristics: Pretest 18·1 (2·7); Posttest 6·6 (3·2); P < 0·001). Secondary Sex Characteristics: Pretest 34·8 (6·9); Posttest 25·2 (13·7); ($P < 0·001$). Neutral Body Character: Pretest 46·8 (9·6); Posttest 36·5 (8·0); ($P < 0·001$)	Social Life and Social Contacts: -The majority ($n = 90$, 89·1%) felt accepted by most people; 8 (7·9%) by some and 3 (3%) by no one. Altogether, 84 individuals (83·2%) felt supported their new gender role by almost everyone they new. 11 (10·9%) felt supported by some people. Despite the fact that 6 individuals (5·9%) did not feel supported, they were able to rely on some individuals during difficult times. 4 (3·9%) had no one to turn to when times got hard. Still, the vast majority (99, 96·1%) could rely on at least some others during difficult times. In total, 18 (17·3%) sometimes felt they were being laughed at, 2 (1·9%) had experienced being ridiculed by strangers; 84 (80·8%) had never experienced any such adverse reactions. Over 98% ($n = 102$) felt they were completely taken seriously by most people. Two (1·9%) only felt taken seriously by a few close friends. No one reported not being taken seriously by anyone. MF and FM felt equally accepted. However, FM had more support in the new gender role ($P = 0·01$) and were more able to rely on significant others during difficult times ($P = 0·03$). Although MF were more often laughed at or ridiculed ($P < 0·001$), they reported feeling taken equally seriously by (almost) all people ($P = 0·08$). Homosexuals felt more supported ($Z = 2·0$, $P = 0·04$) and taken more seriously than nonhomosexuals ($P = 0·01$)	The majority (46/50, 88·5%) of those with steady sexual partners were satisfied with their sex life. Three expressed a neutral view and 2 were dissatisfied. the 84 individuals (82·4% of the follow-up sample) who were sexually active, the majority (53, 63·1%), achieved orgasm always or regularly, 16 (19%) sometimes and 15 (17·9%) never. More of the sexually active FM (81·6%) than of the MF (42·1%) achieved orgasm always or regularly ($P = 0·01$). Both sexes reported equal satisfaction with their sex life ($P = 0·5$)	In general, follow-up scores indicated fewer psychological problems. Scores on Negativism and Shyness had improved. Scores on Somatization, Psychopathology, and Extroversion showed a tendency towards improvement P = <0·006). Psychological Functioning (Dutch Short MMPI). *Scores*: Negativism, Pretest 22·6 (7); Posttest 17·1 (7·8); ($P < 0·001$); Shyness: Pretest 14·7 (9·3); Posttest 10·0 (7·3); ($P < 0·001$); Depression: Pretest 29·3 (11·3); Posttest 22·5 (8·4); ($P < 0·001$); Inadequacy: Pretest 15·8 (5·8); Posttest 13·5 (4·5); P < 0·001); Psychoneuroticism: Pretest 143·0 (40·7); Posttest 120·3 (31·4); ($P < 0·001$)
De Cuypere, 2006[2]	UGS scale, mean (SD): 35 MF: 16·6 (6·3); 27 FM: 13·7 (3·9). No significant difference could be shown for the gender dysphoria left after SRS between the MF and a Dutch female control group without gender dysphoria (mean = 15·7; $N = 87$) ($P = 0·415$). Neither did the FM and a Dutch male control group without gender dysphoria (mean = 14·2; $n = 58$, $P = 0·510$)	GAF-scale: MF: 76·2 (14·3); FM: 85·2 (9·9). No significant difference between this population and a comparable group of 86 Norwegian transsexuals (mean = 78·0; $P = 0·265$). The younger the applicants were at the time of their first consultation, the better their daily function was		SCL-90. Scores of MF and FM were similar and comparable to the general population. Self-reported suicide-attempt rate improved from 29·3% before treatment to 5·1% after treatment; $P = 0·004$; general population's rate is 0·15%

Table 2. *Continued*

Author, year	Resolution of gender dysphoria	Quality of life	Sexual function	Psychiatric comorbidity
Lawrence, 2006[37]	No participant reported consistent regrets about SRS, 6% reported occasional regrets. Mean overall happiness with SRS results is 8·7 (0–10 scale); SD 1·7	Participants' mean reported improvement in QoL 7·9 (0–10 scale); SD 2·6	Mean overall happiness with sexual function is 7·8 (0–10 scale); SD 2·4	
Miles, 2006[16]		No change in cognition or memory		POMS tool used. Overall, mood did not differ except for the Composed and Confident scales
Newfield, 2006[14]		FM had diminished mental-health related QoL compared with the general US population. These findings are consistent when compared against specific age and sex norms. Using F-36v2, Testosterone group scored significantly better in domains of vitality, social functioning, role emotional and mental health. Mental summary score 41·22 (11·9) compared to 36·08 (12·6); $P = 0·001$. Physical Summary Score 53·29 (9·6) compared to 53·67 (9·2); $P = 0·347$		
Revol, 2006[21]	Global satisfaction: $n = 22$, mean = 7·6/10, range: 0–10	Quality of life: $n = 22$, mean = 8,4/10, range (0–10)	Sexual function (existence of intercourse, frequency, quality): (0–10 scale): $n = 19$, mean = 7/10 range (0–10). Genitalia appearance: $n = 22$, mean = 8/10 (4–10); clitoral sensitivity: $n = 21$, mean = 8·4/10(3–10); Vaginal function: $n = 21$, mean = 7·2/10(0–10)	
Zimmermann, 2006****[23]	35 (87·5%) very satisfied or satisfied with their body (no difference between two sexes); 16 FM and 22 MF very satisfied or satisfied with their new gender identity	Quality of life in operated transsexuals was significantly lower ($P < 0·001$) than a representative sample of normal population; 26 think their social acceptance is improved, two worsened, 12 unchanged; total values of health items on the FLZ^{M} questionnaire were not different from normal population	22 (55%) were very satisfied or satisfied with sexual life in their new sex. More satisfaction in FM	

Table 2. *Continued*

Author, year	Resolution of gender dysphoria	Quality of life	Sexual function	Psychiatric comorbidity
Kuhn, 2007[30]		Participants' contentness on visual analogue score (very happy): MF 10/18; FM: 7/7		

SRS, sex reassignment surgery; HR, hormonal treatments; MF, male-to-female transsexual, QoL, quality of life; NR, not reported; NA, not applicable.
UGS/UGDS, The Utrecht Gender Scale: 12-item scale, the individuals rated his/her agreement on a 5-point scale. The higher the score, the more gender dysphoria is present.
MMPI, Minnesota Multiphasic Personality Inventory, 83 items measuring Negativism, Somatization, Shyness, Psychopathology and Extroversion. Higher scores indicate more dysfunction on the first four scales but less on Extroversion.
GAF-scale, The global Assessment of Functioning Scale (DSM-IV): a scale that assesses 10 different aspects of functioning and evaluates the general functioning in daily life. Higher score correlates with better functioning.
SCL-90, The Symptom Checklist is a 90-item inventory inquiring about the presence of various psychological and physical complaints the week prior to the interview, scored on a 5-point scale.
SF-36v2, Short-Form 36-Question Health Survey version 2.
HADS scale, Hospital Anxiety and Depression scale.
POMS, Profile of Mood states.
Expectancy list of mood and sexual interest: 15-item list rated on a 10-point scale, 1 = no change, 10 = very much)
AIM, Affect Intensity Measure; SAQ, Short Anger Situation Questionnaire.
*Questionnaires used are German translation of questionnaires developed at the Minneapolis University Clinic for SRS. Self-assessment questionnaire contains 80 questions with 5-point answers referring to medical treatment, professional situation, family, friends, partnership, sexual experiences, gender role and psychological condition. In the questionnaire used for examiner assessment, scores go from 1 to 4 (higher is better) in each one of three areas: social, professional and psychological states. Assessment concerned 12 preceding months.
**Psychological tests used are: (1) FPI (Freiburger Persönlichkeit Inventar = Freiburger Personality Inventory) and (2) Giessen-Test. Results in numbers refer to number of individuals in every score according to self-evaluation/medical evaluation.
***Hepp, 2002: Scales used are the German version of the Hospital Anxiety and Depression scale (HADS), *Fragebogen zur Lebenszufriedenheit (FLZ)* questionnaire for satisfaction with life; *Fragebogen zur Beurteilung des eigenen Körpers (FBeK)* questionnaire to assess own body; *Fragebogen zur sozialen Integration (FSI)* questionnaire for social integration.
****Zimmerman, 2006: Questionnaire *'Fragen zur Lebenszufriedenheit Modul' FLZ*^{M} = Questions on life satisfaction module.

In most of the included studies, at least two thirds of individuals with GID reported improvement in some aspects of their quality of life such as more stable relationships, better adjustment, satisfaction with sex reassignment, and overall happiness and contentness.[3,4,18–23,30,31] In a study by Rehman *et al.*, 27/28 MF individuals reported life becoming easier and more comfortable posttransition.[31] In another study by Smith *et al.*,[13] quality of life measured by the Affect Balance Scale (only the negative components of the scale used) was better in treated MF and FM compared with those untreated; but the difference did not achieve statistical significance. The treated individuals in this study had better resolution of dysphoria and improved psychosocial and psychological functioning. Van Kemenade *et al.* found that treatment with an antiandrogen for 8 weeks increased feelings of relaxation and energy in MF transsexuals.[32]

Financial, professional status and employment situation were satisfactory postsex reassignment and when compared with before transition, they were perceived as improved.[18,24,25,27,29]

In terms of hormonal therapies effects, Kaube *et al.* reported that 26/30 individuals were satisfied with hormonal therapy compared to 21/30 satisfied with SRS.[28] Another study showed that MF treated with oestrogen had no significant change in cognition or memory when they were taking hormones compared with when they were not.[16] In addition, although FM scores on the Short Form 36-Question health Survey (SF-36v2) were lower than population norm, those who received testosterone replacement had significantly higher quality-of-life scores than those who did not.[14]

Nevertheless, 4/24 studies reported worsening of the quality of life; mainly in MF.[2,25,26,33] Rauchfleisch *et al.* reported all their 13 MF subjects to continue to be in social isolation, have poor quality of life and be dependent on welfare and national assistance; and Olsson *et al.* showed continued poor socializing and lack of improvement in social relationships after transition therapy in 3/5 MF, who also expressed their displeasure with hormonal therapy because it reminded them of their condition and of feeling unwell. MF scored significantly lower than FM on the Global Assessment of Functioning (GAF) Scale[2] and demonstrated worse socialization and career, employment and financial success.[33]

Individuals whose transsexual symptoms manifested at a younger age reportedly had better adjustment to the new gender role;[2,22] and when reassignment procedures were administered before adulthood, favourable postoperative psychological and social functioning were noted.[20] Authors describe a trend for worse overall health in MF individuals which could be due to their older age and higher prevalence of smoking.[3]

Satisfaction with sexual function

Pooling across studies shows that after sex reassignment, 72% of individuals with GID reported significant improvement in sexual

function (95% CI = 60–81%; 15 studies; I^2 = 78%). This proportion in MF subgroup is 63% (45–79%) and in FM subgroup is 80% (68–89%).

The researchers of included studies assessed sexual satisfaction, sexual health and sexual function by using semi-structured interviews, clinical encounters, or designed their own questionnaires to evaluate satisfaction with intercourse, sex life and orgasm. In most studies, more than half of MF or FM reported higher satisfaction of sexual function in terms of existence, frequency or quality.[3,13,19–24,28,29,34] On the contrary, only in one study, Rauchfleisch *et al.* reported poor sexual satisfaction and outcomes.[26]

Discussion

Our findings

We systematically reviewed the literature to determine the benefits of hormonal therapies given to individuals with GID as a part of sex reassignment. We found 28 studies with fairly long follow-up duration that demonstrated improvements in gender dysphoria, psychological functioning and comorbidities, lower suicide rates, higher sexual satisfaction and, overall, improvement in the quality of life. Individuals with early onset transsexual manifestations and those with homosexual tendencies may have better prognosis. Individuals with pre-existing psychopathology tend to have worse prognosis. Limited data suggest that MF transsexuals may have worse outcomes than FM counterparts.

Limitations and strengths

The evidence in this review is of very low quality[9,10] due to the serious methodological limitations of included studies. Studies lacked bias protection measures such as randomization and control groups, and generally depended on self-report to ascertain the exposure (i.e. hormonal therapy was self-reported as opposed to being extracted from medical records). Our reliance on reported outcome measures may also indicate a higher risk of reporting bias within the studies. Statistical heterogeneity of the results was also significant. Furthermore, since hormonal therapies were administered as a part of sex reassignment, inferences regarding hormones solely are very weak and are confounded by the effects of sex reassignment surgery and psychotherapy, which were provided implicitly or explicitly in most studies. Benefits noted in individuals undergoing this transition can certainly be attributable to these two co-administered interventions. We excluded studies that did not mention hormonal therapies to remedy this indirectness of evidence; this exclusion poses another limitation to our review because it may have diminished the total body of literature. Lastly, the heterogeneity of methods, in which the outcome of satisfaction with sexual function was assessed, may further limit inferences about this outcome. This limitation does not apply to other outcomes such as gender dysphoria, which was assessed across studies with standardized scales.

It is also important to recognize the impact of cultural factors and treatment availability on the outcomes of reassignment therapies. Cultures that reject gender atypicality would subject transsexuals to more victimization and social stigma, which may worsen pre- and posttreatment social and psychological functioning levels. Individuals in countries without access to treatment may also have worse outcomes. Therefore, cultural differences should be considered when applying the results of this review, mostly derived from European studies, to other populations.

The strengths of this review stem from the rigorous methodology that included comprehensive search that is not limited by language restrictions, the use of explicit inclusion and exclusion criteria of research evidence, as well as extracting data and making judgements in duplicate in order to reduce random error and bias. To our knowledge, this is the first systematic review to summarize and synthesize evidence about quality of life and related self-reported outcomes in individuals with GID receiving hormonal treatments.

Implications for practice and future research

The potential benefits of hormonal treatment to individuals with GID demonstrated in this review should be balanced against possible adverse events such as thromboembolism and cardiovascular effects of hormones. Considering the very low quality of evidence regarding the balance between the benefits and risks of treatment, the role of patients' values and preferences as well as the availability/affordability of treatments become paramount. Clinicians should convey the existing uncertainty to individuals seeking treatment and elicit their choices as a major factor in the process of decision making. Individuals with disabling and severe gender dysphoria and psychologic impairment may opt for treatment; conversely, individuals who are older or have higher risk for complications due to hormonal therapy may opt against treatment. In addition, an issue of particular importance in this context is obtaining the proper diagnosis. Individuals with uncertain diagnosis display more dysfunctional psychological profile than those in whom diagnosis is confirmed and receive treatment.[13]

Further research is needed to ascertain benefits and harms of hormonal treatments in this context. The design for future studies will likely continue to be observational considering the psychological impact of GID, the strong convictions of study participants that would introduce bias, and the nonreversible aspects of some of the treatments used (although randomized trials are feasible when it comes to comparing alternative hormone regimens for instance). The validation and consistent use of standardized scales would facilitate inference and comparisons between subgroups that may include patients with pre-existing psychiatric illness or different level of social support. Cross-cultural studies are also needed to assess the impact of cultural stigma and victimization on treatment outcomes, which may lead to more individualized treatments.

Conclusion

Very low quality evidence suggests that hormonal therapies given to individuals with GID as a part of sex reassignment are likely to

improve gender dysphoria, psychological functioning and comorbidities, sexual function and overall quality of life. MF transsexuals may have worse outcomes than FM individuals.

Competing interests/financial disclosure

The authors (MHM, MBE, MZG, RJM, AM, PJE, VMM) have nothing to disclose.

Acknowledgement

This review was commissioned and funded by the Endocrine Society.

References

1 Van Goozen, S.H., Cohen-Kettenis, P.T., Gooren, L.J. *et al.* (1995) Gender differences in behaviour: activating effects of cross-sex hormones. *Psychoneuroendocrinology*, **20**, 343–363.
2 DeCuypere, G., Elaut, E., Heylens, G. *et al.* (2006) Long-term follow-up: psychosocial outcome of Belgian transsexuals after sex reassignment surgery. *Sexologies*, **15**, 126–133.
3 DeCuypere, G., Sjoen, G.T., Beerten, R. *et al.* (2005) Sexual and physical health after sex reassignment surgery. *Archives of Sexual Behavior*, **34**, 679–690.
4 Kuiper, B. & Cohen-Kettenis, P. (1988) Sex reassignment surgery: a study of 141 Dutch transsexuals. *Archives of Sexual Behavior*, **17**, 439–457.
5 Hepp, U., Kraemer, B., Schnyder, U. *et al.* (2005) Psychiatric comorbidity in gender identity disorder. *Journal of Psychosomatic Research*, **58**, 259–261.
6 vanKesteren, P., Asscheman, H., Megens, J. *et al.* (1997) Mortality and morbidity in transsexual subjects treated with cross-sex hormones. *Clinical Endocrinology*, **47**, 337–342.
7 Asscheman, H. & Gooren, L. (1992) Hormone treatment in transsexuals. *Journal of Psychology and Human Sexuality*, **5**, 39–54.
8 Stroup, D.F., Berlin, J.A., Morton, S.C. *et al.* (2000) Meta-analysis of observational studies in epidemiology: a proposal for reporting. Meta-analysis Of Observational Studies in Epidemiology (MOOSE) group. *Journal of the American Medical Association*, **283**, 2008–2012.
9 Swiglo, B., Murad, M., Schünemann, H. *et al.* (2008) A case for clarity, consistency, and helpfulness: state-of-the-art clinical practice guidelines in endocrinology using the GRADE system. *Journal of Clinical Endocrinology and Metabolism*, **93**, 666–673.
10 Atkins, D., Best, D., Briss, P.A. *et al.* (2004) Grading quality of evidence and strength of recommendations. *British Medical Journal*, **328**, 1490–1494.
11 DerSimonian, R. & Laird, N. (1986) Meta-analysis in clinical trials. *Controlled Clinical Trials*, **7**, 177–188.
12 Higgins, J., Thompson, S., Deeks, J. *et al.* (2003) Measuring inconsistency in meta-analyses. *British Medical Journal*, **327**, 557–560.
13 Smith, Y.L., Goozen, S.H.v. & Cohen-Kettenis, P.T. (2001) Adolescents with gender identity disorder who were accepted or rejected for sex reassignment surgery: a prospective follow-up study. *Journal of the American Academy of Child and Adolescent Psychiatry*, **40**, 472–481.
14 Newfield, E., Hart, S., Dibble, S. *et al.* (2006) Female-to-male transgender quality of life. *Quality of Life Research*, **15**, 1447–1457.
15 Leavitt, F., Berger, J.C., Hoeppner, J.A. *et al.* (1980) Presurgical adjustment in male transsexuals with and without hormonal treatment. *Journal of Nervous and Mental Disease*, **168**, 693–697.
16 Miles, C., Green, R. & Hines, M. (2006) Estrogen treatment effects on cognition, memory and mood in male-to-female transsexuals. *Hormones and Behavior*, **50**, 708–717.
17 Slabbekoorn, D., Goozen, S.H.V., Gooren, L.J. *et al.* (2001) Effects of cross-sex hormone treatment on emotionality in transsexuals. *International Journal of Transgenderism* **5**.
18 Yuksel, S., Yucel, B. & Tukel, R. (1991) An evaluation of twenty-one transsexuals in group psychotherapy. *Turk Psikiyatri Dergisi*, **2**, 103–108.
19 Smith, Y.L., Goozen, S.H.V., Kuiper, A.J. *et al.* (2005) Sex reassignment: outcomes and predictors of treatment for adolescent and adult transsexuals. *Psychological Medicine*, **35**, 89–99.
20 Cohen-Kettenis, P.T. & van Goozen, S.H. (1997) Sex reassignment of adolescent transsexuals: a follow-up study. *Journal of the American Academy of Child and Adolescent Psychiatry*, **36**, 263–271.
21 Revol, M., Servant, J.M. & Banzet, P. (2006) Surgical treatment of male-to-female transsexuals: a ten-year experience assessment. *Annales de Chirurgie Plastique et Esthetique*, **51**, 499–511.
22 Tsoi, W.F. (1993) Follow-up study of transsexuals after sex-reassignment surgery. *Singapore Medical Journal*, **34**, 515–517.
23 Zimmermann, A., Zimmer, R., Kovacs, L. *et al.* (2006) Transsexuals' life satisfaction after gender transformation operations [erratum appears in Chirurg 2006 Jun;77(6):530]. *Chirurg*, **77**, 432–438.
24 Krohn, W., Bertermann, H., Wand, H. *et al.* (1981) [Transsexualism: a long-term follow-up after sex reassignment surgery (author's transl)]. *Nervenarzt*, **52**, 26–31.
25 Olsson, S.E., Jansson, I. & Moller, A. (1996) Men as women: experiences from five cases after administrative, hormonal, and surgical treatment. *Nordic Journal of Psychiatry*, **50**, 395–399.
26 Rauchfleisch, U., Barth, D. & Battegay, R. (1998) Results of long-term follow-up of transsexual patients. *Nervenarzt*, **69**, 799–805.
27 Pfafflin, F. & Junge, A. (1990) Follow-up of 85 transsexuals after sex reassignment surgery. *Zeitschrift fur Sexualforschung*, **3**, 331–348.
28 Kaube, H. & Biemer, E. (1991) Results of sex change operations in 30 transsexual patients: psychosocial and sexual adaptation–surgical complications. *Handchirurgie, Mikrochirurgie, Plastische Chirurgie*, **23**, 276–278.
29 Sorensen, T. (1981) A follow-up study of operated transsexual males. *Acta Psychiatrica Scandinavica*, **63**, 486–503.
30 Kuhn, A., Hiltebrand, R. & Birkhauser, M. (2007) Do transsexuals have micturition disorders? *European Journal of Obstetrics, Gynecology, and Reproductive Biology*, **131**, 226–230.
31 Rehman, J., Lazer, S., Benet, A.E. *et al.* (1999) The reported sex and surgery satisfactions of 28 postoperative male-to-female transsexual patients. *Archives of Sexual Behavior*, **28**, 71–89.
32 van Kemenade, J.F., Cohen-Kettenis, P.T., Cohen, L. *et al.* (1989) Effects of the pure antiandrogen RU 23.903 (anandron) on sexuality, aggression, and mood in male-to-female transsexuals. *Archives of Sexual Behavior*, **18**, 217–228.
33 Hepp, U., Klaghofer, R., Burkhard-Kubler, R. *et al.* (2002) Treatment follow-up of transsexual patients: a catamnestic study. *Nervenarzt*, **73**, 283–288.

34 Schroder, M. & Carroll, R.A. (1999) New women: sexological outcomes of male-to-female gender reassignment surgery. *Journal of Sex Education and Therapy*, **24**, 137–146.

35 Hoenig, J., Kenna, J.C. & Youd, A. (1971) Surgical treatment for transsexualism. *Acta Psychiatrica Scandinavica*, **47**, 106–136.

36 Wyler, J., Battegay, R., Krupp, S. *et al.* (1979) [Transsexualism and its therapy]. *Schweizer Archiv fur Neurologie, Neurochirurgie und Psychiatrie*, **124**, 43–58.

37 Lawrence, A.A. (2006) Patient-reported complications and functional outcomes of male-to-female sex reassignment surgery. *Archives of Sexual Behavior*, **35**, 717–727.

518 U.S. 515 (1996)

UNITED STATES
v.
VIRGINIA et al.

No. 94-1941.

United States Supreme Court.

Argued January 17, 1996.
Decided June 26, 1996.[*]

CERTIORARI TO THE UNITED STATES COURT OF APPEALS FOR THE FOURTH CIRCUIT

518 *517 *517 *518 Ginsburg, J.,delivered the opinion of the Court, in which Stevens, O'Connor, Kennedy, Souter, and Breyer, JJ., joined. Rehnquist, C. J., filed an opinion concurring in the judgment, *post,* p. 558. Scalia, J., filed a dissenting opinion, *post,* p. 566. Thomas, J., took no part in the consideration or decision of the case.

Paul Bender argued the cause for the United States in both cases. With him on the briefs were *Solicitor General Days, Assistant Attorney General Patrick, Cornelia T. L. Pillard, Jessica Dunsay Silver,* and *Thomas E. Chandler.*

Theodore B. Olson argued the cause and filed briefs for respondents in No. 94-1941 and petitioners in No. 94-2107. With him on the briefs were *James S. Gilmore III,* Attorney General of Virginia, *William H. Hurd,* Deputy Attorney General, *Thomas G. Hungar, D. Jarrett Arp, Robert H. Patterson, Jr., Anne Marie Whittemore, William G. Broaddus, J. William Boland, Griffin B. Bell,* and *William A. Cline burg, Jr.*[†]

519 *519 Justice Ginsburg, delivered the opinion of the Court.

Virginia's public institutions of higher learning include an incomparable military college, Virginia Military Institute (VMI). The United States maintains that the Constitution's equal protection guarantee precludes Virginia from reserving exclusively to men the unique educational opportunities VMI affords. We agree.

520 *520 I

Founded in 1839, VMI is today the sole single-sex school among Virginia's 15 public institutions of higher learning. VMI's distinctive mission is to produce "citizen-soldiers," men prepared for leadership in civilian life and in military service. VMI pursues this mission through pervasive training of a kind not available anywhere else in Virginia. Assigning prime place to character development, VMI uses an "adversative method" modeled on English public schools and once characteristic of military instruction. VMI constantly endeavors to instill physical and mental discipline in its cadets and impart to them a strong moral code. The school's graduates leave VMI with heightened comprehension of their capacity to deal with duress and stress, and a large sense of accomplishment for completing the hazardous course.

VMI has notably succeeded in its mission to produce leaders; among its alumni are military generals, Members of Congress, and business executives. The school's alumni overwhelmingly perceive that their VMI training helped them to realize their personal goals. VMI's endowment reflects the loyalty of its graduates; VMI has the largest per-student endowment of all public undergraduate institutions in the Nation.

Neither the goal of producing citizen-soldiers nor VMI's implementing methodology is inherently unsuitable to women. And the school's impressive record in producing leaders has made admission desirable to some

women. Nevertheless, Virginia has elected to preserve exclusively for men the advantages and opportunities a VMI education affords.

II

A

From its establishment in 1839 as one of the Nation's first state military colleges, see 1839 Va. Acts, ch. 20,
521 VMI has remained financially supported by Virginia and "subject to *521 the control of the [Virginia] General Assembly," Va. Code Ann. § 23-92 (1993). First southern college to teach engineering and industrial chemistry, see H. Wise, Drawing Out the Man: The VMI Story 13 (1978) (The VMI Story), VMI once provided teachers for the Commonwealth's schools, see 1842 Va. Acts, ch. 24, § 2 (requiring every cadet to teach in one of the Commonwealth's schools for a 2-year period).[1] Civil War strife threatened the school's vitality, but a resourceful superintendent regained legislative support by highlighting "VMI's great potential[,] through its technical know-how," to advance Virginia's postwar recovery. The VMI Story 47.

VMI today enrolls about 1,300 men as cadets.[2] Its academic offerings in the liberal arts, sciences, and engineering are also available at other public colleges and universities in Virginia. But VMI's mission is special. It is the mission of the school

> "'to produce educated and honorable men, prepared for the varied work of civil life, imbued with love of learning, confident in the functions and attitudes of leadership, possessing a high sense of public service, advocates of the American democracy and free enterprise system, and ready
522 as citizen-soldiers to defend their country in *522 time of national peril.' " 766 F. Supp. 1407, 1425 (WD Va. 1991) (quoting Mission Study Committee of the VMI Board of Visitors, Report, May 16, 1986).

In contrast to the federal service academies, institutions maintained "to prepare cadets for career service in the armed forces," VMI's program "is directed at preparation for both military and civilian life"; "[o]nly about 15% of VMI cadets enter career military service." 766 F. Supp., at 1432.

VMI produces its "citizen-soldiers" through "an adversative, or doubting, model of education" which features "[p]hysical rigor, mental stress, absolute equality of treatment, absence of privacy, minute regulation of behavior, and indoctrination in desirable values." *Id.,* at 1421. As one Commandant of Cadets described it, the adversative method "'dissects the young student,' " and makes him aware of his "'limits and capabilities,' " so that he knows "'how far he can go with his anger, . . . how much he can take under stress, . . . exactly what he can do when he is physically exhausted.' " *Id.* , at 1421-1422 (quoting Col. N. Bissell).

VMI cadets live in spartan barracks where surveillance is constant and privacy nonexistent; they wear uniforms, eat together in the mess hall, and regularly participate in drills. *Id.* , at 1424, 1432. Entering students are incessantly exposed to the rat line, "an extreme form of the adversative model," comparable in intensity to Marine Corps boot camp. *Id.* , at 1422. Tormenting and punishing, the rat line bonds new cadets to their fellow sufferers and, when they have completed the 7-month experience, to their former tormentors. *Ibid.*

VMI's "adversative model" is further characterized by a hierarchical "class system" of privileges and responsibilities, a "dyke system" for assigning a senior class mentor to each entering class "rat," and a stringently enforced "honor code," which prescribes that a cadet "'does not lie, cheat, steal nor tolerate those who do.' " *Id.* , at 1422-1423.

523

*523 VMI attracts some applicants because of its reputation as an extraordinarily challenging military school, and "because its alumni are exceptionally close to the school." *Id.*, at 1421. "[W]omen have no opportunity anywhere to gain the benefits of [the system of education at VMI]." *Ibid.*

B

In 1990, prompted by a complaint filed with the Attorney General by a female high-school student seeking admission to VMI, the United States sued the Commonwealth of Virginia and VMI, alleging that VMI's exclusively male admission policy violated the Equal Protection Clause of the Fourteenth Amendment. *Id.*, at 1408.[3] Trial of the action consumed six days and involved an array of expert witnesses on each side. *Ibid.*

In the two years preceding the lawsuit, the District Court noted, VMI had received inquiries from 347 women, but had responded to none of them. *Id.*, at 1436. "[S]ome women, at least," the court said, "would want to attend the school if they had the opportunity." *Id.*, at 1414. The court further recognized that, with recruitment, VMI could "achieve at least 10% female enrollment"—"a sufficient `critical mass' to provide the female cadets with a positive educational experience." *Id.*, at 1437-1438. And it was also established that "some women are capable of all of the individual activities required of VMI cadets." *Id.*, at 1412. In addition, experts agreed that if VMI admitted women, "the VMI ROTC experience would become a better training program from the perspective of the armed forces, because it would provide training in dealing with a mixed-gender army." *Id.*, at 1441.

The District Court ruled in favor of VMI, however, and rejected the equal protection challenge pressed by the United States. That court correctly recognized that *Mississippi Univ. for Women v. Hogan*, 458 U. S. 718 (1982), was
524 *524 the closest guide. 766 F. Supp., at 1410. There, this Court underscored that a party seeking to uphold government action based on sex must establish an "exceedingly persuasive justification" for the classification. *Mississippi Univ. for Women*, 458 U. S., at 724 (internal quotation marks omitted). To succeed, the defender of the challenged action must show "at least that the classification serves important governmental objectives and that the discriminatory means employed are substantially related to the achievement of those objectives." *Ibid.* (internal quotation marks omitted).

The District Court reasoned that education in "a singlegender environment, be it male or female," yields substantial benefits. 766 F. Supp., at 1415. VMI's school for men brought diversity to an otherwise coeducational Virginia system, and that diversity was "enhanced by VMI's unique method of instruction." *Ibid.* If single-gender education for males ranks as an important governmental objective, it becomes obvious, the District Court concluded, that the *only* means of achieving the objective "is to exclude women from the all-male institution—VMI." *Ibid.*

"Women are [indeed] denied a unique educational opportunity that is available only at VMI," the District Court acknowledged. *Id.*, at 1432. But "[VMI's] single-sex status would be lost, and some aspects of the [school's] distinctive method would be altered," if women were admitted, *id.*, at 1413: "Allowance for personal privacy would have to be made," *id.*, at 1412; "[p]hysical education requirements would have to be altered, at least for the women," *id.*, at 1413; the adversative environment could not survive unmodified, *id.*, at 1412-1413. Thus, "sufficient constitutional justification" had been shown, the District Court held, "for continuing [VMI's] single-sex policy." *Id.*, at 1413.

The Court of Appeals for the Fourth Circuit disagreed and vacated the District Court's judgment. The appellate court held: "The Commonwealth of Virginia has not . . . advanced any state policy by which it can justify its
525 determination, *525 under an announced policy of diversity, to afford VMI's unique type of program to men and not to women." 976 F. 2d 890, 892 (1992).

The appeals court greeted with skepticism Virginia's assertion that it offers single-sex education at VMI as a facet of the Commonwealth's overarching and undisputed policy to advance "autonomy and diversity." The

court underscored Virginia's nondiscrimination commitment: "'[I]t is extremely important that [colleges and universities] deal with faculty, staff, and students *without regard to sex, race, or ethnic origin.*' " *Id.*, at 899 (quoting 1990 Report of the Virginia Commission on the University of the 21st Century). "That statement," the Court of Appeals said, "is the only explicit one that we have found in the record in which the Commonwealth has expressed itself with respect to gender distinctions." 976 F. 2d, at 899. Furthermore, the appeals court observed, in urging "diversity" to justify an all-male VMI, the Commonwealth had supplied "no explanation for the movement away from [single-sex education] in Virginia by public colleges and universities." *Ibid.* In short, the court concluded, "[a] policy of diversity which aims to provide an array of educational opportunities, including single-gender institutions, must do more than favor one gender." *Ibid.*

The parties agreed that "*some* women can meet the physical standards now imposed on men," *id.*, at 896, and the court was satisfied that "neither the goal of producing citizen soldiers nor VMI's implementing methodology is inherently unsuitable to women," *id.*, at 899. The Court of Appeals, however, accepted the District Court's finding that "at least these three aspects of VMI's program—physical training, the absence of privacy, and the adversative approach—would be materially affected by coeducation." *Id.*, at 896-897. Remanding the case, the appeals court assigned to Virginia, in the first instance, responsibility for selecting a remedial course. The
526 court suggested these options for the Commonwealth: Admit women to VMI; establish parallel institutions *526 or programs; or abandon state support, leaving VMI free to pursue its policies as a private institution. *Id.*, at 900. In May 1993, this Court denied certiorari. See 508 U. S. 946; see also *ibid.* (opinion of Scalia, J., noting the interlocutory posture of the litigation).

C

In response to the Fourth Circuit's ruling, Virginia proposed a parallel program for women: Virginia Women's Institute for Leadership (VWIL). The 4-year, state-sponsored undergraduate program would be located at Mary Baldwin College, a private liberal arts school for women, and would be open, initially, to about 25 to 30 students. Although VWIL would share VMI's mission—to produce "citizensoldiers"—the VWIL program would differ, as does Mary Baldwin College, from VMI in academic offerings, methods of education, and financial resources. See 852 F. Supp. 471, 476-477 (WD Va. 1994).

The average combined SAT score of entrants at Mary Baldwin is about 100 points lower than the score for VMI freshmen. See *id.*, at 501. Mary Baldwin's faculty holds "significantly fewer Ph. D.'s than the faculty at VMI," *id.*, at 502, and receives significantly lower salaries, see Tr. 158 (testimony of James Lott, Dean of Mary Baldwin College), reprinted in 2 App. in Nos. 94-1667 and 94-1717 (CA4) (hereinafter Tr.). While VMI offers degrees in liberal arts, the sciences, and engineering, Mary Baldwin, at the time of trial, offered only bachelor of arts degrees. See 852 F. Supp., at 503. A VWIL student seeking to earn an engineering degree could gain one, without public support, by attending Washington University in St. Louis, Missouri, for two years, paying the required private tuition. See *ibid.*

Experts in educating women at the college level composed the Task Force charged with designing the VWIL program; Task Force members were drawn from Mary Baldwin's own faculty and staff. *Id.*, at 476. Training its
527 attention on methods of instruction appropriate for "most women," the *527 Task Force determined that a military model would be "wholly inappropriate" for VWIL. *Ibid.*; see 44 F. 3d 1229, 1233 (CA4 1995).

VWIL students would participate in ROTC programs and a newly established, "largely ceremonial" Virginia Corps of Cadets, *id.*, at 1234, but the VWIL House would not have a military format, 852 F. Supp., at 477, and VWIL would not require its students to eat meals together or to wear uniforms during the schoolday, *id.*, at 495. In lieu of VMI's adversative method, the VWIL Task Force favored "a cooperative method which reinforces self-esteem." *Id.*, at 476. In addition to the standard bachelor of arts program offered at Mary Baldwin, VWIL students would take courses in leadership, complete an off-campus leadership externship, participate in community service projects, and assist in arranging a speaker series. See 44 F. 3d, at 1234.

Virginia represented that it will provide equal financial support for in-state VWIL students and VMI cadets, 852 F. Supp., at 483, and the VMI Foundation agreed to supply a $5.4625 million endowment for the VWIL program, *id.*, at 499. Mary Baldwin's own endowment is about $19 million; VMI's is $131 million. *Id.*, at 503. Mary Baldwin will add $35 million to its endowment based on future commitments; VMI will add $220 million. *Ibid.* The VMI Alumni Association has developed a network of employers interested in hiring VMI graduates. The Association has agreed to open its network to VWIL graduates, *id.*, at 499, but those graduates will not have the advantage afforded by a VMI degree.

D

Virginia returned to the District Court seeking approval of its proposed remedial plan, and the court decided the plan met the requirements of the Equal Protection Clause. *Id.* , at 473. The District Court again acknowledged evidentiary support for these determinations: "[T]he VMI methodology could be used to educate women and, in
528 fact, some *528 women . . . may prefer the VMI methodology to the VWIL methodology." *Id.* , at 481. But the "controlling legal principles," the District Court decided, "do not require the Commonwealth to provide a mirror image VMI for women." *Ibid.* The court anticipated that the two schools would "achieve substantially similar outcomes." *Ibid.* It concluded: "If VMI marches to the beat of a drum, then Mary Baldwin marches to the melody of a fife and when the march is over, both will have arrived at the same destination." *Id.* , at 484.

A divided Court of Appeals affirmed the District Court's judgment. 44 F. 3d 1229 (CA4 1995). This time, the appellate court determined to give "greater scrutiny to the selection of means than to the [Commonwealth's] proffered objective." *Id.* , at 1236. The official objective or purpose, the court said, should be reviewed deferentially. *Ibid.* Respect for the "legislative will," the court reasoned, meant that the judiciary should take a "cautious approach," inquiring into the "legitima[cy]" of the governmental objective and refusing approval for any purpose revealed to be "pernicious." *Ibid.*

"[P]roviding the option of a single-gender college education may be considered a legitimate and important aspect of a public system of higher education," the appeals court observed, *Id.*, at 1238; that objective, the court added, is "not pernicious," *Id.*, at 1239. Moreover, the court continued, the adversative method vital to a VMI education "has never been tolerated in a sexually heterogeneous environment." *Ibid.* The method itself "was not designed to exclude women," the court noted, but women could not be accommodated in the VMI program, the court believed, for female participation in VMI's adversative training 'would destroy. . . any sense of decency that still permeates the relationship between the sexes." *Ibid.*

Having determined, deferentially, the legitimacy of Virginia's purpose, the court considered the question of
529 means. *529 Exclusion of "men at Mary Baldwin College and women at VMI," the court said, was essential to Virginia's purpose, for without such exclusion, the Commonwealth could not "accomplish [its] objective of providing single-gender education." *Ibid.*

The court recognized that, as it analyzed the case, means merged into end, and the merger risked "bypass[ing] any equal protection scrutiny." *Id.*, at 1237. The court therefore added another inquiry, a decisive test it called "substantive comparability." *Ibid.* The key question, the court said, was whether men at VMI and women at VWIL would obtain "substantively comparable benefits at their institution or through other means offered by the [S]tate." *Ibid.* Although the appeals court recognized that the VWIL degree "lacks the historical benefit and prestige" of a VMI degree, it nevertheless found the educational opportunities at the two schools "sufficiently comparable." *Id.*, at 1241.

Senior Circuit Judge Phillips dissented. The court, in his judgment, had not held Virginia to the burden of showing an "'exceedingly persuasive [justification]' " for the Commonwealth's action. *Id.*, at 1247 (quoting *Mississippi Univ. for Women*, 458 U. S., at 724). In Judge Phillips' view, the court had accepted "rationalizations compelled by the exigencies of this litigation," and had not confronted the Commonwealth's

"actual overriding purpose." 44 F. 3d, at 1247. That purpose, Judge Phillips said, was clear from the historical record; it was "not to create a new type of educational opportunity for women, . . . nor to further diversify the Commonwealth's higher education system[,] . . . but [was] simply . . . to allow VMI to continue to exclude women in order to preserve its historic character and mission." *Ibid.*

Judge Phillips suggested that the Commonwealth would satisfy the Constitution's equal protection requirement if it "simultaneously opened single-gender undergraduate institutions having substantially comparable curricular
530 and extra-curricular programs, funding, physical plant, administration *530 and support services, and faculty and library resources." *Id.*, at 1250. But he thought it evident that the proposed VWIL program, in comparison to VMI, fell "far short . . . from providing substantially equal tangible and intangible educational benefits to men and women." *Ibid.*

The Fourth Circuit denied rehearing en banc. 52 F. 3d 90 (1995). Circuit Judge Motz, joined by Circuit Judges Hall, Murnaghan, and Michael, filed a dissenting opinion.[4] Judge Motz agreed with Judge Phillips that Virginia had not shown an "'exceedingly persuasive justification' " for the disparate opportunities the Commonwealth supported. *Id.*, at 92 (quoting *Mississippi Univ. for Women*, 458 U. S., at 724). She asked: "[H]ow can a degree from a yet to be implemented supplemental program at Mary Baldwin be held 'substantively comparable' to a degree from a venerable Virginia military institution that was established more than 150 years ago?" 52 F. 3d, at 93. "Women need not be guaranteed equal 'results,' " Judge Motz said, "but the Equal Protection Clause does require equal opportunity . . . [and] that opportunity is being denied here." *Ibid.*

III

The cross-petitions in this suit present two ultimate issues. First, does Virginia's exclusion of women from the educational opportunities provided by VMI—extraordinary opportunities for military training and civilian leadership development—deny to women "capable of all of the individual activities required of VMI cadets," 766 F. Supp., at 1412, the equal protection of the laws guaranteed by the Fourteenth Amendment? Second, if
531 VMI's "unique" situation, *Id.* , at 1413—as Virginia's sole single-sex public institution of *531 higher education—offends the Constitution's equal protection principle, what is the remedial requirement?

IV

We note, once again, the core instruction of this Court's pathmarking decisions in *J. E. B. v. Alabama ex rel. T. B.*, 511 U. S. 127, 136-137, and n. 6 (1994), and *Mississippi Univ. for Women*, 458 U. S., at 724 (internal quotation marks omitted): Parties who seek to defend gender-based government action must demonstrate an "exceedingly persuasive justification" for that action.

Today's skeptical scrutiny of official action denying rights or opportunities based on sex responds to volumes of history. As a plurality of this Court acknowledged a generation ago, "our Nation has had a long and unfortunate history of sex discrimination." *Frontiero v. Richardson*, 411 U. S. 677, 684 (1973). Through a century plus three decades and more of that history, women did not count among voters composing "We the People";[5] not until 1920 did women gain a constitutional right to the franchise. *Id.*, at 685. And for a half century thereafter, it remained the prevailing doctrine that government, both federal and state, could withhold from women opportunities accorded men so long as any "basis in reason" could be conceived for the discrimination. See, *e. g.*, *Goesaert v. Cleary*, 335 U. S. 464, 467 (1948) (rejecting challenge of female tavern owner and her daughter to Michigan law denying bartender licenses to females—except for wives and daughters of male tavern
532 owners; Court would not "give ear" to the contention that "an unchivalrous desire of male *532 bartenders to . . . monopolize the calling" prompted the legislation).

In 1971, for the first time in our Nation's history, this Court ruled in favor of a woman who complained that her State had denied her the equal protection of its laws. *Reed* v. *Reed*, 404 U. S. 71, 73 (holding unconstitutional Idaho Code prescription that, among "'several persons claiming and equally entitled to administer [a decedent's estate], males must be preferred to females' "). Since *Reed*, the Court has repeatedly recognized that neither federal nor state government acts compatibly with the equal protection principle when a law or official policy denies to women, simply because they are women, full citizenship stature—equal opportunity to aspire, achieve, participate in and contribute to society based on their individual talents and capacities. See, *e. g.*, *Kirchberg* v. *Feenstra*, 450 U. S. 455, 462-463 (1981) (affirming invalidity of Louisiana law that made husband "head and master" of property jointly owned with his wife, giving him unilateral right to dispose of such property without his wife's consent); *Stanton* v. *Stanton*, 421 U. S. 7 (1975) (invalidating Utah requirement that parents support boys until age 21, girls only until age 18).

Without equating gender classifications, for all purposes, to classifications based on race or national origin,[6] the Court, in post-*Reed* decisions, has carefully inspected official action that closes a door or denies opportunity to women (or to men). See *J. E. B.*, 511 U. S., at 152 (Kennedy, J., concurring in judgment) (case law evolving since 1971 "reveal[s] a strong presumption that gender classifications are invalid"). To summarize the Court's current directions for cases of official classification based on gender: Focusing on the differential
533 *533 treatment or denial of opportunity for which relief is sought, the reviewing court must determine whether the proffered justification is "exceedingly persuasive." The burden of justification is demanding and it rests entirely on the State. See *Mississippi Univ. for Women*, 458 U. S., at 724. The State must show "at least that the [challenged] classification serves 'important governmental objectives and that the discriminatory means employed' are 'substantially related to the achievement of those objectives.' " *Ibid.* (quoting *Wengler* v. *Druggists Mut. Ins. Co.*, 446 U. S. 142, 150 (1980)). The justification must be genuine, not hypothesized or invented *post hoc* in response to litigation. And it must not rely on overbroad generalizations about the different talents, capacities, or preferences of males and females. See *Weinberger* v. *Wiesenfeld*, 420 U. S. 636, 643, 648 (1975); *Califano* v. *Goldfarb*, 430 U. S. 199, 223-224 (1977) (Stevens, J., concurring in judgment).

The heightened review standard our precedent establishes does not make sex a proscribed classification. Supposed "inherent differences" are no longer accepted as a ground for race or national origin classifications. See *Loving* v. *Virginia*, 388 U. S. 1 (1967). Physical differences between men and women, however, are enduring: "[T]he two sexes are not fungible; a community made up exclusively of one [sex] is different from a community composed of both." *Ballard* v. *United States*, 329 U. S. 187, 193 (1946).

"Inherent differences" between men and women, we have come to appreciate, remain cause for celebration, but not for denigration of the members of either sex or for artificial constraints on an individual's opportunity. Sex classifications may be used to compensate women "for particular economic disabilities [they have] suffered," *Califano* v. *Webster*, 430 U. S. 313, 320 (1977) *(per curiam)*, to "promot[e] equal employment opportunity," see *California Fed. Sav. & Loan Assn.* v. *Guerra*, 479 U. S. 272, 289 (1987), to advance full
534 development of the talent and capacities of our Nation's people.[7] *534 But such classifications may not be used, as they once were, see *Goesaert*, 335 U. S., at 467, to create or perpetuate the legal, social, and economic inferiority of women.

Measuring the record in this case against the review standard just described, we conclude that Virginia has shown no "exceedingly persuasive justification" for excluding all women from the citizen-soldier training afforded by VMI. We therefore affirm the Fourth Circuit's initial judgment, which held that Virginia had violated the Fourteenth Amendment's Equal Protection Clause. Because the remedy proffered by Virginia—the Mary Baldwin VWIL program—does not cure the constitutional violation, *i. e.*, it does not provide equal opportunity, we reverse the Fourth Circuit's final judgment in this case.

V

The Fourth Circuit initially held that Virginia had advanced no state policy by which it could justify, under equal protection principles, its determination "to afford VMI's unique type of program to men and not to women." 976 F. 2d, at 892. Virginia challenges that "liability" ruling and asserts two justifications in defense of VMI's
535 exclusion of *535 women. First, the Commonwealth contends, "single-sex education provides important educational benefits," Brief for Cross-Petitioners 20, and the option of single-sex education contributes to "diversity in educational approaches," *id.*, at 25. Second, the Commonwealth argues, "the unique VMI method of character development and leadership training," the school's adversative approach, would have to be modified were VMI to admit women. *Id.*, at 33-36 (internal quotation marks omitted). We consider these two justifications in turn.

A

Single-sex education affords pedagogical benefits to at least some students, Virginia emphasizes, and that reality is uncontested in this litigation.[8] Similarly, it is not disputed that diversity among public educational institutions can serve the public good. But Virginia has not shown that VMI was established, or has been maintained, with a view to diversifying, by its categorical exclusion of women, educational opportunities within the Commonwealth. In cases of this genre, our precedent instructs that "benign" justifications proffered in defense of categorical exclusions will not be accepted automatically; a tenable justification must describe
536 actual state purposes, not rationalizations for actions *536 in fact differently grounded. See *Wiesenfeld*, 420 U. S., at 648, and n. 16 ("mere recitation of a benign [or] compensatory purpose" does not block "inquiry into the actual purposes" of government-maintained gender-based classifications); *Goldfarb*, 430 U. S., at 212-213 (rejecting government-proffered purposes after "inquiry into the actual purposes" (internal quotation marks omitted)).

Mississippi Univ. for Women is immediately in point. There the State asserted, in justification of its exclusion of men from a nursing school, that it was engaging in "educational affirmative action" by "compensat[ing] for discrimination against women." 458 U. S., at 727. Undertaking a "searching analysis," *id.*, at 728, the Court found no close resemblance between "the alleged objective" and "the actual purpose underlying the discriminatory classification," *id.*, at 730. Pursuing a similar inquiry here, we reach the same conclusion.

Neither recent nor distant history bears out Virginia's alleged pursuit of diversity through single-sex educational options. In 1839, when the Commonwealth established VMI, a range of educational opportunities for men and women was scarcely contemplated. Higher education at the time was considered dangerous for women;[9]
537 reflecting *537 widely held views about women's proper place, the Nation's first universities and colleges—for example, Harvard in Massachusetts, William and Mary in Virginia—admitted only men. See E. Farello, A History of the Education of Women in the United States 163 (1970). VMI was not at all novel in this respect: In admitting no women, VMI followed the lead of the Commonwealth's flagship school, the University of Virginia, founded in 1819.

"[N]o struggle for the admission of women to a state university," a historian has recounted, "was longer drawn out, or developed more bitterness, than that at the University of Virginia." 2 T. Woody, A History of Women's Education in the United States 254 (1929) (History of Women's Education). In 1879, the State Senate resolved to look into the possibility of higher education for women, recognizing that Virginia "'has never, at any period of her history,' " provided for the higher education of her daughters, though she "'has liberally provided for the higher education of her sons.' " *Ibid.* (quoting 10 Educ. J. Va. 212 (1879)). Despite this recognition, no new opportunities were instantly open to women.[10]

Virginia eventually provided for several women's seminaries and colleges. Farmville Female Seminary became a public institution in 1884. See *supra*, at 521, n. 2. Two women's schools, Mary Washington College and James Madison University, were founded in 1908; another, Radford University, was founded in 1910. 766 F. Supp., at 1418-1419. By the mid-1970's, all four schools had become coeducational. *Ibid.*

Debate concerning women's admission as undergraduates at the main university continued well past the
538 century's midpoint. Familiar arguments were rehearsed. If women *538 were admitted, it was feared, they "would encroach on the rights of men; there would be new problems of government, perhaps scandals; the old honor system would have to be changed; standards would be lowered to those of other coeducational schools; and the glorious reputation of the university, as a school for men, would be trailed in the dust." 2 History of Women's Education 255.

Ultimately, in 1970, "the most prestigious institution of higher education in Virginia," the University of Virginia, introduced coeducation and, in 1972, began to admit women on an equal basis with men. See *Kirstein v. Rector and Visitors of Univ. of Virginia*, 309 F. Supp. 184, 186 (ED Va. 1970). A three-judge Federal District Court confirmed: "Virginia may not now deny to women, on the basis of sex, educational opportunities at the Charlottesville campus that are not afforded in other institutions operated by the [S]tate." *Id.*, at 187.

Virginia describes the current absence of public single-sex higher education for women as "an historical anomaly." Brief for Cross-Petitioners 30. But the historical record indicates action more deliberate than anomalous: First, protection of women against higher education; next, schools for women far from equal in resources and stature to schools for men; finally, conversion of the separate schools to coeducation. The state legislature, prior to the advent of this controversy, had repealed "[a]ll Virginia statutes requiring individual institutions to admit only men or women." 766 F. Supp., at 1419. And in 1990, an official commission, "legislatively established to chart the future goals of higher education in Virginia," reaffirmed the policy "'of affording broad access' while maintaining 'autonomy and diversity.'" 976 F. 2d, at 898-899 (quoting Report of the Virginia Commission on the University of the 21st Century). Significantly, the commission reported:

> "'Because colleges and universities provide opportunities for students to develop values and
539 learn from role *539 models, it is extremely important that they deal with faculty, staff, and students without regard to sex, race, or ethnic origin.'" *Id.*, at 899 (emphasis supplied by Court of Appeals deleted).

This statement, the Court of Appeals observed, "is the only explicit one that we have found in the record in which the Commonwealth has expressed itself with respect to gender distinctions." *Ibid.*

Our 1982 decision in *Mississippi Univ. for Women* prompted VMI to reexamine its male-only admission policy. See 766 F. Supp., at 1427-1428. Virginia relies on that reexamination as a legitimate basis for maintaining VMI's single-sex character. See Reply Brief for Cross-Petitioners 6. A Mission Study Committee, appointed by the VMI Board of Visitors, studied the problem from October 1983 until May 1986, and in that month counseled against "change of VMI status as a single-sex college." See 766 F. Supp., at 1429 (internal quotation marks omitted). Whatever internal purpose the Mission Study Committee served—and however well meaning the framers of the report—we can hardly extract from that effort any commonwealth policy evenhandedly to advance diverse educational options. As the District Court observed, the Committee's analysis "primarily focuse[d] on anticipated difficulties in attracting females to VMI," and the report, overall, supplied "very little indication of how th[e] conclusion was reached." *Ibid.*

In sum, we find no persuasive evidence in this record that VMI's male-only admission policy "is in furtherance of a state policy of 'diversity.'" See 976 F. 2d, at 899. No such policy, the Fourth Circuit observed, can be discerned from the movement of all other public colleges and universities in Virginia away from single-sex education. See *ibid.* That court also questioned "how one institution with autonomy, but with no authority over any other state institution, can give effect to a state policy of diversity among institutions." *Ibid.* A purpose
540 genuinely to advance an array of educational *540 options, as the Court of Appeals recognized, is not served by VMI's historic and constant plan—a plan to "affor[d] a unique educational benefit only to males." *Ibid.* However "liberally" this plan serves the Commonwealth's sons, it makes no provision whatever for her daughters. That is not *equal* protection.

B

Virginia next argues that VMI's adversative method of training provides educational benefits that cannot be made available, unmodified, to women. Alterations to accommodate women would necessarily be "radical," so "drastic," Virginia asserts, as to transform, indeed "destroy," VMI's program. See Brief for Cross-Petitioners 34-36. Neither sex would be favored by the transformation, Virginia maintains: Men would be deprived of the unique opportunity currently available to them; women would not gain that opportunity because their participation would "eliminat[e] the very aspects of [the] program that distinguish [VMI] from . . . other institutions of higher education in Virginia." *Id.*, at 34.

The District Court forecast from expert witness testimony, and the Court of Appeals accepted, that coeducation would materially affect "at least these three aspects of VMI's program—physical training, the absence of privacy, and the adversative approach." 976 F. 2d, at 896-897. And it is uncontested that women's admission would require accommodations, primarily in arranging housing assignments and physical training programs for female cadets. See Brief for Cross-Respondent 11, 29-30. It is also undisputed, however, that "the VMI methodology could be used to educate women." 852 F. Supp., at 481. The District Court even allowed that some women may prefer it to the methodology a women's college might pursue. See *ibid.* "[S]ome women, at least, would want to attend [VMI] if they had the opportunity," the District Court recognized, 766 F. Supp., at
541 1414, and "some women," the expert testimony established, "are *541 capable of all of the individual activities required of VMI cadets," *Id.*, at 1412. The parties, furthermore, agree that "*some* women can meet the physical standards [VMI] now impose[s] on men." 976 F. 2d, at 896. In sum, as the Court of Appeals stated, "neither the goal of producing citizen soldiers," VMI's *raison d'être*, "nor VMI's implementing methodology is inherently unsuitable to women." *Id.*, at 899.

In support of its initial judgment for Virginia, a judgment rejecting all equal protection objections presented by the United States, the District Court made "findings" on "gender-based developmental differences." 766 F. Supp., at 1434-1435. These "findings" restate the opinions of Virginia's expert witnesses, opinions about typically male or typically female "tendencies." *Id.*, at 1434. For example, "[m]ales tend to need an atmosphere of adversativeness," while "[f]emales tend to thrive in a cooperative atmosphere." *Ibid.* "I'm not saying that some women don't do well under [the] adversative model," VMI's expert on educational institutions testified, "undoubtedly there are some [women] who do"; but educational experiences must be designed "around the rule," this expert maintained, and not "around the exception." *Ibid.* (internal quotation marks omitted).

The United States does not challenge any expert witness estimation on average capacities or preferences of men and women. Instead, the United States emphasizes that time and again since this Court's turning point decision in *Reed v. Reed*, 404 U. S. 71 (1971), we have cautioned reviewing courts to take a "hard look" at generalizations or "tendencies" of the kind pressed by Virginia, and relied upon by the District Court. See O'Connor, Portia's Progress, 66 N. Y. U. L. Rev. 1546, 1551 (1991). State actors controlling gates to opportunity, we have instructed, may not exclude qualified individuals based on "fixed notions concerning the roles and abilities of males and females." *Mississippi Univ. for Women*, 458 U. S., at 725; see *J. E. B.*, 511 U.
542 S., at 139, n. 11 (equal protection principles, as applied to gender classifications, mean *542 state actors may not rely on "overbroad" generalizations to make "judgments about people that are likely to . . . perpetuate historical patterns of discrimination").

It may be assumed, for purposes of this decision, that most women would not choose VMI's adversative method. As Fourth Circuit Judge Motz observed, however, in her dissent from the Court of Appeals' denial of rehearing en banc, it is also probable that "many men would not want to be educated in such an environment." 52 F. 3d, at 93. (On that point, even our dissenting colleague might agree.) Education, to be sure, is not a "one size fits all" business. The issue, however, is not whether "women—or men—should be forced to attend VMI"; rather, the question is whether the Commonwealth can constitutionally deny to women who have the will and capacity, the training and attendant opportunities that VMI uniquely affords. *Ibid.*

The notion that admission of women would downgrade VMI's stature, destroy the adversative system and, with
543 it, even the school,[11] is a judgment hardly proved,[12] a prediction *543 hardly different from other "self-fulfilling prophec[ies]," see Mississippi Univ. for Women, 458 U. S., at 730, once routinely used to deny rights or opportunities. When women first sought admission to the bar and access to legal education, concerns of the same order were expressed. For example, in 1876, the Court of Common Pleas of Hennepin County, Minnesota, explained why women were thought ineligible for the practice of law. Women train and educate the young, the court said, which

> "forbids that they shall bestow that time (early and late) and labor, so essential in attaining to the eminence to which the true lawyer should ever aspire. It cannot therefore be said that the opposition of courts to the admission of females to practice . . . is to any extent the outgrowth of . . . 'old fogyism[.]' . . . [I]t arises rather from a comprehension of the magnitude of the responsibilities connected with the successful practice of law, and a desire to *grade up* the profession." In re Application of Martha Angle Dorsett to Be Admitted to Practice as Attorney and Counselor at Law (Minn. C. P. Hennepin Cty., 1876), in The Syllabi, Oct. 21, 1876, pp. 5, 6 (emphasis added).

A like fear, according to a 1925 report, accounted for Columbia Law School's resistance to women's admission, although

> "[t]he faculty . . . never maintained that women could not master legal learning . . . . No, its
544 argument has been . . . more practical. If women were admitted to *544 the Columbia Law School, [the faculty] said, then the choicer, more manly and red-blooded graduates of our great universities would go to the Harvard Law School!" The Nation, Feb. 18, 1925, p. 173.

Medical faculties similarly resisted men and women as partners in the study of medicine. See R. Morantz-Sanchez, Sympathy and Science: Women Physicians in American Medicine 51-54, 250 (1985); see also M. Walsh, "Doctors Wanted: No Women Need Apply" 121-122 (1977) (quoting E. Clarke, Medical Education of Women, 4 Boston Med. & Surg. J. 345, 346 (1869) ("'God forbid that I should ever see men and women aiding each other to display with the scalpel the secrets of the reproductive system . . . .'")); *cf. supra*, at 536-537, n. 9. More recently, women seeking careers in policing encountered resistance based on fears that their presence would "undermine male solidarity," see F. Heidensohn, Women in Control? 201 (1992); deprive male partners of adequate assistance, see *id.*, at 184-185; and lead to sexual misconduct, see C. Milton et al., Women in Policing 32-33 (1974). Field studies did not confirm these fears. See Heidensohn, *supra*, at 92-93; P. Bloch & D. Anderson, Policewomen on Patrol: Final Report (1974).

Women's successful entry into the federal military academies,[13] and their participation in the Nation's military
545 forces,[14] indicate that Virginia's fears for the future of VMI *545 may not be solidly grounded.[15] The Commonwealth's justification for excluding all women from "citizen-soldier" training for which some are qualified, in any event, cannot rank as "exceedingly persuasive," as we have explained and applied that standard.

Virginia and VMI trained their argument on "means" rather than "end," and thus misperceived our precedent. Single-sex education at VMI serves an "important governmental objective," they maintained, and exclusion of women is not only "substantially related," it is essential to that objective. By this notably circular argument, the "straightforward" test *Mississippi Univ. for Women* described, see 458 U. S., at 724-725, was bent and bowed.

The Commonwealth's misunderstanding and, in turn, the District Court's, is apparent from VMI's mission: to produce "citizen-soldiers," individuals

> "'imbued with love of learning, confident in the functions and attitudes of leadership, possessing a high sense of public service, advocates of the American democracy and free enterprise system, and ready . . . to defend their country in time of national peril.'" 766 F. Supp., at 1425 (quoting Mission Study Committee of the VMI Board of Visitors, Report, May 16, 1986).

Surely that goal is great enough to accommodate women, who today count as citizens in our American
546 democracy equal in stature to men. Just as surely, the Commonwealth's *546 great goal is not substantially advanced by women's categorical exclusion, in total disregard of their individual merit, from the Commonwealth's premier "citizen-soldier" corps.[16] Virginia, in sum, "has fallen far short of establishing the 'exceedingly persuasive justification,'" *Mississippi Univ. for Women*, 458 U. S., at 731, that must be the solid base for any gender-defined classification.

VI

In the second phase of the litigation, Virginia presented its remedial plan—maintain VMI as a male-only college and create VWIL as a separate program for women. The plan met District Court approval. The Fourth Circuit, in turn, deferentially reviewed the Commonwealth's proposal and decided that the two single-sex programs directly served Virginia's reasserted purposes: single-gender education, and "achieving the results of an adversative method in a military environment." See 44 F. 3d, at 1236, 1239. Inspecting the VMI and VWIL educational programs to determine whether they "afford[ed] to both genders benefits comparable in substance, [if] not in form and detail," *id.*, at 1240, the Court of Appeals concluded that Virginia had arranged for men and women opportunities "sufficiently comparable" to survive equal protection evaluation, *id.*, at 1240-1241. The United States challenges this "remedial" ruling as pervasively misguided.

547 *547 A

A remedial decree, this Court has said, must closely fit the constitutional violation; it must be shaped to place persons unconstitutionally denied an opportunity or advantage in "the position they would have occupied in the absence of [discrimination]." See *Milliken v. Bradley*, 433 U. S. 267, 280 (1977) (internal quotation marks omitted). The constitutional violation in this suit is the categorical exclusion of women from an extraordinary educational opportunity afforded men. A proper remedy for an unconstitutional exclusion, we have explained, aims to "eliminate [so far as possible] the discriminatory effects of the past" and to "bar like discrimination in the future." *Louisiana v. United States*, 380 U. S. 145, 154 (1965).

Virginia chose not to eliminate, but to leave untouched, VMI's exclusionary policy. For women only, however, Virginia proposed a separate program, different in kind from VMI and unequal in tangible and intangible facilities.[17] Having violated the Constitution's equal protection requirement, Virginia was obliged to show that its remedial proposal "directly address[ed] and relate[d] to" the violation, see *Milliken*, 433 U. S., at 282, *i. e.*,
548 the equal protection denied to women ready, willing, and able to benefit from educational *548 opportunities of the kind VMI offers. Virginia described VWIL as a "parallel program," and asserted that VWIL shares VMI's mission of producing "citizen-soldiers" and VMI's goals of providing "education, military training, mental and physical discipline, character . . . and leadership development." Brief for Respondents 24 (internal quotation marks omitted). If the VWIL program could not "eliminate the discriminatory effects of the past," could it at least "bar like discrimination in the future"? See *Louisiana*, 380 U. S., at 154. A comparison of the programs said to be "parallel" informs our answer. In exposing the character of, and differences in, the VMI and VWIL programs, we recapitulate facts earlier presented. See *supra*, at 520-523, 526-527.

VWIL affords women no opportunity to experience the rigorous military training for which VMI is famed. See 766 F. Supp., at 1413-1414 ("No other school in Virginia or in the United States, public or private, offers the same kind of rigorous military training as is available at VMI."); *id.*, at 1421 (VMI "is known to be the most challenging military school in the United States"). Instead, the VWIL program "deemphasize[s]" military

education, 44 F. 3d, at 1234, and uses a "cooperative method" of education "which reinforces self-esteem," 852 F. Supp., at 476.

VWIL students participate in ROTC and a "largely ceremonial" Virginia Corps of Cadets, see 44 F. 3d, at 1234, but Virginia deliberately did not make VWIL a military institute. The VWIL House is not a military-style residence and VWIL students need not live together throughout the 4-year program, eat meals together, or wear uniforms during the schoolday. See 852 F. Supp., at 477, 495. VWIL students thus do not experience the "barracks" life "crucial to the VMI experience," the spartan living arrangements designed to foster an "egalitarian ethic." See 766 F. Supp., at 1423-1424. "[T]he most important aspects of the VMI educational
549 experience occur in the barracks," the District Court *549 found, *id.*, at 1423, yet Virginia deemed that core experience nonessential, indeed inappropriate, for training its female citizen-soldiers.

VWIL students receive their "leadership training" in seminars, externships, and speaker series, see 852 F. Supp., at 477, episodes and encounters lacking the "[p]hysical rigor, mental stress, . .. minute regulation of behavior, and indoctrination in desirable values" made hallmarks of VMI's citizen-soldier training, see 766 F. Supp., at 1421.[18] Kept away from the pressures, hazards, and psychological bonding characteristic of VMI's adversative training, see *id.*, at 1422, VWIL students will not know the "feeling of tremendous accomplishment" commonly experienced by VMI's successful cadets, *id.*, at 1426.

Virginia maintains that these methodological differences are "justified pedagogically," based on "important differences between men and women in learning and developmental needs," "psychological and sociological differences" Virginia describes as "real" and "not stereotypes." Brief for Respondents 28 (internal quotation marks omitted). The Task Force charged with developing the leadership program for women, drawn from the staff and faculty at Mary Baldwin College, "determined that a military model and, especially VMI's adversative method, would be wholly inappropriate for educating and training *most women.*" 852 F. Supp., at 476 (emphasis added). See also 44 F. 3d, at 1233-1234 (noting Task Force conclusion that, while "some women would be suited to and interested in [a VMI-style experience]," VMI's adversative method "would not be
550 effective for *women as a group*" (emphasis added)). The Commonwealth *550 embraced the Task Force view, as did expert witnesses who testified for Virginia. See 852 F. Supp., at 480-481.

As earlier stated, see *supra*, at 541-542, generalizations about "the way women are," estimates of what is appropriate for *most women*, no longer justify denying opportunity to women whose talent and capacity place them outside the average description. Notably, Virginia never asserted that VMI's method of education suits *most men*. It is also revealing that Virginia accounted for its failure to make the VWIL experience "the entirely militaristic experience of VMI" on the ground that VWIL "is planned for women who do not necessarily expect to pursue military careers." 852 F. Supp., at 478. By that reasoning, VMI's "entirely militaristic" program would be inappropriate for men in general or *as a group*, for "[o]nly about 15% of VMI cadets enter career military service." See 766 F. Supp., at 1432.

In contrast to the generalizations about women on which Virginia rests, we note again these dispositive realities: VMI's "implementing methodology" is not "inherently unsuitable to women," 976 F. 2d, at 899; "some women . . . do well under [the] adversative model," 766 F. Supp., at 1434 (internal quotation marks omitted); "some women, at least, would want to attend [VMI] if they had the opportunity," *id.*, at 1414; "some women are capable of all of the individual activities required of VMI cadets," *id.*, at 1412, and "can meet the physical standards [VMI] now impose[s] on men," 976 F. 2d, at 898. It is on behalf of these women that the United States has instituted this suit, and it is for them that a remedy must be crafted,[19] a remedy that will end their
551 *551 exclusion from a state-supplied educational opportunity for which they are fit, a decree that will "bar like discrimination in the future." *Louisiana*, 380 U. S., at 154.

B

In myriad respects other than military training, VWIL does not qualify as VMI's equal. VWIL's student body, faculty, course offerings, and facilities hardly match VMI's. Nor can the VWIL graduate anticipate the benefits associated with VMI's 157-year history, the school's prestige, and its influential alumni network.

Mary Baldwin College, whose degree VWIL students will gain, enrolls first-year women with an average combined SAT score about 100 points lower than the average score for VMI freshmen. 852 F. Supp., at 501. The Mary Baldwin faculty holds "significantly fewer Ph. D.'s," *id.*, at 502, and receives substantially lower salaries, see Tr. 158 (testimony of James Lott, Dean of Mary Baldwin College), than the faculty at VMI.

Mary Baldwin does not offer a VWIL student the range of curricular choices available to a VMI cadet. VMI awards baccalaureate degrees in liberal arts, biology, chemistry, civil engineering, electrical and computer engineering, and mechanical engineering. See 852 F. Supp., at 503; Virginia Military Institute: More than an
552 Education 11 (Govt. exh. 75, *552 lodged with Clerk of this Court). VWIL students attend a school that "does not have a math and science focus," 852 F. Supp., at 503; they cannot take at Mary Baldwin any courses in engineering or the advanced math and physics courses VMI offers, see *id.*, at 477.

For physical training, Mary Baldwin has "two multipurpose fields" and "[o]ne gymnasium." *Id.*, at 503. VMI has "an NCAA competition level indoor track and field facility; a number of multi-purpose fields; baseball, soccer and lacrosse fields; an obstacle course; large boxing, wrestling and martial arts facilities; an 11-laps-to-the-mile indoor running course; an indoor pool; indoor and outdoor rifle ranges; and a football stadium that also contains a practice field and outdoor track." *Ibid.*

Although Virginia has represented that it will provide equal financial support for in-state VWIL students and VMI cadets, *id.*, at 483, and the VMI Foundation has agreed to endow VWIL with $5.4625 million, *id.*, at 499, the difference between the two schools' financial reserves is pronounced. Mary Baldwin's endowment, currently about $19 million, will gain an additional $35 million based on future commitments; VMI's current endowment, $131 million—the largest public college per-student endowment in the Nation—will gain $220 million. *Id.*, at 503.

The VWIL student does not graduate with the advantage of a VMI degree. Her diploma does not unite her with the legions of VMI "graduates [who] have distinguished themselves" in military and civilian life. See 976 F. 2d, at 892-893. "[VMI] alumni are exceptionally close to the school," and that closeness accounts, in part, for VMI's success in attracting applicants. See 766 F. Supp., at 1421. A VWIL graduate cannot assume that the "network of business owners, corporations, VMI graduates and non-graduate employers . . . interested in hiring VMI
553 graduates," 852 F. Supp., at 499, will be equally responsive to her search for employment, *553 see 44 F. 3d, at 1250 (Phillips, J., dissenting) ("the powerful political and economic ties of the VMI alumni network cannot be expected to open" for graduates of the fledgling VWIL program).

Virginia, in sum, while maintaining VMI for men only, has failed to provide any "comparable single-gender women's institution." *Id.*, at 1241. Instead, the Commonwealth has created a VWIL program fairly appraised as a "pale shadow" of VMI in terms of the range of curricular choices and faculty stature, funding, prestige, alumni support and influence. See *id.*, at 1250 (Phillips, J., dissenting).

Virginia's VWIL solution is reminiscent of the remedy Texas proposed 50 years ago, in response to a state trial court's 1946 ruling that, given the equal protection guarantee, African-Americans could not be denied a legal education at a state facility. See *Sweatt v. Painter*, 339 U. S. 629 (1950). Reluctant to admit African-Americans to its flagship University of Texas Law School, the State set up a separate school for Heman Sweatt and other black law students. *Id.*, at 632. As originally opened, the new school had no independent faculty or library, and it lacked accreditation. *Id.*, at 633. Nevertheless, the state trial and appellate courts were satisfied that the new school offered Sweatt opportunities for the study of law "substantially equivalent to those offered by the State to white students at the University of Texas." *Id.*, at 632 (internal quotation marks omitted).

Before this Court considered the case, the new school had gained "a faculty of five full-time professors; a student body of 23; a library of some 16,500 volumes serviced by a full-time staff; a practice court and legal aid association; and one alumnus who ha[d] become a member of the Texas Bar." *Id.* , at 633. This Court contrasted resources at the new school with those at the school from which Sweatt had been excluded. The University of Texas Law School had a full-time faculty of 16, a student body of 850, a library containing over
554 *554 65,000 volumes, scholarship funds, a law review, and moot court facilities. *Id.* , at 632-633.

More important than the tangible features, the Court emphasized, are "those qualities which are incapable of objective measurement but which make for greatness" in a school, including "reputation of the faculty, experience of the administration, position and influence of the alumni, standing in the community, traditions and prestige." *Id.* , at 634. Facing the marked differences reported in the *Sweatt* opinion, the Court unanimously ruled that Texas had not shown "substantial equality in the [separate] educational opportunities" the State offered. *Id.* , at 633. Accordingly, the Court held, the Equal Protection Clause required Texas to admit AfricanAmericans to the University of Texas Law School. *Id.* , at 636. In line with *Sweatt*, we rule here that Virginia has not shown substantial equality in the separate educational opportunities the Commonwealth supports at VWIL and VMI.

C

When Virginia tendered its VWIL plan, the Fourth Circuit did not inquire whether the proposed remedy, approved by the District Court, placed women denied the VMI advantage in "the position they would have occupied in the absence of [discrimination]." *Milliken*, 433 U. S., at 280 (internal quotation marks omitted). Instead, the Court of Appeals considered whether the Commonwealth could provide, with fidelity to the equal protection principle, separate and unequal educational programs for men and women.

The Fourth Circuit acknowledged that "the VWIL degree from Mary Baldwin College lacks the historical benefit and prestige of a degree from VMI." 44 F. 3d, at 1241. The Court of Appeals further observed that VMI is "an ongoing and successful institution with a long history," and there remains no "comparable single-gender women's institution." *Ibid.* Nevertheless, the appeals court declared the substantially different and significantly
555 unequal VWIL program satisfactory. *555 The court reached that result by revising the applicable standard of review. The Fourth Circuit displaced the standard developed in our precedent, see *supra*, at 532-534, and substituted a standard of its own invention.

We have earlier described the deferential review in which the Court of Appeals engaged, see *supra*, at 528-529, a brand of review inconsistent with the more exacting standard our precedent requires, see *supra*, at 532-534. Quoting in part from *Mississippi Univ. for Women*, the Court of Appeals candidly described its own analysis as one capable of checking a legislative purpose ranked as "pernicious," but generally according "deference to [the] legislative will." 44 F. 3d, at 1235, 1238. Recognizing that it had extracted from our decisions a test yielding "little or no scrutiny of the effect of a classification directed at [single-gender education]," the Court of Appeals devised another test, a "substantive comparability" inquiry, *id.*, at 1237, and proceeded to find that new test satisfied, *id.* , at 1241.

The Fourth Circuit plainly erred in exposing Virginia's VWIL plan to a deferential analysis, for "all gender-based classifications today" warrant "heightened scrutiny." See *J. E. B.*, 511 U. S., at 136. Valuable as VWIL may prove for students who seek the program offered, Virginia's remedy affords no cure at all for the opportunities and advantages withheld from women who want a VMI education and can make the grade. See *supra*, at 549-
556 554.[20] In sum, Virginia's *556 remedy does not match the constitutional violation; the Commonwealth has shown no "exceedingly persuasive justification" for withholding from women qualified for the experience premier training of the kind VMI affords.

VII

A generation ago, "the authorities controlling Virginia higher education," despite long established tradition, agreed "to innovate and favorably entertain[ed] the [then] relatively new idea that there must be no discrimination by sex in offering educational opportunity." *Kirstein*, 309 F. Supp., at 186. Commencing in 1970, Virginia opened to women "educational opportunities at the Charlottesville campus that [were] not afforded in other [state-operated] institutions." *Id.*, at 187; see *supra*, at 538. A federal court approved the Commonwealth's innovation, emphasizing that the University of Virginia "offer[ed] courses of instruction . . . not available elsewhere." 309 F. Supp., at 187. The court further noted: "[T]here exists at Charlottesville a
557 'prestige' factor *557 [not paralleled in] other Virginia educational institutions." *Ibid.*

VMI, too, offers an educational opportunity no other Virginia institution provides, and the school's "prestige"—associated with its success in developing "citizen-soldiers"—is unequaled. Virginia has closed this facility to its daughters and, instead, has devised for them a "parallel program," with a faculty less impressively credentialed and less well paid, more limited course offerings, fewer opportunities for military training and for scientific specialization. Cf. *Sweatt*, 339 U. S., at 633. VMI, beyond question, "possesses to a far greater degree" than the VWIL program "those qualities which are incapable of objective measurement but which make for greatness in a . . . school," including "position and influence of the alumni, standing in the community, traditions and prestige." *Id.*, at 634. Women seeking and fit for a VMI-quality education cannot be offered anything less, under the Commonwealth's obligation to afford them genuinely equal protection.

A prime part of the history of our Constitution, historian Richard Morris recounted, is the story of the extension of constitutional rights and protections to people once ignored or excluded.[21] VMI's story continued as our
558 comprehension of "We the People" expanded. See *supra*, at 532, n. 6. *558 There is no reason to believe that the admission of women capable of all the activities required of VMI cadets would destroy the Institute rather than enhance its capacity to serve the "more perfect Union."

* * *

For the reasons stated, the initial judgment of the Court of Appeals, 976 F. 2d 890 (CA4 1992), is affirmed, the final judgment of the Court of Appeals, 44 F. 3d 1229 (CA4 1995), is reversed, and the case is remanded for further proceedings consistent with this opinion.

It is so ordered.

Justice Thomas took no part in the consideration or decision of these cases.

Chief Justice Rehnquist, concurring in the judgment.

The Court holds first that Virginia violates the Equal Protection Clause by maintaining the Virginia Military Institute's (VMI's) all-male admissions policy, and second that establishing the Virginia Women's Institute for Leadership (VWIL) program does not remedy that violation. While I agree with these conclusions, I disagree with the Court's analysis and so I write separately.

I

Two decades ago in *Craig v. Boren*, 429 U. S. 190, 197 (1976), we announced that "[t]o withstand constitutional challenge, . . . classifications by gender must serve important governmental objectives and must be substantially related to achievement of those objectives." We have adhered to that standard of scrutiny ever since. See *Califano v. Goldfarb*, 430 U. S. 199, 210-211 (1977); *Califano v. Webster*, 430 U. S. 313, 316-317 (1977); *Orr v. Orr*, 440 U. S. 268, 279 (1979); *Caban v. Mohammed*, 441 U. S. 380, 388 (1979); *Davis v.*

Passman, 442 U. S. 228, 234-235, 235, n. 9 (1979); *Personnel Administrator of Mass. v. Feeney*, 442 U. S. 256, 273 (1979); 559 *Califano v. Westcott*, 443 U. S. 76, 85 (1979); *Wengler v. Druggists Mut. Ins. Co.*, 446 U. S. 142, 150 (1980); *Kirchberg v. Feenstra*, 450 U. S. 455, 459-460 (1981); *Michael M. v. Superior Court, Sonoma Cty.*, 450 U. S. 464, 469 (1981); *Mississippi Univ. for Women v. Hogan*, 458 U. S. 718, 724 (1982); *Heckler v. Mathews*, 465 U. S. 728, 744 (1984); *J. E. B. v. Alabama ex rel. T. B.*, 511 U. S. 127, 137, n. 6 (1994). While the majority adheres to this test today, *ante*, at 524, 533, it also says that the Commonwealth must demonstrate an "'exceedingly persuasive justification' " to support a gender-based classification. See *ante*, at 524, 529, 530, 531, 533, 534, 545, 546, 556. It is unfortunate that the Court thereby introduces an element of uncertainty respecting the appropriate test.

While terms like "important governmental objective" and "substantially related" are hardly models of precision, they have more content and specificity than does the phrase "exceedingly persuasive justification." That phrase is best confined, as it was first used, as an observation on the difficulty of meeting the applicable test, not as a formulation of the test itself. See, *e. g.*, *Feeney*, *supra*, at 273 ("[T]hese precedents dictate that any state law overtly or covertly designed to prefer males over females in public employment require an exceedingly persuasive justification"). To avoid introducing potential confusion, I would have adhered more closely to our traditional, "firmly established," *Hogan*, *supra*, at 723; *Heckler*, *supra*, at 744, standard that a gender-based classification "must bear a close and substantial relationship to important governmental objectives." *Feeney*, *supra*, at 273.

Our cases dealing with gender discrimination also require that the proffered purpose for the challenged law be the actual purpose. See *ante*, at 533, 535-536. It is on this ground that the Court rejects the first of two justifications Virginia offers for VMI's single-sex admissions policy, namely, the goal of diversity among its 560 public educational institutions. While I ultimately agree that the Commonwealth *560 has not carried the day with this justification, I disagree with the Court's method of analyzing the issue.

VMI was founded in 1839, and, as the Court notes, *ante*, at 536-537, admission was limited to men because under the then-prevailing view men, not women, were destined for higher education. However misguided this point of view may be by present-day standards, it surely was not unconstitutional in 1839. The adoption of the Fourteenth Amendment, with its Equal Protection Clause, was nearly 30 years in the future. The interpretation of the Equal Protection Clause to require heightened scrutiny for gender discrimination was yet another century away.

Long after the adoption of the Fourteenth Amendment, and well into this century, legal distinctions between men and women were thought to raise no question under the Equal Protection Clause. The Court refers to our decision in *Goesaert v. Cleary*, 335 U. S. 464 (1948). Likewise representing that now abandoned view was *Hoyt v. Florida*, 368 U. S. 57 (1961), where the Court upheld a Florida system of jury selection in which men were automatically placed on jury lists, but women were placed there only if they expressed an affirmative desire to serve. The Court noted that despite advances in women's opportunities, the "woman is still regarded as the center of home and family life." *Id.*, at 62.

Than, in 1971, we decided *Reed v. Reed*, 404 U. S. 71, which the Court correctly refers to as a seminal case. But its facts have nothing to do with admissions to any sort of educational institution. An Idaho statute governing the administration of estates and probate preferred men to women if the other statutory qualifications were equal. The statute's purpose, according to the Idaho Supreme Court, was to avoid hearings to determine who was better qualified as between a man and a woman both applying for letters of administration. This Court held that such a rule violated the Fourteenth Amendment because "a mandatory preference to members of 561 either *561 sex over members of the other, merely to accomplish the elimination of hearings," was an "arbitrary legislative choice forbidden by the Equal Protection Clause." *Id.*, at 76. The brief opinion in *Reed* made no mention of either *Goesaert* or *Hoyt*.

Even at the time of our decision in *Reed v. Reed*, therefore, Virginia and VMI were scarcely on notice that its holding would be extended across the constitutional board. They were entitled to believe that "one swallow doesn't make a summer" and await further developments. Those developments were 11 years in coming. In *Mississippi Univ. for Women v. Hogan*, *supra*, a case actually involving a singlesex admissions policy in higher education, the Court held that the exclusion of men from a nursing program violated the Equal Protection Clause. This holding did place Virginia on notice that VMI's men-only admissions policy was open to serious question.

The VMI Board of Visitors, in response, appointed a Mission Study Committee to examine "the legality and wisdom of VMI's single-sex policy in light of" *Hogan*. 766 F. Supp. 1407, 1427 (WD Va. 1991). But the committee ended up cryptically recommending against changing VMI's status as a single-sex college. After three years of study, the committee found "'no information' " that would warrant a change in VMI's status. *Id.*, at 1429. Even the District Court, ultimately sympathetic to VMI's position, found that "[t]he Report provided very little indication of how [its] conclusion was reached" and that "[t]he one and one-half pages in the committee's final report devoted to analyzing the information it obtained primarily focuses on anticipated difficulties in attracting females to VMI." *Ibid.* The reasons given in the report for not changing the policy were the changes that admission of women to VMI would require, and the likely effect of those changes on the institution. That VMI would have to change is simply not helpful in addressing the constitutionality of the status after *Hogan*.

562 *562 Before this Court, Virginia has sought to justify VMI's single-sex admissions policy primarily on the basis that diversity in education is desirable, and that while most of the public institutions of higher learning in the Commonwealth are coeducational, there should also be room for single-sex institutions. I agree with the Court that there is scant evidence in the record that this was the real reason that Virginia decided to maintain VMI as men only.[1] But, unlike the majority, I would consider only evidence that postdates our decision in *Hogan*, and would draw no negative inferences from the Commonwealth's actions before that time. I think that after *Hogan*, the Commonwealth was entitled to reconsider its policy with respect to VMI, and not to have earlier justifications, or lack thereof, held against it.

Even if diversity in educational opportunity were the Commonwealth's actual objective, the Commonwealth's position would still be problematic. The difficulty with its position is that the diversity benefited only one sex; there was single-sex public education available for men at VMI, but no corresponding single-sex public 563 education available for women. When *Hogan* placed Virginia on notice that *563 VMI's admissions policy possibly was unconstitutional, VMI could have dealt with the problem by admitting women; but its governing body felt strongly that the admission of women would have seriously harmed the institution's educational approach. Was there something else the Commonwealth could have done to avoid an equal protection violation? Since the Commonwealth did nothing, we do not have to definitively answer that question.

I do not think, however, that the Commonwealth's options were as limited as the majority may imply. The Court cites, without expressly approving it, a statement from the opinion of the dissenting judge in the Court of Appeals, to the effect that the Commonwealth could have "simultaneously opened single-gender undergraduate institutions having substantially comparable curricular and extra-curricular programs, funding, physical plant, administration and support services, and faculty and library resources." *Ante*, at 529-530 (internal quotation marks omitted). If this statement is thought to exclude other possibilities, it is too stringent a requirement. VMI had been in operation for over a century and a half, and had an established, successful, and devoted group of alumni. No legislative wand could instantly call into existence a similar institution for women; and it would be a tremendous loss to scrap VMI's history and tradition. In the words of Grover Cleveland's second inaugural address, the Commonwealth faced a condition, not a theory. And it was a condition that had been brought about, not through defiance of decisions construing gender bias under the Equal Protection Clause, but, until the decision in *Hogan*, a condition that had not appeared to offend the Constitution. Had Virginia made a genuine effort to devote comparable public resources to a facility for women, and followed through on such a plan, it might well have avoided an equal protection violation. I do not believe the

564 Commonwealth was faced with the stark choice of either admitting women to VMI, on the *564 one hand, or abandoning VMI and starting from scratch for both men and women, on the other.

But, as I have noted, neither the governing board of VMI nor the Commonwealth took any action after 1982. If diversity in the form of single-sex, as well as coeducational, institutions of higher learning were to be available to Virginians, that diversity had to be available to women as well as to men.

The dissent criticizes me for "disregarding the four allwomen's private colleges in Virginia (generously assisted by public funds)." *Post,* at 595. The private women's colleges are treated by the Commonwealth *exactly* as all other private schools are treated, which includes the provision of tuition-assistance grants to Virginia residents. Virginia gives no special support to the women's single-sex education. But obviously, the same is not true for men's education. Had the Commonwealth provided the kind of support for the private women's schools that it provides for VMI, this may have been a very different case. For in so doing, the Commonwealth would have demonstrated that its interest in providing a single-sex education for men was to some measure matched by an interest in providing the same opportunity for women.

Virginia offers a second justification for the single-sex admissions policy: maintenance of the adversative method. I agree with the Court that this justification does not serve an important governmental objective. A State does not have substantial interest in the adversative methodology unless it is pedagogically beneficial. While considerable evidence shows that a single-sex education is pedagogically beneficial for some students, see 766 F. Supp., at 1414, and hence a State may have a valid interest in promoting that methodology, there is no similar evidence in the record that an adversative method is pedagogically beneficial or is any more likely to produce character traits than other methodologies.

565 *565 II

The Court defines the constitutional violation in these cases as "the categorical exclusion of women from an extraordinary educational opportunity afforded to men." *Ante,* at 547. By defining the violation in this way, and by emphasizing that a remedy for a constitutional violation must place the victims ofdiscrimination in "'the position they would have occupied in the absence of [discrimination],'" *ibid.* , the Court necessarily implies that the only adequate remedy would be the admission of women to the allmale institution. As the foregoing discussion suggests, I would not define the violation in this way; it is not the "exclusion of women" that violates the Equal Protection Clause, but the maintenance of an all-men school without providing any—much less a comparable—institution for women.

Accordingly, the remedy should not necessarily require either the admission of women to VMI or the creation of a VMI clone for women. An adequate remedy in my opinion might be a demonstration by Virginia that its interest in educating men in a single-sex environment is matched by its interest in educating women in a single-sex institution. To demonstrate such, the Commonwealth does not need to create two institutions with the same number of faculty Ph. D.'s, similar SAT scores, or comparable athletic fields. See *ante,* at 551-552. Nor would it necessarily require that the women's institution offer the same curriculum as the men's; one could be strong in computer science, the other could be strong in liberal arts. It would be a sufficient remedy, I think, if the two institutions offered the same quality of education and were of the same overall caliber.

If a State decides to create single-sex programs, the State would, I expect, consider the public's interest and demand in designing curricula. And rightfully so. But the State should avoid assuming demand based on
566 stereotypes; it must not assume *a priori,* without evidence, that there would be *566 no interest in a women's school of civil engineering, or in a men's school of nursing.

In the end, the women's institution Virginia proposes, VWIL, fails as a remedy, because it is distinctly inferior to the existing men's institution and will continue to be for the foreseeable future. VWIL simply is not, in any sense, the institution that VMI is. In particular, VWIL is a program appended to a private college, not a self-

standing institution; and VWIL is substantially underfunded as compared to VMI. I therefore ultimately agree with the Court that Virginia has not provided an adequate remedy.

Justice Scalia, dissenting.

Today the Court shuts down an institution that has served the people of the Commonwealth of Virginia with pride and distinction for over a century and a half. To achieve that desired result, it rejects (contrary to our established practice) the factual findings of two courts below, sweeps aside the precedents of this Court, and ignores the history of our people. As to facts: It explicitly rejects the finding that there exist "gender-based developmental differences" supporting Virginia's restriction of the "adversative" method to only a men's institution, and the finding that the all-male composition of the Virginia Military Institute (VMI) is essential to that institution's character. As to precedent: It drastically revises our established standards for reviewing sex-based classifications. And as to history: It counts for nothing the long tradition, enduring down to the present, of men's military colleges supported by both States and the Federal Government.

Much of the Court's opinion is devoted to deprecating the closed-mindedness of our forebears with regard to women's education, and even with regard to the treatment of women in areas that have nothing to do with education. Closedminded they were—as every age is, including our own, with regard to matters it cannot
567 guess, because it simply does not *567 consider them debatable. The virtue of a democratic system with a First Amendment is that it readily enables the people, over time, to be persuaded that what they took for granted is not so, and to change their laws accordingly. That system is destroyed if the smug assurances of each age are removed from the democratic process and written into the Constitution. So to counterbalance the Court's criticism of our ancestors, let me say a word in their praise: They left us free to change. The same cannot be said of this most illiberal Court, which has embarked on a course of inscribing one after another of the current preferences of the society (and in some cases only the countermajoritarian preferences of the society's law-trained elite) into our Basic Law. Today it enshrines the notion that no substantial educational value is to be served by an all-men's military academy—so that the decision by the people of Virginia to maintain such an institution denies equal protection to women who cannot attend that institution but can attend others. Since it is entirely clear that the Constitution of the United States—the old one—takes no sides in this educational debate, I dissent.

I

I shall devote most of my analysis to evaluating the Court's opinion on the basis of our current equal protection jurisprudence, which regards this Court as free to evaluate everything under the sun by applying one of three tests: "rational basis" scrutiny, intermediate scrutiny, or strict scrutiny. These tests are no more scientific than their names suggest, and a further element of randomness is added by the fact that it is largely up to us which test will be applied in each case. Strict scrutiny, we have said, is reserved for state "classifications based on race or national origin and classifications affecting fundamental rights," Clark v. Jeter, 486 U. S. 456, 461 (1988) (citation omitted). It is my position that the term "fundamental rights" should be limited to "interest[s]
568 traditionally protected by our society," Michael H., *568 v. Gerald D., 491 U. S. 110, 122 (1989) (plurality opinion of Scalia, J.); but the Court has not accepted that view, so that strict scrutiny will be applied to the deprivation of whatever sort of right we consider "fundamental." We have no established criterion for "intermediate scrutiny" either, but essentially apply it when it seems like a good idea to load the dice. So far it has been applied to content-neutral restrictions that place an incidental burden on speech, to disabilities attendant to illegitimacy, and to discrimination on the basis of sex. See, *e. g.,* Turner Broadcasting System, Inc. v. FCC, 512 U. S. 622, 662 (1994); Mills v. Habluetzel, 456 U. S. 91, 98-99 (1982); Craig v. Boren, 429 U. S. 190, 197 (1976).

I have no problem with a system of abstract tests such as rational basis, intermediate, and strict scrutiny (though I think we can do better than applying strict scrutiny and intermediate scrutiny whenever we feel like it).

Such formulas are essential to evaluating whether the new restrictions that a changing society constantly imposes upon private conduct comport with that "equal protection" our society has always accorded in the past. But in my view the function of this Court is to *preserve* our society's values regarding (among other things) equal protection, not to *revise* them; to prevent backsliding from the degree of restriction the Constitution imposed upon democratic government, not to prescribe, on our own authority, progressively higher degrees. For that reason it is my view that, whatever abstract tests we may choose to devise, they cannot supersede—and indeed ought to be crafted *so as to reflect*—those constant and unbroken national traditions that embody the people's understanding of ambiguous constitutional texts. More specifically, it is my view that "when a practice not expressly prohibited by the text of the Bill of Rights bears the endorsement of a long tradition of open, widespread, and unchallenged use that dates back to the beginning of the Republic, we have
569 no proper basis for striking it down." Rutan v. Republican Party of Ill., 497 U. S. 62, 95 (1990) (Scalia, J., *569 dissenting). The same applies, *mutatis mutandis*, to a practice asserted to be in violation of the post-Civil War Fourteenth Amendment. See, *e. g.*, Burnham v. Superior Court of Cal., County of Marin, 495 U. S. 604 (1990) (plurality opinion of Scalia, J.) (Due Process Clause); J. E. B. v. Alabama ex rel. T. B., 511 U. S. 127, 156-163 (1994) (Scalia, J., dissenting) (Equal Protection Clause); Planned Parenthood of Southeastern Pa. v. Casey, 505 U. S. 833, 979-984, 1000-1001 (1992) (Scalia, J., dissenting) (various alleged "penumbras").

The all-male constitution of VMI comes squarely within such a governing tradition. Founded by the Commonwealth of Virginia in 1839 and continuously maintained by it since, VMI has always admitted only men. And in that regard it has not been unusual. For almost all of VMI's more than a century and a half of existence, its single-sex status reflected the uniform practice for government-supported military colleges. Another famous Southern institution, The Citadel, has existed as a state-funded school of South Carolina since 1842. And all the federal military colleges—West Point, the Naval Academy at Annapolis, and even the Air Force Academy, which was not established until 1954—admitted only males for most of their history. Their admission of women in 1976 (upon which the Court today relies, see *ante*, at 544-545, nn. 13, 15) came not by court decree, but because the people, through their elected representatives, decreed a change. See, *e. g.*, § 803(a), 89 Stat. 537, note following 10 U. S. C. § 4342. In other words, the tradition of having government-funded military schools for men is as well rooted in the traditions of this country as the tradition of sending only men into military combat. The people may decide to change the one tradition, like the other, through democratic processes; but the assertion that either tradition has been unconstitutional through the centuries is not law, but politics-smuggled-into-law.

And the same applies, more broadly, to single-sex education in general, which, as I shall discuss, is threatened
570 by *570 today's decision with the cutoff of all state and federal support. Government-run *non* military educational institutions for the two sexes have until very recently also been part of our national tradition. "[It is] [c]oeducation, historically, [that] is a novel educational theory. From grade school through high school, college, and graduate and professional training, much of the Nation's population during much of our history has been educated in sexually segregated classrooms." Mississippi Univ. for Women v. Hogan, 458 U. S. 718, 736 (1982) (Powell, J., dissenting); see *id.*, at 738-739. These traditions may of course be changed by the democratic decisions of the people, as they largely have been.

Today, however, change is forced upon Virginia, and reversion to single-sex education is prohibited nationwide, not by democratic processes but by order of this Court. Even while bemoaning the sorry, bygone days of "fixed notions" concerning women's education, see *ante*, at 536-537, and n. 10, 537-539, 542-544, the Court favors current notions so fixedly that it is willing to write them into the Constitution of the United States by application of custom-built "tests." This is not the interpretation of a Constitution, but the creation of one.

II

To reject the Court's disposition today, however, it is not necessary to accept my view that the Court's made-up tests cannot displace longstanding national traditions as the primary determinant of what the Constitution

means. It is only necessary to apply honestly the test the Court has been applying to sex-based classifications for the past two decades. It is well settled, as Justice O'Connor stated some time ago for a unanimous Court, that we evaluate a statutory classification based on sex under a standard that lies "[b]etween th[e] extremes of rational basis review and strict scrutiny." Clark v. Jeter, 486 U. S., at 461. We have denominated this standard
571 "intermediate scrutiny" and under it have inquired whether the statutory classification is "substantially *571 related to an important governmental objective." *Ibid.* See, *e. g.*, Heckler v. Mathews, 465 U. S. 728, 744 (1984); Wengler v. Druggists Mut. Ins. Co., 446 U. S. 142, 150 (1980); Craig v. Boren, 429 U. S., at 197.

Before I proceed to apply this standard to VMI, I must comment upon the manner in which the Court *avoids* doing so. Notwithstanding our above-described precedents and their "'firmly established principles,'" *Heckler, supra*, at 744 (quoting *Hogan, supra*, at 723), the United States urged us to hold in this litigation "that strict scrutiny is the correct constitutional standard for evaluating classifications that deny opportunities to individuals based on their sex." Brief for United States in No. 94-2107, p. 16. (This was in flat contradiction of the Government's position below, which was, in its own words, to "stat[e] *unequivocally* that the appropriate standard in this case is 'intermediate scrutiny.'" 2 Record, Doc. No. 88, p. 3 (emphasis added).) The Court, while making no reference to the Government's argument, effectively accepts it.

Although the Court in two places recites the test as stated in *Hogan*, see *ante*, at 524, 532-533, which asks whether the State has demonstrated "that the classification serves important governmental objectives and that the discriminatory means employed are substantially related to the achievement of those objectives," 458 U. S., at 724 (internal quotation marks omitted), the Court never answers the question presented in anything resembling that form. When it engages in analysis, the Court instead prefers the phrase "exceedingly persuasive justification" from *Hogan*. The Court's nine invocations of that phrase, see *ante*, at 524, 529, 530, 531, 533, 534, 545, 546, 556, and even its fanciful description of that imponderable as "the core instruction" of the Court's decisions in *J. E. B. v. Alabama ex rel. T. B., supra*, and *Hogan, supra*, see *ante*, at 531, would be unobjectionable if the Court acknowledged that *whether* a "justification" is "exceedingly persuasive" must be
572 assessed by asking *572 "[whether] the classification serves important governmental objectives and [whether] the discriminatory means employed are substantially related to the achievement of those objectives." Instead, however, the Court proceeds to interpret "exceedingly persuasive justification" in a fashion that contradicts the reasoning of *Hogan* and our other precedents.

That is essential to the Court's result, which can only be achieved by establishing that intermediate scrutiny is not survived if there are *some* women interested in attending VMI, capable of undertaking its activities, and able to meet its physical demands. Thus, the Court summarizes its holding as follows:

> "In contrast to the generalizations about women on which Virginia rests, we note again these *dispositive* realities: VMI's implementing methodology is not *inher- ently* unsuitable to women; *some* women do well under the adversative model; *some* women, at least, would want to attend VMI if they had the opportunity; *some* women are capable of all of the individual activities required of VMI cadets and can meet the physical standards VMI now imposes on men." *Ante*, at 550 (internal quotation marks, citations, and punctuation omitted; emphasis added).

Similarly, the Court states that "[t]he Commonwealth's justification for excluding all women from 'citizen-soldier' training for which some are qualified . . . cannot rank as 'exceedingly persuasive' . . . ." *Ante*, at 545.[11]

573 *573 Only the amorphous "exceedingly persuasive justification" phrase, and not the standard elaboration of intermediate scrutiny, can be made to yield this conclusion that VMI's single-sex composition is unconstitutional because there exist several women (or, one would have to conclude under the Court's reasoning, a single woman) willing and able to undertake VMI's program. Intermediate scrutiny has never required a least-restrictive-means analysis, but only a "substantial relation" between the classification and the state interests that it serves. Thus, in Califano v. Webster, 430 U. S. 313 (1977) *(per curiam)*, we upheld a congressional statute that provided higher Social Security benefits for women than for men. We reasoned that "women . . . as

such have been unfairly hindered from earning as much as men," but we did not require proof that each woman so benefited had suffered discrimination or that each disadvantaged man had not; it was sufficient that even under the former congressional scheme "women *on the average* received lower retirement benefits than men." *Id.*, at 318, and n. 5 (emphasis added). The reasoning in our other intermediate-scrutiny cases has similarly required only a substantial relation between end and means, not a perfect fit. In Rostker v. Goldberg, 453 U. S. 57 (1981), we held that selective-service registration could constitutionally exclude women, because even "assuming that a small number of women could be drafted for noncombat roles, Congress simply did not consider it worth the added burdens of including women in draft and registration plans." *Id.*, at 81. In Metro Broadcasting, Inc. v. FCC, 497 U. S. 547, 579, 582-583 (1990), overruled on other grounds, Adarand Constructors, Inc. v. Peña, 515 U. S. 200, 227 (1995), we held that a classification need not be accurate "in
574 every case" to survive intermediate scrutiny so long as, "in the aggregate," it advances the underlying *574 objective. There issimply no support in our cases for the notion that a sex-based classification is invalid unless it relates to characteristics that hold true in every instance.

Not content to execute a *de facto* abandonment of the intermediate scrutiny that has been our standard for sex-based classifications for some two decades, the Court purports to reserve the question whether, even in principle, a higher standard (*i. e.*, strict scrutiny) should apply. "The Court has," it says, *"thus far* reserved most stringent judicial scrutiny for classifications based on race or national origin . . . ," *ante,* at 532, n. 6 (emphasis added); and it describes our earlier cases as having done no more than decline to "equat[e] gender classifications, *for all purposes,* to classifications based on race or national origin," *ante,* at 532 (emphasis added). The wonderful thing about these statements is that they are not actually false—just as it would not be actually false to say that "our cases have thus far reserved the 'beyond a reasonable doubt' standard of proof for criminal cases," or that "we have not equated tort actions, for all purposes, to criminal prosecutions." But the statements are misleading, insofar as they suggest that we have not already categorically *held* strict scrutiny to be inapplicable to sexbased classifications. See, *e. g., Heckler v. Mathews,* 465 U. S. 728 (1984) (*upholding* state action after applying *only* intermediate scrutiny); Michael M. v. Superior Court, Sonoma Cty., 450 U. S. 464 (1981) (plurality and both concurring opinions) (same); *Califano v. Webster, supra (per curiam)* (same). And the statements are irresponsible, insofar as they are calculated to destabilize current law. Our task is to clarify the law—not to muddy the waters, and not to exact overcompliance by intimidation. The States and the Federal Government are entitled to know *before they act* the standard to which they will be held, rather than be compelled to guess about the outcome of Supreme Court peek-a-boo.

The Court's intimations are particularly out of place because it is perfectly clear that, if the question of the
575 applicable *575 standard of review for sex-based classifications were to be regarded as an appropriate subject for reconsideration, the stronger argument would be not for elevating the standard to strict scrutiny, but for reducing it to rational-basis review. The latter certainly has a firmer foundation in our past jurisprudence: Whereas no majority of the Court has ever applied strict scrutiny in a case involving sex-based classifications, we routinely applied rational-basis review until the 1970's, see, e. g., Hoyt v. Florida, 368 U. S. 57 (1961); Goesaert v. Cleary, 335 U. S. 464 (1948). And of course normal, rational-basis review of sex-based classifications would be much more in accord with the genesis of heightened standards of judicial review, the famous footnote in United States v. Carolene Products Co., 304 U. S. 144 (1938), which said (intimatingly) that we did not have to inquire in the case at hand

> "whether prejudice against discrete and insular minorities may be a special condition, which tends seriously to curtail the operation of those political processes ordinarily to be relied upon to protect minorities, and which may call for a correspondingly more searching judicial inquiry." *Id.*, at 152-153, n. 4.

It is hard to consider women a "discrete and insular minorit[y]" unable to employ the "political processes ordinarily to be relied upon," when they constitute a majority of the electorate. And the suggestion that they are incapable of exerting that political power smacks of the same paternalism that the Court so roundly condemns. See, *e. g., ante,* at 536-537, 542-546 (and accompanying notes). Moreover, a long list of legislation proves the

proposition false. See, *e. g.,* Equal Pay Act of 1963, 29 U. S. C. § 206(d); Title VII of the Civil Rights Act of 1964, 42 U. S. C. § 2000e-2; Title IX of the Education Amendments of 1972, 20 U. S. C. § 1681; Women's
576 Business Ownership Act of 1988, Pub. L. 100-533, 102 Stat. 2689; *576 Violence Against Women Act of 1994, Pub. L. 103-322, Title IV, 108 Stat. 1902.

III

With this explanation of how the Court has succeeded in making its analysis seem orthodox—and indeed, if intimations are to be believed, even overly generous to VMI—I now proceed to describe how the analysis should have been conducted. The question to be answered, I repeat, is whether the exclusion of women from VMI is "substantially related to an important governmental objective."

A

It is beyond question that Virginia has an important state interest in providing effective college education for itscitizens. That single-sex instruction is an approach substantially related to that interest should be evident enough from the long and continuing history in this country of men's and women's colleges. But beyond that, as the Court of Appeals here stated: "That single-gender education at the college level is beneficial to both sexes is a *fact established in this case.* " 44 F. 3d 1229, 1238 (CA4 1995) (emphasis added).

The evidence establishing that fact was overwhelming— indeed, "virtually uncontradicted" in the words of the court that received the evidence, 766 F. Supp. 1407, 1415 (WD Va. 1991). As an initial matter, Virginia demonstrated at trial that "[a] substantial body of contemporary scholarship and research supports the proposition that, although males and females have significant areas of developmental overlap, they also have differing developmental needs that are deepseated." *Id.*, at 1434. While no one questioned that for many students a coeducational environment was nonetheless not inappropriate, that could not obscure the demonstrated benefits of single-sex colleges. For example, the District Court stated as follows:

> "One empirical study in evidence, not questioned by any expert, demonstrates that single-sex
577 colleges provide *577 better educational experiences than coeducational institutions. Students of both sexes become more academically involved, interact with faculty frequently, show larger increases in intellectual self-esteem and are more satisfied with practically all aspects of college experience (the sole exception is social life) compared with their counterparts in coeducational institutions. Attendance at an all-male college substantially increases the likelihood that a student will carry out career plans in law, business and college teaching, and also has a substantial positive effect on starting salaries in business. Women's colleges increase the chances that those who attend will obtain positions of leadership, complete the baccalaureate degree, and aspire to higher degrees." *Id.*, at 1412.

See also *id.*, at 1434-1435 (factual findings). "[i]n the light of this very substantial authority favoring single-sex education," the District Court concluded that "the VMI Board's decision to maintain an all-male institution is fully justified even without taking into consideration the other unique features of VMI's teaching and training." *Id.*, at 1412. This finding alone, which even this Court cannot dispute, see *ante,* at 535, should be sufficient to demonstrate the constitutionality of VMI's all-male composition.

But besides its single-sex constitution, VMI is different from other colleges in another way. It employs a "distinctive educational method," sometimes referred to as the "adversative, or doubting, model of education." 766 F. Supp., at 1413, 1421. "Physical rigor, mental stress, absolute equality of treatment, absence of privacy, minute regulation of behavior, and indoctrination in desirable values are the salient attributes of the VMI educational experience." *Id.*, at 1421. No one contends that this method is appropriate for all individuals; education is not a "one size fits all" business. Just as a State may wish to support junior colleges, vocational

578 institutes, or a law school that emphasizes case *578 practice instead of classroom study, so too a State's decision to maintain within its system one school that provides the adversative method is "substantially related" to its goal of good education. Moreover, it was uncontested that "if the state were to establish a women's VMI-type [*i. e.*, adversative] program, the program would attract an insufficient number of participants to make the program work," 44 F. 3d, at 1241; and it was found by the District Court that if Virginia were to include women in VMI, the school "would eventually find it necessary to drop the adversative system altogether," 766 F. Supp., at 1413. Thus, Virginia's options were an adversative method that excludes women or no adversative method at all.

There can be no serious dispute that, as the District Court found, single-sex education and a distinctive educational method "represent legitimate contributions to diversity in the Virginia higher education system." *Ibid.* As a theoretical matter, Virginia's educational interest would have been *best* served (insofar as the two factors we have mentioned are concerned) by six different types of public colleges—an all-men's, an all-women's, and a coeducational college run in the "adversative method," and an all-men's, an all-women's, and a coeducational college run in the "traditional method." But as a practical matter, of course, Virginia's financial resources, like any State's, are not limitless, and the Commonwealth must select among the available options. Virginia thus has decided to fund, in addition to some 14 coeducational 4-year colleges, one college that is run as an all-male school on the adversative model: the Virginia Military Institute.

Virginia did not make this determination regarding the make-up of its public college system on the unrealistic assumption that no other colleges exist. Substantial evidence in the District Court demonstrated that the Commonwealth has long proceeded on the principle that "'[h]igher education resources should be viewed as a
579 whole—public and private' *579 "—because such an approach enhances diversity and because "'it is academic and economic waste to permit unwarranted duplication.' " *Id.*, at 1420-1421 (quoting 1974 Report of the General Assembly Commission on Higher Education to the General Assembly of Virginia). It is thus significant that, whereas there are "four all-female private [colleges] in Virginia," there is only "one private all-male college," which "indicates that the private sector is providing for th[e] [former] form of education to a much greater extent that it provides for all-male education." 766 F. Supp., at 1420-1421. In these circumstances, Virginia's election to fund one public all-male institution and one on the adversative model—and to concentrate its resources in a single entity that serves both these interests in diversity—is substantially related to the Commonwealth's important educational interests.

B

The Court today has no adequate response to this clear demonstration of the conclusion produced by application of intermediate scrutiny. Rather, it relies on a series of contentions that are irrelevant or erroneous as a matter of law, foreclosed by the record in this litigation, or both.

1. I have already pointed out the Court's most fundamental error, which is its reasoning that VMI's all-male composition is unconstitutional because "some women are capable of all of the individual activities required of VMI cadets," 766 F. Supp., at 1412, and would prefer military training on the adversative model. See *supra*, at 571-574. This unacknowledged adoption of what amounts to (at least) strict scrutiny is without antecedent in our sex-discrimination cases and by itself discredits the Court's decision.

2. The Court suggests that Virginia's claimed purpose in maintaining VMI as an all-male institution—its asserted interest in promoting diversity of educational options—is not "genuin[e]," but is a pretext for discriminating against women. *Ante*, at 539; see *ante*, at 535-540. To support this *580 charge, the Court would have to impute that base motive to VMI's Mission Study Committee, which conducted a 3-year study from 1983 to 1986 and recommended to VMI's Board of Visitors that the school remain all male. The committee, a majority of whose members consisted of non-VMI graduates, "read materials on education and on women in the military," "made site visits to single-sex and newly coeducational institutions" including West

Point and the Naval Academy, and "considered the reasons that other institutions had changed from single-sex to coeducational status"; its work was praised as "thorough" in the accreditation review of VMI conducted by the Southern Association of Colleges and Schools. See 766 F. Supp., at 1413, 1428; see also *id.*, at 1427-1430 (detailed findings of fact concerning the Mission Study Committee). The Court states that "[w]hatever internal purpose the Mission Study Committee served— and however well meaning the framers of the report—we can hardly extract from that effort any commonwealth policy evenhandedly to advance diverse educational options." *Ante*, at 539. But whether it is part of the evidence to prove that diversity *was* the Commonwealth's objective (its short report said nothing on that particular subject) is quite separate from whether it is part of the evidence to prove that antifeminism *was not*. The relevance of the Mission Study Committee is that its very creation, its sober 3-year study, and the analysis it produced utterly refute the claim that VMI has elected to maintain its all-male student-body composition for some misogynistic reason.

The Court also supports its analysis of Virginia's "actual state purposes" in maintaining VMI's student body as all male by stating that there is no explicit statement in the record "'in which the Commonwealth has expressed itself' " concerning those purposes. *Ante*, at 535, 539 (quoting 976 F. 2d 890, 899 (CA4 1992)); see also *ante*, at 525. That is wrong on numerous grounds. First and foremost, in its implication that such an explicit
581 statement of "actual purposes" *581 is needed. The Court adopts, in effect, the argument of the United States that since the exclusion of women from VMI in 1839 was based on the "assumptions" of the time "that men alone were fit for military and leadership roles," and since "[b]efore this litigation was initiated, Virginia never sought to supply a valid, contemporary rationale for VMI's exclusionary policy," "[t]hat failure itself renders the VMI policy invalid." Brief for United States in No. 94-2107, at 10. This is an unheard-of doctrine. Each state decision to adopt or maintain a governmental policy need not be accompanied—in anticipation of litigation and on pain of being found to lack a relevant state interest—by a lawyer's contemporaneous recitation of the State's purposes. The Constitution is not soma giant Administrative Procedure Act, which imposes upon the States the obligation to set forth a "statement of basis and purpose" for their sovereign Acts, see 5 U. S. C. § 553(c). The situation would be different if what the Court assumes to have been the 1839 policy *had* been enshrined *and remained enshrined* in legislation—a VMI charter, perhaps, pronouncing that the institution's purpose is to keep women in their place. But since the 1839 policy was no more explicitly recorded than the Court contends the present one is, the mere fact that *today's* Commonwealth continues to fund VMI "is enough to answer [the United States'] contention that the [classification] was the 'accidental by-product of a traditional way of thinking about females.' " *Michael M.*, 450 U. S., at 471, n. 6 (plurality opinion) (quoting *Califano v. Webster*, 430 U. S., at 320) (internal quotation marks omitted).

It is, moreover, not true that Virginia's contemporary reasons for maintaining VMI are not explicitly recorded. It is hard to imagine a more authoritative source on this subject than the 1990 Report of the Virginia Commission on the University of the 21st Century (1990 Report). As the parties stipulated, that report "notes that the
582 hallmarks of Virginia's educational policy are 'diversity and autonomy.' " Stipulations *582 of Fact 37, reprinted in Lodged Materials from the Record 64 (Lodged Materials). It said: "The formal system of higher education in Virginia includes a great array of institutions: state-supported and independent, two-year and senior, research and highly specialized, traditionally black *and single-sex*. " 1990 Report, quoted in relevant part at Lodged Materials 64-65 (emphasis added).[2] The Court's only response to this is repeated reliance on the Court of Appeals' assertion that "'the only explicit [statement] that we have found in the record in which the Commonwealth has expressed itself with respect to gender distinctions' " (namely, the statement in the 1990 Report that the Commonwealth's institutions must "deal with faculty, staff, and students without regard to sex") had nothing to do with the purpose of diversity. *Ante*, at 525, 539 (quoting 976 F. 2d, at 899). This proves, I suppose, that the Court of Appeals did not find a statement dealing with sex and diversity in the record; but the pertinent question (accepting the need for such a statement) is *whether it was there*. And the plain fact, which the Court does not deny, is that it *was*.

583 *583 The Court contends that "[a] purpose genuinely to advance an array of educational options . . . is not served" by VMI. *Ante*, at 539-540. It relies on the fact that all of Virginia's *other* public colleges have become

coeducational. *Ibid.*; see also *ante*, at 521, n. 2. The apparent theory of this argument is that unless Virginia pursues a great deal of diversity, its pursuit of some diversity must be a sham. This fails to take account of the fact that Virginia's resources cannot support all possible permutations of schools, see *supra*, at 578, and of the fact that Virginia coordinates its public educational offerings with the offerings of in-state private educational institutions that the Commonwealth provides money for its residents to attend and otherwise assists—which include four women's colleges.[3]

Finally, the Court unreasonably suggests that there is some pretext in Virginia's reliance upon decentralized
584 decisionmaking *584 to achieve diversity—its granting of substantial autonomy to each institution with regard to student-body composition and other matters, see 766 F. Supp., at 1419. The Court adopts the suggestion of the Court of Appeals that it is not possible for "one institution with autonomy, but with no authority over any other state institution, [to] give effect to a state policy of diversity among institutions." *Ante*, at 539 (internal quotation marks omitted). If it were impossible for individual human beings (or groups of human beings) to act autonomously in effective pursuit of a common goal, the game of soccer would not exist. And where the goal is diversity in a free market for services, that tends to be achieved even by autonomous actors who act out of entirely selfish interests and make no effort to cooperate. Each Virginia institution, that is to say, has a natural incentive to make itself distinctive in order to attract a particular segment of student applicants. And of course none of the institutions is *entirely* autonomous; if and when the legislature decides that a particular school is not well serving the interest of diversity—if it decides, for example, that a men's school is not much needed—funding will cease.[4]

585 *585 3. In addition to disparaging Virginia's claim that VMI's single-sex status serves a state interest in diversity, the Court finds fault with Virginia's failure to offer education based on the adversative training method to women. It dismisses the District Court's "'findings' on 'gender-based developmental differences' " on the ground that "[t]hese 'findings' restate the opinions of Virginia's expert witnesses, opinions about typically male or typically female 'tendencies.' " *Ante*, at 541 (quoting 766 F. Supp., at 1434-1435). How remarkable to criticize the District Court on the ground that its findings rest on the evidence (*i. e.*, the testimony of Virginia's witnesses)! That is what findings are supposed to do. It is indefensible to tell the Commonwealth that "[t]he burden of justification is demanding and it rests entirely on [you]," *ante*, at 533, and then to ignore the District Court's findings *because* they rest on the evidence put forward by the Commonwealth—particularly when, as the District Court said, "[t]he evidence in the case . . . is *virtually uncontradicted*, " 766 F. Supp., at 1415 (emphasis added).

Ultimately, in fact, the Court does not deny the evidence supporting these findings. See *ante*, at 541-546. It instead makes evident that the parties to this litigation could have saved themselves a great deal of time, trouble, and expense by omitting a trial. The Court simply dispenses with the evidence submitted at trial—it never says that a single finding of the District Court is clearly erroneous—in favor of the Justices' own view of
586 the world, which the Court proceeds to support with (1) references to observations of someone *586 who is not a witness, nor even an educational expert, nor even a judge who reviewed the record or participated in the judgment below, but rather a judge who merely dissented from the Court of Appeals' decision not to rehear this litigation en banc, see *ante*, at 542, (2) citations of nonevidentiary materials such as *amicus curiae* briefs filed in this Court, see *ante*, at 544-545, nn. 13, 14, and (3) various historical anecdotes designed to demonstrate that Virginia's support for VMI as currently constituted reminds the Justices of the "bad old days," see *ante*, at 542-544.

It is not too much to say that this approach to the litigation has rendered the trial a sham. But treating the evidence as irrelevant is absolutely necessary for the Court to reach its conclusion. Not a single witness contested, for example, Virginia's "substantial body of 'exceedingly persuasive' evidence . . . that some students, both male and female, benefit from attending a single-sex college" and "[that] [f]or those students, the opportunity to attend a single-sex college is a valuable one, likely to lead to better academic and professional achievement." 766 F. Supp., at 1411-1412. Even the United States' expert witness "called himself a 'believer in

single-sex education,' " although it was his "personal, philosophical preference," not one "born of educational-benefit considerations," "that single-sex education should be provided only by the private sector." *Id.*, at 1412.

4. The Court contends that Virginia, and the District Court, erred, and "mispercelved our precedent," by "train [ing] their argument on 'means' rather than 'end,' " *ante*, at 545. The Court focuses on "VMI's mission," which is to produce individuals "imbued with love of learning, confident in the functions and attitudes of leadership, possessing a high sense of public service, advocates of the American democracy and free enterprise system, and ready . . . to defend their country in time of national peril." 766 F. Supp., at 1425 (quoting Mission Study
587 Committee of the VMI Board of *587 Visitors, Report, May 16, 1986). "Surely," the Court says, "that goal is great enough to accommodate women." *Ante*, at 545.

This is lawmaking by indirection. What the Court describes as "VMI's mission" is no less the mission of *all* Virginia colleges. Which of them would the Old Dominion continue to fund if they did *not* aim to create individuals "imbued with love of learning, etc.," right down to being ready "to defend their country in time of national peril"? It can be summed up as "learning, leadership, and patriotism." To be sure, those general educational values are described in a particularly martial fashion in VMI's mission statement, in accordance with the military, adversative, and all-male character of the institution. But imparting those values *in that fashion* —*i. e.*, in a military, adversative, all-male environment—is the *distinctive* mission of VMI. And as I have discussed (and both courts below found), *that* mission is *not* "great enough to accommodate women."

The Court's analysis at least has the benefit of producing foreseeable results. Applied generally, it means that whenever a State's ultimate objective is "great enough to accommodate women" (as it always will be), then the State will be held to have violated the Equal Protection Clause if it restricts to men even one means by which it pursues that objective—no matter how few women are interested in pursuing the objective by that means, no matter how much the single-sex program will have to be changed if both sexes are admitted, and no matter how beneficial that program has theretofore been to its participants.

5. The Court argues that VMI would not have to change very much if it were to admit women. See, *e. g.*, *ante*, at 540-542. The principal response to that argument is that it is irrelevant: If VMI's single-sex status is substantially related to the government's important educational objectives, as I have demonstrated above and
588 as the Court refuses to discuss, *588 that concludes the inquiry. There should be no debate in the federal judiciary over "how much" VMI would be required to change if it admitted women and whether that would constitute "too much" change.

But if such a debate were relevant, the Court would certainly be on the losing side. The District Court found as follows: "[T]he evidence establishes that key elements of the adversative VMI educational system, with its focus on barracks life, would be fundamentally altered, and the distinctive ends of the system would be thwarted, if VMI were forced to admit females and to make changes necessary to accommodate their needs and interests." 766 F. Supp., at 1411. Changes that the District Court's detailed analysis found would be required include new allowances for personal privacy in the barracks, such as locked doors and coverings on windows, which would detract from VMI's approach of regulating minute details of student behavior, "contradict the principle that everyone is constantly subject to scrutiny by everyone else," and impair VMI's "total egalitarian approach" under which every student must be "treated alike"; changes in the physical training program, which would reduce "[t]he intensity and aggressiveness of the current program"; and various modifications in other respects of the adversative training program that permeates student life. See *id.*, at 1412-1413, 1435-1443. As the Court of Appeals summarized it, "the record supports the district court's findings that at least these three aspects of VMI's program— physical training, the absence of privacy, and the adversative approach—would be materially affected by coeducation, leading to a substantial change in the egalitarian ethos that is a critical aspect of VMI's training." 976 F. 2d, at 896-897.

In the face of these findings by two courts below, amply supported by the evidence, and resulting in the conclusion that VMI would be fundamentally altered if it admitted women, this Court simply pronounces that "[t]

he notion that *589 admission of women would downgrade VMI's stature, destroy the adversative system and, with it, even the school, is a judgment hardly proved." *Ante*, at 542 (footnote omitted). The point about "downgrad[ing] VMI's stature" is a straw man; no one has made any such claim. The point about "destroy[ing] the adversative system" is simply false; the District Court not only stated that "[e]vidence supports this theory," but specifically concluded that while "[w]ithout a doubt" VMI could assimilate women, "it is equally without a doubt that VMI's present methods of training and education would have to be changed" by a "move away from its adversative new cadet system." 766 F. Supp., at 1413, and n. 8, 1440. And the point about "destroy[ing] the school," depending upon what that ambiguous phrase is intended to mean, is either false or else sets a standard much higher than VMI had to meet. It sufficed to establish, as the District Court stated, that VMI would be "significantly different" upon the admission of women, 766 F. Supp., at 1412, and "would eventually find it necessary to drop the adversative system altogether," *id.*, at 1413.[5]

*590 6. Finally, the absence of a precise "all-women's analogue" to VMI is irrelevant. In *Mississippi Univ. for Women v. Hogan*, 458 U. S. 718 (1982), we attached no constitutional significance to the absence of an all-male nursing school. As Virginia notes, if a program restricted to one sex is necessarily unconstitutional unless there is a parallel program restricted to the other sex, "the opinion in *Hogan* could have ended with its first footnote, which observed that 'Mississippi maintains no other single-sex public university or college.' " Brief for Cross-Petitioners in No. 94-2107, p. 38 (quoting *Mississippi Univ. for Women v. Hogan, supra*, at 720, n. 1).

Although there is no precise female-only analogue to VMI, Virginia has created during this litigation the Virginia Women's Institute for Leadership (VWIL), a state-funded all-women's program run by Mary Baldwin College. I have thus far said nothing about VWIL because it is, under our established test, irrelevant, so long as *VMI* 's all-male character is "substantially related" to an important state goal. But VWIL now exists, and the Court's treatment of it shows how far reaching today's decision is.

VWIL was carefully designed by professional educators who have long experience in educating young women. The program *rejects* the proposition that there is a "difference in the respective spheres and destinies of men and woman," *Bradwell v. State*, 16 Wall. 130, 141 (1873), and is designed to "provide an all-female program that will achieve substantially similar outcomes [to VMI's] in an all-female environment," 852 F. Supp. 471, 481 (WD Va. 1994). After holding a trial where voluminous evidence was submitted and making detailed findings of fact, the District Court concluded that "there is a legitimate pedagogical basis for the different means employed [by VMI and VWIL] to achieve the substantially *591 similar ends." *Ibid.* The Court of Appeals undertook a detailed review of the record and affirmed. 44 F. 3d 1229 (CA4 1995).[6] But it is Mary Baldwin College, which runs VWIL, that has made the point most succinctly:

> "It would have been possible to develop the VWIL program to more closely resemble VMI, with adversative techniques associated with the rat line and barracks-like living quarters. Simply replicating an existing program would have required far less thought, research, and educational expertise. But such a facile approach would have produced a paper program with no real prospect of successful implementation." Brief for Mary Baldwin College as *Amicus Curiae* 5.

It is worth noting that none of the United States' own experts in the remedial phase of this litigation was willing to testify that VMI's adversative method was an appropriate methodology for educating women. This Court, however, does not care. Even though VWIL was carefully designed by professional educators who have tremendous experience in the area, and survived the test of adversarial litigation, the Court simply declares, with no basis in the evidence, that *592 these professionals acted on "'overbroad' generalizations," *ante*, at 542, 550.

C

A few words are appropriate in response to the concurrence, which finds VMI unconstitutional on a basis that is more moderate than the Court's but only at the expense of being even more implausible. The concurrence offers three reasons: First, that there is "scant evidence in the record," *ante*, at 562, that diversity of educational offering was the real reason for Virginia's maintaining VMI. "Scant" has the advantage of being an imprecise term. I have cited the clearest statements of diversity as a goal for higher education in the 1990 Report, the 1989 Virginia Plan for Higher Education, the Budget Initiatives prepared in 1989 by the State Council of Higher Education for Virginia, the 1974 Report of the General Assembly Commission on Higher Education to the General Assembly of Virginia, and the 1969 Report of the Virginia Commission on Constitutional Revision. See *supra*, at 579, 581-582, and n. 2, 583, n. 3. There is *no* evidence to the contrary, once one rejects (as the concurrence rightly does) the relevance of VMI's founding in days when attitudes toward the education of women were different. Is this conceivably not enough to foreclose rejecting as clearly erroneous the District Court's determination regarding "the Commonwealth's objective of educational diversity"? 766 F. Supp., at 1413. Especially since it is absurd on its face even to *demand* "evidence" to prove that the Commonwealth's reason for maintaining a men's military academy is that a men's military academy provides a distinctive type of educational experience (*i. e.*, fosters diversity). What other purpose *would* the Commonwealth have? One may argue, as the Court does, that this *type* of diversity is designed only to indulge hostility toward women—but that is a separate point, explicitly rejected by the concurrence, and amply refuted by the evidence I have mentioned in discussing *593 the Court's opinion.[7] What is now under discussion—the concurrence's making central to the disposition of this litigation the supposedly "scant" evidence that Virginia maintained VMI in order to offer a diverse educational experience—is rather like making crucial to the lawfulness of the United States Army record "evidence" that its purpose is to do battle. A legal culture that has forgotten the concept of *res ipsa loquitur* deserves the fate that it today decrees for VMI.

Second, the concurrence dismisses out of hand what it calls Virginia's "second justification for the single-sex admissions policy: maintenance of the adversative method." *Ante*, at 564. The concurrence reasons that "this justification does not serve an important governmental objective" because, whatever the record may show about the pedagogical benefits of *single-sex* education, "there is no similar evidence in the record that an adversative method is pedagogically beneficial or is any more likely to produce character traits than other methodologies." *Ibid.* That is simply wrong. See, *e. g.*, 766 F. Supp., at 1426 (factual findings concerning character traits produced by VMI's adversative methodology); *id.*, at 1434 (factual findings concerning benefits for many college-age men of an adversative approach in general). In reality, the pedagogical benefits of VMI's adversative approach were not only proved, but were a *given* in this litigation. The reason the woman applicant who prompted this suit wanted to enter VMI was assuredly not that she wanted to go to an all-male school; it would cease being all-male as *594 soon as she entered. She wanted the distinctive adversative education that VMI provided, and the battle was joined (in the main) over whether VMI had a basis for excluding women from that approach. The Court's opinion recognizes this, and devotes much of its opinion to demonstrating that "'some women . . . do well under [the] adversative model' " and that "[i]t is on behalf of these women that the United States has instituted this suit." *Ante*, at 550 (quoting 768 F. Supp., at 1434). Of course, in the last analysis it does not matter whether there are any benefits to the adversative method. The concurrence does not contest that there are benefits to *single*-sex education, and that alone suffices to make Virginia's case, since admission of a woman will even more surely put an end to VMI's single-sex education than it will to VMI's adversative methodology.

A third reason the concurrence offers in support of the judgment is that the Commonwealth and VMI were not quick enough to react to the "further developments" in this Court's evolving jurisprudence. *Ante*, at 561. Specifically, the concurrence believes it should have been clear after *Hogan* that "[t]he difficulty with [Virginia's] position is that the diversity benefited only one sex; there was single-sex public education available for men at VMI, but no corresponding single-sex public education available for women." *Ante*, at 562. If only, the concurrence asserts, Virginia had "made a genuine effort to devote comparable public resources to a facility for women, and followed through on such a plan, it might well have avoided an equal protection violation." *Ante*, at 563. That is to say, the concurrence believes that after our decision in *Hogan* (which held a program of the

Mississippi University for Women to be unconstitutional—without any reliance on the fact that there was no corresponding Mississippi all-men's program), the Commonwealth should have known that what this Court expected of it was . . . yes!, the creation of a state all-women's program. Any lawyer who gave that advice to
595 the Commonwealth *595 ought to have been either disbarred or committed. (The proof of that pudding is today's 6-Justice majority opinion.) And any Virginia politician who proposed such a step when there were already four 4-year women's colleges in Virginia (assisted by state support that may well exceed, in the aggregate, what VMI costs, see n. 3, *supra*) ought to have been recalled.

In any event, "diversity in the form of single-sex, as well as coeducational, institutions of higher learning" *is* "available to women as well as to men" in Virginia. *Ante*, at 564. The concurrence is able to assert the contrary only by disregarding the four all-women's private colleges in Virginia (generously assisted by public funds) and the Commonwealth's longstanding policy of coordinating public with private educational offerings, see *supra*, at 579, 581-582, and n. 2, 583-584, and n. 3. According to the concurrence, the

2, Virginia's *reason* assistance to its four all-women's private colleges does not count is that "[t]he private women's colleges are treated by the State *exactly* as all other private schools are treated." *Ante*, at 564. But if Virginia cannot get *credit* for assisting women's education if it only treats women's private schools as it does all other private schools, then why should it get *blame* for assisting men's education if it only treats VMI as it does all other public schools? This is a great puzzlement.

IV

As is frequently true, the Court's decision today will have consequences that extend far beyond the parties to the litigation. What I take to be the Court's unease with these consequences, and its resulting unwillingness to acknowledge them, cannot alter the reality.

A

Under the constitutional principles announced and applied today, single-sex public education is
596 unconstitutional. By going through the motions of applying a balancing test—asking *596 whether the State has adduced an "exceedingly persuasive justification" for its sex-based classification—the Court creates the illusion that government officials in some future case will have a clear shot at justifying some sort of singlesex public education. Indeed, the Court seeks to create even a greater illusion than that: It purports to have said nothing of relevance to *other* public schools at all. "We address specifically and only an educational opportunity recognized . . . as `unique.' " *Ante*, at 534, n. 7.

The Supreme Court of the United States does not sit to announce "unique" dispositions. Its principal function is to establish *precedent* —that is, to set forth principles of law that every court in America must follow. As we said only this Term, we expect both ourselves and lower courts to adhere to the *"rationale* upon which the Court based the results of its earlier decisions." Seminole Tribe of Fla. v. Florida, 517 U. S. 44, 66-67 (1996) (emphasis added). That is the principal reason we publish our opinions.

And the rationale of today's decision is sweeping: for sexbased classifications, a redefinition of intermediate scrutiny that makes it indistinguishable from strict scrutiny. See *supra*, at 571-574. Indeed, the Court indicates that if any program restricted to one sex is "uniqu[e]," it must be opened to members of the opposite sex "who have the will and capacity" to participate in it. *Ante*, at 542. I suggest that the single-sex program that will not be capable of being characterized as "unique" is not only unique but nonexistent.[8]

In any event, regardless of whether the Court's rationale leaves some small amount of room for lawyers to argue, it ensures that single-sex public education is functionally dead. *597 The costs of litigating the constitutionality of a single-sex education program, and the risks of ultimately losing that litigation, are simply

too high to be embraced by public officials. Any person with standing to challenge any sex-based classification can haul the State into federal court and compel it to establish by evidence (presumably in the form of expert testimony) that there is an "exceedingly persuasive justification" for the classification. Should the courts happen to interpret that vacuous phrase as establishing a standard that is not utterly impossible of achievement, there is considerable risk that whether the standard has been met will not be determined on the basis of the record evidence—indeed, that will necessarily be the approach of any court that seeks to walk the path the Court has trod today. No state official in his right mind will buy such a high-cost, high-risk lawsuit by commencing a single-sex program. The enemies of singlesex education have won; by persuading only seven Justices (five would have been enough) that their view of the world is enshrined in the Constitution, they have effectively imposed that view on all 50 States.

This is especially regrettable because, as the District Court here determined, educational experts in recent years have increasingly come to "suppor[t] [the] view that substantial educational benefits flow from a single-gender environment, be it male or female, *that cannot be replicated in a coeducational setting.* " 766 F. Supp., at 1415 (emphasis added). "The evidence in th[is] case," for example, "is virtually uncontradicted" to that effect. *Ibid.* Until quite recently, some public officials have attempted to institute new single-sex programs, at least as experiments. In 1991, for example, the Detroit Board of Education announced a program to establish three boys-only schools for inner-city youth; it was met with a lawsuit, a preliminary injunction was swiftly entered by a District Court that purported to rely on *Hogan*, see Garrett v. Board of Ed. of School Dist. of Detroit, 775 F.
598 Supp. 1004, 1006 (ED Mich. 1991), and the *598 Detroit Board of Education voted to abandon the litigation and thus abandon the plan, see Detroit Plan to Aid Blacks with All-Boy Schools Abandoned, Los Angeles Times, Nov. 8, 1991, p. A4, col. 1. Today's opinion assures that no such experiment will be tried again.

B

There are few extant single-sex public educational programs. The potential of today's decision for widespread disruption of existing institutions lies in its application to *private* single-sex education. Government support is immensely important to private educational institutions. Mary Baldwin College—which designed and runs VWIL— notes that private institutions of higher education in the 1990-1991 school year derived approximately 19 percent of their budgets from federal, state, and local government funds, *not including financial aid to students.* See Brief for Mary Baldwin College as *Amicus Curiae* 22, n. 13 (citing U. S. Dept. of Education, National Center for Education Statistics, Digest of Education Statistics, p. 38 and Nota (1993)). Charitable status under the tax laws is also highly significant for private educational institutions, and it is certainly not beyond the Court that rendered today's decision to hold that a donation to a single-sex college should be deemed contrary to public policy and therefore not deductible if the college discriminates on the basis of sex. See Note, The Independent Sector and the Tax Laws: Defining Charity in an Ideal Democracy, 64 S. Cal. L. Rev. 461, 476 (1991). See also Bob Jones Univ. v. United States, 461 U. S. 574 (1983).

The Court adverts to private single-sex education only briefly, and only to make the assertion (mentioned above) that "[w]e address specifically and only an educational opportunity recognized by the District Court and the Court of Appeals as `unique.' " *Ante*, at 534, n. 7. As I have already remarked, see *supra*, at 596, that
599 assurance assures nothing, unless it is to be taken as a promise that in the future *599 the Court will disclaim the reasoning it has used today to destroy VMI. The Government, in its briefs to this Court, at least purports to address the consequences of its attack on VMI for public support of private single-sex education. It contends that private colleges that are the direct or indirect beneficiaries of government funding are not thereby necessarily converted into state actors to which the Equal Protection Clause is then applicable. See Brief for United States in No. 94-2107, at 35-37 (discussing Rendell-Baker v. Kohn, 457 U. S. 830 (1982), and Blum v. Yaretsky, 457 U. S. 991 (1982)). That is true. It is also virtually meaningless.

The issue will be not whether government assistance turns private colleges into state actors, but whether the government *itself* would be violating the Constitution by providing state support to single-sex colleges. For

example, in Norwood v. Harrison, 413 U. S. 455 (1973), we saw no room to distinguish between state operation of racially segregated schools and state support of privately run segregated schools. "Racial discrimination in state-operated schools is barred by the Constitution and '[i]t is also axiomatic that a state may not induce, encourage or promote private persons to accomplish what it is constitutionally forbidden to accomplish.' " *Id.*, at 465 (quoting Lee v. Macon County Bd. of Ed., 267 F. Supp. 458, 475-476 (MD Ala. 1967)); see also Cooper v. Aaron, 358 U. S. 1, 19 (1958) ("State support of segregated schools through any arrangement, management, funds, or property cannot be squared with the [Fourteenth] Amendment's command that no State shall deny to any person within its jurisdiction the equal protection of the laws"); Grove City College v. Bell, 465 U. S. 555, 565 (1984) (case arising under Title IX of the Education Amendments of 1972 and stating that "[t]he economic effect of direct and indirect assistance often is indistinguishable"). When the Government was pressed at oral argument concerning the implications of these cases for private single-
600 sex education if government-provided single-sex education is unconstitutional, *600 it stated that the implications will not be so disastrous, since States *can* provide funding to *racially* segregated private schools, "depend[ing] on the circumstances," Tr. of Oral Arg. 56. I cannot imagine what those "circumstances" might be, and it would be as foolish for privateschool administrators to think that that assurance from the Justice Department will outlive the day it was made, as it was for VMI to think that the Justice Department's "unequivoca[l]" support for an intermediate-scrutiny standard in this litigation would survive the Government's loss in the courts below.

The only hope for state-assisted single-sex private schools is that the Court will not apply in the future the principles of law it has applied today. That is a substantial hope, I am happy and ashamed to say. After all, did not the Court today abandon the principles of law it has applied in our earlier sex-classification cases? And does not the Court positively invite private colleges to rely upon our ad-hocery by assuring them this litigation is "unique"? I would not advise the foundation of any new single-sex college (especially an all-male one) with the expectation of being allowed to receive any government support; but it is too soon to abandon in despair those single-sex colleges already in existence. It will certainly be possible for this Court to write a future opinion that ignores the broad principles of law set forth today, and that characterizes as utterly dispositive the opinion's perceptions that VMI was a uniquely prestigious allmale institution, conceived in cheuvinism, etc., etc. I will not join that opinion.

* * *

Justice Brandeis said it is "one of the happy incidents of the federal system that a single courageous State may, if its citizens choose, serve as a laboratory; and try novel social and economic experiments without risk to
601 the rest of the country." New State Ice Co. v. Liebmann, 285 U. S. 262, 311 *601 (1932) (dissenting opinion). But it is one of the unhappy incidents of the federal system that a self-righteous Supreme Court, acting on its Members' personal view of what would make a "'more perfect Union,' " *ante*, at 558 (a criterion only slightly more restrictive than a "more perfect world"), can impose its own favored social and economic dispositions nationwide. As today's disposition, and others this single Term, show, this places it beyond the power of a "single courageous State," not only to introduce novel dispositions that the Court frowns upon, but to reintroduce, or indeed even adhere to, disfavored dispositions that are centuries old. See, *e. g.*, BMW of North America, Inc. v. Gore, 517 U. S. 559 (1996); Romer v. Evans, 517 U. S. 620 (1996). The sphere of self-government reserved to the people of the Republic is progressively narrowed.

In the course of this dissent, I have referred approvingly to the opinion of my former colleague, Justice Powell, in Mississippi Univ. for Women v. Hogan, 458 U. S. 718 (1982). Many of the points made in his dissent apply with equal force here—in particular, the criticism of judicial opinions that purport to be "narro[w]" but whose "logic" is "sweepin[g]." *Id.*, at 745-746, n. 18. But there is one statement with which I cannot agree. Justice Powell observed that the Court's decision in *Hogan*, which struck down a single-sex program offered by the Mississippi University for Women, had thereby "[l]eft without honor . . . an element of diversity that has

characterized much of American education and enriched much of American life." *Id.*, at 735. Today's decision does not leave VMI without honor; no court opinion can do that.

In an odd sort of way, it is precisely VMI's attachment to such old-fashioned concepts as manly "honor" that has made it, and the system it represents, the target of those who today succeed in abolishing public single-
602 sex education. The record contains a booklet that all first-year VMI students *602 (the so-called "rats") were required to keep in their possession at all times. Near the end there appears the following period piece, entitled "The Code of a Gentleman":

> "Without a strict observance of the fundamental Code of Honor, no man, no matter how 'polished,' can be considered a gentleman. The honor of a gentleman demands the inviolability of his word, and the incorruptibility of his principles. He is the descendant of the knight, the crusader; he is the defender of the defenseless and the champion of justice . . . or he is not a Gentleman.
>
> "A Gentleman . . .
>
> "Does not discuss his family affairs in public or with acquaintances.
>
> "Does not speak more than casually about his girl friend.
>
> "Does not go to a lady's house if he is affected by alcohol. He is temperate in the use of alcohol.
>
> "Does not lose his temper; nor exhibit anger, fear, hate, embarrassment, ardor or hilarity in public.
>
> "Does not hail a lady from a club window.
>
> "A gentleman never discusses the merits or demerits of a lady.
>
> "Does not mention names exactly as he avoids the mention of what things cost.
>
> "Does not borrow money from a friend, except in dire need. Money borrowed is a debt of honor, and must be repaid as promptly as possible. Debts incurred by a deceased parent, brother, sister or grown child are assumed by honorable men as a debt of honor.
>
> "Does not display his wealth, money or possessions.
>
> "Does not put his manners on and off, whether in the club or in a ballroom. He treats people with courtesy, no matter what their social position may be.
>
> 603 *603 "Does not slap strangers on the back nor so much as lay a finger on a lady.
>
> "Does not 'lick the boots of those above' nor 'kick the face of those below him on the social ladder.'
>
> "Does not take advantage of another's helplessness or ignorance and assumes that no gentleman will take advantage of him.
>
> "A Gentleman respects the reserves of others, but demands that others respect those which are his.
>
> "A Gentleman can become what he wills to be. . . ."

I do not know whether the men of VMI lived by this code; perhaps not. But it is powerfully impressive that a public institution of higher education still in existence sought to have them do so. I do not think any of us, women included, will be better off for its destruction.

[*] Together with No. 94-2107, *Virginia et al.* v. *United States*, also on certiorari to the same court.

[†] Briefs of *amici curiae* urging reversal in No. 94-1941 were filed for the State of Maryland et al. by *J. Joseph Curran, Jr.*, Attorney General of Maryland, and *Andrew H. Baida*, Assistant Attorney General, and by the Attorneys General for their respective jurisdictions as follows: *Margery S. Bronster* of Hawaii, *Scott Harshbarger* of Massachusetts, *Frankie Sue Del Papa* of Nevada, *C. Sebastian Aloot* of the Northern Mariana Islands, and *Theodore R. Kulongoski* of Oregon; for the Employment Law Center et al. by *Patricia A. Shiu* and *Judith Kurtz*; and for the National Women's Law Center et al. by *Robert N. Weiner, Marcia D. Greenberger, Sara L. Mandelbaum, Janet Gallagher, Mary Wyckoff, Steven R. Shapiro*, and *Susan Deller Ross*.

Briefs of *amici curiae* urging affirmance in No. 94-1941 were filed for the State of South Carolina et al. by *Charles Molony Condon*, Attorney General, *Treva Ashworth*, Deputy Attorney General, *Kenneth P. Woodington*, Senior Assistant Attorney General, *Reginald I. Lloyd*, Assistant Attorney General, and *M. Dawes Cooke, Jr.*; and for Kenneth E. Clark et al. by *James C. Roberts* and *George A. Somerville*.

Briefs of *amici curiae* were filed in both cases for the State of Wyoming et al. by *William U. Hill*, Attorney General of Wyoming, *Thomas W. Corbett, Jr.*, Attorney General of Pennsylvania, and *Bradley B. Cavedo*; for Bennett College et al. by *Wendy S. White*; for the Center for Military Readiness et al. by *Mellissa Wells-Petry* and *Jordan W. Lorence*; for the Employment Law Center et al. by *Patricia A. Shiu* and *Judith Kurtz*; for the Independent Women's Forum et al. by *Anita K. Blair* and *C. Douglas Welty*; for Mary Baldwin College by *Craig T. Merritt* and *Richard K. Willard*; for the South Carolina Institute of Leadership for Women by *Julienne Farnsworth*; for Wells College et al. by *David M. Lascell*; for Women's Schools Together, Inc., et al. by *John C. Danforth* and *Thomas C. Walsh*; and for Nancy Mellette by *Valorie K. Vojdik, Henry Weisburg, Suzanne E. Coe*, and *Robert R. Black*.

Briefs of *amici curiae* were filed in No. 94-1941 for the American Association of University Professors et al. by *Joan E. Bertin* and *Ann H. Franke*; and for Rhonda Comum et al. by *Allan L. Gropper*.

Daniel F. Kolb, Herbert J. Hansell, Paul C. Saunders, Norman Redlich, Barbara R. Arnwine, Thomas J. Henderson, and *Richard T. Seymour* filed a brief for the Lawyers' Committee for Civil Rights Under Law as *amicus curiae* in No. 94-2107.

[1] During the Civil War, school teaching became a field dominated by women. See A. Scott, The Southern Lady: From Pedestal to Politics, 1830-1930, p. 82 (1970).

[2] Historically, most of Virginia's public colleges and universities were single sex; by the mid-1970's, however, all except VMI had become coeducational. 766 F. Supp. 1407, 1418-1419 (WD Va. 1991). For example, Virginia's legislature incorporated Farmville Female Seminary Association in 1839, the year VMI opened. 1839 Va. Acts, ch. 187. Originally providing instruction in "English, Latin, Greek, French, and piano" in a "home atmosphere," R. Sprague, Longwood College: A History 7-8, 15 (1989) (Longwood College), Farmville Female Seminary became a public institution in 1884 with a mission to train "white female teachers for public schools," 1884 Va. Acts, ch. 311. The school became Longwood College in 1949, Longwood College 136, and introduced coeducation in 1976, *id.*, at 133.

[3] The District Court allowed the VMI Foundation and the VMI Alumni Association to intervene as defendants. 766 F. Supp., at 1408.

[4] Six judges voted to rehear the case en banc, four voted against rehearing, and three were recused. The Fourth Circuit's local Rule permits rehearing en banc only on the vote of a majority of the Circuit's judges in regular active service (currently 13) without regard to recusals. See 52 F. 3d, at 91, and n. 1.

[5] As Thomas Jefferson stated the view prevailing when the Constitution was new:

"Were our State a pure democracy . . . there would yet be excluded from their deliberations . . . [w]omen, who, to prevent depravation of morals and embiguity of issue, could not mix promiscuously in the public meetings of men." Letter from Thomas Jefferson to Samuel Kercheval (Sept. 5, 1816), in 10 Writings of Thomas Jefferson 45-46, n. 1 (P. Ford ed. 1899).

[6] The Court has thus far reserved most stringent judicial scrutiny for classifications based on race or national origin, but last Term observed that strict scrutiny of such classifications is not inevitably "fatal in fact." *Adarand Constructors, Inc. v. Peña*, 515 U. S. 200, 237 (1995) (internal quotation marks omitted).

[7] Several *amici* have urged that diversity in educational opportunities is an altogether appropriate governmental pursuit and that single-sex schools can contribute importantly to such diversity. Indeed, it is the mission of some single-sex schools "to dissipate, rather than perpetuate, traditional gender classifications." See Brief for Twenty-six Private Women's Colleges as

Amici Curiae 5. We do not question the Commonwealth's prerogative evenhandedly to support diverse educational opportunities. We address specifically and only an educational opportunity recognized by the District Court and the Court of Appeals as "unique," see 766 F. Supp., at 1413, 1432; 976 F. 2d, at 892, an opportunity available only at Virginia's premier military institute, the Commonwealth's sole single-sex public university or college. Cf. *Mississippi Univ. for Women v. Hogan*, 458 U. S. 718, 720, n. 1 (1982) ("Mississippi maintains no other single-sex public university or college. Thus, we are not faced with the question of whether States can provide 'separate but equal' undergraduate institutions for males and females.").

[8] On this point, the dissent sees fire where there is no flame. See *post*, at 596-598, 598-600. "Both men and women can benefit from a single-sex education," the District Court recognized, although "the beneficial effects" of such education, the court added, apparently "are stronger among women than among men." 766 F. Supp., at 1414. The United States does not challenge that recognition. Cf. C. Jencks & D. Riesman, The Academic Revolution 297-298 (1968):

"The pluralistic argument for preserving all-male colleges is uncomfortably similar to the pluralistic argument for preserving all-white colleges . . . . The all-male college would be relatively easy to defend if it emerged from a world in which women were established as fully equal to men. But it does not. It is therefore likely to be a witting or unwitting device for preserving tacit assumptions of male superiority—assumptions for which woman must eventually pay."

[9] Dr. Edward H. Clarke of Harvard Medical School, whose influential book, Sex in Education, went through 17 editions, was perhaps the most well-known speaker from the medical community opposing higher education for women. He maintained that the physiological effects of hard study and academic competition with boys would interfere with the development of girls' reproductive organs. See E. Clarke, Sex in Education 38-39, 62-63 (1873); *id.*, at 127 ("identical education of the two sexes is a crime before God and humanity, that physiology protests against, and that experience weeps over"); see also H. Maudsley, Sex in Mind and in Education 17 (1874) ("It is not that girls have not ambition, nor that they fail generally to run the intellectual race [in coeducational settings], but it is asserted that they do it at a cost to their strength and health which entails life-long suffering, and even incapacitates them for the adequate performance of the natural functions of their sex."); C. Meigs, Females and Their Diseases 350 (1848) (after five or six weeks of "mental and educational discipline," a healthy woman would "lose . . . the habit of menstruation" and suffer numerous ills as a result of depriving her body for the sake of her mind).

[10] Virginia's Superintendent of Public Instruction dismissed the coeducational idea as "'repugnant to the prejudices of the people' " and proposed a female college similar in quality to Girton, Smith, or Vassar.2 History of Women's Education 254 (quoting Dept. of Interior, 1 Report of Commissioner of Education, H. R. Doc. No. 5, 58th Cong., 2d Sess., 438 (1904)).

[11] See *post*, at 566, 598-599, 603. Forecasts of the same kind were made regarding admission of women to the federal military academies. See, *e. g.*, Hearings on H. R. 9832 et al. before Subcommittee No. 2 of the House Committee on Armed Services, 93d Cong., 2d Sess., 137 (1975) (statement of Lt. Gen. A. P. Clark, Superintendent of U. S. Air Force Academy) ("It is my considered judgment that the introduction of female cadets will inevitably erode this vital atmosphere."); *id.*, at 165 (statement of Hon. H. H. Callaway, Secretary of the Army) ("Admitting women to West Point would irrevocably change the Academy. . . . The Spartan atmosphere— which is so important to producing the final product—would surely be diluted, and would in all probability disappear.").

[12] See 766 F. Supp., at 1413 (describing testimony of expert witness David Riesman: "[I]f VMI were to admit women, it would eventually find it necessary to drop the adversative system altogether, and adopt a system that provides more nurturing and support for the students."). Such judgments have attended, and impeded, women's progress toward full citizenship stature throughout our Nation's history. Speaking in 1879 in support of higher education for females, for example, Virginia State Senator C. T. Smith of Nelson recounted that legislation proposed to protect the property rights of women had encountered resistance. 10 Educ. J. Va. 213 (1879). A Senator opposing the measures objected that "there [was] no formal call for the [legislation]," and "depicted in burning eloquence the terrible consequences such laws would produce." *Ibid.* The legislation passed, and a year or so later, its sponsor, C. T. Smith, reported that "not one of [the forecast "terrible consequences"] has or ever will happen, even unto the sounding of Gabriel's trumpet." *Ibid.* See also *supra*, at 537-538.

[13] Women cadets have graduated at the top of their class at every federal military academy. See Brief for Lieutenant Colonel Rhonda Comum et al. as *Amici Curiae* 11, n. 25; cf. Defense Advisory Committee on Women in the Services, Report on the Integration and Performance of Women at West Point 64 (1992).

[14] Brief for Lieutenant Colonel Rhonda Comum, *supra*, at 5-9 (reporting the vital contributions and courageous performance of women in the military); see Mintz, President Nominates 1st Woman to Rank of Three-Star General, Washington Post, Mar. 27, 1998, p. A19, col. 1 (announcing President's nomination of Marine Corps Major General Carol

Mutter to rank of Lieutenant General; Mutter will head corps manpower and planning); Tousignant, A New Era for the Old Guard, Washington Post, Mar. 23, 1996, p. C1, col. 2 (reporting admission of Sergeant Heather Johnsen to eliteInfantry unit that keeps round-the-clock vigil at Tomb of the Unknowns in Arlington National Cemetery).

[15] Inclusion of women in settings where, traditionally,they were not wanted inevitably entails a period of adjustment. As one West Point cadet squad leader recounted: "[T]he classes of '78 and '79 see the women as women, but the classes of '80and '81 see them as classmates." U. S. Military Academy, A. Vitters, Report of Admission of Women (Project Athena II) 84 (1978) (internal quotation marks omitted).

[16] VMI has successfully managed another notable change. The school admitted its first African-American cadets in 1968. See The VMI Story 347-349 (students no longer sing "Dixie," salute the Confederate flag or the tomb of General Robert E. Lee at ceremonies and sports events). As the District Court noted, VMI established a program on "retention of black cadets" designed to offer academic and social-cultural support to "minority members of a dominantly white and tradition-oriented student body." 766 F. Supp., at 1436-1437. The school maintains a "special recruitment program for blacks" which, the District Court found, "has had little,if any, effect on VMI's method of accomplishing its mission." *Id.*, at 1437.

[17] As earlier observed, see *supra*, at 529, Judge Phillips, in dissent, measured Virginia's plan against a paradigm arrangement, one that "could survive equal protection scrutiny": single-sex schools with "substantially comparable curricular and extra-curricular programs, funding, physical plant, administration and support services, . . . faculty[,] and library resources." 44 F. 3d 1229, 1250 (CA4 1995). Cf. *Bray v. Lee*, 337 F. Supp. 934 (Mass. 1972) (holding inconsistent with the Equal Protection Clause admission of males to Boston's Boys Latin School with a test score of 120 or higher (up to a top score of 200) while requiring a score, on the same test, of at least 133 for admission of females to Girls Latin School, but not ordering coeducation). Measuring VMI/VWIL against the paradigm, Judge Phillips said, "reveals how far short the [Virginia] plan falls from providing substantially equal tangible and intangible educational benefits to men and women." 44 F. 3d, at 1250.

[18] Both programs include an honor system. Students at VMI are expelled forthwith for honor code violations, see 766 F. Supp., at 1423; the system for VWIL students, see 852 F. Supp., at 498-497, is less severe, see Tr. 414-415 (testimony of Mary Baldwin College President Cynthia Tyson).

[19] Admitting women to VMI would undoubtedly require alterations necessary to afford members of each sex privacy from the other sex in living arrangements, and to adjust aspects of the physical training programs. See Brief for Petitioner 27-29; cf.note following 10 U. S. C. § 4342 (academic and other standards for women admitted to the Military, Naval, and Air Force Academies "shall be the same as those required for male individuals, except for those minimum essential adjustments in such standards required because of physiological differences between male and female individuals"). Experience shows such adjustments are manageable. See U. S. Military Academy, A. Vitters, N. Kinzer, & J. Adams, Report of Admission of Women (Project Athena I-IV) (1977-1980) (4-year longitudinal study of the admission of women to West Point); Defense Advisory Committee on Women in the Services, Report on the Integration and Performance of Women at West Point 17-18 (1992).

[20] Virginia's prime concern, it appears, is that "plac[ing] men and women into the adversative relationship inherent in the VMI program . . . would destroy, at least for that period of the adversative training, any sense of decency that still permeates the relationship between the sexes." 44 F. 3d, at 1239; see *supra*, at 540-546. It is an ancient and familiar fear. Compare *In re Lavinia Goodell*, 39 Wis. 232, 248 (1875) (denying female applicant's motion for admission to the bar of its court, Wisconsin Supreme Court explained: "Discussions are habitually necessary in courts of justice, which are unfit for female ears. The habitual presence of women at these would tend to relax the public sense of decency and propriety."), with Levine, Closing Comments, 6 Law & Inequality 41 (1988) (presentation at Eighth Circuit Judicial Conference, Colorado Springs, Colo., July 17, 1987) (footnotes omitted):

"Plato questioned whether women should be afforded equal opportunity to become guardians, those elite Rulers of Platonic society. Ironically, in that most undemocratic system of government, the Republic, women's native ability to serve as guardians was not seriously questioned. The concern was over the wrestling and exercise class in which all candidates for guardianship had to participate, for rigorous physical and mental training were prerequisites to attain the exalted status of guardian. And in accord with Greek custom, those exercise classes were conducted in the nude. Plato concluded that their virtue would clothe the women's nakedness and that Platonic society would not thereby be deprived of the talent of qualified citizens for reasons of mere gender."

For Plato's full text on the equality of women, see 2 The Dialogues of Plato 302-312 (B. Jowett transl., 4th ed. 1953). Virginia, not bound to ancient Greek custom in its "rigorous physical and mental training" programs, could more readily make the accommodations necessary to draw on "the talent of [all] qualified citizens." Cf. *supra*, at 550-551, n. 19.

[21] R. Morris, The Forging of the Union, 1781-1789, p. 193 (1987); see *id.*, at 191, setting out letter to a friend from Massachusetts patriot (later second President) John Adams, on the subject of qualifications for voting in his home State:

"[I]t is dangerous to open so fruitful a source of controversy and altercation as would be opened by attempting to alter the qualifications of voters; there will be no end of it. New claims will arise; women will demand a vote; lads from twelve to twenty-one will think their rights not enough attended to; and every man who has not a farthing, will demand an equal voice with any other, in all acts of state. It tends to confound and destroy all distinctions, and prostrate all ranks to one common level." Letter from John Adams to James Sullivan (May 26, 1776), in 9 Works of John Adams 378 (C. Adams ed. 1854).

[*] The dissent equates our conclusion that VMI's "asserted interest in promoting diversity" is not "'genuine,' " with a "charge" that the diversity rationale is "a pretext for discriminating against women." *Post*, at 579-580. Of course, those are not the same thing. I do not read the Court as saying that the diversity rationale is a pretext for discrimination, and I would not endorse such a proposition. We may find that diversity was not the Commonwealth's real reason without suggesting, or having to show, that the real reason was "antifeminism." *post*, at 580. Our cases simply require that the proffered purpose for the challenged gender classification be the actual purpose, although not necessarily recorded. See *ante*, at 533, 535-536. The dissent also says that the interest in diversity is so transparent that having to articulate it is "absurd on its face."*Post*, at 592. Apparently, that rationale was not obvious to the Mission Study Committee which failed to list it among its reasons for maintaining VMI's all-men admissions policy.

[1] Accord, *ante*, at 541 ("In sum . . . , neither the goal of producing citizensoldiers, VMI's *raison d'être*, nor VMI's implementing methodology is *inherently unsuitable* to women" (internal quotation marks omitted; emphasis added)); *ante*, at 542 ("[T]he question is whether the Commonwealth can constitutionally deny to women who have the will and capacity, the training and attendant opportunities that VMI uniquely affords"); *ante*, at 547-548 (the "violation" is that "equal protection [has been] denied to women ready, willing, and able to benefit from educational opportunities of the kind VMI offers");*ante*, at 550 ("As earlier stated, see *supra*, at 541-542, generalizations about 'the way women are,' estimates of what is appropriate for *most women*, no longer justify denying opportunity to women whose talent and capacity place them outside the average description").

[2] This statement is supported by other evidence in the record demonstrating, by reference to both public and private institutions, that Virginia actively seeks tofoster its "'richheritage of pluralism and diversity in higher education,' " 1989 Report of the Virginia Commission on Constitutional Revision, quoted in relevant part at Lodged Materials 53; that Virginia views "' [o]ne special characteristic of the Virginia system [as being] its diversity,' " 1989 Virginia Plan for Higher Education, quoted in relevant part at Lodged Materials 64; and that in the Commonwealth's view "[h]igher education resources should be viewed as a whole—public and private"—because "'Virginia needs the diversity inherent in a dual system of higher education,' " 1974 Report of the General Assembly Commission on Higher Education to the General Assembly of Virginia, quoted in 766 F. Supp. 1407, 1420 (WD Va. 1991). See also Budget Initiatives for 1990-1992 of State Council of Higher Education for Virginia 10 (June 21, 1989) (Budget Initiatives),quoted at n. 3,*infra*. It should be noted (for this point will be crucial to my later discussion) that these official reports quoted here, in text and footnote, regard the Commonwealth's educational system—public *and private* —as a unitary one.

[3] The Commonwealth provides tuition assistance, scholarship grants, guaranteed loans, and work-study funds for residents of Virginia who attend private colleges in the Commonwealth. See, *e. g.*, Va. Code Ann. §§ 23-38.11 to 23-38.19 (1993 and Supp. 1995) (Tuition Assistance Grant Act); §§ 23-38.30 to 23-38.44:3 (Virginia Student Assistance Authorities); Va. Code Ann. §§ 23-38.45 to 23-38.53 (1993) (College Scholarship Assistance Act); §§ 23-38.53:1 to 23-38.53:3 (Virginia Scholars Program); §§ 23-38.70, 23-38.71 (Virginia Work-Study Program). These programs involve substantial expenditures: for example, Virginia appropriated $4,413,750 (not counting federal funds it also earmarked) for the College Scholarship Assistance Program for both 1996 and 1997, and for the Tuition Assistance Grant Program appropriated $21,568,000 for 1996 and $25,842,000 for 1997. See 1996 Va. Appropriations Act, ch. 912, pt. 1, § 160.

In addition, as the parties stipulated in the District Court, the Commonwealth provides other financial support and assistance to private institutions—including single-sex colleges—through low-cost building loans, state-funded services contracts, and other programs. See, *e. g.*, Va. Code Ann. §§ 23-30.39 to 23.30.58 (1993) (Educational Facilities Authority Act). The State Council of Higher Education for Virginia, in a 1989 document not created for purposes of this litigation but introduced into evidence, has described these various programs as a "means by which the Commonwealth can provide funding to its independent institutions, thereby helping to maintain a diverse system of higher education." Budget Initiatives 10.

[4] The Court, unfamiliar with the Commonwealth's policy of diverse and independent institutions, and in any event careless of state and local traditions, must be forgiven by Virginians for quoting a reference to "'the Charlottesville campus' " of the University of Virginia. See *ante*, at 538. The University of Virginia, an institution even older than VMI, though not as old as another of the Commonwealth's universities, the College of William and Mary, occupies the portion of Charlottesville known, not as the "campus," but as "the grounds." More importantly, even if it were a "campus," there would be no need to specify "the Charlottesville campus," as one might refer to the Bloomington or Indianapolis campus of Indiana University. Unlike university systems with which the Court is perhaps more familiar, such as those in New York (*e. g.*, the State University of New York at Binghamton or Buffalo), Illinois (University of Illinois at Urbana-Champaign or at Chicago), and California (University of California, Los Angeles, or University of California, Berkeley), there is only *one* University of Virginia. It happens (because Thomas Jefferson lived near there) to be located at Charlottesville. To many Virginians it is known, simply, as "the University," which suffices to distinguish it from the Commonwealth's other institutions offering 4-year college instruction, which include Christopher Newport College, Clinch Valley College, the College of William and Mary, George Mason University, James Madison University, Longwood College, Mary Washington University, Norfolk State University, Old Dominion University, Radford University, Virginia Commonwealth University, Virginia Polytechnic Institute and State University, Virginia State University—and, of course, VMI.

[5] The Court's do-it-yourself approach to factfinding, which throughout is contrary to our well-settled rule that we will not "undertake to review concurrent findings of fact by two courts below in the absence of a very obvious and exceptional showing of error," *Graver Tank & Mfg. Co. v. Linde Air Products Co.*, 336 U. S. 271, 275 (1949) (and cases cited), is exemplified by its invocation of the experience of the federal military academies to prove that not much change would occur. See *ante*, at 542, n. 11; 544-545, and n. 15; 550-551, n. 19. In fact, the District Court noted that "the West Point experience" *supported* the theory that a coeducational VMI would have to "adopt a [different] system," for West Point found it necessary upon becoming coeducational to "move away" from its adversative system. 766 F. Supp., at 1413, 1440. "Without a doubt . . . VMI's present methods of training and education would have to be changed as West Point's were." *Id.*, at 1413, n. 8; accord, 976 F. 2d 890, 896-897 (CA4 1992) (upholding District Court's findings that "the unique characteristics of VMI's program," including its "unique methodology," "would be destroyed by coeducation").

[6] The Court is incorrect in suggesting that the Court of Appeals applied a "deferential" "brand of review inconsistent with the more exacting standard our precedent requires." *Ante*, at 555. That court "inquir[ed] (1) whether the state's objective is legitimate and important,' and (2) whether 'the requisite direct, substantial relationship between objective and means is present,' " 44 F. 3d, at 1235 (quoting *Mississippi Univ. for Women v. Hogan*, 458 U. S. 718, 725 (1982)). To be sure, such review is "deferential" to a degree that the Court's new standard is not, *for it is intermediate scrutiny*. (The Court cannot evade this point or prove the Court of Appeals too deferential by stating that that court "devised another test, a 'substantive comparability' inquiry,' " *ante*, at 555 (quoting 44 F. 3d, at 1237), for as that court explained, its "substantive comparability" inquiry was an "*additional* step" that it engrafted on "th[e] traditional test" of intermediate scrutiny, *ibid.* (emphasis added).)

[7] The concurrence states that it "read[s] the Court" not "as saying that the diversity rationale is a pretext" for discriminating against women, but as saying merely that the diversity rationale is not genuine. *Ante*, at 562, n. The Court itself makes no such disclaimer, which would be difficult to credit inasmuch as the foundation for its conclusion that the diversity rationale is not "genuin[e]," *ante*, at 539, is its antecedent discussion of Virginia's "deliberate" actions over the past century and a half, based on "[f]amiliar arguments," that sought to enforce once "widely held views about women's proper place," *ante*, at 537, 538.

[8] In this regard, I note that the Court—which I concede is under no obligation to do so—provides no example of a program that *would* pass muster under its reasoning today: not even, for example, a football or wrestling program. On the Court's theory, any woman ready, willing, and physically able to participate in such a program would, *as a constitutional matter*, be entitled to do so.

Department of the Army
Headquarters, United States Army
Training and Doctrine Command
Fort Eustis, Virginia 23604-5700

***TRADOC Regulation 350-6**

20 March 2017

Training

ENLISTED INITIAL ENTRY TRAINING POLICIES AND ADMINISTRATION

DAVID G. PERKINS
General, U.S. Army
Commanding

RICHARD A. DAVIS
Senior Executive
Deputy Chief of Staff, G-6

History. This publication is a major revision. The portions affected by revision are listed in the summary of change.

Summary. This United States (U.S.) Army Training and Doctrine Command (TRADOC) Regulation 350-6 prescribes policies and procedures for the conduct of enlisted initial entry training (IET).

Applicability. This regulation applies to all active Army, United States Army Reserve, and Army National Guard enlisted IET conducted at both TRADOC and Non-TRADOC service schools, Army training centers, and other training activities under the control of Headquarters (HQ), TRADOC and to all personnel, military and civilian, under the control of HQ TRADOC, to include Army elements stationed within Interservice Training Review Organizations (ITRO) for AIT, who interact with Soldiers undergoing IET conducted on an installation, the commander of which is subordinate to, and within the supervisory chain of the Commanding General, TRADOC. Paragraph 2-5 of this regulation prescribes punitive actions and violations that may subject offenders to judicial or non-judicial punishment under Article 92 of the Uniform Code of Military Justice. This regulation applies only to TRADOC personnel. TRADOC subordinate commanders who are also installation commanders should issue local regulations or incorporate into pre-existing local regulations, the appropriate punitive provisions of TRADOC Regulation 350-6 as effective on their installations to protect trainees and preserve good order and discipline.

*This regulation supersedes TRADOC Regulation 350-6, dated 18 December 2015.

Proponent and exception authority. The proponent of this regulation is the TRADOC Deputy Commanding General–Initial Military Training (USACIMT) (ATMT), 210 Dillon Circle, Fort Eustis, VA 23604-5701. The proponent has the authority to approve exceptions or waivers to this regulation that are consistent with controlling law and regulations. The proponent may delegate this approval authority in writing, to a division chief with the proponent agency or its direct reporting unit or field operating agency, in the grade of colonel or the civilian equivalent. Activities may request a waiver to this regulation by providing justification that includes a full analysis of the expected benefits and must include formal review by the activity's senior legal officer. All waiver requests will be endorsed by the commander or senior leader of the requesting activity and forwarded through higher headquarters to the policy proponent.

Army management control process. This regulation contains management control provisions in accordance with Army Regulation (AR) 11-2, but it does not identify key management controls that must be evaluated.

Supplementation. Supplementation of this regulation and establishment of command and local forms is prohibited without prior approval from the TRADOC USACIMT (ATMT), 210 Dillon Circle, Fort Eustis, VA 23604-5701.

Suggested improvements. Users are invited to send comments and suggested improvements on Department of the Army (DA) Form 2028 (Recommended Changes to Publications and Blank Forms) directly to the TRADOC USACIMT (ATMT), 210 Dillon Circle, Fort Eustis, VA 23604-5701. Suggested improvements may also be submitted using DA Form 1045 (Army Ideas for Excellence Program (AIEP) Proposal).

Distribution. This publication is available only on the TRADOC Homepage at http://www.tradoc.army.mil/tpubs/.

Summary of Change

TRADOC Regulation 350-6
Enlisted Initial Entry Training Policies and Administration

This major revision, dated 20 March 2017-

o Modifies Initial Entry Training outcomes by adding the graduation certificate earning the right to be called a Soldier (para 1-8).

o Clarify guidance: Qualify on the hand grenade qualification course to standard and throw two live grenades.(para 2-2a(4)).

o Changes the requirement for a two person land navigation team to a minimum of 3 but no more than four person team (para 2-2a(6)).

o Adds Pass the individually assessed High Physical Demand Test in accordance to proponent requirements (para 2-2b(7).

o Adds paternal leave guidance (para 2-4f).

o Adds guidance on Solders entering the Army with religious accommodations (para 2-4h and app K).

o Adds guidance for Initial Entry Training family members participation in training unit Family Readiness Groups (para 2-5j(4)).

o Clarifies guidance on audible door alarms (para 3-1a(1)).

o Clarifies guidance for the 3-line telephone hotline (para 3-1d(7)).

o Adds guidance to Chapter 3 on requirements to submit an exception to policy with a mitigation plan for not meeting separate and secure minimum requirements (paras 3-1a(1),(2), and (3); 3-1b(1); and 3-1d(7)).

o Adds guidance on student noncommissioned officers performing charge of quarters duty (para 4-2b).

o Modifies Initial Entry Training Phases and privileges (table 4-1).

o Clarifies guidance on Soldiers in training attending off post activities (para 5-4d).

o Adds a new paragraph on Fueling for Performance (para 5-11).

o Changes Corrective action paragraph and updates exercises (para 5-21 and table 5-1).

o Clarifies guidance/reporting for Soldiers placed on profile using Department of Defense Form 689 and Department of the Army Form 3349. Reports are available to commanders through the e-profile portal on medical occupational data system (para H-6).

o Corrects number for the Individual Safety Card heat card to GTA 05-08-012 (para H-10b(2)).

o Corrects information throughout Appendix B.

o Modifies Appendix D in accordance with Commanding General for Initial Military Training guidance.

This page left intentionally blank

Contents

Figure list

Table list

Chapter 1
Introduction

1-1. Purpose
This regulation prescribes U.S. Army Training and Doctrine Command (TRADOC) guidance, policies, procedures, and responsibilities for managing and conducting Initial Entry Training (IET). IET is a sub-set of the TRADOC Core Function - Initial Military Training – identified in TRADOC Regulation 10-5, U.S. Army Training and Doctrine Command Functions and Organizations. IET consists of basic combat training (BCT), one station unit training (OSUT), Advanced Individual Training (AIT), and any other formal enlisted Army accomplished within the IET environment training received to include Army elements stationed within Interservice Training Review Organizations (ITRO) for AIT, prior to the awarding of an initial Military Occupational Specialty (MOS) (for example, English language training (ELT)). The regulation supports the design, development, and execution of all IET programs of instruction (POIs), as well as AIT for MOS training for prior service enlisted Soldiers and Noncommissioned Officers (NCOs). The regulation identifies prohibited practices, which are punitive in nature and may subject the offender to disciplinary action.

1-2. References
Related publications and referenced forms are listed in Appendix A.

1-3. Explanation of abbreviations and terms
Abbreviations and special terms used in this regulation are explained in the Glossary.

1-4. Initial Military Training (IMT) Mission/Vision/Endstate

- Mission: Lead the synchronization and management of initial military training and education to transform civilian volunteers into Soldiers who are able to contribute upon arrival at their first unit of assignment.

- Vision: The Army Profession starts here - by preparing, training, and educating civilian volunteers, and transforming them into Soldiers, who are competent in the military skills, individuals of character, and are committed to serving our nation.

- End State: Provide the Army with Soldiers of Character who are competent and committed to serving our nation honorably.

a. The Center for the Army Profession and Ethic (CAPE) under the US Army Combined Arms Center (CAC) published Army Doctrine Reference Publication (ADRP) 1, *The Army Profession* on 14 June 2015. The document describes an Army Professional as "a member of the Army Profession who meets the Army's certification criteria of competence, character, and commitment. Uniformed and civilian, an Army professional is an expert certified within the profession and bonded with comrades in a shared identity and culture of sacrifice and service to the Nation. An Army professional is one who acts as a steward of the Army Profession while adhering to the highest standards of the Army's Ethic." ADRP 1 also published a diagram that illustrated the Army Professional certification process. Figure 1-1 below.

b. Leveraging this framework, initial military training encompasses the period on the Army Professional Certification continuum associated with the "aspiring professional." In that capacity, IMT serves as the foundation on which all Soldier and leader training and education is built and serves as the "front door" to the U.S. Army. It supports the Army Professional Certification continuum and begins when a person voluntarily enters the Army and ends when they are certified to serve as a professional Soldier.

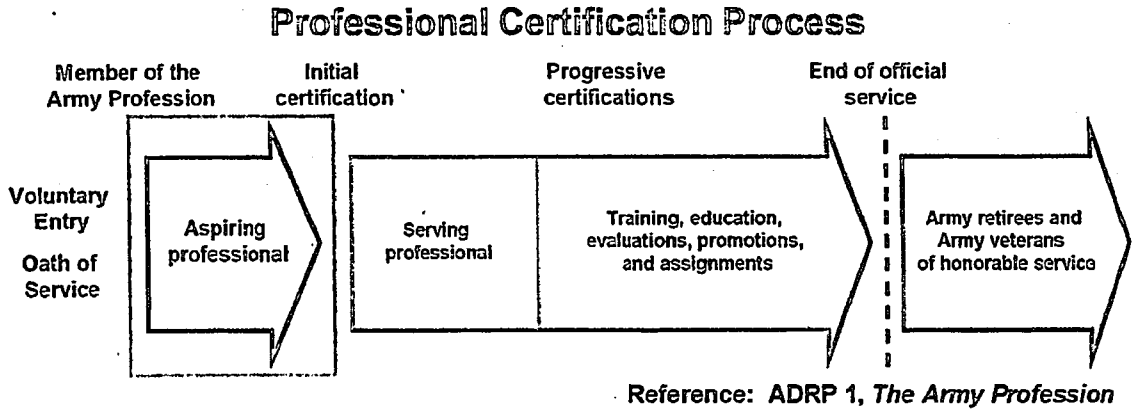


Figure 1-1 Professional Certification Process

c. Strategy.

(1) Ends. IMT is a process within the institutional domain that aligns the development of competencies (knowledge, skills, abilities, attributes) and behaviors in civilian volunteers and enables their transformation into Army military professionals. During this period, aspiring Soldiers and leaders are grounded in the values, norms, and expectations of the Army profession; are prepared physically and mentally to meet the rigors of the warrior tasks and battle drills and trained and educated in the skills of their military occupational specialty or basic branch so they can contribute as leaders or members of a team upon arrival at their first unit of assignment. The outcome is a person who is competent, confident, and capable of serving honorably as a Soldier and as a trusted member of a team, and one who has a shared professional identity with others who selflessly serve in the profession of arms.

(2) Ways. As stated in *The Army Training Strategy*, IMT provides the foundation for trainees to be experts in their critical combat skills and cultivates self-confidence, adaptability, physical strength, resilience, and mental agility.

(a) For enlisted trainees, IMT begins with training provided to delayed-entry recruits by recruiters or through distance learning applications prior to an individual reporting to the Military Entrance Processing Station (MEPS) and continues during BCT.

(b) Specific for enlisted Soldiers, IMT ends when the aspiring Army professional graduates from AIT or OSUT and is determined to be qualified by the branch or functional proponent to perform his/her MOS skills.

(3) Means. Central to implementing the IMT process is the need for collaboration, consultation, and cooperation by all leaders within the institutional domain, recruiting, TRADOC Headquarters (HQ), the Army, and units who receive the newly certified Soldiers.

(a) Senior-level oversight of training-related issues is an integral element of the TRADOC mission. TR 10-5 designates the Deputy Commanding General for Initial Military Training (DCG-IMT) as TRADOC's core function lead for initial military training and the principal representative for the CG for supervision, management, and oversight of policy and resource prioritization on all matters pertaining to IMT.

(b) The Training Operations Management Activity (TOMA) reports to the TRADOC G3/5/7 and is responsible for validating and integrating TRADOC course and resource requirements into the Structure Manning Decision review (SMDR) and Army Program for Individual Training (ARPRINT) development. TOMA also provides oversight of Training Resource Arbitration Panel (TRAP) actions and course mission/resource adjustments, and coordinates Reserve Component training base augmentation (108th TC (IET)), training ammunition management, and Inter-Service Training Review Organization (ITRO).

(c) The USACIMT is dual-hatted and also serves as the CG, Center for Initial Military Training (CIMT). The CG, CIMT synchronizes efforts across Centers of Excellence (CoEs) but does not direct priorities of work, management of allotted resources or how a mission is to be accomplished. The CoE CG must integrate all efforts in support of multiple core functions directed by different core function leads that operate under various Army management and resourcing processes. This requires vigilance in managing internal CoE resources and work priorities to accomplish missions, weighing priorities, and taking prudent risks when necessary. The CoE CG is accountable for ensuring missions are accomplished and integrated.

(d) The CGs for the CoEs serve as the Army's experts within their respective areas (maneuver, aviation, fires, intelligence, maneuver support, mission command, cyber, and sustainment) and execute TRADOC core functions in support of that area, to include training, doctrine, and capability requirements.

(e) The branch proponent is the school commandant and chief of the designated-branch and is responsible for executing training, leader development and education and manages personnel proponent requirements. Commandants provide command and control for one or more training brigades and ensure the school maintains the highest standards for instructor certification, school accreditation, development and sustainment of courseware, and proper use of Army school system personnel and facilities. Commandants ensure the operational relevance of curricula through the inclusion of lessons learned and realistic scenarios that reflect the operational environment.

(f) The 108th Training Command provides trained and ready drill sergeants, instructors, leader-trainers, and command and control expertise to the Active Army and TRADOC. The 108th

TC (IET) is OPCON to TRADOC and supports USACIMT by augmenting the Training Brigades with drill sergeants (male/female), by supporting BCT/OSUT Echo Company requirements and by providing Reception Battalion support. The US Army Reserve and 108th TC (IET) also provide resources that support the US Army Drill Sergeant School located at Fort Jackson, SC as well as specified mission requirements such as Task Force Marshall.

(g) Ultimately the responsibility for training, educating, and development of civilian volunteers into Army military professionals is assigned to IMT unit leaders; this includes BCT, AIT, and OSUT.

(h) In addition leaders within the US Army Recruiting Command (USAREC) have preparatory responsibilities that support the IMT process.

(i) In order to assist the CIMT execute core function lead responsibilities, CIMT manages, synchronizes, and oversees entry-level military training, education, and resource prioritization so Initial Military Training units can transform civilian volunteers into Soldiers who are able to contribute as leaders or members of a team upon arrival at their first unit of assignment.

(j) In keeping with mission command doctrine, the staff aids supports the CG USACIMT in exercising sufficient control to achieve desired effects while allowing subordinate matrix-organizations maximum freedom of action to accomplish assigned tasks.

(k) The staff supports decision making by:

(1) Collecting and analyzing information, assessing relevancy and effectiveness of the training provided to Soldiers and leaders, ensuring a safe and secure environment exists for Soldiers to live and learn, and recommending priorities on how best to use limited resources.

(2) Assisting, coordinating with, and supporting supported organization's efforts by promoting TRADOC and Headquarters, Department of the Army (HQDA) policy and guidance, monitoring course quotas, managing production throughput, and ensuring subordinate issues, requirements, and priorities are adequately addressed by TRADOC and the Army.

(3) Facilitating coordination and dissemination of plans, doctrine, and training by working closely with the TRADOC HQs staff and external agencies as appropriate.

(4) Monitoring compliance of TRADOC and HQDA policies, procedures, and regulations and ensuring consistent application is occurring across the enterprise.

(5) Enabling the professional development of IMT cadre through management of the IMT Brigade/Battalion Command Pre-Command Course (Phase II), the IMT Company Commander/First Sergeant Course, the Drill Sergeant School, the Advanced Individual Training Platoon Sergeant Course, and other functional training courses.

1-5. Roles and Responsibilities

a. CIMT will:

(1) Serve as Core Function Lead for Initial Military Training within TRADOC and represent the CG, TRADOC.

(2) Establish policy, guidance and instruction for conduct of initial entry training as part of the accessions enterprise.

(3) Set conditions for management, synchronization, and oversight of all policies, regulations and directives governing Soldier entry training and consistent application across the IMT enterprise.

(4) Serve as the TRADOC BCT proponent.

(5) Serve as the proponent and exception authority for TRADOC Regulation 350-6.

(6) Manage, synchronize, and oversee all TRADOC, HQDA and Department of Defense (DOD) policies, regulations, and directives governing Soldier entry training to ensure consistent application across the IMT enterprise.

(7) Assist, coordinate with, and support supported organization's efforts by monitoring course quotas and production throughput; and ensuring subordinate issues, requirements and priorities are adequately addressed by TRADOC and the Army.

(8) Facilitate coordination and dissemination of plans, doctrine, and training by working closely with the TRADOC HQs staff and external agencies as appropriate.

(9) Supervise and conduct the following leader training within TRADOC: IMT Brigade/Battalion Pre-Command Course (PCC) (Phase II), IMT Company Commander/First Sergeant Course (CCFSC), IMT Cadre Training Course (CTC), IMT Support Cadre Training Course (SCTC), Installation Staff Contractor Training Course (ISCTC), and additional functional training as directed by HQ TRADOC. Approving authority for course material submitted by the Proponent.

(10) Serve as lead for development and implementation of the Warrior Tasks and Battle Drills (WTBDs), and recommends to the CG, TRADOC updates for approval. In coordination with School proponents, approve WTBD training requirements in AIT and the Black and Gold phases of OSUT. Conduct a survey and conference every two years to assess the need for additions, modifications, and deletions to approved WTBDs.

(11) Conduct quick look visits, investigations, inspections, assistance, and assessments as needed within the IMT enterprise.

(12) Participate and support COE and School accreditation efforts within TRADOC.

(13) Review all IMT and MOS-T programs of instruction for inclusion of mandated training.

(14) Approve the BCT, U.S. Army Drill Sergeant School, and AIT Platoon Sergeant Course programs of instruction (POIs).

(15) Revise TRADOC Pamphlet (TP) 600-4, (Blue Book) as necessary, in coordination with all TRADOC branch proponents and provide a copy to the Army Training Support Center (ATSC) (ATIC-DCO), Building 1726, Fort Eustis, VA 23604 for publication and distribution annually.

(16) Support and facilitate AIT/OSUT Soldier sponsorship for respective gaining commands.

(17) Ensure orientation and administration processing for Exceptional Family Members Program (EFMP) are conducted.

(18) Ensure EFMP briefs are conducted during in-processing for AIT Soldiers (see Army Regulation (AR) 612-201, table 3-6), and in week 10 of OSUT.

b. Commanding General, United State Army Center for Initial Military Training (USACIMT) will:

(1) Collect and analyze accessions information, assess relevancy, and effectiveness of the training provided to Soldiers and leaders; ensure a safe and secure environment exists for Soldiers to live, work and learn; and recommend priorities to TRADOC and CoE Commanders on how best to use limited resources.

(2) Conduct and oversee pilots and surveys within the IMT enterprise.

(3) Conduct research and experimentation analysis to improve performance in IMT.

(4) Track and assess equipment fielding and individual equipment requirements in IMT in coordination with HQ TRADOC.

(5) Coordinate IMT training facilities and barracks funding strategies and policies, priorities, and implementing instructions with HQ TRADOC. Review and approve infrastructure requirements necessary to support training outlined in POIs (for example, ranges, classrooms, training aids, devices, simulators, and simulations).

(6) Conduct conferences and video teleconferences as required, in the execution of management, compliance, and oversight responsibilities.

(7) Conduct and host an annual commandant's forum to identify challenges, share best practices, and consider adaptations to TRADOC IMT.

(8) Conduct and host an IET brigade commander/command sergeant major (CSM) forum annually.

(9) Chair a quarterly VTC with IMT Commanders and leaders focused on sharing best practices that supports the Army's Ready and Resilience campaign plan.

c. Commandants, TRADOC branch schools will:

(1) Develop and provide training support package (TSP) and Training Requirements Analysis System (TRAS) documentation, Individual Training Plans (ITP), POIs, Course Administrative Data (CAD), lesson plans, and other instructional material, as required, in accordance with TRADOC Regulation (TR) 350-70. Proponents for OSUT will integrate BCT core training into their OSUT POIs.

(2) Establish and maintain a working relationship through visits, conferences, VTCs, and correspondence with Army Training Center (ATC) commanders, commandants, and training division commanders conducting training in courses for which they are the designated proponent.

(3) Manage the quality assurance program in accordance with TR 350-70 to evaluate the training program effectiveness for which they are proponents. Evaluation will include a thorough assessment of feedback from the field, as well as an assessment of teaching methods being used at course sites.

(4) Manage an effective mission oriented safety program that integrates risk management into all activities and training to protect personnel, facilities, equipment, and materiel under their charge, as well as the public and natural environment from hazards and accidents.

(5) Identify and approve POI infrastructure requirements and submit to TRADOC Deputy Chief of Staff (DCS) G-3/5/7 (Plans, Operations, and Training), Training Operations Management Agency (TOMA) for validation.

(6) Establish a resilience program for cadre in the IET environment. A drill sergeant (DS) and AIT platoon sergeant (PSG) resiliency program will be established in accordance with TR 350-16, http://www.tradoc.army.mil/tpubs/regs/TR350-16with1hangel.pdf. This may also be used as a guide to establish cadre resilience programs.

(7) Conduct other IET programs as directed by the Commanding General, TRADOC.

(8) Ensure records (hardcopy or electronic) created and/or received in the course of doing Army business are maintained in accordance with AR 25-400-2.

(9) Ensure orientation and administration processing for EFMP are conducted, using Department of the Army (DA) Form 7415, for both enlisted and officer personnel (see AR 612-201, tables 2-2, and 3-1).

(10) Ensure EFMP briefs are conducted during in-processing for AIT Soldiers (see AR 612-201, table 3-6), and in week 10 of OSUT.

(11) Ensure all IMT Soldiers are briefed on the EFMP prior to their departure to their first duty station.

d. The senior IET commander at each TRADOC subordinate command and non-TRADOC organization will:

(1) Ensure designated courses are taught in accordance with approved POI and training materials developed by the proponent. This includes application of IET training strategy and methods outlined in TR 350-70 and this regulation.

(2) Assist service schools and other course proponents in the design and development of courses taught in the ATC in accordance with TR 350-70.

(3) Provide feedback and make recommendations to change training content such as methods of instruction and sequencing.

(4) Continually evaluate training effectiveness, enforce training standards, and ensure continual certification of training cadre.

(5) Ensure cadre and support personnel attend the appropriate training courses in accordance with paragraph 3-2 and table B-1 of this regulation.

(6) Maintain a list, by position, of who must attend SCTC and ISCTC and submit to proponent at Leader Development Division (ATZJ-PCC), Building 3300 Magruder Ave, Fort Jackson, SC 29207-5000.

(7) Establish responsibility at the appropriate level of command for conducting preliminary inquiries, making credibility determinations, and documenting and maintaining records of serious incident reports (SIR) and operations reports (OPREPs).

(8) "Submit serious incident reports in accordance with AR 190-45 and OPREPs in accordance with TR 1-8 http://www.tradoc.army.mil/pubs/regs/TR1-8.pdf to TRADOC DCS, G-3/5/7, and Current Operations (G-33), Emergency Operation Center (ATTG-OPA-E). Reporting procedures outlined in TR 1-8 do not replace the reporting procedures as outlined in AR 190-45. Parallel reports are often required due to separate reporting channels."

(9) Ensure TRADOC Form 350-6-2-R-E (Soldier Assessment Report (Initial Entry Training Soldiers)) is completed during each phase of training and included in the Soldier's training packet upon graduation. Ensure that cadre solicit and attend to Soldier responses for Section I, "Family and Financial Status" and "Health Issues," and Section II "Training Outcomes" for indications of need for help; and make appropriate consultations or referrals to the chain of command, the Chaplain, Behavioral Health professionals, and/or to Army Community Service, as indicated. A sample Soldier Assessment Report is located in this regulation.

e. Commandant, U.S. Army Infantry School (in regard to BCT, OSUT, and AIT) will-

(1) Design the education and training for those infantry warrior tasks selected for training in BCT.

(2) Evaluate new equipment for use in BCT in conjunction with the appropriate proponents.

f. Commander, Defense Language Institute English Language Center (DLIELC), English as a second language (ESL) course will adhere to TRADOC policies in appendix C when training pre-BCT/OSUT Soldiers.

g. Commander, Defense Language Institute Foreign Language Center (DLIFLC) will adhere to the policies outlined in appendix D.

1-6. Initial Entry Training (IET) Focus

Transform civilian volunteers into trusted Army Professionals capable of winning in a complex world. This is accomplished by:

a. Inculcating newly accessed recruits with an understanding and commitment to the Army Values, moral-ethical conduct, and the Professional of Arms.

b. Assessing, developing and sustaining individual holistic health and fitness with the goal to minimize risk of injury, enhance performance and build capability to physically perform required Soldier and occupational skills.

c. Employing a learner-focused approach to training that focuses on adaptability and refined problem-solving skills. Soldiers who are disciplined, proficient in their entry-level Warrior, and military occupational specialty (MOS) skills, and able to serve as a trusted member/leader of a team.

1-7. Lines of effort

a. Compliance…Standards, Accountability and Discipline. This line of effort focuses on an enduring set of principles for all Soldiers in the initial military training enterprise—standards, accountability and discipline are an inherent part of shared Values and are essential in the demonstration of character, competence and commitment as an Army Professional Soldier and Civilian.

b. Safe and Secure Environment. This line of effort focuses on an environment that promotes and respects the individual dignity of all trainees, Soldiers and Civilians—recruits and cadre alike; that is free of harassment and fear of sexual assault and where everyone knows that they are valued and protected; and where everyone truly believes and feels that they are a member of a team and that their drill sergeants, instructors, leaders, co-workers and battle buddies are constantly looking out for their well-being and ensuring that a safe and secure place exists for them to live, work, train, and learn.

c. Soldier and Cadre Reception and Integration. This line of effort focuses on accession of civilian volunteers—aspiring military professionals—into a vocation built on trust, military

expertise, esprit de corps, honorable service and stewardship, and who share the same military ethic and commitment as Army professionals, past and present; and on resilient Soldiers, leaders and cadre who have the opportunity and skills to thrive personally and professionally to meet their full potential.

d. Entry Training and Physical Readiness. This line of effort focuses on foundational training for all recruits entering the Army—training that fosters individual toughness, battlefield skill and fighting spirit; that enables apprentice-level proficiency in their military occupational specialty and branch; and builds self-confidence, adaptability, physical strength, resilience, and mental agility resulting in Soldiers who are physically ready, grounded in Army Values, and competent in their skills so they are able to contribute as leaders or members of a team upon arrival at their first unit of assignment.

e. Cadre Selection and Certification. This line of effort focuses on the selection, training and certification of individuals who serve in sensitive positions ("positions of trust") and IMT unit leaders. Individuals who serve in sensitive positions or "positions of trust" are drill sergeants and AIT Platoon Sergeants (AIT PSG). IMT unit leaders are Brigade/Battalion Commanders and First Sergeants, Company Commanders and First Sergeants, committee/MOS instructors and those selected to serve as Squad Leader/Instructors.

(1). Gradual introduction of trainee privileges. To create an environment where Army standards of discipline and conduct can be clearly demonstrated and enforced, privileges associated with their previous civilian life are withdrawn upon entry in IET. These restrictions are part of an intricate process designed to teach discipline and subordination of self to a greater purpose. For the process to be complete and assure the orderly transition from IET to the operational force, it is appropriate to gradually introduce privileges, consistent with individual trainee ability to demonstrate adherence to standards. The goal is that each trainee demonstrates the ability and willingness to adhere to the Army's standards by gradually restoring the privileges in a relatively controlled environment where self-motivated adherence to the standards can be rewarded and failure to adhere can be corrected. This process takes advantage of the control inherently possible within the IET environment and ensures confidence that trainees leaving the controlled environment will act within the Army's standards.

(2). Continual cadre evaluation. An assessment-based strategy for all facets of the trainee's development involves two steps: first, develop and conduct continual evaluations; second, modify the training approach to align with a trainee's progress. Using this approach to Soldier transformation enhances the ability of leaders at every level to ensure trainees achieve the required psychological and physical standards. It also enhances our ability to appropriately challenge every trainee during their IET experience.

(3). Cadre behavior. The primary behavioral learning method in IET is through observation requiring consistent leadership by example. The IET environment fosters learning through observation, making it critical for leaders and trainers to embrace the "do as I do" mentality. trainees observe cadre constantly through specific training tasks. The cadre's proper example signifies there is only one standard; it also reinforces that all Soldiers, leaders included, are expected to maintain these standards.

1-8. IET Outcomes
The desired end-state is that a trainee entering the Army must earn the right to be called a "Soldier". This happens by successfully completing Basic Combat Training, or when transitioning from the BCT portion of OSUT to the AIT portion of OSUT and continues to be addressed as a Soldier throughout AIT and the Army. Each Trainee is required to learn skills and tasks that will enable them to fight and win in the current operating environment during decisive actions. They will understand the values and commitment required to be a member of a team where they always place the mission first, never accept defeat, never quit, and never leave a fallen comrade. They will become part of the Army family. After completing basic combat training, they will be presented with a graduation certificate signed by the SMA and CSA earning the right to be called a Soldier, and become a "Soldier for Life." A Soldier that has a shared professional identity with others who honorably and selflessly serve in the Profession of Arms; who is agile, adaptive, and resilient; who is physically ready to execute required Warfighter and occupational specialty skills, and who is able to serve as a trusted member of a team in their First Unit of Assignment.

Chapter 2
Compliance...Standards, Accountability and Discipline

2-1. IET requirements
IET is conducted in five phases:

a. Phase I: Focus is on developing "character and enhanced performance" through introduction to military customs and discipline, the Army ethic, values, physical readiness training, and resiliency. To progress to phase II, recruits must demonstrate a level of functional fitness which will allow them to meet follow-on physical fitness requirements. Trainees who meet Phase I requirements are authorized to wear the Army patch (Army Star Logo) on their Army Combat Uniform (ACU). All Trainees will Complete the global assessment tool (GAT) and initiation of building mental resilience.

b. Phase II. Focus is on individual Soldier tasks as defined by the Warrior Tasks and Battle Drills (WTBDs). The Army has identified various basic WTBDs that all Soldiers are required to be proficient in order to succeed on the battlefield. These WTBDs cover critical skills associated with the ability to shoot, move, communicate and survive. To progress to phase III, recruits must demonstrate individual cognitive proficiency on the Warrior Tasks. Evaluation is conducted by an end of phase test. Upon completion of Phase II each trainee will earn a rifle qualification badge.

c. Phase III. This phase builds upon what was learned over the past two phases and reinforces the basic combat skills with a focus on teamwork and discipline. Trainees who achieve phase III requirements, meet the requirements to graduate from BCT. Evaluation is conducted by end of cycle test and by completing the Army physical fitness test (APFT) by scoring at least 50 points in each event. After meeting all BCT graduation requirements, Soldiers are authorized to wear the Army Black Beret as a Rite of Passage and receive a graduating certificate signed by the SMA and CSA earning the right to be called a "Soldier".

d. Phase IV. This phase is the first segment of comprehensive MOS training and occurs during weeks 10-13 of OSUT and the first three weeks of AIT. Upon completion of Phase IV BDE Commander can authorize the wear of the individual unit patch on the Army Combat Uniform (ACU).

e. Phase V. This is the final and most progressive stage of MOS training and covers weeks 14-20 of OSUT/AIT. The phase ends with the successful completion of MOS testing, demonstration of apprentice-level proficiency, and completing the Army physical fitness test (APFT) by scoring at least 60 points in each event, and passing the high physical demands test. For combat support and combat service support occupational specialties, Soldiers successfully completing all MOS requirements are authorized to wear the regimental distinctive insignia (RDI) on their Army Service uniform (ASU).

2-2. IET graduation requirements

Soldiers completing BCT and Phases I-III of OSUT must meet the initial foundational and developmental requirements of being a Soldier in the U.S. Army. The expectations for all AIT and OSUT Soldiers graduating from initial entry training is that they are physically ready and cognitively able to execute their Warrior Tasks and Battle Drills and serve as an apprentice in their MOS.

a. BCT and OSUT (Phase I-III).

(1) Complete the end-of-cycle Army Physical Fitness Test (APFT) with a minimum of 50 points in each event.

(2) Safely handle, provide proper maintenance, zero and qualify with your individual weapon. All Soldiers will qualify using the M68 sighting device and participate in the weapons immersion program.

(3) Pass the end-of-cycle "hands-on" test and demonstrate elemental proficiency in the Warrior Tasks and Battle Drills.

(4) Qualify on the hand grenade qualification course to standard and throw two live grenades. (At a minimum throw one live grenade only in cases of Army shortages or ammunition constraints).

(5) Demonstrate proficiency in the wear of the chemical protective mask and complete the protective mask confidence exercise (CBRN 2).

(6) Pass the Land Navigation Course with a minimum of a 3 person team but not more than a 4 person team achieving 3 out of 5 points.

(7) Complete the end of cycle 16K foot march.

(8) Demonstrate proficiency in basic First Aid techniques.

(9) Complete Buddy Team Live Fire.

(10) Negotiate Confidence, Obstacle Courses, and Confidence Tower (Must complete 70% of all available obstacles).

(11) Complete Combatives Training.

b. AIT and OSUT (Phase IV-V). Complete the following requirements:

(1) (OSUT) Complete all BCT graduation requirements identified above.

(2) Pass APFT with a minimum of 60 points in each event.

(3) Pass MOS-specific critical tasks as identified by the proponent school.

(4) Complete the 8 hour personal financial training course.

(5) Complete the Army Traffic Safety Training Program, IAW AR 385-10, paragraph 11-7a (Introductory Training Course I)

(6) Reinforce training in accordance with Table 5-2 this regulation.

(7) Individually assessed and pass the High Physical Demand Test (HPDT) in accordance with AR 611-1 and DA PAM 611-21. (https://www.milsuite.mil/book/groups/smartbookdapam611-21)

2-3. Testing procedures for Advanced Individual Training (AIT) and the MOS portion of One Station Unit training (OSUT) of IET Soldiers

a. Proponents will develop within course tests (end of block/module) for MOS producing courses according to guidance outlined in TR 350-70. Continuously assess the validity of each task evaluated and its relevance; make changes as appropriate.

b. Commanders will ensure Soldiers are tested in accordance with the Individual Student Assessment Plan (ISAP) for the course being presented. Guidelines for development of ISAPs are outlined in in accordance with TR 350-70. The ISAP informs Soldiers, instructors, and other personnel of the course graduation requirements. Explain the requirements of the ISAP to each IET Soldier at the beginning of each course and make available to every student for reference.

c. Course tests must provide a fair and accurate evaluation of the Soldier's ability to perform the tasks presented to established standards.

d. Hands-on, performance-oriented testing is the norm throughout TRADOC. Situational based, written open book reference tests (when used), must require the Soldier to not only extract data, but also apply the data to specific situations they are likely to encounter on the job. Use closed book, knowledge-based written tests only if it is necessary to verify the learner's knowledge as a

prerequisite for later performance testing, where the knowledge is applied (as a building block to later tests). All testing is conducted in an environment that would replicate the Soldier's duty position in the unit; as far as safety and environmental considerations will allow and in accordance with test administration instructions.

e. Each test will have at least two versions. Use all versions concurrently.

f. Tests are monitored by quality control personnel reporting to the brigade or ATC commander, as determined by the local commander. Certify unit cadre personnel in accordance with TR 350-70.

g. Score tests on a go or no-go basis.

h. Conduct counseling with each Soldier to reinforce strengths on tasks accomplished and to correct deficiencies on tasks missed.

i. The goal is 80 to 100 percent performance to standard on all tasks by each Soldier. Consider Soldiers unable to achieve this goal for remedial training and retesting, prior to graduation, or reassignment to another company in a follow-on cycle.

j. Remedial training is a joint responsibility of Soldiers and trainers. Provide Soldiers failing to achieve task/course standards opportunities to review material and practice skills with trainers prior to undergoing retest.

k. In accordance with the ISAP, IET Soldiers that fail an end of block/module retest are prohibited from progressing further in the course and considered for new start to a follow-on class, reclass, or separation.

2-4. Treatment of IET Soldiers

a. Treat all Soldiers in accordance with Schofield's definition of discipline: "The discipline which makes the Soldier of a free country reliable in battle is not to be gained by harsh or tyrannical treatment. On the contrary, such treatment is far more likely to destroy than to make an Army. It is possible to impart instruction and give command in such a manner and such a tone of voice to inspire in the Soldier no feeling but an intense desire to obey, while the opposite manner and tone of voice cannot fail to excite strong resentment and a desire to disobey. The one mode or the other of dealing with subordinates springs from corresponding spirit in the breast of the Commander. He who feels the respect which is due to others cannot fail to inspire in them regard for himself, while he who feels, and hence manifests, disrespect toward others, especially his inferiors, cannot fail to inspire hatred against himself." MG John M. Schofield, 11 August 1879.

b. Treat IET Soldiers with the same respect, fairness, and regard for dignity accorded to all Soldiers, regardless of race, gender, class, religion, sexual orientation, disability, or other aspects of dignity.

c. Create a rigorous environment that places stress between the Soldiers and their ability to accomplish the task to standard.

d. Provide sufficient time for Soldiers to conduct personal hygiene, take prescribed medications, perform rehabilitative exercises, and apply ice therapy when directed by medical authorities, or appropriate self-care instructions.

e. Afford Soldiers the opportunity to participate in scheduled religious services, but do not direct or coerce participation in any service. Afford those Soldiers who choose not to participate in religious services the opportunity for secular personal time. Personal time activities will not include barracks maintenance or similar activities that offer Soldiers no meaningful choice. The intent is to make it clear that religious activities are voluntary, not command directed.

f. Afford Soldiers the opportunity to take paternal leave under emergency conditions only. In accordance with FY 2009 Defense Authorization Act, (PUB L 110-417), Soldiers are authorized to take paternal leave not to exceed 10 days, within 45 days of a child's birth. This must be approved by the company commander.

g. The Army and all Army personnel will treat each recruit and each trainee with dignity and respect as they pursue their aspirations of serving in the military. Army policy prohibits inappropriate relations between recruiters and recruits, and trainers and recruits providing entry-level training.

h. Recruits entering the Army with religious accommodations will have an approved memorandum on their possession signed by the Secretary of the Army (SECARMY) or Designees and documented in the electronic military record system before receiving the accommodation. This memorandum will identify the accommodations authorized for the individual. Recruit will not process without the approved memorandum. Guidance can be found within ALARACT 096/2016. This information will be part of the Title 42, United States Code, Section 2000BB-1-4 (Religious Freedom Restoration Act)

i. BCT/OSUT/AIT Golden Rules:

(1) **Do not** bully, haze, assault, or harass a fellow Trainee/Soldier. (**DO** help and assist your teammate)

(2) **Do not** use vulgar language, rude gestures or discriminate against others. (DO treat everyone with dignity and respect)

(3) **Do not** kiss, attempt to kiss or touch a fellow Trainee/Soldier. (**DO** respect your teammate's personal space)

(4) **Do not** steal or take something that does not belong to you. (**DO** build trust with teammates through your ethical and disciplined actions)

(5) **Do not** go anywhere without your battle buddy. (**DO** report violations of policies and regulations to your platoon and company leadership)

j. Upon graduation all Soldiers will remain under the control of the AIT/OSUT command until they sign into their first unit of assignment.

2-5. Trainee abuse and prohibited practices

a. Trainee abuse is any improper or unlawful physical, verbal, or sexual act a cadre member commits against a trainee. Examples include extreme exercise-based corrective action not in accordance with PRT, demeaning or derogatory language, extreme profanity, sexual misconduct, extortion, inappropriate fundraising, or prohibited relationships. Only a commander can determine an incident as trainee abuse.

b. Hazing.

(1) Hazing is defined as any conduct that causes another to suffer, or be exposed to any activity which is cruel, abusive, humiliating, oppressive, demeaning, or harmful. Soliciting or coercing another to perpetrate any such activity is also considered hazing. Hazing need not involve physical contact; it can be verbal or psychological in nature. Actual or implied consent to acts of hazing does not eliminate the culpability of the perpetrator. Hazing is explicitly forbidden in accordance with Army Regulation 600-20, chapter 4 and applies to Soldiers and civilian personnel. Hazing is an offense punishable under the UCMJ.

(2) This definition includes and is not limited to playing abusive tricks, threatening or offering violence or bodily harm to another, striking, branding, tattooing, any forced or coerced consumption of alcohol, drug, or tobacco product, or causing the harmful, excessive, or abusive consumption of liquid, food, or any other substance. Commanders are encouraged to consult with their servicing Judge Advocate regarding allegations of hazing to determine the best means to handle each circumstance.

c. Sexual harassment, fraternization, inappropriate or unprofessional relationships. This conduct is explicitly forbidden in accordance with AR 600-20 and Army Directive (AD) 2016-17 and may violate local regulations. These offenses are punishable under the UCMJ.

d. Bullying. Bullying is any conduct whereby a Service-member or members regardless of service, rank, or position, and without proper authority, recklessly or intentionally cause a Service-member to suffer or be exposed to any activity that is cruel, abusive, humiliating, oppressive, demeaning, or harmful behavior, which results in diminishing the other Service-member's dignity, position, or status. Bullying may include an abuse of authority. Bullying tactics include, but are not limited to, making threats, spreading rumors, social isolation, and attacking someone physically, verbally, or through the use of electronic media. Bullying is explicitly forbidden in accordance with AR 600-20, chapter 4 and applies to Soldiers and DA civilian personnel. Bullying is punishable under the UCMJ. Commanders are encouraged to consult with their servicing Judge Advocate regarding allegations of bullying to determine the best means to handle each circumstance.

e. Prohibited relationships.

(1) Cadre and trainee. Any relationship between a trainer and any trainee, not required by the training mission is prohibited in accordance with AR 600-20 and AD 2016-17. This includes and is not limited to dating, writing personal letters, text messages, e-mails, exchanging personal communications on social media, having personal telephone conversations unrelated to the training mission, playing cards, gambling, dancing, entertaining in personal residences, sharing accommodations in a hotel/motel, transporting in a POV, or any other conduct of a personal or sexual nature. Trainers and trainees will sign a DD form 2982 (Trainer Prohibited Activities Acknowledgement) and DD form 2983 (Trainee Prohibited Activities Acknowledgement) upon assignment to a position or the first day of entry-level training, with explicit and strict command guidance, that acknowledges their understanding and responsibilities regarding the policies prohibiting inappropriate behaviors and relations outlined in DOD Instruction (DODI) 1304.33. At a minimum, the signed DD Form 2983 will be retained in the trainee's file and kept until 6 months after the trainee has left the unit. Also, at a minimum, the DD Form 2982 will be retained in the trainer's local file and kept for 1 year after the trainer has left the unit. Each trainer will recertify the DD Form 2982 annually, demonstrating their understanding and responsibilities as outlined in DODI 1304.33. Trainers will brief trainees on the policies stated in DODI 1304.33. Trainers will provide information that can be used to contact someone in the leadership if they wish to report any issue related to a trainer's inappropriate conduct. The forms noted above may be found online at: http://www.dtic.mil/whs/directives/infomgt/forms/. In the event a form is not available, remarks will be identified/noted on the Soldier's initial counseling, acknowledging his or her receipt and understanding of policies concerning prohibited inappropriate behaviors and relations between trainers and trainees.

(2) Cadre personnel are prohibited from "Friending" or requesting to be a "Friend" of trainees through use of any personal social media outlets/networking sites. (Facebook; Tweeter; insta-gram; etc.) However, social media outlets/networking sites, such as official unit sponsored pages directed at conveying official Army information, communications, or activities may be used for official/professional communication between cadre and trainee. Additional prohibited activities are: intimate or sexual relations, handholding, kissing, embracing, caressing, and engaging in social networking or any other means of communication. Cannot establish a common household, consume alcohol, attend social gatherings or frequent clubs, bars, or theaters on personal social basics. Ride in privately-owned vehicles, seek sexual advances or favors, lend money, borrow money or otherwise become indebted, solicit donations or personally employ trainees to baby-sit or provide maintenance for a personal reason. Cadre are prohibited from accepting goods, participate in acts that constitute retaliation or participate in closed-door discussions, unless there is a third party present.

(3) Trainee. Any relationship between trainees not required by the training mission is prohibited. The definition includes and is not limited to the activities in subparagraph (1) above.

f. Physical contact with trainees for any reason other than to make necessary training-related corrections. Exceptions to this are where the safety of the trainee is in question (for example, heat exhaustion, physical injury, etc.). Cadre members are not required to ask the trainee's permission

when making necessary corrections; however, effective trainers tell trainees what they are going to do prior to doing it.

g. Failing to give trainees reasonable time to eat meals is prohibited. Depriving trainees of meals or restricting meal choice is likewise prohibited as a form of discipline. DSs and cadre will refrain from disrupting the serving line, except for immediate safety considerations. Trainees shall be allowed at least 15 minutes to eat; this is time spent seated and does not include time spent in the serving line. Leaders will protect this time for the sole purpose of refueling to optimize performance.

h. Contact by cadre members with family members of IET Trainees/Soldiers in any manner outside the performance of official duties is prohibited.

i. Requiring or encouraging IET Trainees/Soldiers to purchase common use items or common area cleaning supplies with their own funds (for example, bay cleaning supplies, toilet paper for common latrines, and other common use items) is prohibited.

j. Fundraising.

(1) No cadre member may sell any product, service, or opportunity to IET Trainees/Soldiers.

(2) No IET Trainee/Soldiers will be directed to participate in or purchase items at any authorized fundraising activities. IET Trainee/Soldiers will not be used to assist in set up or break down for family readiness group (FRG) activities.

(3) FRG fundraising activities are only permitted in accordance with Army Regulation 608-1, Appendix J, Army FRG Operations, Army Regulation 210-22, and Private Organizations on Department of the Army Installations.

(4) IET Trainee/Soldier family members will not participate in unit FRGs. Only assigned permanent party Soldiers and their spouse will engage in unit FRG activities. IET Trainee/Soldier and families may create a conflict of interest or unauthorized relationships with command leadership. Family members may purchase items during fundraisers or be invited to events that support the FRG fundraiser. Commanders will identify their representative for those Trainee/Soldiers who have families living in the local area. Commander's representative will provide information on services authorized, i.e. Medical, Financial, Dental, I.D. Cards, Vehicle registration, Commissary, Post Exchange (PX), ACS, and other services to assist families. '

(5) This provision does not prohibit Trainee/Soldiers from voluntarily contributing to officially authorized campaigns (such as, Combined Federal Campaign, Army Emergency Relief, etc.) or making chapel offerings.

2-6. IET trainee abuse and sexual assault investigation and reporting

a. Report all incidents of alleged trainee abuse to include sexual assault and harassment in accordance with Army Regulation 190-45, Army Regulation 600-20, TR 1-8, and Appendix "M"

of this regulation. Company Commanders must report trainee abuse or any case of sexual assault or harassment immediately through the chain of command to the Brigade Commander. For cases of sexual assault/ harassment, reports should include cases of cadre against trainee, cadre against cadre, trainee against cadre, or trainee against trainee. Brigade (or any unit) Commanders must report all sexual assault allegations to Criminal Investigation Division (CID), the Sexual Assault Response Coordinator (SARC), and the servicing OSJA, pursuant to AR 600-20, paragraph 8-5o immediately once allegation is known. TRADOC Emergency Operations Center (EOC) will forward all TRADOC OPREPs concerning cadre and/or trainee abuse and/or sexual assault/harassment within the Brigades to TRADOC IMT and the TRADOC Staff Judge Advocate (SJA). TRADOC OPREPs provide the initial data for the TRADOC Trainee Abuse Coordinator."

b. With the exception of sexual assault allegations, which must be reported to CID for investigation pursuant to Army Regulation 600-20, paragraph 8-5, commanders will promptly conduct a preliminary inquiry in accordance with Manual for Courts Martial Part II, Chapter III, Rule 303, into every trainee abuse allegation, regardless of the nature, magnitude, or source of the complaint. For some allegations, a quick and informal interview of the complainant and any witnesses is all that is required. Other allegations may require more extensive command or law enforcement investigation. Commanders will consult with their legal advisor when conducting an inquiry or evaluating evidence concerning all allegations of trainee abuse.

c. Commanders will document and maintain records of all preliminary inquiries into trainee abuse cases, including those the commander determines are not credible. Commanders through local SJA will provide supplemental information by filling out TRADOC Form 350-6-1 (Training Abuse Report) on all trainees abuse OPREPs and submit to TRADOC SJA in an accurate and timely manner (not to exceed four working days from notice of the event). Until final disposition of each case, commands through local SJAs will submit a status update no later than the 28th of each month. Updates will be transmitted electronically to the TRADOC TAR and must include cases represented by case number and current status. This process will continue for every open case until the case is closed. A final TRADOC Form 350-6-1 will be completed and forwarded to the TRADOC TAR to report final disposition.

d. Suspension actions.

(1) Preliminary inquiries. Commanders should not automatically suspend DSs, PSGs, or other cadre simply because they are pending a preliminary inquiry into a trainee abuse allegation. Commanders will make suspension decisions based upon the facts of each case, and may suspend individuals pending a preliminary inquiry if it will aid the inquiry, benefit the training environment, or for other valid command reasons.

(2) Investigations. Suspension of a DS or AIT PSG from his or her assigned duties is required when a serious incident occurs requiring an investigation in accordance with Army Regulation 614-200, paragraph 8-17d. For all other incidents, the commander has the discretion whether or not to temporarily suspend the cadre member from his or her duties. A serious incident consists of any actual or alleged incident, accident, misconduct, or act, primarily criminal in nature, and because of its nature, gravity, potential for adverse publicity, or potential consequences warrants timely notice to HQDA. Investigations include, but are not limited to investigations

conducted in accordance with Army Regulation 15-6 or those conducted by the criminal investigation division or a military police investigator.

(3) Considerations. In addition to the severity of the underlying incident, commanders should make any suspension determination only after considering all *evidence available.* The number of witnesses, or volume of physical evidence, does not determine the weight given to the evidence. Commanders should evaluate the *evidence for factors including, but not limited to* the witness's demeanor, opportunity for knowledge, information possessed, ability to recall and relate events, and other indications of truthfulness.

(4) Suspension of special duty assignment pay (SDAP). Suspension of DS SDAP will be done in accordance with Army Regulation 614-200, paragraph 3-22e(8). DS SDAP will not be suspended based upon the initiation of any inquiry or investigation into alleged DS misconduct.

e. Sexual Assault Allegations. Commanders have significant leadership responsibilities for actions after receiving an unrestricted report of sexual assault. In addition to complying with reporting requirements, commanders must ensure that the steps outlined in the checklist in figure 2-1 above are immediately taken in the event of receiving an unrestricted report of a sexual assault. Note that not necessarily all the action listed below in figure 2-1 will be taken by the commander. Nevertheless, commanders have the responsibility to ensure these actions are taken. Additionally, note that the list below is not intended as a comprehensive list of all a commander's responsibilities throughout the course of a sexual assault case. Instead, this list is intended as a guide for immediate action upon receiving an unrestricted report of sexual assault. For additional guidance regarding command action/responsibilities, see AR 600-20, Appendix G, as well as DODI 6495.02, and consult with the servicing staff judge advocate (SJA)

f. Commanders may conduct an AR 15-6 collateral investigation into the facts and circumstances surrounding the sexual assault allegations. Commanders may not conduct an investigation about whether sexual assault occurred or not. The crime of sexual assault is solely in the purview of law enforcement officials. Commander must remain cognizant that, in accordance with DODI 5505.03, paragraph 4(b), a collateral investigation may never hinder a criminal investigation. Contact with the installation legal advisor, the Special Victim Prosecutor, and the lead law enforcement investigator for the criminal investigation before starting the collateral investigation.

Commander's Preliminary Checklist for Unrestricted Reports of Trainee Sexual Assault

( ) Ensure victim's physical safety. If possible, determine if alleged offender is nearby and if victim desires or needs protection.

( ) Determine if the victim desires/needs emergency medical care.

( ) Notify law enforcement as soon as victim's safety is assured and medical treatment procedures elected by victim are initiated.

( ) Notify SARC.

( ) Collect only necessary information (victim's identity; location, time of the incident; name/description of offender(s)). Avoid asking detailed questions or pressuring victim for responses/information about the incident.

( ) Advise victim of need to preserve evidence until law enforcement arrives (avoid bathing, showering, washing garments, eating/drinking, brushing teeth, vacating bladder, etc.)

( ) If needed, make appropriate administrative/logistical coordination for victim to receive medical care.

( ) Ensure victim understands the availability of victim advocacy and the benefits of accepting advocacy and support.

( ) Determine if victim needs a support person to immediately join victim (e.g. family member, friend, etc.)

( ) Ask if the victim would like a chaplain to be notified and notify accordingly.

( ) Provide victim with emotional support and monitor victim's well-being, particularly if there are indications of suicidal ideation, and ensure appropriate intervention occurs as needed.

( ) Confer with victim's healthcare provider regarding the need for convalescent leave or other administrative leave options.

( ) In consultation with law enforcement and/or the servicing SJA, determine the need for a "no contact" order or "Military Protection Order". Coordinate with other commanders as necessary if alleged offender is assigned to another unit.

( ) Determine the need for temporary reassignment of victim or alleged offender giving, to the extent practicable, preferential consideration to the victim's desires.

Figure 2-1. Commander's Checklist for Unrestricted Reports of Sexual Assault

2-7. Body composition standards in IET

a. Accessions standards for body composition as stated in AR 40-501, paragraph 2-21b, apply during the first six months of IET Trainee/Soldier's active duty service. The standards of Army Regulation 600-9, table B-1/B-2, are applicable after 180 days from entry to active service.

b. RC Soldiers enrolled in the split training option must meet accession body composition standards for the successive period of active duty training.

c. Measure and weigh initial entry Soldiers within 14 days prior to graduation from AIT/OSUT. Enter this information on the Soldier's Individual Training Record (ITR) from DTMS-CM.

d. Enroll and flag Soldiers that exceed 180 days of active service, and fail to meet the body composition standards in accordance with AR 600-9, table B-1/B-2, in the Army Body Composition Program. Ship these Soldiers to the gaining unit and forward the documentation to include the flag (transferable) to the gaining unit.

e. Prior service Soldiers are required to meet the body composition standards of AR 600-9, table 2, upon reentry to active duty.

f. Reclassified Soldiers (those Soldiers currently holding a MOS) must meet the requirements of Army Regulation 600-9, table one, or appropriate all Army activities (Army general message address), more commonly known as an ALARACT message.

(1) Do not enroll reclassified Soldiers with temporary profiles which prevent completion of the APFT in MOS producing courses.

(2) Do not allow Soldiers in temporary duty and return status to attend MOS producing courses when they do not meet the body composition standards as prescribed in AR 600-9. Return Soldiers not meeting standards to their home station.

(3) Do not allow Soldiers in temporary duty en route or permanent change of station, not meeting the prescribed body composition standards as prescribed in AR 600-9, table 2, to attend MOS producing courses. Attach these Soldiers to TRADOC subordinate commands, pending clarification of assignment instructions for follow-on training. The school commandant will notify Human Resources Command of the Soldier's ineligibility for schooling and request clarification of assignment instructions.

2-8. Tattoos/brands

TRADOC IET recruit tattoo/brand policies apply to all Active Army (AA), U.S. Army Reserve (USAR), and Army National Guard (ARNG) Trainee/Soldiers whether non-prior service or prior service. Army policy governing tattoos is found in Army Regulation 670-1, paragraph 3-3.

2-9. Allegations of recruiting improprieties

Army Regulation 600-20, paragraphs 4-14 and 4-15 prescribe discipline and conduct for relationships between Trainee/Soldiers of different rank and other prohibited relationships. All IMT personnel will follow established policy to report alleged recruiting improprieties at IET locations to HQ USAREC and report feedback to the originator of the allegation. The feedback loop for reporting results of the reports HQ USAREC receives is an important part of the process. The intent is that every allegation is properly reported and received by HQ USAREC, G-3, Recruiting Standards Directorate (RSD) (RCRO-ES), 1307 3rd Avenue, Fort Knox, KY 40121-2726, for processing in accordance with USAREC Regulation 601-45, paragraph 3-2, and the

results reported back to and received by the IET company commander initiating the allegation. In the case of an Army National Guard Recruiter report to NGB-GSS, 111 South George Mason Drive, Arlington, VA 22204.

a. An allegation of a recruiting impropriety exists when a recruiter commits an intentional act to conceal, or omission of fact in violation of a law or regulation, with the intent to enlist a person not qualified. Essentially, any recruiter knowledge that a person is not qualified and the recruiter intentionally assists or otherwise knowingly enlists that person is an impropriety. Recruiting improprieties are defined in USAREC Regulation 601-45, chapter 2.

b. When any member of the Trainee/Soldier's chain of command receives an allegation, it is reported for disposition as follows:

(1) Company commanders report allegations to their IET battalion commander on USAREC Form 315 (Report of Alleged or Suspected Recruiting Impropriety) and maintain a record of reported improprieties.

(2) The battalion commander sends a copy of the allegation to the training base USAREC liaison officer (LNO). For those locations (AIT only) that do not have a USAREC LNO, a copy of the allegation to include sworn statement is sent to HQ USAREC, G-3, RSD via e-mail to improprieties@USAREC.army.mil provide feedback on the disposition of each case to the USAREC LNO with a copy furnished to the battalion and company commander who initiated the allegation. For those locations without a USAREC LNO and for all other IET locations, feedback on the disposition of each case is sent to the commander who initiated the allegation, with a copy furnished to the additional points of contact (POC) listed. The feedback will contain the trainee's name, date allegation reported, type of allegation, a short summary of the findings of the inquiry/investigation, and a determination if the enlistment was defective, unfulfilled, erroneous, or fraudulent, at a minimum. For those locations without an LNO, provide a POC (in addition to the commander that initiated the original allegation) to ensure a backup method is in place to receive such reports.

Chapter 3
Safe and Secure Environment

3-1. Separate and secure

The intent of the separate and secure policy is to ensure that all Trainee/Soldiers are afforded the opportunity to undergo IET in a safe environment. This provision implements section. US code title 10, 4319 https://www.law.cornell.edu/uscode/text/10/4319.

a. BCT separate and secure requirements. In the garrison environment, each gender will have independent sleeping areas, separate entrances to living areas, and a separate latrine. Gender separation by barracks is preferred as resources permit.

(1) Door alarms installed and doors locked on all exterior doors. All doors leading to sleeping areas (male or female) are equipped with an audible alarm that is heard at the charge of quarters (CQ) location. Panic door locks installed on exterior doors and doors that separate genders. Alarms are activated any time Trainee/Soldiers are sleeping in the bays, this includes anytime a Trainee/Soldier is sleeping while on quarters. If a silent alarm is installed at the exit doors or the door that separates genders, alarm must be heard at the CQ desk and a visual form of door identification to assist the CQ on exact location of opened door. An exception to policy must be submitted and on file with CIMT for silent door alarms.

(2) Access control guards of the same gender monitor entrances to sleeping areas during sleeping hours. The function of the access control guard is to ensure only authorized personnel enter the sleeping area during periods of lights out. Access control guards are assigned and execute their duties as same gender buddy teams. Male access guards may be posted outside the locked and alarmed entrance to female sleeping areas as an exception to policy for IET sites with less than eight females in an assigned living area. This exception must be approved by the battalion commander prior to implementation and a copy forwarded to CIMT.

(3) A fire safe barrier wall that extends from floor to ceiling will separate genders residing on the same floor. If the barrier has a door, the door will be locked (panic door lock) and alarmed during lights out. When the alarm sounds, it must be heard at the CQ location. If conditions for fire safe barrier walls are not met, separation of genders by floor, wing, or building is required.

(4) Digital video monitoring systems provide an additional degree of security, and do not replace the requirement for door locks, alarms, access control guards, and supervisory personnel. When video monitoring is installed, only place cameras in public access areas, such as entryways, stairwells, etc. Cameras will not monitor living areas, locker rooms, changing areas, latrines, or private offices. Warning signs will be posted in area under surveillance notifying personnel being monitored. Monitoring systems capable of recording conversations will not be used. System performs video monitoring only. Security of tapes, keys, codes, and monitoring devices will be controlled only by the commander, First Sergeant (1SG), or Security personal (S2).

(5) Time Period to Maintain Security Recording. Video storage will occur on a 120 day continuous recording loop regardless of the start or ending period of the cycle. The next 120 days of recorded video coverage will start overwriting the previous 120 days. As a minimum, units will maintain recordings for 120 days. If an incident happens units will contact law enforcement to secure video recordings and maintain control until completion of investigation.

(6) Access to videos is limited to only law enforcement personnel (CID, MPI, FBI, etc.) and/or commanders and supervisors with official need to know. Any person accessing the video should be trained in procedures relating to storage and handling of recordings in order to decrease the likelihood of improper handling. A log will be maintained of all video accessed.

(7) Video hardware should have the capability to record in color with sharp detail. It is recommended that the recorded video is date, time, and location stamped for identification purpose.

(8) When offices and administrative areas are located within Soldier sleeping areas, the command will establish procedures whereby cadre do not occupy office areas after alarms are activated and lights out established or if a Soldier is on quarters.

b. AIT and OSUT separate and secure requirements.

(1) Requirements for separate and secure are the same as required in BCT.

(2) Garrison requirements. In the garrison environment, each gender will have independent sleeping areas/rooms, separate entrances to living areas, and a separate latrine.

(a) Bay or common sleeping areas will have locked and alarmed doors in the same manner as BCT. All doors leading to sleeping areas regardless of gender, will be equipped with an audible alarm that sounds and is heard at the CQ or staff duty location, as well as panic door locks installed. If a silent alarm is installed at the exit doors or the door that separates genders, alarm must be heard at the CQ deck and a visual form of door identification to assist the CQ on exact location of opened door. An exception to policy must be submitted and on file with CIMT for silent door alarms. Alarms are activated any time Soldiers are sleeping in the bays, this includes anytime a Soldier is sleeping while on quarters. A floor to ceiling fire safe wall (previously referred to as a "fire safe barrier wall") will be placed between separate genders housed on the same floor. If the barrier has a door, the door will be locked and alarmed during lights out. When the alarm sounds it must be able to be heard at the CQ location. If conditions for fire safe barriers are not met, separation of genders must be by floor, wing, or separate building. Gender separation by barracks is preferred as resources permit.

(b) For living areas/rooms that are hotel or campus-style barracks that face inward into an interior hallway, that hallway must be gender pure. That hallway will have a door or barrier with a panic lock system and alarm installed.

(c) For rooms that face or open to the outside of the building (independently), commanders will establish access, control and monitoring policies that are relevant to the local situation and design of the billets. Commanders will certify the local control and monitoring measures.

(3) Digital video monitoring systems provide an additional degree of security, and do not replace the requirement for door locks and alarms, access control guards, and supervisory personnel. When video monitoring is installed, only place cameras in public access areas, such as entryways, stairwells, etc. Cameras will not monitor living areas, locker rooms, changing areas, latrines, or private offices. Warning signs will be posted in area under surveillance notifying personnel being monitored. Monitoring systems capable of recording conversations will not be used. System performs video monitoring only. Access to videos is limited to only law enforcement personnel (CID, MPI, FBI, etc.) and/or commanders and supervisors with official need to know. Security of tapes, keys, and monitoring devices will be controlled. Time period to maintain security recording is the same as 3-1(a) (4), (5), (6) above.

c. Field requirements for BCT, OSUT and AIT.

(1) Gender-specific sleeping areas will be designated by cadre. Bivouac areas can be consolidated; however, sleeping areas must be gender specific (separate male from female tents).

(2) In the hours of darkness, when the unit is stationary, roving battle buddy team control guards will be assigned to secure each gender specific bivouac area.

(3) Same gender buddy teams will be used as runners for the tactical operations center during the hours of darkness.

(4) Each gender specific area will have separate latrines that are clearly marked "Male" or "Female."

(5) Commanders are authorized to augment this physical security policy, as long as the guidelines outlined above are followed.

d. Supervisory measures.

(1) NCOs supervise the barracks when trainees are present, on bed rest, or authorized to be in the barracks throughout the day.

(a) DSs will serve as CQ during sleeping hours in BCT, and the BCT portion of OSUT. All permanent party Soldiers in the grade of sergeant and above may serve as CQ in the RECBN. A log is maintained on Department of the Army (DA) Form 1594 (Daily Staff Journal or Duty Officer's Log) for each CQ duty period. The CQ and Access Control Guards will maintain a separate DA Form 1594. The unit 1SG will collect all DA Forms 1594s prior to releasing the CQ and Access Control Guards from duty.

(b) NCO cadre members, to include instructors, and company personnel certified in accordance with Appendix: B-2 in this regulation and the local commander's policy can serve as CQ during sleeping hours in AIT and the AIT portion of OSUT. Commanders are authorized to augment this physical security policy, as long as the guidelines outlined above are followed.

(2) Two enlisted Trainee/Soldiers (Battle Buddy Team) will serve as "runners" and maintain entrance security when the CQ conducts inspections. The two runners are of the same gender, but not necessarily the same gender as the CQ.

(3) Duty officers and NCOs from the company, battalion, and brigade HQs will conduct periodic checks in accordance with unit SOPs and policies.

(4) All Trainee/Soldiers will sleep in the improved physical fitness uniform (IPFU) shorts and shirt.

(5) If an inspector is not of the same gender as the Trainee/Soldiers in the living area being inspected, personnel of the same gender as the Trainee/Soldier whose area is being inspected must accompany the inspector (except in emergency situations).

(a) For BCT, OSUT (Phases I through III), and RECBN units, the personnel accompanying the DS or inspector is not an IET Trainee/Soldier.

(b) For OSUT (Phases IV and V), AIT, and DLIFLC, an IET Soldier buddy team may accompany the PSG or inspector, and can be the Soldiers serving as the access control guard in the bay inspected.

(6) During lights out, only cadre leadership and their designated representatives are allowed in the barracks to conduct inspections and accountability. Conduct command leadership presence after hours. Brigade Commander will establish written policy outlining requirements to perform leader checks after hours with a feedback method that requires the individuals to report who performed the duty and identify any issues or concerns to the Brigade Commander, cannot be a DS /AIT PSG (E7/E-6) or lower enlisted perform the checks.

(7) Commanders will establish a 3-line, telephone hotline in a semi-private central, accessible location in each IET barracks (i.e., dayroom, common area, laundry room, or break area) where a phone is directly connected to the 24-hour SARC number (line #1), the 24-hour Chaplain number (line #2), and one additional line (line #3). The third line should be a non-emergency, information service (i.e., weather, exact time, post information, etc.). The hotlines should not be in a high traffic area, i.e. on the CQ Desk. If Trainee/Soldiers have a personal cell phone, allow them to download the "We Care" application (if available). This application is free on three major platforms (Apple; Android; and Windows). This capability will allow IET Trainee/Soldiers to report incidents of abuse without the stigma associated with using the hotline. To help identify the location of hotline, the use of caller ID is recommended but not mandatory, provided the installation system is capable of displaying. This will help the SARC with the location/building number of the Soldier making the call.

(8) If the minimum separate and secure requirements (i.e. locks and alarms) are not met in accordance with paragraphs 3-1a; (1),(2),(3); 3-1b(1); and 3-1d(7). Commanders will submit an exception to policy with a mitigation plan and timeline through their Center of Excellence (CoE) CG to CIMT.

3-2. Battle buddy system

a. The battle buddy system establishes policy for the pairing of IET Trainee/Soldiers into teams to teach teamwork, develop a sense of responsibility and accountability for fellow Soldiers, improve safety during IET, and reduce the likelihood and opportunity for sexual harassment, misconduct, and suicidal gestures or attempts.

b. Recruits are introduced to the battle buddy team system at the Reception Battalion. IET recruits are formed into two person teams upon arrival at the training unit, though a battle buddy team may consist of three personnel to ensure all Trainee/Soldiers are part of a battle buddy team. As a minimum, commanders will establish a battle buddy system in IET following these guidelines:

(1) DSs/AIT PSGs will assign battle buddy teams, after the IET Trainee/Soldiers arrive at the platoon, but before formal training begins.

(2) Unit cadre will instruct IET Trainee/Soldiers on the purpose and rules of the battle buddy system. Trainee/Soldiers will be told never to leave their battle buddy. If they are directed or ordered to leave their battle buddy they will report this to the company leadership 1SG/Commander or XO upon returning to the unit.

(3) Battle buddy teams will participate in training, CQ, and other activities together, when feasible.

(4) Trainee/Soldiers will have battle buddies at all times, though cadre will pair ad hoc buddy teams of the same gender for sick call, worship services, additional unit-specific training, or remedial training. Similarly, ad hoc buddy teams will be formed on family day for Trainee/Soldiers without family members attending.

(5) The battle buddy system also applies to cadre members. Drill Sergeants, AIT Platoon Sergeants, and cadre will never be in a closed-door counseling session with a single trainee. In the rare instances where the trainee would need privacy from his/her battle buddy, the cadre member must ensure another cadre member (preferably the same gender as the trainee) is present during the closed door counseling session.

(6) Male-female battle buddy teams are only authorized when there is only one IET Trainee/Soldier of a particular gender, and a same gender battle buddy is not available. Use a 2:1 ratio in these instances, team a solitary female Soldier with a female buddy team, if not available with two male Soldiers or team a solitary male Soldier with two female Soldiers.

(7) Trainee/Soldiers entering a counseling session with a Chaplain, Chaplain Assistant or medical personnel are not required to have the battle-buddy present in the counseling session so as to maintain confidentiality and privileged communication status. Battle buddy will remain in the immediate area until session is complete and return to the unit as a buddy team.

3-3. Sexual Harassment/Assault Response and Prevention (SHARP) training

a. By congressional mandate, the initial SHARP instruction in BCT and OSUT must be presented during the first 14 days of accession into training. Therefore, BCT/OSUT companies must ensure this training is scheduled during the first 10 days of training. This takes into account the time the Trainee/Soldier spends in the Reception Battalion and includes all Trainee/Soldiers in hold status. During this training the "We Care" application will be introduced. If a Trainee/Soldier has a personal cell phone, commanders will allow them to download the "We Care" application and use the application if needed when cell phones are authorized. This application is free on the following platforms: Apple; Android; and Windows.

b. "Sex Signals" training is presented by a team of specially trained instructor teams. It can be conducted during any phase of training but is usually scheduled during the blue phase of BCT/OSUT. Sex Signals is required training and will be conducted during the duty day, not after duty hours or on the weekends. Training units will be responsible for providing training space for this instruction designed for a Company size audience with a minimum of 200 and a maximum of

350 trainees. The training space will include a minimum playing space of 14' x 16' on a riser or stage. The space will have technical capabilities to include an overhead projector with computer and screen and two armless, lightweight chairs. There must be an electrical outlet to support the sound system that the teams will bring with them. Sound checks will be conducted no less than one hour prior to the beginning of the training. Units are authorized direct coordination with Sex Signals POCs to arrange training time and location. Cadre will remain with IET Trainee/Soldiers during instruction to provide assistance as needed, ensure discipline and a professional, interactive learning environment.

c. IMT brigade leadership will:

(1) Assign one Victim Advocate (VA) as a collateral duty at the company. ALARACT 188/2014 directed all units to cease the assignment of collateral duty VAs across the Army. Due to the unique training environment in IET, the United States Army Center for Initial Military Training (USACIMT) received an exception to policy to reassign VAs at the company level. IMT approved exception to policy from TRADOC Commanding General, on 16 September 2014 to continue to assign company VAs. Company VAs will undergo the same interview, background check process and 80 hour training as Battalion level SARCs/VAs. A collateral duty SARC and Victim Advocate will be assigned at the Battalion level and a military SARC and civilian VA will be assigned at the Brigade.

(2) Meet with SHARP and EOA teams twice a month.

(3) Conduct Brigade Command Climate survey in addition to Battalion and Company survey requirements within the first 90 days of taking command.

(4) Establish gender specific mentorship programs whereby senior gender-specific leaders talk to and educate junior Soldiers. Mentoring sessions are important for both male and female Soldiers since both are subject to harassment, assault, hazing, and abuse. Example topics include: Army Profession; Career progression; Balancing work, home, and relationship; Single parenting in the Army; Leave process; Personnel Financial Management; Deployment separation; Better Opportunities for Single Soldiers Program (BOSS); Off work activities; Planning for a Family; How to be successful in the Army; Pitfalls to avoid on the road to success; SHARP, etc.

(5) Establish training for all personnel (leaders, cadre, civilians, and Soldiers) on ongoing training strategies and efforts at all levels; reporting procedures; care from victims; immediate actions to be taken upon alert of allegations (both restricted and unrestricted); and clear understanding of the possible civil and military punishments.

3-4. Safety

a. Conduct realistic training exercises within the bounds of an effective risk management program. Before training, ensure the complete integration of risk management along with command approval prior to the event, then thoroughly brief all cadre and IET Trainee/Soldiers on the risks associated with each specific training event/activity. This will include identification of specific hazards and controls used to reduce the risk of accidents associated with the training

event. TSP risk assessment and unit risk assessment will be reviewed to verify the proper level of risk has been identified. IET risk assessment will address all applicable safety procedures and potential accident producing conditions. Emphasize unusual vehicle, water, weapons safety considerations, and environmental hazards in training areas prior to and during the training. Training cadre is proactive and aggressive in reducing/preventing training injuries and fatalities.

(1) Each installation will establish standard procedures to ensure that emergency treatment is readily available during training.

(2) TRADOC service schools and major subordinate commands will apply risk management techniques to eliminate or control hazards in accordance with guidelines established in TR 350-70, and TR 385-2. The safety manager will review and validate all TSP risk assessments.

(3) Brigade, battalion, and company commanders, CSMs, and 1SGs will complete the Commander's Safety Course prior to assuming IET duties. The Commander's Safety Course (Course number 012G1403) is one of the ATSC distance learning courses accessible at https://www.atsc.army.mil.

(4) Unit commanders will ensure all safety controls identified in the risk management worksheet are implemented prior to the start of training. Commanders will ensure all initial training period risk assessments are completed reflecting the conditions at the training site for the specific training period. Risk assessments are maintained at the training site, and are living, working documents and must be continually updated as conditions change. Risk management policy is in accordance with TR 385-2, paragraph 1-5.

(5) The instructor will integrate the appropriate safety/caution statement into each task, and evaluate performance while Soldiers perform the task to the prescribed standard. The instructor will have a copy of the risk management worksheet with them during the training event.

(6) All training safety is built on a three-tiered approach to safety (command, leader, and individual).

(a) Tier 1 (commander responsibility). Validate the structural soundness of the training and evaluation plan for safety, ensure safety related matters are addressed, and make risk acceptance decisions. Ensure all risk assessment worksheets are signed at the appropriate level for the risk involved (low, moderate, high, or extremely high).

(b) Tier 2 (first-line leader responsibility). Consider actions taken by responsible individuals, establish a safety over watch of training, focus on adherence to standards, and make risk acceptance decisions within the commander's intent and delegated authority.

(c) Tier 3 (individual Soldier responsibility). Ensure Soldiers look after themselves and others, and know how to recognize unsafe conditions and acts. Soldiers must meet their individual responsibilities for safety, and recognize and report unsafe acts to leaders.

b. Commanders will also ensure that cadre and IET Soldiers are aware of the appropriate procedures for reporting suspicious or adverse incidents during non-training hours. Examples are (but not limited to): actual or suspected instances of fire, theft, altercations, suicidal gestures or attempts, injury, unusual health symptoms, or any other unusual behavior or event.

3-5. Tobacco cessation policy for IET

a. Trainees in the first three phases of IET (BCT and OSUT) are prohibited from use tobacco products. All cadre and Trainees/Soldiers (including MOS-T Soldiers) are prohibited from using tobacco products in areas where IET trainee/Soldiers are likely to observe use (for example, in the brigade, battalion, company, or any training area).

b. Sale of tobacco products from vending machines in IET areas is eliminated to the extent possible, consistent with the requirements of existing contracts.

c. Instruction on the adverse impact tobacco use has on health and readiness is presented to BCT and OSUT Soldiers, as prescribed in the physical readiness training and testing appendix of the BCT POI. POI proponents will incorporate similar instruction into AIT fitness and substance abuse training.

d. Centers, schools, and organizations will coordinate with the supporting contracting office to ensure contractor personnel comply with this policy.

e. This policy does not cancel or supersede other instructions where smoking is controlled because of fire, explosive, or other safety considerations.

3-6. Risk management

Commanders and trainers of IET Trainee/Soldiers will utilize the principles and procedures established in FM 5-19 and TR 385-2. Commanders will ensure all cadre receive risk management training prior to assuming control over the IET Trainee/Soldier. The risk management process assists commanders in making informed, conscious decisions on eliminating unnecessary risks, and in accepting residual risks inherent in accomplishing the mission.

3-7. Line of duty (LOD) investigations

The unit commander will ensure DA Form 2173 (Statement of Medical Examination and Duty Status) is completed promptly and forwarded through channels to the appointing authority (see appendix H, para H-6 for further guidance). The final LOD determination is vital for USAR/ARNG Soldiers who have sustained illnesses or injuries while in training. Without an approved LOD determination RC Soldiers returning to their home are ineligible for medical evaluation and care for their illness or injury. Army Regulation 600-8-4 prescribes the use of DA Form 2173, the primary record in the LOD determination process.

3-8. Severe weather notification

Local policies and procedures will dictate the notification of severe weather to training units.

a. When inclement or severe weather has the potential to impact training, unit commanders must consider the following actions:

(1) Uniform modification.

(2) Suspend training temporarily.

(3) Use lightning assembly/protection areas.

(4) Seek enclosed shelter.

(5) Cancel training/return to garrison.

b. Due to the size of most training areas, weather-related decisions should be made on-site. All severe/inclement weather conditions must be evaluated for potential risk as well as likelihood of occurrence in accordance with risk management development. All decisions should be based on these criteria using current weather conditions.

3-9. Medical support for training

a. All training activities, from the classroom to the field firing range, require well thought out plans for medical care and evacuation. Recommended levels of medical support for high risk training are defined by conducting thorough risk assessments of the scheduled training.

b. When a risk assessment indicates a lower level of support than the minimum as defined by local policy, TSP, and risk assessment, commanders and commandants may (with the concurrence of the installation's medical treatment facility (MTF) commander and safety officer), authorize by memorandum an appropriate lower level of support. When a decision is taken to lower the level of medical support below the minimum recommended for any training activity inform the TRADOC Safety Office via e-mail at usarmy.jble.tradoc.mbx.hq-tradoc-g-3-4-safety-office@mail.mil.

c. TRADOC service school and major subordinate command commanders and commandants will assess and certify the adequacy of medical support to training at least annually. This responsibility will not be delegated. Commanders and commandants conducting high risk training shall rehearse their medical support plan (casualty response, evacuation, and treatment) at least semi-annually, with focus on responding to a training catastrophe.

d. Health care specialist (MOS 68W) MOS qualification and scope of practice.

(1) Training unit or MTF commanders will ensure that health care specialists (68W) providing support to training maintain their skills in accordance with Training Circular 8-800, which includes biannual certification as an emergency medical technician-basic (EMT-B), at a minimum, by the National Registry of Emergency Medical Technicians (NREMT), and basic life support certification at healthcare provider level; and confers a level of skill comparable to an EMT-intermediate or paramedic, recognized as such by the NREMT. These training opportunities may be coordinated through the IET health care committee (see para 5-14), or by a memorandum of agreement with a medical department activity (MEDDAC).

(2) The MTF commander, as the installation's director of health services (DHS), is responsible and accountable for the total surveillance and evaluation of the scope of practice (i.e., procedures, actions, and processes that are permitted for the licensed individual) and quality of healthcare/services provided on the installation (MEDCOM Reg 10-1). Commanders of units to which 68Ws are assigned should coordinate with their DHSs regarding their 68Ws' scope of practice.

3-10. Combat Lifesaver (CLS) training/certification and utilization

a. CLS certified personnel and CLS aid bags are required:

(1) In RECBNs and BCT/OSUT units, at least one CLS certified DS or cadre member and one CLS aid bag, present during training per platoon. Units will maintain at a minimum one CLS certified Soldier (cadre) for every 60 Soldiers involved with the training unit.

(2) In AIT units, at least one CLS certified PSG or cadre member and one CLS aid bag, present during training per company. Units will maintain at a minimum one CLS certified Soldier (cadre) for every 60 Soldiers involved with the training unit.

b. IET cadre members are encouraged to obtain CLS certification.

c. Commanders will coordinate training schedules for the CLS course and annual recertification with supporting medical instructor organizations or MEDDAC.

d. Commanders will establish accountability for CLS medical equipment sets (aid bags) and supplies through their supply sergeants (see table 3-1 for required items). CLS aid bags should be inventoried monthly and resupplied as items are used or expire. Resupply of CLS aid bags through class VIII accounts with the supporting MEDDAC.

e. Certified CLSs should be allowed to fully utilize their CLS skills when providing care for Soldiers.

f. Personnel qualified and certified to perform a higher level of medical care (68W health care specialist) may fill the requirement for CLS, when available.

Table 3-1
CLS medical equipment set

Quantity	Item	NSN
1	Adhesive tape, surgical, 3"	6510-00-926-8884
1	Bag, TC3, combat casualty care	6545-01-537-0686
1	Bandage elastic, 6" x 4.5 yard	6510-00-935-5823
2	Bandage, gauze, 4.1 yard	6510-01-503-2117
2	Bandage kit, impregnated	6510-01-492-2275
2	Bandage, gauze, elastic	6510-01-562-3325
1	Bandage kit, elastic	6510-01-532-6656
3	Bandage, muslin, olive drab, 37x37x52", triangular	6510-00-201-1755
1	Blanket, heating	6532-01-525-4062
1	Blanket, survival	6532-01-524-6932
2	Dressing, chest seal	6510-01-573-0300
4	Glove patient examining	6515-01-525-1975
2	Leash, shears, trauma	6515-01-540-7226
2	Marker, tube type	7520-00-312-6124
1	Nasal trumpet	6515-01-529-1187
2	Needle, decompression	6515-01-541-0635
5	Pad, isopropyl alcohol	6510-00=786-3736
1	Scissors, bandage	6515-00-935-7138
1	Shield, eye, surgical, Fox	6515-01-449-1016
1	Splint, universal	6515-01-494-1951
1	Strap cutter, combat	4240-01-568-3219
2	Tourniquet non-pneumatic	6515-01-521-7976
1 pack	Tactical Combat Casualty Care Card (DD Form 1380)*	
3	Dressing, burn, first aid	6510-01-587-6579

3-11. Injury prevention measures

In addition to the guidance in Field Manual (FM) 7-22, the following measures should be employed to mitigate overuse injuries:

a. Place Trainee/Soldiers in order of height (shortest to tallest) in running and marching formations.

b. Ensure march paces do not exceed five kilometers per hour.

c. Use the fittest Trainee/Soldiers for road guard duties.

d. Rotate road guard responsibilities.

e. Avoid high impact activities for corrective training (running, marching, jumping). There is no benefit to exceeding the PRT guidelines for running.

f. Encourage Trainee/Soldiers to apply ice to injured areas when prescribed by a health care provider or recommended by self-care guidelines.

g. Maximize transportation vehicles for moving Trainee/Soldiers to training areas.

h. Encourage Trainees to wear the sock liner under the cushion sole sock during the first three weeks of training (during new boot break in period), and for any foot march greater than five kilometers.

3-12. Suicide prevention

a. The POI for IET will include formal instruction on suicide awareness and identification of potentially suicidal Trainee/Soldiers. The commanders and orientations will instruct Trainee/Soldiers on the appropriate actions they should take in the event a fellow Trainee/Soldier talks to them about suicide; specifically, Trainee/Soldiers must recognize the need to immediately notify the first cadre member available in the chain of command.

b. Commanders must comply with the provisions of Department of Defense Directive 6490.1 and Department of Defense Instructions 6490.4, before sending Trainee/Soldiers for behavioral health evaluations to avoid violations of legal requirements. Commanders must counsel Trainee/Soldiers reported to have discussed or alluded to suicide. The commander will ensure Trainee/Soldiers in emergency/urgent situations are immediately referred to behavioral health care providers for counseling and evaluation, and accompanied by an NCO to the appointment until the behavioral health care provider assumes control. An NCO is required to pick the Trainee/Soldier up from the behavioral health facilities and to meet with the behavioral health care provider as a representative of the commander to ensure the Trainee/Soldier's condition and diagnosis is clearly communicated to the unit. Trainee/Soldiers in this category will not be left alone or unsupervised. Escorts for subsequent appointments are not required to be an NCO. Counsel individuals in routine (non-emergency) situations, in accordance with Department of Defense Directive 6490.1, section F, prior to referral/meeting with behavioral health professionals.

c. Behavioral health care providers may return IET Trainee/Soldiers to their units, once they have determined the Trainee/Soldier is no longer an imminent threat to harm themselves or others, following an outpatient evaluation or upon discharge from the inpatient status.

(1) The behavioral health care provider may make precautionary recommendations to the commander that the Trainee/Soldier be watched for some period of time. The behavioral health care provider must stipulate specific guidance regarding precautions and must establish an appointment for follow-up as part of the release to the unit.

(2) TRADOC service schools and major subordinate commands will develop a unit watch program, which will involve supervised watch of the IET Trainee/Soldier in the implementation of behavioral health care provider guidance. The decision to place a Trainee/Soldier under supervised unit watch will always be made in close coordination and consultation with behavioral

health care providers. In unit watch, the unit/cadre will observe/supervise the IET Trainee/Soldier pursuant to the precautionary timeframe and conditions recommended by the behavioral health care provider.

(a) The commander will create a positive environment for the Trainee/Soldier, utilizing teamwork and unit cohesion as the foundation for support for the Trainee/Soldier on watch. Trainees will not be marked in any way which identifies him or her publicly as a Trainee/Soldier at risk. Trainee/Soldiers will be treated with dignity and leaders will prohibit behaviors and comments which serve to stigmatize or ostracize them.

(b) 24-Hour Watch. A unit member is assigned to watch a Trainee/Soldier 24 hours of the day, to include while the individual sleeps. Staff duty personnel may have this responsibility, if a less stigmatizing way is not available.

(c) If a peer is assigned to watch the Trainee/Soldier, cadre must interact with the pair of Trainee/Soldiers hourly because the responsibility of watch can be difficult for a peer. In addition, a member of the leadership team must plan a brief meeting daily with the Trainee/Soldier at risk, to provide support and encouragement.

(d) The commander must solicit clear and specific guidance from the behavioral health care provider for the unit watch. A variety of interventions may be utilized by the command team for a unit watch to include searching the Trainee/Soldier's belongings and living quarters for dangerous items, removing such items from their possession, prohibiting access to alcohol and drugs, minimizing contact with people that may negatively influence the Trainee/Soldier's behavioral health, continuously observing the Trainee/Soldier, and ensuring behavioral health follow-ups are attended. Examples of dangerous items would include, but are not limited to, knives, cigarette lighters, and jewelry with sharp edges, blow dryers, and cleaning supplies. Silverware other than sharp knives is acceptable. Medications, to include over-the-counter Tylenol and Motrin, should be held by the unit and should be dispensed one dose at the time by a medic or NCO. Leadership may elect to tighten the restrictions recommended by the behavioral health provider. If any of the actions recommended by the behavioral health provider or established by command limit the Trainee/Soldier's personal freedoms, the commander of the unit must first coordinate with the servicing trial counsel or judge advocate.

(e) The Trainee/Soldier will not carry a military issued firearm.

(3) The unit watch program is to complement the guidance established in Department of Defense Directive 6490.1 and Department of Defense Instructions 6490.4. The unit watch program must ensure:

(a) Positive control of the returned IET Trainee/Soldier, especially during periods of transition, between training events and from training events to other appointments.

(b) Trainee/Soldiers under watch are escorted at all times, and not left alone or unsupervised.

(c) Those entrusted to conduct unit watch are thoroughly briefed on the importance of being with the Trainee/Soldier at all times, and of the essence of mentorship and support as the foundation for guiding a Trainee/Soldier through a difficult period.

(d) While in unit watch status, the Trainee/Soldier requires follow-up with the behavioral health care provider within five days of the implementation of the watch. The Trainee/Soldier will be seen immediately if the chain of command sincerely believes that the Trainee/Soldier's concerns are not remediating, and the Trainee/Soldier's risk appears to be increasing.

d. IET Commanders will ensure all assigned DSs and PSGs, assigned cadre, and all members will receive training in the current Army-approved suicide prevention program, as follows:

(1) In accordance with TRADOC AR 600-63 (Army Health Promotion) and Policy Letter 4, subject: Ready and resilient Campaign (R2C) - reducing high risk behavior and preventing suicide, suicide prevention training must be conducted annually for all Soldiers.

(a) All permanent party will receive training in "Ask, Care, Escort" (ACE). Training products are accessible at the Army's Suicide Prevention Web site. Additional training products (for example, "Shoulder to shoulder- Finding strength and Hope Together") are published periodically on the same web site and can be used to supplement the ACE products.

(b) In addition, company level junior leaders and first line supervisors to include squad and section leaders, platoon sergeants, platoon leaders, first sergeants, executive officers, company commanders, and Army civilians assigned at the company level will complete the Ask, Care, Escort-Suicide Intervention (ACE-SI) Course. Personnel who are identified as "gatekeepers" will receive advanced suicide intervention skills training in accordance with AR 600-63, para 4-7i (1). Applied Suicide Intervention Skills Training (ASIST) is an additional product for suicide intervention training. Gatekeepers are individuals who, in the performance of their assigned duties and responsibilities, provide specific counseling to Soldiers and Army Civilians in Need. There are Primary and Secondary gatekeepers.

(c) Coordinate with the installation's Suicide Prevention Program Manager for training in suicide awareness, identification, and prevention, with also applying suicide intervention techniques.

e. Commanders will solicit consultation and support through the installation's Suicide Prevention Program Manager. Commanders should identify these local resources and coordinate services well before they are needed.

3-13. Preventing communicable illnesses

a. Taking measures to prevent communicable illnesses is important in the contexts of protecting IET Trainee/Soldiers whose immune systems are vulnerable; during the annual influenza season, with mitigating risks from communicable disease outbreaks.

b. The most important measures in preventing communicable illnesses are at the individual level. In military organizations, leaders must ensure that these measures are emphasized, enforced, and enabled.

c. See figure 3-1 for individual measures to prevent communicable illnesses.

(1) Hand hygiene. This includes washing or sanitizing the hands every time after using the latrine; before touching food; after sneezing, blowing one's nose, or coughing; and after touching any common surface. Hand sanitizer is not a substitute for soap.

(2) Avoiding touching one's eyes, nose, and mouth.

(3) Not sharing personal items (razors, towels, clothing, etc.).

(4) Limiting skin-to-skin contact and scratching.

(5) Keeping wounds covered and clean.

(6) Coughing or sneezing into one's elbow, not into the hands.

(7) Soldier will maintain one arm length separation when standing in line if mission will allow.

d. Leader measures to prevent communicable illnesses are to:

(1) Ensure all Trainee/Soldiers are up to date on immunizations, by monitoring the unit's medical protection system (MEDPROS) database. See appendix H, para H-7 for policy on access to MEDPROS. For Trainee/Soldiers who received hepatitis A and hepatitis B vaccinations, a second dose of these vaccinations is required one month following the first dose. Commanders will coordinate the delivery of these vaccinations with materiel fielding team commanders.

(2) Ensure each Trainee/Soldier has at least 72 square feet of living space (see figure 3-2). A two-man bunk requires 144 square feet of floor space if both beds are occupied (72 square feet per person times two). All available billeting, including temporary facilities and tents when necessary, should be used to ensure this minimum space allowance. Commanders should schedule use of common areas, such as dining facilities, classrooms, theaters, and latrines to avoid overcrowding.

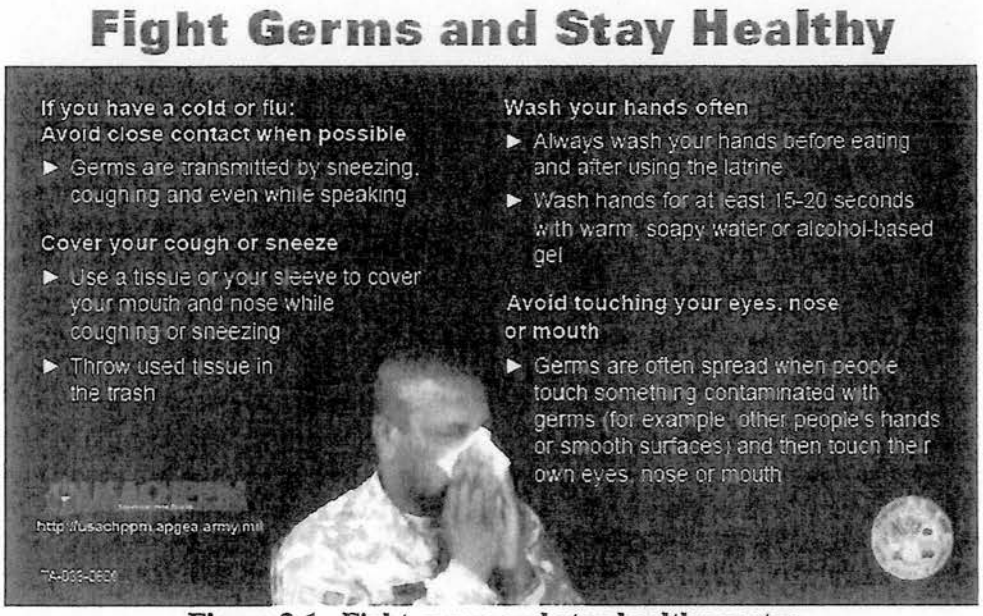


Figure 3-1. Fight germs and stay healthy poster

(3) Ensure bunks are oriented head to foot. Respiratory diseases are transmitted primarily via large virus-laden droplets propelled a short distance through the air from a cough or sneeze. Arranging bunks so that Trainee/Soldiers' heads and feet positions are alternated increases the distance between breathing zones. The bunk arrangement depicted in figure 3-2 maximizes available floor space and the distance between bunk/cots while still maintaining egress routes and allowing for adequate command and control.

(4) Enforce barracks hygiene. Improved standards for barracks hygiene can help reduce the spread of infectious diseases. These measures also prevent growth of mold. Methods of decontaminating surfaces include detergent-based cleaning followed by rinsing, and the use of disinfecting agents.

(a) Ensure disinfectant solution is utilized. A solution of household bleach and water is recommended. Use ¼ cup bleach in one gallon of cool water, or one tablespoon bleach in one quart of cool water. A solution of bleach and water loses its strength over time and is weakened by heat and sunlight. Mix a fresh bleach solution each day that it is needed. The solution can either be applied via a bucket and cloth/sponge or a spray bottle and cloth/sponge. Disposable cloths, such as paper towels, are recommended. Chlorine evaporates into the air leaving no residue, so surfaces sanitized with bleach may be left to air dry. Allow mop heads to dry before reuse by hanging the mop by the handle with mop heads down.

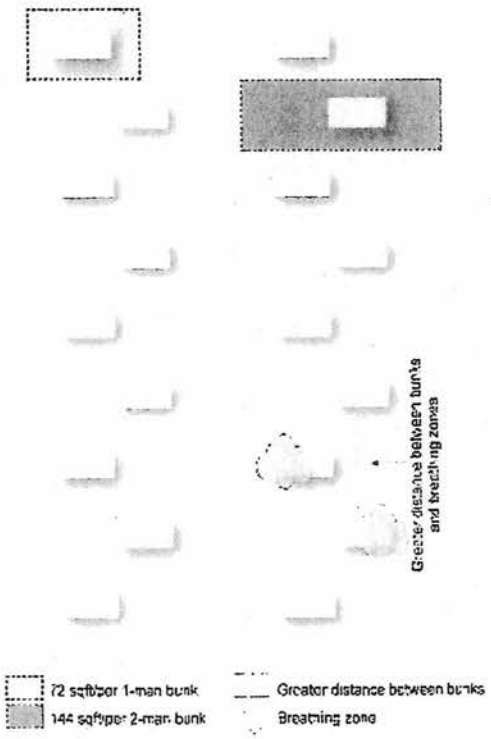


Figure 3-2. Optimal bunking layout

(b) Conspicuously post mixing instructions for bleach and water. Do not mix bleach with other cleaning chemicals. Mixing chemicals with bleach may produce hazardous gases. Before using anything other than bleach for disinfection, consult with your local preventive medicine office. Always read the label and follow the manufacturer's instructions exactly. An example poster of mixing instructions is provided in figure 3-3.

(c) Recommended cleaning cycle.

- Daily: Disinfect bathroom floors, sinks, showers, toilets, doorknobs, handles, light switches, and other high-touch surfaces; clean other visible dirt on floors and surfaces as necessary.
- Weekly: Launder all soiled laundry and linens; mop floors and clean all horizontal surfaces with soap and water.
- Every three weeks: Turn in blankets, pillows, and mattress covers for laundering.

- End of training cycle: Turn in blankets; wipe down mattresses with disinfectant solution; launder mattress pads (if applicable); clean all walls, blinds, windows, and areas not routinely cleaned with soap and water.

MIXING BLEACH AND WATER

**DO NOT MIX BLEACH
WITH ANYTHING OTHER
THAN WATER**

MIX ¼ CUP OF BLEACH WITH
1 GALLON OF COOL WATER
OR
MIX 1 TABLESPOON OF BLEACH
WITH 1 QUART OF COOL WATER

*Measure the amounts – DO NOT GUESS
*Mix a fresh bleach solution each day
that it is needed.

Figure 3-3. Mixing bleach and water

(d) Recommended cleaning methods.

(1) Toilets, urinals, showers, and sinks. Clean toilets daily using a toilet brush and disinfectant; this will prevent the build-up of scale, which can harbor pathogens. Sinks, showers, and urinals should be disinfected daily with a bleach and water solution to prevent buildup of microbial films.

(2) Floors, walls, and other environmental surfaces. Exposure to pathogens as a result of microbial contamination on floors and furnishings is very low. The transfer of microorganisms from environmental surfaces to individuals is largely via hand contact with the surface. High-touch surfaces (such as, doorknobs, handles, light switches, and wall areas around toilets) should be cleaned and disinfected daily. Horizontal surfaces, such as windowsills and floors, should be cleaned weekly with detergent and water and kept visibly clean as necessary. Extraordinary cleaning and disinfection of floors is not recommended. Cleaning of walls, blinds, and window curtains is recommended between training cycles or more frequently if they are visibly soiled.

(3) Laundry, mattresses, and pillows. Launder soiled clothing and linens weekly at 160°F, or at 104°F to 140°F using an activated bleach powder. Turn in sheets and pillowcases weekly for laundering whether they appear soiled or not. Blankets, pillows, and mattress covers should be turned in every three weeks or when personnel change. Plastic-covered mattresses are preferred for ease of disinfection. If fabric mattresses are used, keep them dry; discard mattresses if they become and remain wet or stained, or if they become unserviceable. Between training cycles or when personnel change, clean and disinfect plastic mattress covers using U.S. Environmental Protection Agency registered disinfectants that are compatible with the cover material, and exchange blankets. Replace mattress and pillow covers if they become torn or unserviceable.

3-14. Managing outbreaks of communicable illnesses

a. An outbreak is a sudden increase in numbers of a given illness.

b. If an outbreak is suspected, contact MTF authorities immediately.

c. All commanders must be aware of their installation isolation and quarantine plan during public health emergencies.

3-15. Field sanitation team (FST) training and utilization

a. Trained and equipped FSTs are required in:

(1) All BCT/OSUT/AIT units; at least one primary and one alternate team of trained cadre and one FST equipment set per company/troop/battery (see table 3-2 for modified FST equipment set).

(2) Units that resource FTXs at the battalion level may request an exception to policy and resource one FST.

b. Commanders will coordinate training for the FST course with their supporting MEDDAC environmental science personnel.

c. Commanders will establish accountability for modified FST equipment sets through their supply officer.

Table 3-2
Modified FST equipment set

Item	NSN	Unit of Issue	Quantity
Book record ledger double entry	7530-00-286-6211	EA	1
Goggles, industrial, non-vented	4240-00-190-6432	EA	2
Thermometer, food	6685-00-444-6500	EA	2
Pad, isopropyl alcohol	6510-00-786-3736	PG	1
Gloves surgical disposable	6515-01-150-2978	BX	1
Test paper, chlorine residual (food service)	6630-01-012-4093	PG	1
Test strips, pH & Cl	6640-NCM-02-1025	PG	1
Calcium Hypochlorite, 6 oz	6810-00-255-0471	BT	1
Spoon measuring plastic (0.5 g)	6640-01-070-7877	EA	2
Wet bulb-globe temperature with tripod	6665-01-381-3023	EA	1
Insect bite paste, 12s	6505-01-513-7682	PG	5

d. Duties. Members of the FST will assist their commanders to:

(1) Monitor overall sanitary conditions in the barracks, dining facility, ranges, and training areas occupied by the unit.

(2) Determine risk and develop controls for insect-borne disease, heat illnesses, and cold injuries.

(3) Ensure potable water containers are maintained:

(a) Prior to use, scrub the container with a solution of 1/2 meal, ready to eat spoonful of calcium hypochlorite dissolved in one gallon of water. If calcium hypochlorite is not available, use three spoonful of household bleach dissolved in a gallon of water. Use a spoon from a meals, ready to eat packet.

(b) Test the water using a chlorination test kit.

(c) Add more calcium hypochlorite, if necessary, to maintain a minimum chlorine residual of two parts per million or as prescribed locally.

(d) Empty and clean the container at least once every three days.

(4) Ensure hand washing devices/stations are provided and maintained at range and field sites, and that hand washing facilities in the barracks and dining facilities are functioning and maintained.

3-16. Personal health and hygiene

a. To instill good hygiene habits in all Trainee/Soldiers, each TRADOC service school and major subordinate command will establish a comprehensive personal hygiene program. Elements of the personal hygiene program include but are not limited to:

(1) Opportunity for Trainee/Soldiers to bathe daily, in garrison, and practice personal hygiene in a field environment.

(2) Reinforcement of good dietary habits.

(3) Ensuring adequacy of billeting and maintenance of sanitary, healthful conditions, and net square footage guidelines as defined by DA Pam 420-1-1 to include:

(a) In BCT/OSUT, 72 net square feet per Trainee/Soldier is the standard, exclusive of stairs, halls, latrines, utility rooms, recreation areas, storage rooms, or other administrative areas. All available billeting is used to achieve this standard.

(b) In AIT, 90 square feet per Soldier is the desired goal, unless the AIT is located at an ATC.

(c) Commanders will notify the TRADOC CIMT when they cannot meet the 72 square feet standard, and will request permission from the CIMT before placing Trainee/Soldiers in less than 60 square foot per Soldier, after accomplishing the following:

(1) Installation fire marshal must verify the fire life safety codes are being met at the increased density.

(2) Preventive medicine personnel periodically check air quality.

(3) Sufficient latrine and shower facilities are made available.

(d) Diversion of barracks space for other purposes (for example, offices, weight rooms, dojos) will be limited and will not result in the use of portable buildings for barracks. Barracks will be maintained in accordance with Army standards for cleanliness, serviceability, and safety.

(4) TRADOC service schools and major subordinate commands will ensure posters emphasizing personal hygiene measures to mitigate the risk of a communicable illness outbreak are conspicuously displayed in the barracks, dining facilities, and in latrines. Personal hygiene posters with three different backgrounds are downloadable off the TRADOC Surgeon's Web site (see Personal Hygiene Information, parts I, II, and III).

b. Commanders will adhere to the following when IET Trainee/Soldiers are donating blood:

(1) Blood donations will not be allowed during RECBN in processing, to include trainees in hold under status or during the first three weeks of BCT/OSUT.

(2) Blood donations will not be allowed for four weeks after receiving booster immunizations for measles and rubella, varicella (Chicken Pox), and hepatitis B; (See para H-7a(2).

(3) Blood donors should not engage in any strenuous physical activity for 24 hours after donation. Activities to avoid include, but are not limited to running, push-ups, pull-ups/chin-ups, muscle failure PT, heavy lifting, obstacle/confidence courses, APFT (diagnostic or record), etc. Short foot movements to local areas or dining facilities can be safely performed.

(4) Avoid prolonged exposure (greater than one hour) to heat category 3-5 conditions, and maximum performance events (APFT and foot marches) for three days after donation.

(5) Soldiers in OSUT and AIT may donate blood eight weeks after their first donation, then every eight weeks thereafter.

c. Female Trainee/Soldiers may require additional health evaluations and education to ensure they are ready for deployment upon graduation from IET in accordance with Office of the Surgeon General policy 08-31. Commanders of Soldiers in Phase IV and beyond will coordinate with their local MTFs to ensure their female Soldiers have met these requirements for readiness.

3-17. Hearing conservation program

a. Each ATC will follow the Army Hearing Program in accordance with Special Text 4-02.501, paragraphs 48-53; DA Pam 40-501, paragraph 6-1; and Technical Guide 41. Commanders at all levels will enforce the requirement for all IET Trainee/Soldiers, instructors, and cadre to wear earplugs or other approved hearing protective devices, when exposed to noise levels. Hazardous noise levels are defined as 85dBA or greater for steady state noise (such as generators or aircraft), or 140dBP or greater for impulse noise (such as weapons fire). Leaders are responsible for

ensuring the Army Hearing Program is implemented in their units, especially the monitoring and enforcement of wearing hearing protection in noise hazardous areas to include blank weapon fire (such as urban operations training).

b. RECBNs will perform DOD standard audiograms on all new Trainee/Soldiers in accordance with DA Pam 40-501, paragraph 7-2. Trainee/Soldiers with abnormal audiograms may require further evaluation to assess fitness for duty and appropriate disposition.

3-18. Health care committee

a. The IET environment presents unique health care issues. Managing these issues involves a joint effort between MTF clinical staff and training battalions. An IET health care committee provides the structural framework to facilitate this effort and develop coordinated approaches at the battalion level.

b. Objectives.

(1) Reduce and control injuries in IET that take Trainee/Soldiers away from training.

(2) Conduct a regularly scheduled forum at the brigade level.

(3) Monitor overuse injuries, communicable illnesses, environmental injuries, and suicidal behaviors.

(4) Identify issues that would need the attention of HQ TRADOC.

(5) Obtain feedback on initiatives.

c. The health care committee can be stand alone, or part of a committee already in existence.

(1) Membership. Commandants should identify a brigade commander as the chairperson. The commandant staff and MTF will determine the rest of the committee membership. Membership may include, but is not limited to:

(a) Chief, primary care or deputy commander for clinical services.

(b) Commander, MTF and/or dental clinic.

(c) Psychologist or social worker for IET.

(d) Officer-in-charge, MTF physical therapy.

(e) Chief, preventive medicine.

(f) Environmental science officer.

(g) Training chaplain.

(h) Training unit commanders and/or senior NCOs.

(i) Senior NCO for medical support to training.

(2) Agenda. Items to be addressed may include, but are not limited to:

(a) Sick call.

(b) Medical support for training.

(c) Access to specialty care (for example, orthopedics, podiatry, mental health).

(d) Medical evaluation board (MEBs).

(e) IET attrition.

(f) Profiles.

(g) WTRP.

(h) Behavioral health professional support.

(i) Illness, injury, and behavior trends.

d. The chairperson should forward issues that require the assistance of HQ TRADOC to the TRADOC Surgeon at usarmy jble.tradoc.list.g1g1-surgeon@mail.mil or Defense Switched Network (DSN) 501-5633 or commercial (757) 501-5633.

e. All medical appointments or procedures/emergencies performed off post will require Trainee/Soldiers to have a battle buddy or a medical staff member escort the individual from the unit to the medical facility. Trainee/Soldier will be signed in and transfer responsibility to a medical liaison. The liaison will ensure the Trainee/Soldier receives the needed treatment. Upon completion of such treatment the Trainee/Soldier will be returned to the medical liaison to coordinate transportation back to the unit. The medical liaison will not release the Trainee/Soldier until a member of the unit or medical staff assumes responsibility for them and escorts the Trainee/Soldier back to their assigned unit. A chain of custody must me established and maintained throughout the entire process.

3-19. Sleep

a. Sleep is a basic biological need for proper brain and body functioning and a critical element for Trainee/Soldier performance. Trainee/Soldiers need a minimum of 7 hours of high quality sleep to sustain operational readiness. FM 6-22.5, Leader's Guide to Combat and Operational

Stress Control, chapter 4 provides guidance on the principles and practices for sleep discipline and optimal sleep in garrison and operational settings.

b. Sleep is best viewed as a critical item of resupply like water, food, fuel, and ammunition. The longer a Trainee/Soldier goes without sleep, the more their thinking slows and becomes confused, and the more mistakes they will make. Leaders need to plan adequate sleep for themselves and their Trainee/Soldiers in training and tactical environments.

c. Observing a Trainee/Soldier's behavior is the best way to evaluate for signs of inadequate sleep. Indications of inadequate sleep include: struggling to stay awake during briefings, difficulty understanding or tracking information, lapses of attention, decrease initiative/motivation, or irritability.

d. Chronic insufficient sleep (less than 7-8 hours per 24 hours) produces a "sleep debt" which is characterized by impaired performance and readiness, and worsens as nightly sleep decreases. Routinely getting 7 to 8 hours of quality sleep per day improves Trainee/Soldiers' mood, attention to safety, physical, mental, and immune system performance.

e. Fatigue risk management for CQ and staff duty.

(1) Sleep loss and insufficient sleep associated with CQ and Staff Duty impairs decision making and alertness and places Trainee/Soldiers at risk for accidents.

(2) Sleep deprived Trainee/Soldiers need to be cautious when engaging in high risk activities.

(3) Student NCOs should not be assigned CQ duties. Their focus should be on academics and not performing permanent party duties.

(4) Recommendations.

a. End staff/CQ duty at 1100 hours. This is the ideal circadian/physiological time to end an extended/overnight duty.

b. Encourage personnel on CQ to sleep whenever mission allows.

c. After 24-hour duty, employ risk mitigation strategies such as napping after duty and prior to driving home or having the Soldier driven home by an alert staff duty driver/spouse.

(5) CQ/staff duty scheduling examples.

a. The CQ duty schedules shown below are recommended to ensure Soldiers are alert during critical periods (driving to/from duty; while on duty).

b. Trainee/Soldier attending training should only perform duty as CQ runner or Access Control Guards for a period of 1 hour but not more than 2 hours. Trainee/Soldiers in training should not perform multiple additional duties in one day.

c. The examples are anchored at 1100 hours based upon optimal circadian/physiological alertness for all personnel, i.e., opportunity for sleep and attending to personal matters prior to reporting for duty; and driving to and from duty during periods of decreased motor traffic, minimizing risk of POV accidents.

12-hour shift:	24 Hour Shift
Shift 1 - 1100 – 2300/ Shift 2- 2300-1100	1100-1100

Chapter 4
Soldier and Cadre Reception and Intergration

4-1. Integration of male and female Soldiers

a. For all courses open to female Trainee/Soldiers, IET is gender integrated to the squad level. All Trainee/Soldiers, regardless of gender, train to the Army standard. Performance requirement differences, such as APFT scoring are based on physiological differences, and apply to the entire Army. Gender integrated training at the lowest levels enhances the ability of the training base to deliver a Soldier fully prepared to take their place in the ranks of a gender integrated Army. Gender integrated training conducted in an environment where control and supervision are maximized mitigates the risk associated with this training (for example, pairing Trainee/Soldiers of similar size and physical ability, regardless of gender during combative training).

b. Formation of single gender companies or platoons is not authorized. The same POI is used for males and females. Male and female Trainee/Soldiers housed in the same building are provided a physical separation of sleeping and latrine facilities. The intent is to maintain and maximize company integrity to the extent possible within a barracks. Gender separation by barracks is preferred as resources permit.

4-2. Duties - charge of quarters (CQ), Access control guard, and extra duty

a. Trainee/Soldiers performing extra duty as a portion of punishment under UCMJ will not perform extra duty beyond 2130 or lights out. Commanders may authorize extra duty to be performed on Sunday and other training holidays.

b. Trainee/Soldiers can perform duties to include but not limited to: CQ runner and access control guards per gender specific locations. No Trainee/Soldier will perform multiple duties in a single night. Duties will only be performed in 1 or 2 hour tours. Students cannot perform CQ duties normally performed by cadre personnel who represent the commander and his or her authority. Student NCOs cannot be in charge of or perform CQ duties for Trainee/Soldiers in training. Focus is on academics and not performing the duties assigned to permanent party Soldiers. This does not include extra duty.

4-3. TRADOC Pamphlet (TP) 600-4

a. TRADOC Pamphlet 600-4 (Blue Book) and Soldiers Training Publication No 21-1-SMCT is issued to all Soldiers entering BCT/OSUT. The two publications provide Soldiers with a pocket reference for subjects taught and tested in BCT/OSUT, along with Warrior skills needed upon arrival at their first unit of assignment.

b. Commanders will ensure that IET Trainee/Soldiers departing BCT for AIT have a serviceable copy of both (Blue Book) http://www.tradoc.army.mil/tpubs/pams/TP600-4.pdf, and STP 21-1-SMCT including their ACH pads/chin strap in their possession.

4-4. IET Soldier work details

a. Restrict use of IET Trainee/Soldiers for details to a minimum. The BCT/OSUT POI only allows eight (8) hours away from training for details. Details off the installation are restricted to military honors details such as flag or funerals. AIT POIs do not allow any time for details. Commanders should attempt to restrict details to IET Trainees in a hold over or hold under status.

b. As appropriate, give consideration to using an entire unit (section, squad, platoon, class, or company) to meet requirements, rather than distributing the requirement over several different units. This will lessen the need for individuals to make up training, and provides additional opportunities for building teamwork. IET Trainees/Soldiers will perform details, at a minimum, as a battle buddy team.

c. To the maximum extent feasible, IET cadre will supervise IET trainees when they are performing details. In cases where non-IET cadre is supervising IET trainees, the supervisor will have attended the SCTC or ISCTC. Make maximum effort to utilize this time for reinforcement of transformation skills.

d. Any civilian employee overseeing IET trainees on a routine basis will be SCTC or ISCTC qualified. Include the duties and responsibilities related to IET trainee management in the civilian's official job description and on their annual performance evaluation.

4-5. Amount and type of control/phase privileges

a. During IET, the cadre leadership should evolve from asserting total control over trainees/Soldiers to the point where it duplicates the leadership environment in operational units. This gradual change supports the transformation program, and allows the DSs, AIT PSGs, and/or squad leaders to gauge each Trainee/Soldier's self-discipline and maintain or relinquish control accordingly.

b. Privileges/limitations for IET Trainee/Soldiers.

(1) Brigade commanders or the senior U.S. Army commanders at the training location are the approval authority for granting or withholding privileges in accordance with Table 4-1. Trainee/Soldiers are granted additional freedom as they demonstrate self-discipline and the ability to accept responsibility. These are privileges, not rights, and as such, are withheld, modified, or withdrawn based upon performance, mission, and program requirements. Privileges granted in

IET will support the phased training program, which establishes intermediate goals to facilitate the transformation from volunteer to Soldier. Maximum privileges authorized for IET are listed in table 4-1.

(2) Trainee/Soldiers in the first phase of initial entry training (red phase) will not attend non program of instruction events, activities, or programs (on or off the installation) except for on-post Sunday morning worship service, without an approved exception to policy from the Deputy Commanding General, Initial Military Training. Trainee/Soldiers in the following phases (white and blue) may attend off-the-installation events, activities, or programs with approval granted by their respective Commanding General, Center of Excellence or Army Training Center Commander. Prior to granting approval, the local Commanding General of the CoE or Army Training Center should consult with his servicing Staff Judge Advocate. Units will send a copy of exception to United States Army Center for Initial Military Training Operations Section. These events include but are not limited to: local sporting events, church services, concerts, or military appreciation events.

(3) Wearing of civilian clothes is strictly limited during BCT. Local Standing Operating Procedures (SOPs) will govern attire for BCT Trainees departing on emergency leave prior to deferred issue. When time and facilities permit, the trainee is issued a Class A or ASU before departing on emergency leave.

(4) The use of telephones during IET, to include cellular and other wireless communication devices, is a privilege. IET brigade commanders will establish local policy.

(5) IET trainees arriving to the reception battalion (RECBN), BCT, OSUT, AIT, new duty assignment and/or transferred to a different unit or class will be given the opportunity to call home within 48 hours of arrival.

(6) The following privileges establish guidelines for brigade commanders.

(a) Phase I (weeks 1 through 3). No passes are permitted and IET trainees are restricted to the company area. IET trainees are allowed outside the company area only when in formation and escorted by DSs. A DS will escort IET trainees in this phase to the Post Exchange (PX). Trainees are prohibited from driving or riding in Privately Owned Vehicles (POVs) and rental vehicles, consuming alcoholic beverages, and using tobacco products unless they are of legal age, possess a valid driver's license, and are on authorized leave/absence. All IET trainees must maintain the battle buddy system in accordance with paragraph 3-2. Continuous cadre supervision is enforced during Phase I of IET.

(b) Phase II (weeks 4 through 6). In addition to the privileges authorized in Phase I, passes within the brigade area are authorized. Trainees are prohibited from driving or riding in POVs and rental vehicles, consuming alcoholic beverages, and using tobacco products unless they are of legal age, possess a valid driver's license, and are on authorized leave/absence. All IET trainees must maintain the battle buddy system in accordance with paragraph 3-2.

(c) Phase III (weeks 7 through 10). In addition to the privileges authorized in Phase II, on post passes are authorized. At the discretion of the commander, IET trainees may be authorized an off post pass and ride with family members in POVs and rental vehicles during BCT/OSUT graduation day and family day. Family members (parents, grandparents, spouse, or legal guardian) are authorized to transport BCT graduates to assigned AIT sites at the battalion commander's discretion. Soldiers are prohibited from driving POVs and rental vehicles, consuming alcoholic beverages, and using tobacco products unless they are of legal age, possess a valid driver's license, and are on authorized leave/absence. All IET Soldiers must maintain the battle buddy system in accordance with paragraph 3-2. Soldiers may receive an off post day pass privilege during graduation day or family day and do not have to use the buddy system when accompanied by an adult family member (parents, grandparents, spouse, or legal guardian). Off post pass will expire no later than 2100 hours' local time.

(d) Family members (parents, grandparents, spouse, or legal guardian) are authorized to transport Soldiers to their AIT location. One day of travel time is allowed for each 350 miles of official distance of ordered travel. If the excess is 51 miles or more after dividing the total number of miles by 350, one additional day of travel time is allowed. When the total official distance is 400 miles or less, one day's travel time is allowed. (See Joint Federal Travel Regulation, paragraphs U3003 Authorized Modes and U3005 Travel Time). Soldiers are not authorized to drive or consume alcohol when being transported.

(e) Soldiers are to report to AIT on the scheduled report date. Soldiers who are authorized to travel to the AIT location with family members must arrive at the AIT location no later than 1800 on the Sunday prior to the scheduled AIT report date.

(f) Phase IV (weeks 11 through 13) All privileges granted in Phase III. Also, Unit Commander can grant passes up to 2100 hrs.

(g) Phase V (weeks 14 through 20) Brigade Commander are authorize to accelerate post-BCT phases to allow Soldiers to receive phase V+ privileges based on the Soldiers' performance. A written policy establishing brigade-specific guidance will be submitted to CIMT. The Brigade Commander sets the policy, but the Battalion Commander manages the program. Soldiers in courses that exceed 21 weeks may be authorized to reside with family provided there is a written agreement between Soldier and Battalion Commander establishing responsibilities required to maintain this privilege. Soldiers must have PCS orders authorizing family travel.

(h) Phase V+ (weeks 21 through completion) Commanders can authorize day passes to end at 2400 hrs. Brigade Commanders can approve exceptions past 2400 hours on a case-by-case situation. This exception authority cannot be delegated lower. Married Soldiers are authorized to use their spouse as a battle buddy when accompanying them to an appointment or family requirements.

(7) Commanders should consider the philosophy of increasing privileges and responsibilities based on trainee progress.

(8) Normally, IET Soldiers are not granted leave between BCT and AIT, unless they meet one of the following requirements:

(a) Soldiers are attending an AIT course of 24 weeks or longer have a one week delay built into the Army Training Requirements and Resources System (ATRRS) training schedule between the BCT graduation date and the AIT report date. Soldiers may elect to take up to one week of leave, or report directly to AIT upon graduation from BCT. When the latter is chosen, the losing BCT site will coordinate with the gaining AIT site for early arrival.

(b) Soldiers graduate from BCT in December, with an AIT start in January.

(c) Trainee/Soldiers taking holiday block leave during BCT are not authorized to take any additional leave between BCT graduation and the start of AIT (this includes AIT courses that are 24 weeks or longer).

(d) Battalion commanders may grant exceptions on a case-by-case basis.

(9) Brigade commanders determine privileges for Soldiers attending pre-BCT ESL training or assigned to a reception battalion in a long term hold status.

Table 4-1
IET phases and privileges

PHASE	I	II	III	IV	V	V+		
	Basic Combat Training			Advanced Individual Training				
	ONE STATION UNIT TRAINING							
WEEKS	1 - 3	4 - 6	7 - 10	11- 13	14 - 20	21 Thru Completion		
Color Designation	RED	WHITE	BLUE	BLACK	GOLD	GOLD		
PRIVILEGES*								
Total Control	X							
Restricted to Company Area	X							
Escorted to PX by DS	X							
Brigade Area Pass		** X	** X	** X	** X	*X		
Passes (on/off Post)			**** X	** X	** X	*X		
Overnight Pass***	NO OVERNIGHT PASSES AUTHORIZED DURING INITIAL ENTRY TRAINING (******)							
Wear Civilian Clothes					*X	*X		
Cell Phone/ Electronic Devices	*X	*X	*X	*X	*X	*X		
Ride/drive in POV			**** X		*X	*X		
Alcohol Use (of legal Age)	NO ALCOHOL USAGE AUTHORIZED DURING INITIAL ENTRY TRAINING (******)							
Tobacco Use (of Legal Age)				*X	*X	*X		

* Privileges are earned and are reduced or increased / modified based on Soldier performance and discipline at the discretion of the BDE CDR.
** Passes will conclude no later than 2100 Hours local time. BDE CDR is authorized to extend the pass to 2400 hours (non-duty) days. All Soldiers will utilize the battle buddy system except on graduation day where they may be accompanied by family members (Parents, Grandparents, Spouse or Legal Guardians).
*** No overnight pass authorized in IET. BDE CDR approves exceptions for phase V+ Soldiers. This exception authority cannot be delegated.
**** Phase III Soldiers may be authorized an off post pass and ride in POV with family on graduation day and / or traveling from BCT to AIT location if approved by the commander.
***** For courses longer than 21 weeks, BDE commander will determine privileges and authority to grant Soldiers approval to reside with spouse if orders authorize PCS to training location. A written agreement between Soldier and Bn CDR will establish responsibilities in order to maintain this privilege.
****** Exception to Policy (ETP) for allowing alcohol privileges after Phase V will be submitted through the first 2 star in your chain of command to CIMT for approval with a risk mitigation plan for approval.

4-6. Basic combat training feedback system
AIT commanders and other recipients of Soldiers from BCT will provide direct feedback to BCT commanders. This feedback will include information on the quality of the Soldiers they receive, if the Soldiers arrived with all the required documents for a complete record, and if the Soldiers arrived with proper equipment to include mouth guards and helmet bands. Specified topics for feedback include: Soldier morale on arrival, medical condition, common task proficiency, physical conditions, Individual Training Record (ITR) from DTMS-CM completeness, and possession of TP 600-4 (Blue Book) and STP-21-1-SMCT.

4-7. IET hold management

a. Trainee/Soldiers placed in a hold status prior to starting a BCT class will be identified by name within 72 hours of arrival to the CIMT and TOMA. Every effort will be made to assign these Trainee/Soldiers to training companies or transship these individuals to other training locations in order to remain on their current training cycle. Post the Trainee/Soldiers' status in ATRRS with the reason code display as being in a hold status (H) awaiting class start (6). The hold status for an H6 Trainee/Soldier automatically ends when the Trainee/Soldier starts training and is posted in a class in ATRRS with input status of (I). If a Trainee/Soldier cannot be transshipped to another location, they will be actively engaged in introductory training. Hold training will consist of orientation, SHARP, PRT, Army Values, drill and ceremony, customs and courtesies, and other subjects that will help these Trainee/Soldiers integrate into the Army and prepare them for BCT.

b. Change to IET Trainee/Soldier status must be reported to the installation's Trainee/Student Processing Center (TSPC), in accordance with local standard operating procedures, per AR 612-201. A student's change in status must be reported by the unit/organization no later than the close of business on the first working day after the change takes effect. This deadline is established so TSPCs can post the changes to ATRRS within the timeframe required by AR 350-10. Units will report holds using all 32 hold categories.

4-8. Reception and holding units (RHUs)

a. BCT/OSUT TRADOC service schools and major subordinate commands will establish company size RHUs to process Trainee/Soldiers pending discharge. RHUs will process IET Trainee/Soldiers identified by the chain of command for discharge from the Army in accordance with Army regulation 635-200.

b. Trainee/Soldiers in each category are managed and housed in separate groups.

c. All RC service members will receive counseling from the RC LNO prior to assignment to the RHU.

d. When the commander identifies and approves Trainee/Soldiers for selection to the RHU, they are reported in ATRRS in accordance with ATRRS table 51 discharge reason codes (see table 4-2).

e. The Reception Battalion Commander has the authority to manage RHU processes and procedures at his/her discretion.

Table 4-2
ATRRS codes for IET Soldier actions

RECBN, BCT, OSUT, AIT	RECBN, BCT, OSUT, AIT		RHU, FTU	RHU, FTU	RHU, FTU		RECBN, BCT, OSUT, AIT
Enter output status	Enter reason code		Enter input status	Output status	Enter reason code		Enter input status
L (recycle out)	< (Transfer to FTU/RHU)		I (Input)	D (Discharge)	Appropriate code in accordance with ATRRS table 5-1 discharge reason codes		
L (recycle out)	< (Transfer to FTU/RHU)		I (Input)	G (Graduate)	No reason code required.		Q (Recycle in)

4-9. Soldiers held for security clearance

a. Process Trainee/Soldiers that enlisted for MOS training and require security clearance eligibility in accordance with Army Regulation 612-201, paragraph 2-3.

b. Unit commanders are authorized to grant interim collateral security clearance eligibility in the name of the Commander, DOD Consolidated Adjudication Facility (DODCAF), Fort Meade, MD, to qualified Trainee/Soldiers of all components in accordance with Army Regulation 380-67, chapter 3, so they may enter into classified training. Unit commanders will review current personnel security adjudicative guidelines for determining eligibility for access to classified information prior to making interim determinations. The intent is to move all qualified Soldiers to the AIT location.

c. Security managers will check the DOD personnel security system of record (currently the Joint Personnel Adjudication System (JPAS)) to ensure the Soldier has the appropriate personnel security investigation (PSI) and security clearance eligibility. If JPAS reflects an open PSI, security managers will also check the security/suitability investigation index (SII) within JPAS to ensure the appropriate PSI has been submitted to and is opened by the Office of Personnel Management. Security managers at initial training sites will contact USAREC G-3 to resubmit the appropriate PSI, as needed.

d. Trainee/Soldiers having enlisted into either MOS 35G, 35N, 35P, 35Q, or 35S and are pending Interim Top Secret with Sensitive Compartmented Information (ITS with SCI) will remain at initial training sites until such eligibility is granted by the DODCAF.

e. Security managers will ensure Soldiers scheduled for training at 229th Military Intelligence Battalion, DLIFLC and Presidio of Monterey, CA, will have the appropriate PSI submitted and open at the Office of Personnel Management prior to Soldier departing initial training. These Soldiers may ship pending ITS with SCI.

f. For MOS listed within table 4-3 and requiring Secret security clearance eligibility, Soldiers who meet Interim Secret eligibility may depart initial training sites, provided, at a minimum, they have a National Agency Check with Local Agency and Credit Check (NACLC) PSI favorably pending at the Office of Personnel Management or the DODCAF. Commanders of AIT are responsible for granting the Interim Secret security clearance eligibility for these MOS.

g. Trainee/Soldiers having known, credible, significant derogatory information, and not having final security clearance eligibility, having enlisted into an MOS listed in table 4-3, are considered security holds and will remain at initial training sites until:

(1) A voluntary renegotiation of MOS is reached, normally within the first 60 days of hold status; or

(2) Receipt of a DODCAF notification denying eligibility for access to classified information, resulting in reclassifying the Soldier into an MOS that does not require security clearance eligibility; or

(3) The 120th day from the PSI submission date, at which time the Soldier will either be reclassified into an MOS not requiring security clearance eligibility or processed for discharge; or

(4) JPAS reflects the appropriate security clearance eligibility.

h. Soldiers with known, credible, significant derogatory information and reclassifying into another MOS requiring security clearance eligibility will not ship until appropriate clearance eligibility requirements for the new MOS have been met.

i. All other Soldiers not identified within table 4-3 will ship to AIT.

j. Soldiers requiring Secret security clearance eligibility for an MOS must meet Interim Secret security clearance eligibility requirements and be granted same to graduate. Soldiers who cannot meet Interim Secret security clearance eligibility when access to classified information is required during AIT or at graduation, whichever comes first, are then considered a security hold.

k. Soldiers whose MOS requires a final security clearance eligibility to graduate from AIT/be awarded the MOS but only meet interim security clearance eligibility requirements will be considered a security hold at graduation. Unless these Soldiers voluntarily reclassify into another MOS that does not require security clearance eligibility, they will remain a security hold until final security clearance eligibility is determined by the DOD CAF.

l. Soldiers with a multiple holdover status will not be considered a security hold until all other holdover standings have been resolved, e.g., medical hold, flagged, remedial training-academic hold.

m. Security holds will be coded appropriately within ATRRS with the code "=." Soldiers that have been granted final security clearance eligibility and subsequently lose the eligibility, for example, due to a serious incident report, will not be coded as ATRRS code "=."

Table 4-3
MOS security clearance eligibility requirements

MOS[1]	LOCATION	AIT REQUIREMENTS
12Y		Interim Secret required by Week 1
13D	Sill	Interim Secret required by Week 1
13F	Sill	Interim Secret required by Week 4
13M	Sill	Interim Secret required by Week 1
13P	Sill	Interim Secret required by Week 1
13R	Sill	Interim Secret required by Week 1
13T	Sill	Interim Secret required by Week 1
14E	Sill	Interim Secret required by Week 1
14G	Sill	Interim Secret required by Week 1
14H	Sill	Interim Secret required by Week 1
14S	Sill	Interim Secret required by Week 1
14T	Sill	Interim Secret required by Week 1
15P	Rucker	Interim Secret required by Week 4
15W	Huachuca	Interim Secret required by Week 1
15Y	Langley/Eustis	Interim Secret required by Week 21
17C	Pensacola	Interim TOP Secret with SCI required by Week 1
25E	Gordon	Interim Secret required by Week 1
25F	Gordon	Interim Secret required by Week 3
27D	Lee	Interim Secret required by Week 4; Final Secret by graduation
31D		Interim Secret required by Week 1
31K		Interim Secret required by Week 1
88N	Lee	Interim Secret required by Week 1; Final Secret by Graduation
94A	Lee	Interim Secret required by Week 4; Final Secret by Graduation
94D	Gordon	Interim Secret required by Week 4; Final Secret by Graduation
94E	Gordon	Interim Secret required by Week 5; Final Secret by Graduation
94F	Gordon	Interim Secret required by Week 1; Final Secret by Graduation
94M	Sill	Interim Secret required by Week 4
94P	Lee	Interim Secret required by Week 4; Final Secret by Graduation
94R	Gordon	Interim Secret required by Week 4; Final Secret by Graduation
94S	Sill	Interim Secret required by Week 4; Final Secret by Graduation
94T	Lee	Interim Secret required by Week 4; Final Secret by Graduation
94Y	Lee	Interim Secret required by Week 4; Final Secret by Graduation
35F	Huachuca	Interim Secret required by Week 1 and ITS with SCI by Week 16
35G	Huachuca	ITS with SCI required by Week 1
35M	Huachuca	Interim Secret required by Week 1 and, at a minimum, an open Single Scope Background Investigation reflected within SII/JPAS
35N	Goodfellow	ITS with SCI required by Week 1 and Final TS with SCI by Week 18
35P	Goodfellow	ITS with SCI required by Week 1 and Final TS with SCI by Week 12
35Q	Pensacola	ITS with SCI required by Week 1
35S	Pensacola	ITS with SCI required by Week 1
35T	Huachuca	Interim Secret required by Week 1 and ITS with SCI required by Week 34
89D	Eglin AFB (Phase 2)	Open SSBI and Interim Secret required by Week 1 of Phase 2 training
		[1] **MOS' change constantly**; contact HQ TRADOC Deputy Chief of Staff, G-2 Security at DSN 501-6170 or 757-501-6170 for latest MOS chart information. [2] Final Secret requirements driven by need for NATO access

4-10. Separations

a. Attaining Army standards is the gauge for successful completion of IET. Commanders will exhaust retraining and counseling procedures before making a determination that a Soldier's performance and potential justify a new start or separation from the service. Commanders will not

begin any separation actions against a Reserve component (RC) Soldier prior to the local ARNG/ USAR liaison personnel counseling the Soldier.

b. Separation of all Soldiers will be in accordance with Army Regulation 635-200 and any other applicable separation provisions. Once the company commander notifies the Soldier that separation action (for example, chapter 11) has been initiated, the Soldier will be discharged within 30 calendar days.

c. Trainee/Soldiers in BCT/OSUT normally are not separated for reasons of lack of motivation or aptitude prior to completion of their second week of training. Time spent in the fitness training unit (FTU) is not counted toward those two weeks. This will provide new trainees a fair adjustment period, and allows the command an opportunity to evaluate and counsel the trainee. However, commanders will ensure that highly disruptive trainees are removed from the platoon environment and the appropriate administrative or disciplinary actions are taken.

d. Medical conditions that existed prior to service (EPTS).

(1) In the course of evaluation for an injury or condition, it may be revealed that the trainee was not medically qualified under procurement medical fitness standards. If the chain of command and medical authorities determine the trainee entered the service with a medical condition that prevents full participation in IET training activities, the trainee may be separated in accordance with Army Regulation 635-200, paragraph 5-11. This provision is applicable only if the condition is discovered within the first six months of the Soldier's enlistment, and the Soldier provides reasonable proof (copy of medical records, sworn statements from parents, etc.) that the injury EPTS.

(2) The EPTS separation process should not be utilized if the trainee received a waiver for the same condition, unless the condition changes and there is a significant safety concern related to the change or condition that prevents the trainee from completing training in any MOS, and appropriate medical authority determines that the condition is not remediable within a reasonable period of time.

e. Commanders will utilize guidance in Army Regulation 635-200, paragraph 11-3b and 5-11d for pregnant Trainee/Soldiers.

f. Chapter 11, Entry Level Performance and Conduct Separations. Prior service AA Soldiers may be discharged for unsatisfactory performance or misconduct under "entry level" status, if they had a break in service of greater than 92 days (per Army Regulation 635-200, Glossary, Section II Terms). For RC Soldiers, "entry level" status terminates 90 days after beginning split training option (STO) phase II or 180 days after entering IET for non-STO Soldiers.

4-11. Transportation of basic combat training (BCT) graduates to AIT locations

a. BCT graduates may travel to AIT locations through various means of transportation, including with family members in POVs. As such, the gaining AIT locations must have a clear understanding of which Soldiers are arriving at what time and by what means of transportation.

The gaining AIT unit must ensure they have cadre available at the transportation nodes at the proper time to ensure these IET Soldiers are properly received and transported to their new training unit.

b. Losing BCT units will transmit a BCT graduate transportation report to the gaining AIT schools no later than the day prior to BCT graduation. This report should include the Soldiers' names, rank, gaining school, transportation mode, and expected arrival date/time.

c. Continued communication is maintained with receiving unit until Soldier is received to ensure resources are expended at the appropriate time/location and have the right capability to transport received Soldiers.

4-12. Conscientious objectors

a. Policy and procedures for processing conscientious objectors are provided in Army Regulation 600-43. Retain Soldiers that have submitted applications in their unit, and assign duties providing minimum practicable conflict with their asserted beliefs, pending final decision on their applications. They are not required to train in the study, use, or handling of arms or weapons.

b. The Soldier is not precluded from taking part in those aspects of training that do not involve the bearing or use of arms, weapons, or munitions. Except for this restriction, conscientious objector applicants are subject to all military orders, discipline, and regulations, to include those on training.

4-13. Reclassified/MOS trained/prior service Soldiers

a. Reclassified/MOS trained and prior service Soldiers are those individuals, in any grade, who have previously completed IET and are attending skill level 1 training in IET units as a result of reclassification or enlistment actions. Reclassified and prior service Soldiers are not considered IET Soldiers; however, they are assigned to IET units. This definition does not apply to those Soldiers who failed to complete the requirements for the award of a MOS as part of the initial IET process. Reclassified and prior service Soldiers must meet all course requirements for graduation (APFT, etc.) and are subject to IET policies, unless otherwise stipulated in this regulation.

b. Policy.

(1) Prior service personnel entering the Active Army are not required to attend BCT if they completed Army or USMC basic training, or completed training for U.S. Air Force (USAF) or USN Special Operations Forces, or USAF Security Police, and have less than a 3-year break in service. (AR 350-1, dated, Aug 14)

(2) Prior service personnel entering the AC will attend Army BCT if they have not completed Army or USMC basic training, or completed training for USAF or USN Special Operations Forces, or USAF Security Police, and have more than a 3-year break in service. (AR 350-1, dated, Aug 14)

(3) Prior service personnel are not considered IET Soldiers but will comply with applicable regulations, standards, and training requirements.

(4) Prior service personnel who enlist for an MOS held during their previous enlistment and have less than a 3 year break in service are assigned directly to operational units.

(5) Prior service personnel who enlist for a MOS not previously held, and have less than a 3 year break in service will attend AIT in the new MOS. If the new MOS is taught in the OSUT mode, the individual Soldier will enter training at a point in training where the AIT portion of the instruction starts and continue until all MOS training is accomplished.

c. Treatment.

(1) Prior service personnel in the pay grade of E-1 through E-4 should be offered non-IET barracks if available and feasible. If not, they may be billeted with the general IET population.

(2) Prior service personnel in the pay grade of E-5 to E-9 are billeted separately from other IET Soldiers. Prior service NCOs are billeted in a separate building when possible. If a separate building is not available, then on a different floor of an IET barracks. If a different floor within the building is not possible, then within a separate room (not in an open bay). Prior service NCOs may be billeted with IET Soldiers as a last resort with approval of the TRADOC CIMT. Requests should be submitted in memorandum format. Billeting NCOs with IET Soldiers is not the intent and should be a last resort.

(3) The billeting of prior service NCOs also applies to reception battalions. Reception battalions will immediately identify prior service personnel and ensure the gaining BCT/OSUT units are informed of the prior service personnel's status, rank, pay grade, and billeting standards. If necessary, prior service BCT/OSUT NCOs may be housed in AIT facilities.

(4) Privileges for reclassified and prior service personnel.

(a) Although reclassified Soldiers are subject to IET policies and procedures, their privileges should be the same as those of permanent party members of equal grade. They are treated with the dignity and respect due their grade.

(b) The unit commander determines specific privileges based on such factors as grade, training performance, self-discipline, motivation, and conduct.

(c) Fraternization between reclassified, prior service Soldiers, IET Soldiers, and cadre is forbidden in accordance with Army regulation 600-20, paragraph 4-14b.

d. Duties/responsibilities.

(1) Commanders may take advantage of the experience and leadership abilities of reclassified and prior service Soldiers, and use them to augment their cadre. However, the primary

duty of reclassified and prior service Soldiers is to attend training and become technically proficient in their new MOS.

(2) Prior service NCOs in training may assist with IET Soldiers with regular cadre oversight after appropriate orientation and certification by the unit commander/first sergeant on TRADOC policy regarding leadership and treatment of IET Soldiers.

(3) AIT/OSUT commanders will evaluate each PS Soldier's proficiency in all areas (not just MOS subjects) and ensure training is provided, as required. Use reclassified and prior service Soldiers who are proficient in common tasks as demonstrators and assistant instructors.

(4) Commanders are encouraged to integrate reclassified and prior service personnel with IET Soldiers during training to enhance training by taking advantage of their knowledge, experience, and leadership abilities.

e. This paragraph is not applicable to individual ready reserve (IRR) Soldiers reactivated to military service. Utilize the guidelines outlined in the IRR mobilization (MOB) training strategy (appendix J).

4-14. MOS retraining/reclassification policy
TRADOC IET retraining/reclassification policy is as follows:

a. A Soldier unable to qualify for their current MOS assignment, due to medical limitations, academic failure, or administrative requirements may be considered for retention in the Army and qualify for reclassification skill training in an alternate MOS, based on the company commander's recommendation and the battalion commander's approval. The Soldier must demonstrate the motivation and potential to successfully complete the reclassification MOS training.

b. In all other cases, properly counsel and process Soldiers for separation not meeting academic standards in accordance with Army regulation 635-200. See appendix I for additional guidance on retraining/reclassification procedures.

4-15. Promotions, awards, and competitions

a. Commanders will conduct promotions of graduating AIT students in accordance with Army Regulation 600-8-19 paragraph 7-13 (this includes USAR/ARNG Soldiers).

b. Commanders are strongly encouraged to utilize meritorious promotion authority granted in Army regulation 600-8-19 paragraph 2-3h(3) to the maximum extent possible.

c. Commanders should establish a comprehensive award system within each TRADOC service school and ATC. This system should provide recognition for both IET Soldiers and cadre personnel. Any award program must meet the requirements of Army regulation 600-8-22, Army Regulation 672-10, and TR 672-6.

BY ORDER OF THE SECRETARY OF THE AIR FORCE

AIR FORCE INSTRUCTION 32-6005

29 JANUARY 2016

Civil Engineering

UNACCOMPANIED HOUSING MANAGEMENT

COMPLIANCE WITH THIS PUBLICATION IS MANDATORY

ACCESSIBILITY: Publications and forms are available on the e-Publishing web site at www.e-Publishing.af.mil for downloading or ordering.

RELEASABILITY: There are no releasability restrictions on this publication.

OPR: HQ USAF/A4CFH

Certified by: HQ USAF/A4CF (Mr. Robert Gill)

Pages: 61

Supersedes: AFI32-6005, 9 October 2008

This instruction implements Air Force Policy Directive (AFPD) 32-60, *Housing*, and Department of Defense (DoD) Manual 4165.63-M, *DoD Housing Management*. This instruction provides guidance, policy, and procedures for managing unaccompanied housing (UH). It interfaces with 10 United States Code (U.S.C.), Section 2775, *Liability of Members Assigned to Military Housing*; Air Force Instruction (AFI) 32-6001, *Family Housing Management*; and AFI 32-6004, *Furnishings Management Program*. It prescribes policy for UH at Air Force installations. It explains adequacy standards for unaccompanied officer quarters (UOQ), unaccompanied noncommissioned officer quarters (UNCOQ), and dormitories, including basic military training and technical training student housing. It also explains assignment and management of UH personnel in UOQs, UNCOQs, and dormitories. This instruction applies to major commands (MAJCOM) and installations, including the Air National Guard (ANG) in Title 10 U.S.C. § status and Air Force Reserve Command (AFRC) units. This instruction requires the collection and maintenance of information protected by the Privacy Act (PA) of 1974, Title 5 U.S.C. Section 552a (AFI 33-332, *Air Force Privacy and Civil Liberties Program*). The authorities to collect and or maintain the records prescribed in this publication are Title 10 U.S.C. Section 8013, *Secretary of the Air Force*, and Executive Order (EO) 9397. The applicable Privacy Act System Notice(s) is available online at http://dpcld.defense.gov/Privacy/SORNsIndex/tabid/5915/Category/11159/department-of-the-air-force.aspx, Systems of Record Notice (SORN), F032 AF CE F, Unaccompanied Personnel Quarters Assignment/Termination. This AFI may be supplemented at any level, but all supplements that directly implement this publication must be routed to AF/A4CF for coordination prior to certification and approval. **(T-1)** Refer recommended changes and

questions about this publication to the office of primary responsibility using Air Force Form (AF Form) 847, *Recommendation for Change of Publication*; route AF Form 847 from the field through the appropriate functional chain of command. The authorities to waive wing/unit level requirements in this publication are identified with a Tier ("T-0, T-1, T-2, T-3") number following the compliance statement. See AFI 33-360, *Publications and Forms Management*, Table 1.1 for a description of the authorities associated with the Tier numbers. Submit requests for waivers through the chain of command to the appropriate Tier waiver approval authority, or alternately, to the Publication OPR for non-tiered compliance items. Ensure that all records created as a result of processes prescribed in this publication are maintained in accordance with (IAW) Air Force Manual (AFMAN) 33-363, *Management of Records*, and disposed of IAW the Air Force Records Disposition Schedule (RDS) in the Air Force Records Information Management System (AFRIMS).

SUMMARY OF CHANGES

This AFI has been totally revised and must be reviewed in its entirety. Major changes include realignment and changes of delegated authority. The rewrite eliminates the requirement for Quarters Improvement Committee (QIC) and the Quarters Improvement Plan (QIP). It also establishes policy for mandatory use of the DoD and Air Force approved automated system, Enterprise Military Housing (eMH). Policy includes UH lease support for personnel at geographically separate areas and Department of State (DoS) Embassies. The rewrite removed government-provided supply items to be 'make available' for dorm residents such as toilet paper, paper towels, and cleaning supplies. The glossary of references and supporting information has been updated.

1.3.1.4. Ensure utilization rates meet or exceed Air Force standards. Review, validate, and submit quarterly metrics to AF/A4CF.

1.3.1.5. In concert with the Installation Commander (IC), identify and determine disposition of surplus UH. Ensure approvals are obtained and real property records adjusted.

1.3.1.6. Approve/disapprove housing constrained locations.

1.3.1.7. Approve/disapprove assignment priority associated with training mission requirements.

1.3.1.8. MAJCOM Commanders responsible for overseas area of responsibility (AOR) will determine applicability of implementation of sex offender disclosure requirements within the theater.

1.3.2. **Air Force Installation Mission Support Center (AFIMSC):** Reserved for future use.

1.4. Installation Responsibilities:

1.4.1. **Installation Commander (hereinafter referred to as the "Commander") will:**

1.4.1.1. Manage UH programs and ensure base leadership involvement. **(T-0)**

1.4.1.2. Establish local UH management policy. **(T-1)**

1.4.1.3. Ensure a UH Management Section within the Civil Engineer (CE) Housing Management element under the CE Installation Management Flight of the Civil Engineer Squadron/Group (CES/CEG). **(T-1)**

1.4.1.4. House unaccompanied Airmen in grades E-1 through E-3 and E-4 with less than 3 years of service (YOS). **(T-1)**

1.4.1.5. Designate and reallocate quarters based on need and optimum utilization. **(T-1)**

1.4.1.6. Maintain unit integrity. See Attachment 1, *Terms,* for definition of unit integrity. **(T-1)**

1.4.1.7. Ensure assignment without regard to race, color, religion, national origin, sex, or sexual orientation (except to provide privacy between members or to avoid adjoining room assignment to opposite gender). **(T-0)**

1.4.1.8. Maintain an optimum utilization rate of 95 percent for all priorities in dormitories, UOQ and UNCOQ, and a minimum utilization rate of 95 percent for Priority 1 and 2 personnel. **(T-1)** See Paragraph 4.2 for assignment priorities.

1.4.1.9. Authorize Priority 1 and 2 personnel to relocate off-base with basic allowance for housing (BAH) when the minimum utilization rate for Priority 1 and 2 personnel exceeds 95 percent. **(T-1)** Approval authority may be delegated, in writing, to the Base Civil Engineer (BCE) or Housing Manager to approve relocation of Priority 2 personnel. The Commander must authorize the relocation of Priority 1 personnel. **(T-1)**

1.4.1.10. Establish a single base-wide BAH waiting list, if possible. **(T-1)** When one base- wide list adversely affects unit integrity or causes undue hardship on Airmen (such

4.6. Assignment Criteria and Procedures. The Air Force assignment standard is one private room for each permanent party Airman (E-1 through E-3 and E-4 with less than 3 YOS). See Paragraph 3.3 for exceptions to adequacy standards.

4.6.1. **Assignment Criteria.**

4.6.1.1. UH Manager assigns member to a private room, including UOQs and UNCOQs, as soon as possible after an eligible member arrives on the installation.

4.6.1.2. Assign members to appropriate UH allocated for their group or squadron to ensure unit integrity.

4.6.1.3. Authorize BAH to inbound Priority 2 members who are E-4s within 60 days of having three YOS so that they may obtain off-base housing immediately upon arrival on station.

4.6.1.4. E-4s residing in dormitories reaching 3 YOS may voluntarily become a Priority 3 and occupy a dormitory on a space-available basis without BAH (**Exception:** E-4s in this category with less than 6 months remaining on station convert to Priority 1). If the government requires a move to another on-base facility, the move is at government expense. Voluntary moves to another on-base facility are at the member's expense. Any subsequent move off base is at government expense.

4.6.1.5. Priority 3 and 4 members relocating from off base into UH on a space-available basis, are not authorized a government-paid move. Lower grade members have precedence for space available assignment.

4.6.1.6. MIL-to-MIL members on separate unaccompanied assignments to a same dependent-restricted location are treated as individual members. Each member is assigned individual UH quarters/room and can be assigned to the same module in 1+1 or 2+2 configurations, but not in a D4A module; joint residence is not allowed as it creates an accompanied housing requirement; and dependent children are not authorized. Other procedures in this paragraph apply.

4.6.2. **Assignment Considerations.** When determining room assignments UH Managers address the following issues:

4.6.2.1. **Males and Females.** UH Managers must house males and females in separate modules but may assign them in the same facility. **(T-1)** A module is either a D4A four-room suite, or the two-room/one bathroom suite in the 1+1 and 2+2 dorms.

4.6.2.2. Smokers and Non-smokers. UH Managers must attempt to assign smokers with smokers and nonsmokers with nonsmokers considering UH room and module configurations. **(T-1)** See **Paragraph 2.20.** If a smoker and nonsmoker are assigned to the same room or module, the rights of the nonsmoker prevail. If a nonsmoker detects second-hand smoke, regardless of its source, the rights of the nonsmoker prevail.

4.6.3. **Assignment Procedures.** UH Managers process following assignment actions, including UOQs and UNCOQs and will:

4.6.3.1. Make assignment/termination actions in writing using approved automated software system. **(T-1)** Ensure Priority 3 and 4 personnel acknowledge, in writing, that: **(T-1)**

Army Regulation 600 85

Personnel General

The Army Substance Abuse Program

Headquarters
Department of the Army
Washington, DC
28 December 2012

UNCLASSIFIED

~~22332-0456~~ ***U.S. Army Human Resources Command (AHRC-PLP-A), 1600 Spearhead Division Avenue, Fort Knox, KY 40122-5001.***

(5) Commander, U.S. Army Human Resources Command considers the request and recommendations for waiver. If the recommendation is received prior to the normal 12-month period (date of grounding to recommendation for waiver) the recommendation will be considered based on the strength of the assessments and the background of the individual aviation person.

Note. All waivers must be reviewed for renewal each year.

i. Aviation personnel that are involved in alcohol related incidents or are otherwise identified and determined by ASAP counselors to be "Nondependent abusers of alcohol" may be "temporarily suspended from aviation duties" for a period of evaluation and review to ensure that the aviation person poses no unusual threat to aviation safety. When the ASAP counselor, local commander and flight surgeon agree that the aviation person is ready to return to flying, the temporary suspension may be lifted, and the aviator may return to flying.

j. Aviation personnel who use illicit drugs, whether or not determined by aviation medical authorities to be medically fit, are subject to disqualification from flying duties in addition to appropriate disciplinary and administrative actions.

k. Aviation personnel, including air traffic controllers, who hold Federal Aviation Administration medical certificates, must comply with Federal Aviation Administration standards on alcohol and other drug use.

l. Alcohol and other drug abuse by Soldiers performing some duties can have a direct, immediate, and life-threatening impact on the health, safety, and security of other Soldiers and civilians. Therefore, Soldiers performing the duties in the MOSs listed below are required to submit a urinalysis specimen a minimum of once in each fiscal year unless they are detailed to duties outside their MOS or are assigned as instructors or to battalion or higher staffs for the entire fiscal year.

(1) 21M Firefighter.
(2) 31B MP.
(3) 31D CID Special Agent.
(4) 31E Corrections Specialist.
(5) 68D Operating Room Specialist.
(6) 68E Dental Specialist.
(7) 68K Medical Laboratory Specialist.
(8) 68P Radiology Specialist.
(9) 68Q Pharmacy Specialist.
(10) 68W Healthcare Specialist.
(11) 68X Mental Health Specialist.
(12) 92R Parachute Rigger.
(13) All officers in the medical corps, dental corps, medical specialist corps, nurse corps, or medical Service corps officers with a primary area of concentration of 67E, 67F, 67G, 71E, 62C, 73A, or 73B.

m. To ensure their continuing fitness for the positions they hold and the integrity of the DTP, all UPLs will submit to urinalysis testing a minimum of once in each 12 month period.

4–9. Drug testing coordinator, battalion prevention leader, Unit Prevention Leader, and observer qualifications, training and certification

a. Since DTCs, BPL, UPLs, and observers perform duties that are crucial to the integrity and success of the ASAP and must be prepared to testify about their actions in court, they must be very carefully selected, trained, and certified to perform their duties. Reserve component DTCs, BPL, UPLs, and observers must meet the same standards as Active Army personnel.

b. Specific requirements for DTC and BPL or UPL qualifications, training, and certification are explained in chapter 9 of this regulation.

c. Observers must—

(1) Be an officer, warrant officer, NCO (E–5 or above), civilian corps member (general schedule (GS–5) ~~National Security Personnel System (NSPS) Pay Band~~ ***or pay grade equivalent), or contract employee (or pay grade*** equivalent). ~~(Commanders are recommended to select unit leaders in the rank of Sergeant First Class or above.)~~

(2) Be the same gender as the Soldier being observed.

(3) Possess unimpeachable moral character and sufficient maturity to preserve the dignity of the Soldier being tested.

(4) Not be currently enrolled within the ASAP Rehabilitation Program.

(5) Not be under investigation for legal, administrative, or substance abuse related offenses.

d. Observers must be briefed on and receive a demonstration of their duties by a UPL each time they are selected to perform them. Before performing their duties, observers must sign a Urinalysis Observation Briefing Memorandum that

Army Regulation 600–9

Personnel-General

The Army Body Composition Program

Headquarters
Department of the Army
Washington, DC
28 June 2013

UNCLASSIFIED

SUMMARY of CHANGE

AR 600-9
The Army Body Composition Program

This major revision, dated 28 June 2013-

- Changes the name of the regulation from the Army Weight Control Program to the Army Body Composition Program (title page and throughout).
- Adds responsibility for Deputy Chief of Staff, G-3/5/7 (para 2-4).
- Replaces U.S. Army Reserve Components Personnel Center with U.S. Army Human Resources Command (para 2-13).
- Deletes requirement to establish an interim process to collect and maintain data for submission in an annual report (para 2-16).
- Deletes specific procedures required prior to attendance at institutional training; clarifies suspension of favorable personnel action (Flag) process to align with current policy (chap 3).
- Deletes specific procedures related to bars to reenlistment and administrative separations (para 3-2).
- Exempts certain categories of Soldiers from meeting the requirements of this regulation, with the exception of the requirement to maintain a Soldierly appearance (para 3-3).
- Replaces medical holding units with Warrior Transition Unit or Community Based Warrior Transition Unit (para 3-3a).
- Adds time frames for specific actions, Army Body Composition Program enrollment, counseling, and evaluations for Soldiers (paras 3-6, 3-7, and table 3-1).
- Updates definition of Army Body Composition Program progress to include 1 percent body fat loss per month (para 3-9*b*).
- Clarifies procedures for Soldiers with a temporary medical condition (para 3-11).
- Defines the Army Body Composition Program failure as 3 nonconsecutive months of less than satisfactory progress (para 3-12).
- Clarifies procedures to request an exception to policy (para 3-17).
- Requires weight scale calibration annually (para B-2*b*).
- Updates weight loss information (app C).
- Updates figures and terminology (throughout).

Headquarters
Department of the Army
Washington, DC
28 June 2013

*Army Regulation 600–9

Effective 28 July 2013

Personnel-General

The Army Body Composition Program

By Order of the Secretary of the Army:

RAYMOND T. ODIERNO
General, United States Army
Chief of Staff

Official:

GERALD B. O'KEEFE
Acting Administrative Assistant
to the Secretary of the Army

History. This publication is a major revision. The portions affected by this major revision are listed in the summary of change.

Summary. This regulation implements guidance in Department of Defense Instruction 1308.3, which implements policy and prescribes procedures governing physical fitness and weight/body fat standards in the Services.

Applicability. This regulation applies to the Active Army, the Army National Guard/Army National Guard of the United States, and the U.S. Army Reserve, unless otherwise stated.

Proponent and exception authority. The proponent of this regulation is the Deputy Chief of Staff, G–1. The proponent has the authority to approve exceptions or waivers to this regulation that are consistent with controlling law and regulations. The proponent may delegate this approval authority, in writing, to a division chief within the proponent agency or its direct reporting unit or field operating agency in the grade of colonel or the civilian equivalent. Activities may request a waiver to this regulation by providing justification that includes a full analysis of the expected benefits and must include formal review by the activity's senior legal officer. All waiver requests will be endorsed by the commander or senior leader of the requesting activity and forwarded through their higher headquarters to the policy proponent. Refer to paragraph 3–17 and AR 25–30 for specific guidance.

Army internal control process. This regulation contains internal control provisions in accordance with AR 11–2 and identifies key internal controls that must be evaluated (see appendix D).

Supplementation. Supplementation of this regulation and establishment of command and local forms are prohibited without prior approval from the Deputy Chief of Staff, G–1 (DAPE–HR), 300 Army Pentagon, Washington, DC 20310–0300.

Suggested improvements. Users are invited to send comments and suggested improvements on DA Form 2028 (Recommended Changes to Publications and Blank Forms) directly to Deputy Chief of Staff, G–1 (DAPE–HR), 300 Army Pentagon, Washington, DC 20310–0300.

Distribution. This publication is available in electronic media only and is intended for command levels A, B, C, D, and E for the Active Army, the Army National Guard/Army National Guard of the United States, and the U.S. Army Reserve.

Contents (Listed by paragraph and page number)

*This regulation supersedes AR 600–9, dated 27 November 2006.

UNCLASSIFIED

Contents—Continued

Appendixes

Table List

Contents—Continued

Figure List

Glossary

Chapter 1
Introduction

1–1. Purpose
This regulation establishes policies and procedures for the implementation of the Army Body Composition Program (ABCP).

1–2. References
Required and related publications and prescribed and referenced forms are listed in appendix A.

1–3. Explanation of abbreviations and terms
Abbreviations and special terms used in this regulation are explained in the glossary.

1–4. Responsibilities
Responsibilities are listed in chapter 2.

1–5. Objectives
a. The primary objective of the ABCP is to ensure all Soldiers achieve and maintain optimal well-being and performance under all conditions.

b. Secondary objectives of the ABCP are to—

(1) Assist in establishing and maintaining—

(a) Operational readiness.

(b) Physical fitness.

(c) Health.

(d) A professional military appearance in accordance with Army Regulation (AR) 670–1.

(2) Establish body fat standards.

(3) Provide procedures by which personnel are counseled to assist in meeting the standards prescribed in this regulation.

Chapter 2
Responsibilities

2–1. General
Soldiers must maintain a high level of physical readiness in order to meet mission requirements. Body composition is one indicator of physical readiness that is associated with an individual's fitness, endurance, and overall health. Individuals with desirable body fat percentages generally exhibit increased muscular strength and endurance, are less likely to sustain injury from weight bearing activity, and are more likely to perform at an optimal level. Soldiers will meet Army body composition standards, as prescribed in this regulation, for the individual and collective benefit to themselves, their unit, and the entire Army.

2–2. Deputy Chief of Staff, G–1
The DCS, G–1 is responsible for the ABCP.

2–3. The Surgeon General
The Surgeon General will—

a. Establish medical examination and medical counseling policies in support of the ABCP.

b. Evaluate the medical aspects of the program.

c. Establish and review procedures for determination of body fat content.

d. Provide guidance on improving the nutritional status of Soldiers.

e. Provide recommendations and/or medical opinions on medical exception to policy requests to the Office of the DCS, G–1.

2–4. Deputy Chief of Staff, G–3/5/7
The DCS, G–3/5/7 will establish training guidance in support of the ABCP.

2–5. Deputy Chief of Staff, G–4
The DCS, G–4 will—

a. Establish food service guidance in support of the ABCP.

b. Publish guidance and information pertaining to the performance nutrition contribution of items served on master menus.

2–6. Chief, National Guard Bureau

The Chief, National Guard Bureau will—

a. Implement and monitor the ABCP in the Army National Guard (ARNG).

b. Take appropriate action under guidance prescribed in this regulation.

2–7. Chief, Army Reserve

The Chief, Army Reserve will—

a. Monitor the ABCP in the U.S. Army Reserve (USAR).

b. Take appropriate action under guidance prescribed in this regulation.

2–8. Commanding General, U.S. Forces Command

The CG, U.S. Army Forces Command will implement and monitor the ABCP in Active Component (AC) units and USAR to include troop program units, reinforcement training units, and continental United States individual mobilization augmentees.

2–9. Commanders of Army commands, Army service component commands, and direct reporting units

The commanders of ACOMs, ASCCs, and DRUs will ensure that Soldiers within their commands are evaluated under the body fat standards prescribed in this regulation.

2–10. Commanding General, U.S. Army Training and Doctrine Command

The CG, U.S. Army Training and Doctrine Command is responsible for ensuring Soldiers are trained on basic performance nutrition at the time of their initial entry.

2–11. School commandants

U.S. Army Training and Doctrine Command school commandants, and commandants and/or commanders of USAR Forces schools, the Army Reserve Readiness Training Center, and/or ARNG-conducted schools (regional noncommissioned officer (NCO) academies, State military academies, or ARNG professional education center courses) will take the actions in accordance with AR 350–1 upon determining that a student arrived for a professional military school who exceeds the body fat standard.

2–12. Commanding General, U.S. Army Medical Command

The CG, U.S. Army Medical Command will—

a. Establish and provide weight reduction and counseling programs in Army medical treatment facilities (MTFs) in support of the ABCP.

b. Provide appropriate literature and training aids for use by Soldiers, supervisors, and commanders in selection of a proper diet.

c. Ensure commanders of overseas major medical commands institute weight reduction and counseling programs in Army medical facilities in support of the ABCP.

2–13. Commanding General, U.S. Army Human Resources Command

The CG, U.S. Army Human Resources Command will—

a. Monitor the ABCP in the Individual Ready Reserve (IRR).

b. Take appropriate action under guidance prescribed in this regulation.

c. Ensure that members applying for tours of active duty, active duty for training (ADT), active duty support, and Active Guard Reserve (AGR) meet the body fat standards prescribed in this regulation. Soldiers who do not meet these standards will not be permitted to enter on active duty, ADT, active duty support, or in AGR status.

2–14. Individuals

Each Soldier (commissioned officer, warrant officer, and enlisted) is responsible for meeting the standards prescribed in this regulation.

2–15. Order issuing officials

Order issuing officials will ensure all temporary duty and permanent change of station orders include the following in the text: "You are responsible for reporting to your next duty station and/or school in satisfactory physical condition, able to pass the Army Physical Fitness Test (APFT), and meet body fat standards in accordance with AR 600–9."

2–16. Commanders and supervisors

Commanders and supervisors (Active Army and Reserve Component (RC)) will—

a. Implement the ABCP, to include evaluation of the military appearance of all Soldiers under their jurisdiction and measurement of body fat as prescribed in this regulation.

b. Ensure the continued evaluation of all Soldiers under their command or supervision against the body fat standards prescribed in this regulation.

c. Review monthly Suspension of Favorable Personnel Actions Management Report (AAA–095) for all Soldiers who are flagged or have been flagged within the past 36 months for failing to meet body fat standards.

d. Forward a complete ABCP file (see para 3–8) to the gaining unit on each Soldier who conducts a permanent change of station and is flagged for noncompliance with body fat standards.

2–17. Health care personnel

Health care personnel will—

a. Assist commanders and supervisors in ensuring that individuals who exceed body fat standards receive nutrition and weight reduction counseling from a registered dietitian, if available. If a registered dietitian is not available, nutrition and weight reduction counseling may be provided by a health care provider, to include nurse practitioner, physician assistant, or medical doctor.

b. Identify those individuals who have a pathological condition requiring medical treatment.

c. Evaluate Soldiers who exceed body fat standards in accordance with this regulation.

d. Advise Soldiers that while various medical conditions, environmental conditions, functional limitations (temporary or permanent physical profiles), and/or medications may contribute to weight gain, they are still required to meet the body fat standard established in this regulation. The DCS, G–1 is the exception to policy approval authority (see para 3–17) for special considerations.

e. Refer Soldiers to appropriate specialist for nutrition and exercise counseling, if indicated.

f. At the request of a commander, provide education and information to Soldiers on healthy eating behaviors.

2–18. Designated unit fitness training noncommissioned officer or master fitness trainer

A designated unit fitness training NCO or master fitness trainer will—

a. Prescribe proper exercise and fitness techniques, according to Field Manual (FM) 7–22, to assist Soldiers in meeting and maintaining body fat standards.

b. Assist commanders in developing programs that establish a physical fitness program in accordance with FM 7–22.

c. Train other command designated NCOs in proper height, weight, and body circumference methodology to assess body fat composition.

Chapter 3
Army Body Composition Program

3–1. Overview

Soldiers are subject to many demands and challenges that may impact individual readiness. The ABCP provides commanders a systematic approach to enforce military standards across the unit, while supporting Soldiers with the resources they need to return to an optimum level of individual readiness.

3–2. Standard

a. Soldiers are required to meet the prescribed body fat standard, as indicated in appendix B. Soldiers will be screened every 6 months, at a minimum, to ensure compliance with this regulation.

b. The only authorized method of estimating body fat is the circumference-based tape method outlined in appendix B.

c. Commanders are authorized to use the weight for height table (see app B) as a screening tool in order to expedite the semi-annual testing process. If Soldiers do not exceed the authorized screening table weight for their age and measured height, no body fat assessment is required.

d. Commanders have the authority to direct a body fat assessment on any Soldier that they determine does not present a Soldierly appearance, regardless of whether or not the Soldier exceeds the screening table weight for his or her measured height.

e. Soldiers identified as exceeding the body fat standard will be flagged in accordance with AR 600–8–2 and enrolled in the ABCP. They must meet the body fat standard in this regulation in order to be released from the program.

3–3. Exemptions

a. Soldiers assigned or attached to a Warrior Transition Unit or Community Based Warrior Transition Unit must meet the body fat standard. Soldiers with special considerations may request a temporary exception to policy. See paragraph 3–17.

b. The following Soldiers are exempt from the requirements of this regulation; however, they must maintain a Soldierly appearance:

(1) *Soldiers with major limb loss.* Major limb loss is defined as an amputation above the ankle or above the wrist, which includes full hand and/or full foot loss. It does not include partial hand, foot, fingers, or toes.

(2) *Soldiers on established continued on active duty and/or continued on active Reserve status.* See AR 635–40.

(3) *Pregnant and postpartum Soldiers.* See paragraph 3–15.

(4) *Soldiers who have undergone prolonged hospitalization for 30 continuous days or greater.* See paragraph 3–16.

(5) *New recruits.* These recruits, regardless of component, will have 180 days from entry to active service to meet the retention body fat standards established in this regulation. Failure to achieve retention body fat standards at 180 days will result in Soldiers being flagged in accordance with AR 600–8–2 and enrolled in the ABCP.

c. Soldiers that do not meet the criteria of paragraph *b*, above have the option to request a temporary exception to policy. See paragraph 3–17.

3–4. Weigh-in and body fat assessment

a. Weigh-ins and body fat assessments will be conducted in accordance with appendix B. All Soldiers will be weighed every 6 months, at a minimum.

b. In order to ensure the ABCP does not interfere with Soldier performance on the APFT, commanders and supervisors are encouraged to allow a minimum of 7 days between APFT and weigh-in, if feasible. Some Soldiers that are close to exceeding the screening weight may attempt to lose weight quickly in the days leading up to a weigh-in. This practice may result in the Soldier being unable to perform his or her best on the APFT, if the two events are scheduled close together.

c. Routine weigh-ins will be accomplished at the unit level. Percent body fat assessments will be accomplished by company or similar level commanders (or their designee) in accordance with standard methods prescribed in appendix B. Soldiers will be measured by trained individuals of the same gender. If a trained individual of the same gender is not available to conduct the measurements, a female Soldier will be present when a male measures a female, and a male Soldier will be present when a female measures a male. IRR members on annual training, ADT, and special ADT will have a weigh-in and body fat assessment (if required) by the unit to which they are attached.

d. Units maintain height, weight, and body fat assessment data according to unit policy. The height, weight, and body fat percent may be entered on the Department of the Army (DA) Form 705 (Army Physical Fitness Test Scorecard) but they are no longer required entries. Units may track height and weight on a centralized roster, the DA Form 705, and on the DA Form 5500 (Body Fat Assessment Worksheet - Male) or DA Form 5501 (Body Fat Assessment Worksheet - Female) if a body fat assessment is required.

3–5. Enrollment in the Army Body Composition Program

a. Active Army and RC Soldiers who exceed body fat standards in appendix B will be enrolled in the unit ABCP. Enrollment in the ABCP starts on the day that the Soldier is notified by the unit commander (or designee) that he or she has been entered in the program (see para 3–6 for guidance on notification counseling).

b. While enrolled, Soldiers will be provided exercise guidance by the unit master fitness trainer and/or unit fitness training NCO in accordance with FM 7–22; nutrition counseling by registered dietitian (or health care provider, if a dietitian is not available); and assistance in behavioral modification, as appropriate, to help them attain the requirements of the Army.

c. Initial entry Soldiers who exceed body fat standards after 180 days from date of entry to active service will be entered in the ABCP and flagged under the provisions of AR 600–8–2 by the unit commander.

3–6. Actions, counselings, and evaluations for Active Component and Reserve Component Soldiers on active duty

The following actions are required when a Soldier is determined to be exceeding the body fat standard (see table 3–1):

a. Notification counseling. In accordance with AR 600–8–2, the commander has 3 working days to Flag the Soldier using DA Form 268 (Report to Suspend Favorable Personnel Actions (FLAG)) and 2 working days from initiation of DA Form 268 to counsel and/or notify and enroll the Soldier in the ABCP. The effective date of the DA Form 268 flagging action is the date that the Soldier is found to be noncompliant. Notification counseling documentation will be completed in accordance with figure 3–1. During this notification counseling, Soldiers will be advised they—

(1) Have a DA Form 268 placed on their record to suspend favorable personnel actions. Some of the ramifications of the flagging action include:

(a) Are nonpromotable (to the extent such nonpromotion is permitted by law).

(b) Will not be assigned to command, command sergeant major, or first sergeant positions.

(c) In accordance with AR 350–1, are not authorized to attend military schools and institutional training courses.

(2) Are enrolled in the ABCP effective immediately. While enrolled they—

(a) Must read the online U.S. Army Public Health Command (USAPHC) Technical Guide (TG) 358 within 14 days of enrollment and schedule an appointment with a dietitian, if available, or health care provider.

(b) Must complete and return their Soldier Action Plan (refer to para *b*, below) to the commander within 14 days of the notification counseling.

(c) Are required to meet with a dietitian or health care provider within 30 days of enrollment in the ABCP, bring a copy of the commander's request for nutrition counseling (fig 3–2) and their Soldier Action Plan to the dietitian for review, and provide the commander a memorandum signed by the dietitian (or health care provider if a dietitian is not available) verifying that the nutritional counseling took place.

(d) Must participate in unit monthly ABCP assessments to document their progress.

(e) Must meet the body fat standard in order to be released from the ABCP.

(f) Must demonstrate satisfactory progress, as defined in paragraph 3–9*b*, while enrolled in the ABCP and understand that failure to do so will result in bar to reenlistment or initiation of separation proceedings.

(g) May request a medical examination if there is reason to believe that there is an underlying medical condition that may be the direct cause of weight gain or the direct cause of the inability to lose weight or body fat.

(3) Must acknowledge enrollment in the ABCP by memorandum to the commander (see fig 3–3) within 2 working days of notification of enrollment.

DEPARTMENT OF THE ARMY
ORGANIZATION
STREET ADDRESS
CITY STATE ZIP

REPLY TO ATTENTION OF

OFFICE SYMBOL Date

MEMORANDUM FOR (*Soldier's Name, Unit*)

SUBJECT: Army Body Composition Program Enrollment

1. You have been determined to exceed the body fat standard. Effective today you are enrolled in the Army Body Composition Program (ABCP). While enrolled, you will complete the following in accordance with the timeline outlined in AR 600-9, paragraph 3-6 for Active Component and Reserve Component Soldiers on active duty or paragraph 3-7 for Reserve Component Soldiers not on active duty:

a. Read the online USAPHC TG 358 (Army Weight Management Guide) available at http://phc.amedd.army.mil/PHC%20Resource%20Library/USAPHC_TG_358_Army_Weight_Management_Guide.pdf.

b. Complete and submit the Soldier Action Plan within 14 days of enrollment to the commander.

c. (*May*) or (*Must*) meet with a registered dietician within 30 days of enrollment and provide a memorandum from the health care provider stating nutritional counseling took place.

d. Participate in monthly unit body fat assessments.

e. Participate in commanders' and self-directed physical fitness programs within the parameters of any existing temporary or permanent profile.

f. May request a medical examination.

2. You have been flagged under the provisions of AR 600-8-2 and entered in a body composition program. A DA Form 268 (Report to Suspend Favorable Personnel Actions (FLAG)) has been placed in your record. Some ramifications of this flagging action include:

a. You are nonpromotable (to the extent such nonpromotion is permitted by law).

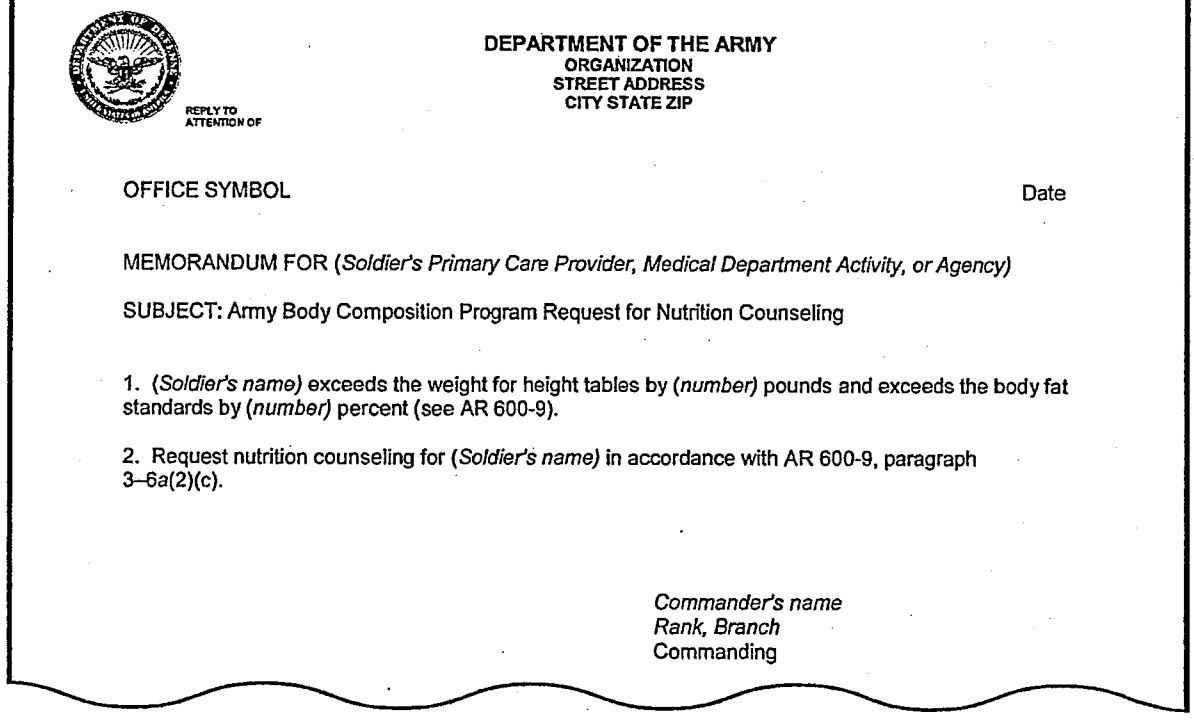
b. You will not be assigned to command, command sergeant major, or first sergeant positions.

c. You are not authorized to attend professional military schools and institutional training courses.

3. A goal of 3 to 8 pounds of weight loss or 1% body fat reduction per month is considered to be satisfactory progress. Failure to make satisfactory progress or achieve the body fat standard will result in a bar from reenlistment or separation from service. You must meet the body fat standard to be released from the ABCP.

Commander's Name
Rank, Branch
Commanding

Figure 3–1. Sample of initial Soldier notification counseling



DEPARTMENT OF THE ARMY
ORGANIZATION
STREET ADDRESS
CITY STATE ZIP

REPLY TO ATTENTION OF

OFFICE SYMBOL

Date

MEMORANDUM FOR (*Soldier's Primary Care Provider, Medical Department Activity, or Agency)*

SUBJECT: Army Body Composition Program Request for Nutrition Counseling

1. (*Soldier's name)* exceeds the weight for height tables by (*number)* pounds and exceeds the body fat standards by (*number)* percent (see AR 600-9).

2. Request nutrition counseling for (*Soldier's name)* in accordance with AR 600-9, paragraph 3–6*a*(2)(c).

Commander's name
Rank, Branch
Commanding

Figure 3–2. Sample of request for nutrition counseling

b. Soldier Action Plan. Within 14 days of the notification counseling, the Soldier will respond to the commander with a Soldier Action Plan confirming that he or she has read USAPHC TG 358, provide date and time of scheduled nutrition counseling, and indicate what approach he or she intends to use to work towards meeting the body fat standard. As a part of the Soldier Action Plan, the Soldier must complete the Army MOVE!23 (http://usaphcapps.amedd.army.mil/move23/register.asp) interactive questionnaire, review the survey results, and record the retrieval code. During the nutrition counseling, the Soldier should provide this retrieval code to the dietitian or health care provider to enable him or her to review the Soldier's responses and provide feedback. The Soldier has the option to modify his or her plan while enrolled in the ABCP (for example, a Soldier may initially opt to follow a commercial weight loss program, but then 2 months later decide to enroll in a no-cost internet-based program). A sample Soldier Action Plan is at figure 3–4.

DEPARTMENT OF THE ARMY
ORGANIZATION
STREET ADDRESS
CITY STATE ZIP

REPLY TO ATTENTION OF

OFFICE SYMBOL Date

MEMORANDUM FOR Commander, *(Unit)*

SUBJECT: Army Body Composition Program Enrollment

1. I understand my responsibilities to achieve the body fat standards.

2. I will have my weight and body fat assessed and recorded monthly or during unit training assemblies, as applicable.

3. I will read the online USAPHC TG 358 (Army Weight Management Guide) (http://phc.amedd.army.mil/PHC%20Resource%20Library/USAPHC_TG_358_Army_Weight_Management_Guide.pdf).

4. I will participate in commanders' and self-directed physical fitness programs within the parameters of any existing temporary or permanent profile.

5. I will complete the Soldier Action Plan within 14 days of enrollment in the ABCP and submit to you.

Paragraphs 6 and 7 are additional requirements for Active Component and Reserve Component Soldiers on active duty.

6. I will meet with a registered dietician or healthcare professional (in the absence of a dietitian) and provide you a memorandum from the health care provider stating nutritional counseling took place.

7. I (*do*) or (*do not*) request a medical examination.

Soldier's Name
Rank (*Branch* or *USA*)

Figure 3–3. Sample of Soldier acknowledgment of enrollment in the Army Body Composition Program

DEPARTMENT OF THE ARMY
ORGANIZATION
STREET ADDRESS
CITY STATE ZIP

REPLY TO ATTENTION OF

OFFICE SYMBOL

Date

MEMORANDUM FOR Commander, *(Unit)*

SUBJECT: Soldier Action Plan for the Army Body Composition Program

1. I, *(Soldier's name)*, understand my responsibilities to meet the Army body fat standards and to have my body fat measured and recorded monthly until I meet standards per AR 600-9.

2. I have read USAPHC TG 358 (Army Weight Management Guide) and familiarized myself with the contents. In addition, I understand it is my responsibility to take action and seek out resources to improve my eating choices, as necessary, to assist in meeting Army readiness requirements.

3. I have completed the Army MOVE!23 interactive questionnaire at http://usaphcapps.amedd.army.mil/move23/register.asp. In addition, I reviewed the analysis and recorded my retrieval code for review during my nutrition counseling.

4. I have selected one of the following weight loss or nutrition counseling options as outlined in USAPHC TG 358:

Option A: Weight loss program at the installation medical treatment facility (MTF)
Appointment: *(month/day/year)* at *(time)*

Option B: Registered dietitian visits (if MTF does not have a weight loss program)
Appointment: *(month/day/year)* at *(time)*

Option C: Approved online weight loss program (at own expense)
Name of program: *(program name)*

Option D: Approved commercial weight loss program (at own expense)
Name of program: *(program name)*

Option E: Self-directed program (attach program plan)

Paragraph 5 is an additional requirement for Active Component and Reserve Component Soldiers on active duty only.

5. Per AR 600-9, I have scheduled an appointment with a registered dietitian or health care professional, in the absence of a registered dietitian, at the MTF for nutrition and weight loss education within 30 days of counseling by the commander. I will bring a copy of my Soldier Action Plan to the dietitian appointment for review.
Appointment Date: (*month/day/year*) at (*time*)

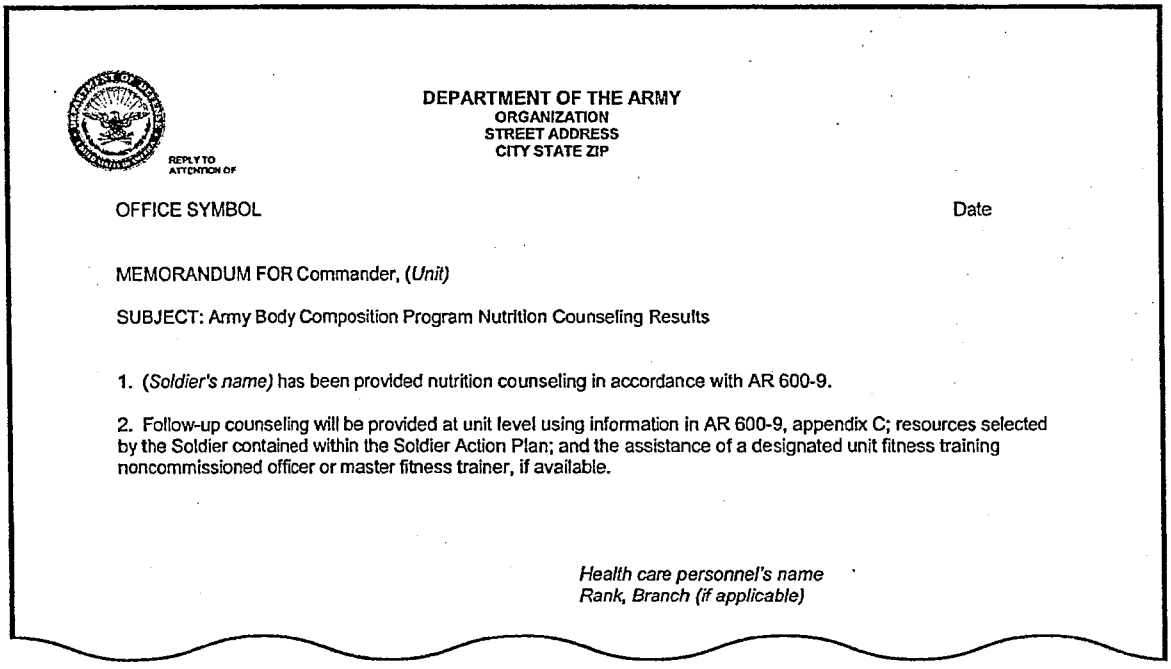
6. By my signature below, I acknowledge, understand, accept, and agree to comply with the information contained in USAPHC TG 358 and as indicated above.

Soldier's signature
Soldier's name
Rank, (Branch or USA)

Commander's signature
Commander's name
Rank, Branch
Commanding

Figure 3–4. Sample of Soldier Action Plan

c. Nutrition counseling. The Soldier has 30 days after enrollment in the ABCP to meet with a dietitian (or health care provider, if a dietitian is not available) to receive nutrition counseling. Soldiers will schedule this appointment and coordinate any absence with their supervisory chain. Soldiers will provide the commander a memorandum signed by a dietitian or health care provider verifying that the nutrition counseling took place. A sample memorandum is at figure 3–5.



DEPARTMENT OF THE ARMY
ORGANIZATION
STREET ADDRESS
CITY STATE ZIP

REPLY TO ATTENTION OF

OFFICE SYMBOL Date

MEMORANDUM FOR Commander, (*Unit*)

SUBJECT: Army Body Composition Program Nutrition Counseling Results

1. (*Soldier's name*) has been provided nutrition counseling in accordance with AR 600-9.

2. Follow-up counseling will be provided at unit level using information in AR 600-9, appendix C; resources selected by the Soldier contained within the Soldier Action Plan; and the assistance of a designated unit fitness training noncommissioned officer or master fitness trainer, if available.

Health care personnel's name
Rank, Branch (if applicable)

Figure 3–5. Sample of nutrition counseling results

3–7. Actions, counselings, and evaluations for Reserve Component Soldiers not on active duty

The following is required when a Soldier is determined to exceed the body fat standard (see table 3–1):

a. Notification counseling. In accordance with AR 600–8–2, the commander has until the final unit training assembly of that weekend's multiple unit training assembly (MUTA) to Flag the Soldier using DA Form 268. Soldiers will be counseled regarding the initiation of the DA Form 268 prior to the conclusion of the first training period following the date the flagging action was initiated in accordance with AR 600–8–2. The effective date of the flagging action is the date the Soldier is found to be noncompliant. During this notification counseling, Soldiers will be advised they—

(1) Have a DA Form 268 placed on their record to suspend favorable personnel actions. Some of the ramifications of the flagging action include:

(a) Are nonpromotable (to the extent such nonpromotion is permitted by law).

(b) Will not be assigned to command, command sergeant major, or first sergeant positions.

(c) In accordance with AR 350–1, are not authorized to attend military schools and institutional training courses.

(2) Are enrolled in the ABCP effective immediately. While enrolled they—

(a) Must read the USAPHC TG 358 within 14 days of enrollment. An appointment with a dietitian is optional at the Soldier's own expense.

(b) Must complete and return their Soldier Action Plan (refer to para *b*, below) to the commander prior to the conclusion of the first training period after being notified of enrollment in the ABCP.

(c) Must participate in unit monthly ABCP assessments to document their progress.

(d) Must meet the body fat standard in order to be released from the ABCP.

(e) Must demonstrate satisfactory progress, as defined in paragraph 3–9*b*, while enrolled in the ABCP and understand that failure to do so will result in bar to reenlistment, initiation of separation proceedings, or a transfer into the IRR.

(f) May request a medical examination if there is reason to believe that there is an underlying medical condition that may directly contribute to weight gain or prevent weight or body fat loss. This exam is at the Soldier's own expense.

(3) Must acknowledge enrollment in the ABCP by memorandum to the commander (see fig 3–3) no later than the following MUTA after the notification of enrollment.

b. Soldier Action Plan. At the next scheduled MUTA following ABCP enrollment notification counseling, Soldiers will respond to the commander with a Soldier Action Plan confirming that they have read USAPHC TG 358. As a part of the Soldier Action Plan, Soldiers must complete the Army MOVE!23 (http://usaphcapps.amedd.army.mil/move23/register.asp) interactive questionnaire, review the survey results, and record their retrieval code. The retrieval code is to be recorded in the event the Soldiers choose to review the results with a dietitian or health care provider during a nutrition counseling appointment. Soldiers have the option to modify their plan while enrolled in the ABCP (for example, a Soldier may initially opt to follow a commercial weight loss program, but then 2 months later decide to enroll in a no-cost internet-based program). A sample Soldier Action Plan is at figure 3–4.

c. Nutrition counseling. This is optional at the Soldier's own expense.

Table 3–1
Summary of Army Body Composition Program-related actions, counseling, and evaluations

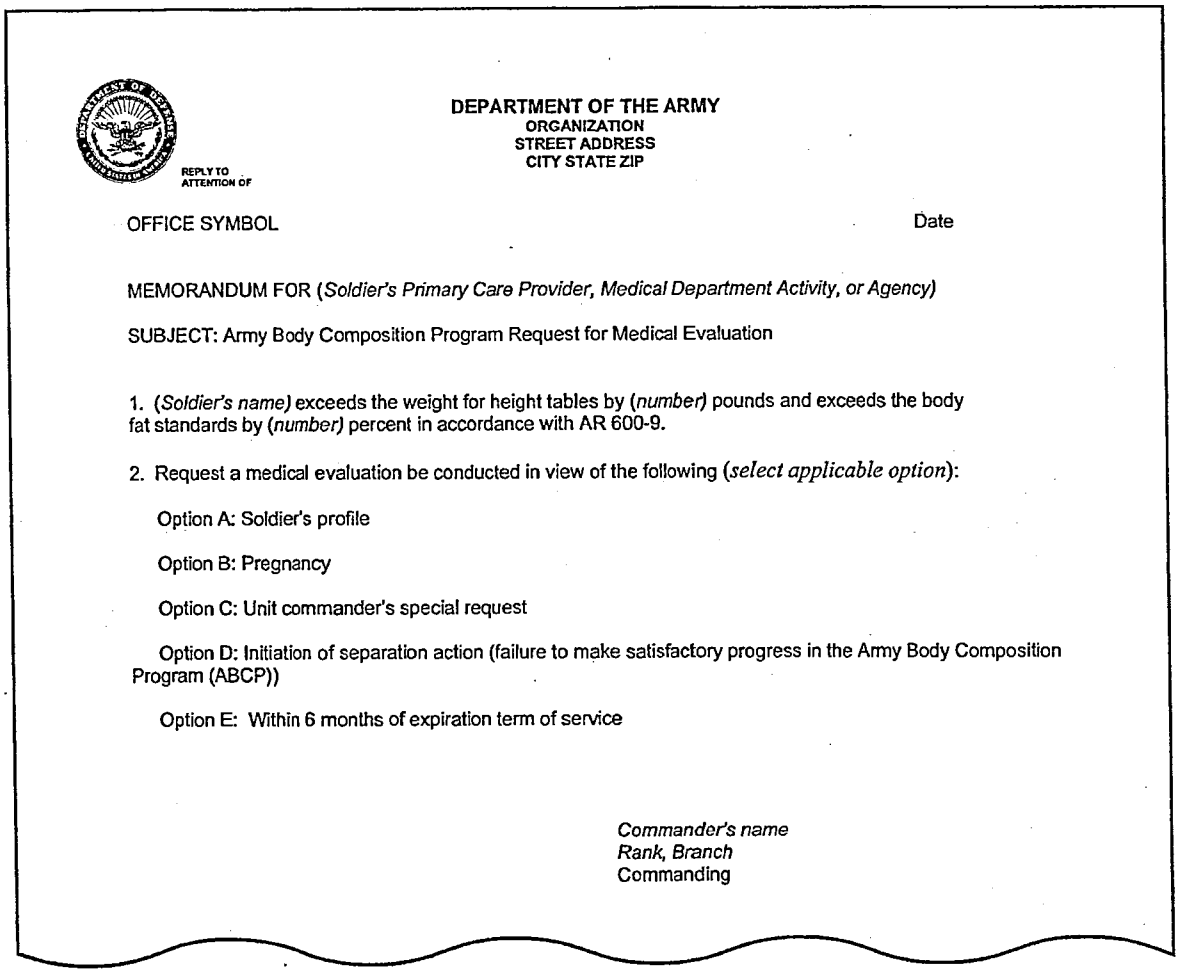
Action, counseling, and/or evaluation	Who	Requirement	Timing	
			AC and RC on active duty	RC not on active duty
Flagging action (DA Form 268)	Commander	Mandatory	3 working days (after Soldier determined to exceed body fat standard)	Before end of MUTA in which Soldier is determined to exceed body fat
Notification counseling	Commander	Mandatory	2 working days from when DA Form 268 is initiated	No later than the next MUTA after Soldier is determined to exceed body fat
Soldier acknowledgment in ABCP	Soldier	Mandatory	2 working days (after Soldier receives notification counseling)	No later than the next MUTA after the notification counseling
Read USAPHC TG 358 and complete Army MOVE!23 Questionnaire	Soldier	Mandatory	14 days (after Soldier receives notification counseling)	14 days (after Soldier receives notification counseling)
Soldier weight and body fat assessment	Commander/ Designee	Mandatory	Monthly	Monthly
Soldier Action Plan	Soldier	Mandatory	14 days (after Soldier receives notification counseling)	No later than the next MUTA after the notification counseling
Nutrition counseling memorandum	Dietitian	Mandatory (AC and RC on active duty only)	Within first 30 days (after Soldier receives notification counseling)	Not applicable
Medical evaluation memorandum	Medical professional	Optional	Upon enrollment in ABCP (Soldier or commander may request it)	Upon enrollment in ABCP (Soldier may request it) at Soldier's own expense
		Mandatory (AC only)	Soldier is pregnant Prior to bar to reenlistment or separation actions (commander must request it)	Soldier is pregnant (provides documentation from health care provider)

3–8. Administrative requirements

Commanders must maintain an ABCP file at the unit on each Soldier enrolled in the program. Each file must include, at a minimum, the following for each enrollment:

a. DA Form 268 initiating the flagging action.
b. DA Form 5500 or DA Form 5501 from enrollment and each monthly assessment.
c. Notification counseling (see fig 3–1).
d. Soldier Action Plan (see fig 3–4).
e. Nutrition counseling results memorandum (AC and RC on active duty only) (see fig 3–5).
f. Medical evaluation request memorandum(s), if indicated (AC and RC on active duty only) (see fig 3–6).
g. Medical evaluation results, if indicated (AC and RC on active duty only) (see fig 3–7).

h. Release from ABCP counseling memorandum from the unit commander (see fig 3–8).
i. Copy of DA Form 3349 (Physical Profile), if indicated.



DEPARTMENT OF THE ARMY
ORGANIZATION
STREET ADDRESS
CITY STATE ZIP

REPLY TO ATTENTION OF

OFFICE SYMBOL

Date

MEMORANDUM FOR (*Soldier's Primary Care Provider, Medical Department Activity, or Agency)*

SUBJECT: Army Body Composition Program Request for Medical Evaluation

1. (*Soldier's name)* exceeds the weight for height tables by (*number)* pounds and exceeds the body fat standards by (*number)* percent in accordance with AR 600-9.

2. Request a medical evaluation be conducted in view of the following (*select applicable option*):

Option A: Soldier's profile

Option B: Pregnancy

Option C: Unit commander's special request

Option D: Initiation of separation action (failure to make satisfactory progress in the Army Body Composition Program (ABCP))

Option E: Within 6 months of expiration term of service

Commander's name
Rank, Branch
Commanding

Figure 3–6. Sample of request for medical evaluation

REPLY TO ATTENTION OF

DEPARTMENT OF THE ARMY
ORGANIZATION
STREET ADDRESS
CITY STATE ZIP

OFFICE SYMBOL

Date

MEMORANDUM FOR Commander, *(Unit)*

SUBJECT: Army Body Composition Program Medical Evaluation Results

1. This memorandum is to provide information concerning the evaluation of (*Soldier's name)* in accordance with AR 600-9.

2. Based on my examination and evaluation, the Soldier listed above is (*select applicable option*):

Option A: Medically cleared to fully participate in the Army Body Composition Program (ABCP).

Option B: Not medically cleared to participate in the ABCP.

3. If not medically cleared to fully participate in the ABCP, the following applies (*select applicable option*):

Option A: The Soldier is pregnant and is temporarily exempt from the requirements of the ABCP; in accordance with AR 600-9, paragraph 3-15.

Option B: The Soldier has an underlying temporary medical condition that directly causes weight gain and/or prevents weight loss, which requires treatment. The Soldier can participate in the ABCP but should not be penalized (processed for separation/bar) if unable to show progress. The estimated time before the Soldier can fully participate in the ABCP is *(specify number, not to exceed 6)* months, in accordance with AR 600-9, paragraph 3-11.

Option C: The Soldier has a permanent medical condition that requires referral to a medical evaluation board or physical evaluation board. The Soldier can participate in the ABCP as required, however, he or she will not be penalized (processed for separation/bar) if unable to show progress. If the board results determine Soldier is fit for duty (retained) and the Soldier is still not in compliance with AR 600-9, the Soldier will be fully enrolled in the ABCP and required to show satisfactory progress.

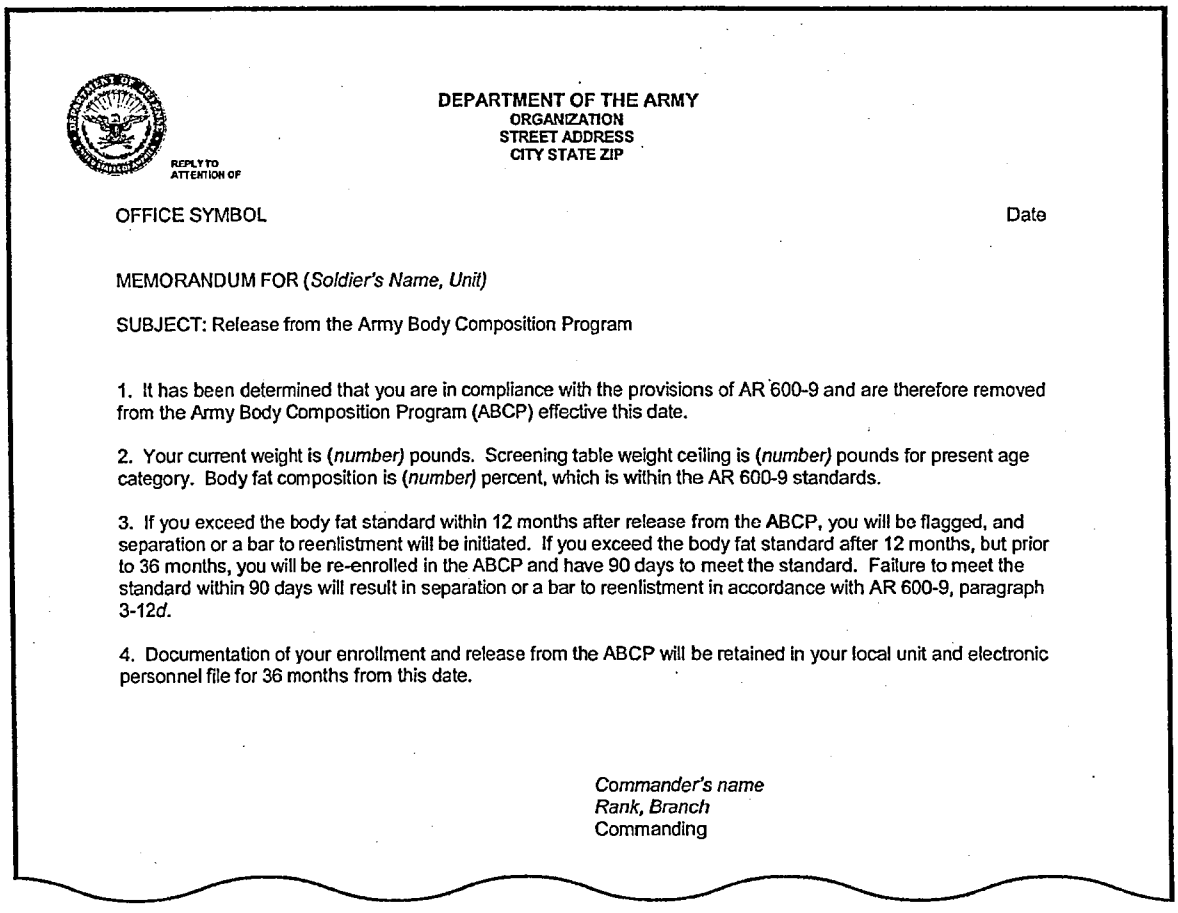
4. If medically cleared, the Soldier will be enrolled in or continued in the ABCP and administratively handled in accordance with AR 600-9.

5. The Soldier may participate in unit physical training (*fully*) or (*within exercise restrictions outlined in the Soldier's temporary or permanent Physical Profile (DA Form 3349)*).

6. Point of contact for this memorandum is the undersigned at (*email address and phone number*).

Health care personnel's name
Rank, Branch (if applicable)

Figure 3–7. Sample of medical evaluation results



DEPARTMENT OF THE ARMY
ORGANIZATION
STREET ADDRESS
CITY STATE ZIP

REPLY TO ATTENTION OF

OFFICE SYMBOL Date

MEMORANDUM FOR (*Soldier's Name, Unit)*

SUBJECT: Release from the Army Body Composition Program

1. It has been determined that you are in compliance with the provisions of AR 600-9 and are therefore removed from the Army Body Composition Program (ABCP) effective this date.

2. Your current weight is (*number)* pounds. Screening table weight ceiling is (*number)* pounds for present age category. Body fat composition is (*number)* percent, which is within the AR 600-9 standards.

3. If you exceed the body fat standard within 12 months after release from the ABCP, you will be flagged, and separation or a bar to reenlistment will be initiated. If you exceed the body fat standard after 12 months, but prior to 36 months, you will be re-enrolled in the ABCP and have 90 days to meet the standard. Failure to meet the standard within 90 days will result in separation or a bar to reenlistment in accordance with AR 600-9, paragraph 3-12*d*.

4. Documentation of your enrollment and release from the ABCP will be retained in your local unit and electronic personnel file for 36 months from this date.

Commander's name
Rank, Branch
Commanding

Figure 3–8. Sample of release from the Army Body Composition Program

3–9. Monitoring Soldier progress in the Army Body Composition Program

a. Approximately every 30 days (or during unit assemblies for RC not on active duty), commanders will conduct a monthly ABCP assessment to measure Soldier progress, with results annotated on DA Form 5500 or DA Form 5501. During monthly assessments, every Soldier enrolled in the ABCP will be weighed and have a body fat assessment conducted in order to document weight and fat loss progress.

b. A monthly loss of either 3 to 8 pounds or 1 percent body fat are both considered to be safely attainable goals that enable Soldiers to lose excess body fat and meet the body fat standards. Soldiers that meet either of these goals are considered to be making satisfactory progress in the ABCP.

c. When necessary, commanders and supervisors will provide additional support, guidance, and resources to enhance Soldier's success. This may include time to participate in ongoing nutritional counseling or weight loss programs as prescribed by the dietitian or health care provider. Helpful tips for commanders and supervisors are located in appendix C.

3–10. Medical evaluation

a. A medical evaluation is required when:

(1) Requested by the unit commander.

(2) Requested by the Soldier (at own expense for RC Soldier not on active duty).

(3) Soldier is being considered for separation for failure to make satisfactory progress in the ABCP (applies to AC and RC on active duty only).

(4) Soldier is within 6 months of expiration term of service after the initiation of a reenlistment bar for failure to make satisfactory progress in the ABCP.

b. The health care provider will conduct a medical evaluation to ensure the Soldier can participate in the ABCP and

rule out any underlying medical condition that may be a direct cause of significant weight gain or directly inhibit weight or body fat loss. If an underlying medical condition is found, the following applies:

(1) If the medical condition is temporary and can be controlled with medication or other medical treatment and meets the retention standards of AR 40–501, the health care provider will—

(a) Initiate treatment.

(b) In accordance with AR 40–501, prepare a temporary profile in the e-Profile application within the Medical Operational Data System (MODS) (https://apps.mods.army.mil) listing any functional limitations that would prevent the Soldier from fully participating in the ABCP.

(c) Complete the memorandum (fig 3–7) and return to the commander for enrollment in the ABCP.

(d) Refer to appropriate specialist for nutritional and exercise counseling.

(e) RC personnel not on active duty may choose to self-refer to their personal physician (at their own expense) for further evaluation or treatment.

(2) If the medical condition does not meet medical retention standards of AR 40–501 (see medical fitness standards for retention and separation, including retirement) the health care provider will refer the Soldier to a medical evaluation board.

c. Aircraft crewmembers exceeding the body fat standards will be referred to a flight surgeon for medical evaluation and determination of impact on flight status.

d. Health care providers will not use the e-Profile application within the MODS (https://apps.mods.army.mil) to recommend exemption from ABCP for temporary medical conditions. Health care providers will use the medical evaluation results memorandum (fig 3–7) for this purpose.

3–11. Temporary medical condition

a. All Soldiers found to exceed the allowable body fat standard will have a DA Form 268 initiated and be enrolled in the ABCP.

b. Soldiers found to have a temporary medical condition that directly causes weight gain or prevents weight or body fat loss will have up to 6 months from the initial medical evaluation date to undergo treatment to resolve the medical condition. The medical specialty physician may extend the time period up to 12 months if it is determined more time is needed to resolve the medical condition. During this time, the Soldier will participate in the ABCP, to include initiation of a DA Form 268, nutrition counseling, and monthly body fat assessment, but will not be penalized for failing to show progress. However, if the Soldier meets the body fat standard during this timeframe, he or she will be removed from the ABCP.

c. The provisions of this paragraph are not applicable to medical conditions or injuries based solely on a prescribed reduction in physical activity. The inability to exercise does not directly cause weight gain. Health care personnel will advise Soldiers to modify caloric intake when reduced physical activity is necessary as part of a treatment plan.

d. Once the medical condition is resolved, or 6 months (not to exceed 12 months), whichever occurs first, from the date of the medical evaluation, and if the Soldier still exceeds the body fat standard, he or she will continue participating in the ABCP but will be required to show satisfactory progress, as defined in paragraph 3–9*b*. Health care providers will forward to the Soldier's commander an updated memorandum stating the effective date that the Soldier's temporary medical condition is resolved.

e. If the Soldier is unable to show satisfactory progress in accordance with paragraph 3–9*b*, the Soldier will be subject to separation.

3–12. Program failure

a. Satisfactory progress in the ABCP is defined as a monthly weight loss of either 3 to 8 pounds or 1 percent body fat.

b. A Soldier enrolled in the ABCP is considered to be failing the program if:

(1) He or she exhibits less than satisfactory progress on two consecutive monthly ABCP assessments; or

(2) After 6 months in the ABCP he or she still exceeds body fat standards, and exhibits less than satisfactory progress for three or more (nonconsecutive) monthly ABCP assessments.

c. When a Soldier has failed the program, the commander will request a medical evaluation.

(1) If the medical evaluation finds the Soldier has a medical condition that does not meet medical retention standards of AR 40–501 (see medical fitness standards for retention and separation, including retirement) the Soldier will be processed in accordance with AR 40–501 (see chap 3, disposition).

(2) If the Soldier is found to have a temporary underlying medical condition that directly causes weight gain or prevents weight or body fat loss, the commander will follow the requirement in paragraph 3–11*b*.

(3) If the medical evaluation finds no underlying medical condition, then the commander will initiate separation action, bar to reenlistment, or involuntary transfer to the IRR for RC Soldiers in accordance with AR 140–10.

(4) For RC personnel not on active duty only, if the individual has not obtained an evaluation from his or her personal physician under the provisions of paragraph 3–7*a*(2)(f) and cannot demonstrate that the overweight condition

results from an underlying or associated disease process, the individual may be separated under appropriate regulations without further medical evaluation by health care personnel.

d. The commander or supervisor will inform the Soldier, in writing, that a bar to reenlistment, separation action, or a transfer to the IRR is being initiated under the following applicable regulation(s): AR 135–175; AR 135–178; AR 600–8–24 (see eliminations and miscellaneous types of separations); AR 601–280; AR 635–200; AR 140–10; National Guard Regulation (NGR) (AR) 600–5; NGR 600–101; NGR 600–200; or NGR 635–100.

3–13. Release from the Army Body Composition Program

a. Commanders and supervisors will remove individuals administratively from the ABCP as soon as the body fat standard is achieved. Soldiers that meet the screening table weight must remain in the ABCP program until they no longer exceed the required body fat standard.

b. The commander will remove the DA Form 268 actions and counsel the Soldier on the importance of maintaining body composition and potential consequences if re-enrolled in the program within 36 months. A sample memorandum of release from ABCP counseling is at figure 3–8.

3–14. Body fat assessment failure within 36 months of release from Army Body Composition Program

a. If a Soldier again exceeds the body fat standard within 12 months after release from the ABCP, a DA Form 268 will be initiated on the Soldier. The Soldier will undergo a medical evaluation (at own expense for RC not on active duty).

(1) If the Soldier is found to have a temporary medical condition that prevents weight or body fat loss, the commander will follow the requirements of paragraph 3–11.

(2) If no underlying medical condition is found, the commander will initiate separation action, bar to reenlistment, or transfer to the IRR per paragraph 3–12*d*.

b. If, after 12 months but less than 36 months from the date of release from the ABCP, it is determined that a Soldier again exceeds the body fat standard, a DA Form 268 will be initiated on the Soldier. The Soldier will undergo a medical evaluation (at own expense for RC not on active duty).

(1) If the Soldier is found to have a temporary medical condition that prevents weight or body fat loss, the commander will re-enroll the Soldier in the ABCP under the requirements of paragraph 3–11.

(2) If no underlying medical condition is found, the commander will re-enroll the Soldier in the ABCP. The Soldier will have 90 days to meet the standards. Soldiers who meet the body fat standard at the 90-day point will be released from the ABCP. Soldiers who do not meet the ABCP body fat standard at the 90-day point are considered ABCP failures. Commanders will initiate separation action, bar to reenlistment, or transfer to the IRR per paragraph 3–12*d* for all Soldiers who fail to meet the body fat standard at the 90-day point.

3–15. Pregnancy

a. Personnel who meet this regulation's standards and become pregnant will be exempt from the standards for the duration of the pregnancy plus the period of 180 days after the pregnancy ends. If, after this period of exemption they are verified to exceed the body fat standard, they will be enrolled in the ABCP, pending approval of a medical doctor that they are fit to participate in the program.

b. Soldiers who become pregnant while enrolled in the ABCP will remain under the flagging action.

c. Soldiers entered or re-entered in the ABCP after pregnancy will be considered first-time entries into the program; paragraph 3–14 will not apply at that time.

d. If the Soldier is determined to exceed the body fat standard and is identified to have a temporary underlying medical condition, refer to paragraph 3–11 for appropriate actions.

3–16. Hospitalization

Personnel who meet this regulation's standards and are hospitalized for 30 continuous days or more will be exempt from the standards for the duration of the hospitalization and the recovery period as specified by their profile, not to exceed 90 days from discharge from the hospital. If at the end of the specified recovery period the Soldier exceeds the allowable body fat standard, a DA Form 268 will be initiated on the Soldier and he or she will be enrolled in the ABCP.

3–17. Exception to policy authority

a. The DCS, G–1 is the approval authority for all exceptions to this regulation. All requests for an exception to this policy will include an endorsement from a medical professional and be processed through the Soldier's chain of command, with recommendations as to disposition from the company, battalion, and brigade-level commanders, reviewed by the servicing staff judge advocate, and submitted directly to Deputy Chief of Staff, G–1 (DAPE–HR), 300 Army Pentagon, Washington, DC 20310–0300 for final determination.

b. The use of certain medications to treat an underlying medical or psychological disorder or the inability to perform

all aerobic events may contribute to weight gain but are not considered sufficient justification for noncompliance with this regulation. Medical professionals should advise Soldiers taking medications that may contribute to weight gain, or Soldiers with temporary or permanent physical profiles, that they are still required to meet the body fat standard established in the regulation; the Soldier may be referred to an appropriate specialist for nutrition and exercise counseling as indicated.

c. Chronic medical conditions will not be used to exempt Soldiers from meeting the standards established in this regulation.

d. There are no exemptions to the provisions of this regulation based solely on race, ethnicity, or gender.

3–18. Reenlistment criteria

a. Personnel who exceed the body fat standard in appendix B will not be allowed to reenlist or extend their enlistment.

b. Exceptions to policy for Active Army personnel (including RC personnel on active duty) are prescribed in this subparagraph. For Soldiers who are otherwise physically fit and have performed their duties in a satisfactory manner, the commander exercising General Court Martial Convening Authority or the first general officer in the Soldier's normal chain of command (whichever is in the most direct line to the Soldier) may approve the following exceptions to policy:

(1) Extension of enlistment may be authorized for personnel who meet one of the following criteria:

(a) Individuals who have a temporary medical condition that directly precludes loss of weight or body fat. In such cases, the type of ongoing treatment will be documented and the extension will be for the minimum time necessary to correct the condition and achieve the required weight or body fat loss.

(b) Pregnant Soldiers (except those Soldiers who have medical conditions as listed in para 3–15*d*) who are otherwise fully qualified for reenlistment, including those with approved exception to policy, but who exceed acceptable standards prescribed in this regulation, will be extended for the minimum period that will allow birth of the child, plus 7 months. A clearance from the doctor that the Soldier is medically fit to participate in the ABCP is required. Authority, which will be cited on DA Form 1695 (Oath of Extension of Enlistment) is AR 601–280 (see determination of qualifications). On completion of the period of extension, the Soldier will be reevaluated under paragraph 3–15.

(2) Exceptions to policy allowing reenlistment and/or extension of enlistment are authorized only in cases where medically documented conditions (see para 3–11) preclude attainment of required standards.

c. All requests for extension of enlistment for ARNG and USAR (troop program unit and IRR) personnel not on active duty will be processed under NGR 600–200 or AR 140–111 (see extending enlistment or reenlistment agreements), as appropriate.

d. Requests for exceptions to policy will be forwarded through the chain of command, with the commander's personal recommendation and appropriate comment at each level. As a minimum, requests will include:

(1) The physician's evaluation.

(2) A record of progress in the ABCP.

(3) Current height and weight.

(4) Current body fat assessment results.

(5) Years of active Federal service.

(6) Other pertinent information.

e. Soldiers who have completed a minimum of 18 years of active Federal service may, if otherwise eligible, be extended for the minimum time required to complete 20 years active Federal service. Retirement must be accomplished no later than the last day of the month in which the Soldier attains retirement eligibility. Application for retirement will be submitted at the time extension is authorized. Approval and/or disapproval authority is outlined in AR 601–280.

f. USAR Soldiers who have completed a minimum of 18 years of qualifying service for retired pay at age 60 may be extended for the minimum time required to complete 20 years qualifying service. Approval and/or disapproval authority is outlined in AR 140–111. Transfer to the IRR or Retired Reserve or discharge will be accomplished at the end of the retirement year in which the Soldier attains the 20 qualifying years.

g. ARNG Soldiers who have completed a minimum of 18 years qualifying service for retired pay at age 60 may be extended for the minimum time required to complete 20 years qualifying service by the State Adjutant General; disapproval authority is the Secretary of the Army. Transfer to the IRR or Retired Reserve or discharge will be accomplished at the end of the retired year in which the Soldier attains the 20 qualifying years.

Appendix A
References

Section I
Required Publications

Army regulations are available online from the Army Publishing Directorate Web site at http://www.apd.army.mil/.

AR 135–175
Separation of Officers (Cited in para 3–12*d*.)

AR 135–178
Enlisted Administrative Separations (Cited in para 3–12*d*.)

AR 140–10
Assignments, Attachments, Details, and Transfers (Cited in paras 3–12*c*(3), 3–12*d*.)

AR 140–111
U.S. Army Reserve Reenlistment Program (Cited in paras 3–18*c*, 3–18*f*.)

AR 600–8–2
Suspension of Favorable Personnel Actions (Flag) (Cited in paras 3–2*e*, 3–3*b*(5), 3–5*c*, 3–6*a*, 3–7*a*.)

AR 600–8–24
Officer Transfers and Discharges (Cited in para 3–12*d*.)

AR 601–280
Army Retention Program (Cited in paras 3–12*d*, 3–18*b*(1)(b), 3–18*e*.)

AR 635–40
Physical Evaluation for Retention, Retirement, or Separation (Cited in para 3–3*b*(2).)

AR 635–200
Active Duty Enlisted Administrative Separations (Cited in para 3–12*d*.)

AR 670–1
Wear and Appearance of Army Uniforms and Insignia (Cited in para 1–5*b*(1)(d).)

DODI 1308.3
DOD Physical Fitness and Body Fat Programs Procedures (Cited on title page (summary).) (Available at http://www.dtic.mil/whs/directives.)

NGR (AR) 600–5
The Active Guard/Reserve (AGR) Program, Title 32, Full-Time National Guard Duty (FTNGD) (Cited in para 3–12*d*.) (Available at http://www.ngbpdc.ngb.army.mil/.)

NGR 600–101
Warrant Officers-Federal Recognition and Related Personnel Actions (Cited in para 3–12*d*.) (Available at http://www.ngbpdc.ngb.army.mil/.)

NGR 600–200
Enlisted Personnel Management (Cited in paras 3–12*d*, 3–18*c*.) (Available at http://www.ngbpdc.ngb.army.mil/.)

NGR 635–100
Termination of Appointment and Withdrawal of Federal Recognition (Cited in para 3–12*d*.) (Available at http://www.ngbpdc.ngb.army.mil/.)

FM 7–22
Army Physical Readiness Training (Cited in paras 2–18, 3–5*b*.) (Available at http://armypubs.army.mil/doctrine/Active_FM.html.)

USAPHC TG 358
Army Weight Management Guide (Cited in paras 3–6*a*(2)(a), 3–6*b*, 3–7*a*(2)(a) and *b*, C–7, figs 3–1, 3–3, 3–4.) (Available at http://phc.amedd.army.mil/PHC%20Resource%20Library/USAPHC_TG_358_Army_Weight_Management_Guide.pdf.)

Section II
Related Publications

A related publication is a source of additional information. The user does not have to read a related publication to understand this publication.

AR 11–2
Managers' Internal Control Program

AR 25–30
The Army Publishing Program

AR 40–25
Nutrition Standards and Education

AR 40–501
Standards of Medical Fitness

AR 350–1
Army Training and Leader Development

Section III
Prescribed Forms

Unless otherwise indicated, DA forms are available on the Army Publishing Directorate Web site at www.apd.army.mil.

DA Form 5500
Body Fat Assessment Worksheet (Male) (Prescribed in paras 3–4*d*, 3–8*b*, 3–9*a*, B–1*b*, B–6, table B–3.)

DA Form 5501
Body Fat Assessment Worksheet (Female) (Prescribed in paras 3–4*d*, 3–8*b*, 3–9*a*, B–1*b*, B–6, table B–4.)

Section IV
Referenced Forms

DA Form 11–2
Internal Control Evaluation Certification

DA Form 268
Report to Suspend Favorable Personnel Actions (FLAG)

DA Form 705
Army Physical Fitness Test Scorecard

DA Form 1695
Oath of Extension of Enlistment

DA Form 2028
Recommended Changes to Publications and Blank Forms

DA Form 3349
Physical Profile

Appendix B
Standard Methods for Determining Body Fat Using Body Circumferences, Height, and Weight

B–1. Introduction

a. The procedures for the measurements of height, weight, and specific body circumferences for the estimation of body fat are described in this appendix. The weight for height table is listed in table B–1 followed by the body fat standards in table B–2.

b. Although circumferences may be looked upon by untrained personnel as easy measures, they can give erroneous results if proper technique is not followed. The individual taking the measurements must have a thorough understanding of the appropriate body landmarks and measurement techniques. Unit commanders will require that designated personnel have read the instructions regarding technique and location and obtained adequate practice before official body fat determinations are made. Individuals taking the measurements will be designated unit fitness trainers, certified master fitness trainers, and/or trained in body circumference methodology, as specified in para 2–18*c*. Two members of the unit will be utilized in the taking of measurements; one to place the tape measure and determine measurements and the other to assure proper placement and tension of the tape, as well as to record the measurement on the worksheet (DA Form 5500 and DA Form 5501). Soldiers should be measured by trained individuals of the same gender. If a trained individual of the same gender is not available to conduct the measurements, a female Soldier will be present when a male measures a female, and a male Soldier will be present when a female measures a male. The two will work with the Soldier between them so the tape is clearly visible from all sides. Take all circumference measurements sequentially three times and record them to the nearest half inch. If any one of the three closest measurements differs by more than 1 inch from the other two, take an additional measurement and compute a mathematical average of the three measurements with the least difference to the nearest half inch and record this value.

c. Soldiers will be measured for body fat in stocking feet and standard Army physical fitness uniform trunks and T-shirt. Undergarments that may serve to bind the abdomen, hip, or thigh areas are not authorized for wear when a Soldier is being measured for body fat composition. This includes, but is not limited to spandex shorts or girdle-like undergarments.

d. When measuring circumferences, compression of the soft tissue requires constant attention. The tape will be applied so it makes contact with the skin and conforms to the body surface being measured. It will not compress the underlying soft tissues. However, the hip circumference measurement requires more firm pressure to compress the authorized physical fitness uniform trunks. All measurements are made in the horizontal plane (parallel to the floor), unless indicated otherwise.

e. The tape measure will be made of a nonstretchable material, preferably fiberglass; cloth or steel tapes are unacceptable. Cloth measuring tapes will stretch with usage and most steel tapes do not conform to body surfaces. The tape measure will be calibrated, that is, compared with a yardstick or a metal ruler to ensure validity. This is done by aligning the fiberglass tape measure with the quarter-inch markings on the ruler. The markings will match those on the ruler; if not, do not use that tape measure. The tape will be one-quarter to one-half inch wide (not exceeding one-half inch) and a minimum of 5 feet in length. A retractable fiberglass tape is the best type for measuring all areas.

Note. Tapes are currently available through the Army Supply System (Federal stock number 5210–01–238–8103 or national stock number 8315–01–238–8103). The current Army supply system or any other fiberglass tape (not to exceed one-half inch) may be used if retractable tapes cannot be purchased by unit budget funds available and if approved by installation commanders.

B–2. Height and weight measurements

a. The height will be measured with the Soldier in stocking feet (without running shoes) and wearing the authorized physical fitness uniform (trunks and T-shirt). The Soldier will stand on a flat surface with the head held horizontal, looking directly forward with the line of vision horizontal and the chin parallel to the floor. The body will be straight but not rigid, similar to the position of attention. When measuring height to determine body fat percentage (fig B–1 or B–2), the Soldier's height is measured to the nearest half inch. When measuring height to use the weight for height screening table (table B–1) the Soldier's height is measured and then rounded to the nearest inch with the following guidelines:

(1) If the height fraction is less than half an inch, round down to the nearest whole number in inches.

(2) If the height fraction is half an inch or greater, round up to the next highest whole number in inches.

b. The weight will be measured with the Soldier in stocking feet and wearing the authorized physical fitness uniform (trunks and T-shirt); running shoes will not be worn. Scales used for weight measurement will be calibrated annually for accuracy. The measurement will be made on scales available in units and recorded to the nearest pound with the following guidelines:

(1) If the weight fraction of the Soldier is less than one-half pound, round down to the nearest pound.

(2) If the weight fraction of the Soldier is one half-pound or greater, round up to the next whole pound.

(3) No weight will be deducted to account for clothing.

Table B–1
Weight for height table (screening table weight)

		Male weight in pounds, by age				Female weight in pounds, by age			
Height (inches)	Minimum weight[1] (pounds)	17–20	21–27	28–39	40+	17–20	21–27	28–39	40+
58	91	-	-	-	-	119	121	122	124
59	94	-	-	-	-	124	125	126	128
60	97	132	136	139	141	128	129	131	133
61	100	136	140	144	146	132	134	135	137
62	104	141	144	148	150	136	138	140	142
63	107	145	149	153	155	141	143	144	146
64	110	150	154	158	160	145	147	149	151
65	114	155	159	163	165	150	152	154	156
66	117	160	163	168	170	155	156	158	161
67	121	165	169	174	176	159	161	163	166
68	125	170	174	179	181	164	166	168	171
69	128	175	179	184	186	169	171	173	176
70	132	180	185	189	192	174	176	178	181
71	136	185	189	194	197	179	181	183	186
72	140	190	195	200	203	184	186	188	191
73	144	195	200	205	208	189	191	194	197
74	148	201	206	211	214	194	197	199	202
75	152	206	212	217	220	200	202	204	208
76	156	212	217	223	226	205	207	210	213
77	160	218	223	229	232	210	213	215	219
78	164	223	229	235	238	216	218	221	225
79	168	229	235	241	244	221	224	227	230
80[2]	173	234	240	247	250	227	230	233	236

Notes:
[1] Male and female Soldiers who fall below the minimum weights shown in table B–1 will be referred by the commander for immediate medical evaluation.
[2] Add 6 pounds per inch for males over 80 inches and 5 pounds per inch for females over 80 inches.

Table B–2
Maximum allowable percent body fat standards

Age group: 17–20
Male (% body fat): 20%
Female (% body fat): 30%

Age group: 21–27
Male (% body fat): 22%
Female (% body fat): 32%

Age group: 28–39
Male (% body fat): 24%
Female (% body fat): 34%

Age group: 40 and older
Male (% body fat): 26%
Female (% body fat): 36%

Circumference Value	Height (inches)																		
	60	60.5	61	61.5	62	62.5	63	63.5	64	64.5	65	65.5	66	66.5	67	67.5	68	68.5	69
13.5	9	9																	
14	11	11	10	10	10	10	9	9											
14.5	12	12	12	11	11	11	11	10	10	10	10	9	9						
15	13	13	13	13	12	12	12	12	11	11	11	11	10	10	10	10	10	9	9
15.5	15	15	15	15	15	13	13	13	13	12	12	12	12	11	11	11	11	11	10
16	16	16	15	15	15	15	14	14	14	14	13	13	13	13	12	12	12	12	12
16.5	17	17	16	16	16	16	15	15	15	15	14	14	14	14	14	13	13	13	13
17	18	18	18	17	17	17	17	16	16	16	16	15	15	15	15	14	14	14	14
17.5	19	19	19	18	18	18	18	17	17	17	17	16	16	16	16	16	15	15	15
18	20	20	20	19	19	19	19	18	18	18	18	18	17	17	17	17	16	16	16
18.5	21	21	21	20	20	20	20	19	19	19	19	19	18	18	18	18	17	17	17
19	22	22	22	21	21	21	21	20	20	20	20	20	19	19	19	19	18	18	18
19.5	23	23	23	22	22	22	22	21	21	21	21	21	20	20	20	20	19	19	19
20	24	24	24	23	23	23	23	22	22	22	22	21	21	21	21	21	20	20	20
20.5	25	25	25	24	24	24	24	23	23	23	23	22	22	22	22	21	21	21	21
21	26	26	26	25	25	25	25	24	24	24	24	23	23	23	23	22	22	22	22
21.5	27	27	27	26	26	26	26	25	25	25	24	24	24	24	23	23	23	23	23
22	28	27	27	27	27	26	26	26	26	25	25	25	25	25	24	24	24	24	23
22.5	29	28	28	28	28	27	27	27	27	26	26	26	26	25	25	25	25	24	24
23	29	29	29	29	28	28	28	28	27	27	27	27	26	26	26	26	26	25	25
23.5	30	30	30	29	29	29	29	28	28	28	28	27	27	27	27	27	26	26	26
24	31	31	30	30	30	30	29	29	29	29	28	28	28	28	28	27	27	27	27
24.5	32	31	31	31	30	30	30	30	30	29	29	29	29	29	28	28	28	28	27
25	32	32	32	32	31	31	31	31	30	30	30	30	30	29	29	29	29	28	28
25.5	33	33	33	32	32	32	32	31	31	31	31	31	30	30	30	30	29	29	29
26	34	34	33	33	33	33	32	32	32	32	31	31	31	31	31	30	30	30	30
26.5	35	34	34	34	34	33	33	33	33	32	32	32	32	32	31	31	31	31	30
27	35	35	35	35	34	34	34	34	33	33	33	33	32	32	32	32	32	31	31
27.5	36	36	36	35	35	35	35	34	34	34	34	33	33	33	33	32	32	32	32
28	37	36	36	36	36	35	35	35	35	34	34	34	34	34	33	33	33	33	32
28.5			37	37	36	36	36	36	35	35	35	35	34	34	34	34	34	33	33
29					37	37	37	36	36	36	36	36	36	36	35	35	35	35	34
29.5								37	37	36	36	36	36	36	35	35	35	35	34
30											37	37	36	36	36	36	35	35	35
30.5													37	37	37	36	36	36	36
31																37	37	36	36
31.5																			37
32																			
32.5																			
33																			
33.5																			
34																			
34.5																			
35																			

Figure B–1. Percent fat estimates for males

Circumference Value	Height (inches)																				
	69.5	70	70.5	71	71.5	72	72.5	73	73.5	74	74.5	75	75.5	76	76.5	77	77.5	78	78.5	79	79.5
13.5																					
14																					
14.5																					
15																					
15.5	10	10	10	9	9	9															
16	11	11	11	11	10	10	10	10	10	9	9										
16.5	12	12	12	12	12	11	11	11	11	11	10	10	10	10	10	9	9				
17	14	13	13	13	13	13	12	12	12	12	11	11	11	11	11	10	10	10	10	10	9
17.5	15	14	14	14	14	14	13	13	13	13	13	12	12	12	12	12	11	11	11	11	11
18	16	15	15	15	15	15	14	14	14	14	14	13	13	13	13	13	12	12	12	12	12
18.5	17	17	16	16	16	16	15	15	15	15	15	14	14	14	14	14	13	13	13	13	13
19	18	18	17	17	17	17	16	16	16	16	16	15	15	15	15	15	14	14	14	14	14
19.5	19	18	18	18	18	18	17	17	17	17	17	16	1	16	16	16	15	15	15	15	15
20	20	19	19	19	19	19	18	18	18	18	18	17	17	17	17	17	16	16	16	16	16
20.5	21	20	20	20	20	19	19	19	19	19	18	18	18	18	18	17	17	17	17	17	16
21	21	21	21	21	21	20	20	20	20	20	19	19	19	19	19	18	18	18	18	18	17
21.5	22	22	22	22	21	21	21	21	21	20	20	20	20	20	19	19	19	19	19	18	18
22	23	23	23	23	22	22	22	22	22	21	21	21	21	20	20	20	20	20	20	19	19
22.5	24	24	24	23	23	23	23	23	22	22	22	21	21	20	20	20	20	20	20	19	19
23	25	25	24	24	24	24	24	23	23	23	23	23	22	22	22	22	22	21	21	21	21
23.5	26	25	25	25	25	25	24	24	24	24	24	23	23	23	23	23	22	22	22	22	22
24	26	26	26	26	26	25	25	25	25	25	24	24	24	24	24	23	23	23	23	23	22
24.5	27	27	27	27	26	26	26	26	26	25	25	25	25	25	24	24	24	24	24	23	23
25	28	28	28	27	27	27	27	26	26	26	26	26	25	25	25	25	25	24	24	24	24
25.5	29	29	28	28	28	28	27	27	27	27	27	26	26	26	26	26	25	25	25	25	25
26	29	29	29	29	29	28	28	28	28	28	27	27	27	27	27	26	26	26	26	26	25
26.5	30	30	30	30	29	29	29	29	28	28	28	28	28	27	27	27	27	27	26	26	26
27	31	31	30	30	30	30	30	29	29	29	29	29	28	28	28	28	28	27	27	27	27
27.5	32	31	31	31	31	30	30	30	30	30	29	29	29	29	29	28	28	28	28	28	27
28	32	32	32	32	31	31	31	31	31	30	30	30	30	29	29	29	29	29	29	28	28
28.5	33	33	32	32	32	32	32	31	31	31	31	31	30	30	30	30	30	29	29	29	29
29	34	33	33	33	33	32	32	32	32	32	31	31	31	31	31	30	30	30	30	30	29
29.5	34	34	34	34	33	33	33	33	32	32	32	32	32	31	31	31	31	31	30	30	30
30	35	35	34	34	34	34	34	33	33	33	33	32	32	32	32	32	31	31	31	31	31
30.5	35	35	35	35	35	34	34	34	34	34	33	33	33	33	32	32	32	32	32	32	31
31	36	36	36	35	35	35	35	35	34	34	34	34	33	33	33	33	33	33	32	32	32
31.5	37	36	36	36	36	36	35	35	35	35	35	34	34	34	34	33	33	33	33	33	33
32		37	37	37	36	36	36	36	36	35	35	35	35	34	34	34	34	34	33	33	33
32.5					37	37	36	36	36	36	36	35	35	35	35	35	34	34	34	34	34
33								37	37	36	36	36	36	36	35	35	35	35	35	34	34
33.5											37	37	36	36	36	36	36	35	35	35	35
34													37	37	37	36	36	36	36	36	35
34.5																37	37	37	36	36	36
35																			37	37	36

Figure B–1. Percent fat estimates for males-Continued

Circumference Value	Height (inches)																			
	58	58.5	59	59.5	60	60.5	61	61.5	62	62.5	63	63.5	64	64.5	65	65.5	66	66.5	67	67.5
45	19																			
45.5	20	20	19																	
46	21	20	20	20	19															
46.5	21	21	21	20	20	20	19	19												
47	22	22	22	21	21	20	20	20	19	19										
47.5	23	23	22	22	22	21	21	21	20	20	19	19								
48	24	23	23	23	22	22	22	21	21	21	20	20	20	19						
48.5	24	24	24	23	23	23	22	22	22	21	21	21	20	20	20	19				
49	25	25	24	24	24	23	23	23	22	22	22	21	21	21	20	20	20	19	19	
49.5	26	26	25	25	24	24	24	23	23	23	22	22	22	21	21	21	20	20	20	19
50	27	26	26	26	25	25	24	24	24	23	23	23	22	22	22	22	21	21	21	20
50.5	27	27	27	26	26	26	25	25	25	24	24	23	23	23	23	22	22	22	21	21
51	28	28	27	27	27	26	26	26	25	25	25	24	24	24	23	23	23	22	22	22
51.5	29	28	28	28	27	27	27	26	26	26	25	25	25	24	24	24	23	23	23	22
52	29	29	29	28	28	28	27	27	27	26	26	26	25	25	25	24	24	24	23	23
52.5	30	30	29	29	29	28	28	28	27	27	27	26	26	26	25	25	25	24	24	24
53	31	30	30	30	29	29	29	28	28	28	27	27	27	26	26	26	25	25	25	24
53.5	31	31	31	30	30	30	29	29	29	28	28	28	27	27	27	26	26	26	25	25
54	32	32	31	31	31	30	30	30	29	29	29	28	28	28	27	27	27	26	26	26
54.5	33	32	32	32	31	31	31	30	30	30	29	29	29	28	28	28	27	27	27	26
55	33	33	33	32	32	32	31	31	31	30	30	30	29	29	29	28	28	28	27	27
55.5	34	34	33	33	33	32	32	32	31	31	31	30	30	30	29	29	29	28	28	28
56	35	34	34	34	33	33	33	32	32	31	31	31	30	30	30	30	29	29	29	28
56.5	35	35	35	34	34	34	33	33	32	32	32	31	31	31	30	30	30	29	29	29
57	36	36	35	35	34	34	34	33	33	33	32	32	32	31	31	31	30	30	30	29
57.5	37	36	36	35	35	35	34	34	34	33	33	33	32	32	32	31	31	31	30	30
58	37	37	36	36	36	35	35	35	34	34	34	33	33	33	32	32	32	31	31	31
58.5	38	37	37	37	36	36	36	35	35	35	34	34	34	33	33	33	32	32	32	31
59	38	38	38	37	37	37	36	36	36	35	35	35	34	34	34	33	33	33	32	32
59.5	39	39	38	38	38	37	37	36	36	36	35	35	35	34	34	34	33	33	33	33
60	40	39	39	38	38	38	37	37	37	36	36	36	35	35	35	34	34	34	33	33
60.5	40	40	39	39	39	38	38	38	37	37	37	36	36	36	35	35	35	34	34	34
61	41	40	40	40	39	39	39	38	38	38	37	37	37	36	36	36	35	35	35	34
61.5	41	41	41	40	40	40	39	39	38	38	38	37	37	37	36	36	36	35	35	35
62	42	42	41	41	40	40	40	39	39	39	38	38	38	37	37	37	36	36	36	35
62.5	42	42	42	41	41	41	40	40	40	39	39	39	38	38	38	37	37	37	36	36
63	43	43	42	42	42	41	41	41	40	40	40	39	39	39	38	38	38	37	37	37
63.5	44	43	43	42	42	42	41	41	41	40	40	40	39	39	39	38	38	38	37	37
64	44	44	43	43	43	42	42	42	41	41	41	40	40	40	39	39	39	38	38	38
64.5	45	44	44	44	43	43	43	42	42	42	41	41	41	40	40	40	39	39	39	38
65	45	45	45	44	44	43	43	43	42	42	42	41	41	41	40	40	40	39	39	39
65.5	46	45	45	45	44	44	44	43	43	43	42	42	42	41	41	41	40	40	40	39
66	46	46	46	45	45	45	44	44	43	43	43	42	42	42	41	41	41	41	40	40
66.5	47	46	46	46	45	45	45	44	44	44	43	43	43	42	42	42	41	41	41	40
67			47	46	46	46	45	45	45	44	44	44	43	43	43	42	42	42	41	41
67.5				47	46	46	46	45	45	45	44	44	44	43	43	43	42	42	42	41
68					47	47	46	46	46	45	45	45	44	44	44	43	43	43	42	42
68.5							47	46	46	46	45	45	45	44	44	44	43	43	43	43
69								47	47	46	46	46	45	45	45	44	44	44	43	43
69.5										47	46	46	46	45	45	45	44	44	44	44
70											47	47	46	46	46	45	45	45	44	44
70.5													47	46	46	46	46	45	45	45
71														47	47	46	46	46	45	45
71.5																47	47	46	46	46
72																	47	47	46	46
72.5																			47	47
73																				
73.5																				
74																				
74.5																				
75																				
75.5																				
76																				
76.5																				
77																				
77.5																				
78																				
78.5																				
79																				

Figure B–2. Percent fat estimates for females

Circumference Value	Height (inches)													
	66	66.5	67	67.5	68	68.5	69	69.5	70	70.5	71	71.5	72	72.5
45														
45.5														
46														
46.5														
47														
47.5														
48														
48.5														
49	20	19	19											
49.5	20	20	20	19	19									
50	21	21	21	20	20	20	19							
50.5	22	22	21	21	21	20	20	20	19	19				
51	23	22	22	22	22	22	21	21	21	20	20	20	20	19
51.5	23	23	23	22	22	22	21	21	21	20	20	20	20	19
52	24	24	23	23	23	22	22	22	21	21	21	21	20	20
52.5	25	24	24	24	23	23	23	22	22	22	22	21	21	21
53	25	25	25	24	24	24	23	23	23	22	22	22	22	21
53.5	26	26	25	25	25	24	24	24	23	23	23	23	22	22
54	27	26	26	26	25	25	25	24	24	24	24	23	23	23
54.5	27	27	27	26	26	26	25	25	25	24	24	24	24	23
55	28	28	27	27	27	26	26	26	25	25	25	25	24	24
55.5	29	28	28	28	27	27	27	26	26	26	25	25	25	25
56	29	29	29	28	28	28	27	27	27	26	26	26	25	25
56.5	30	29	29	29	29	28	28	28	27	27	27	26	26	26
57	30	30	30	29	29	29	29	28	28	28	27	27	27	26
57.5	31	31	30	30	30	29	29	29	29	28	28	28	27	27
58	32	31	31	31	30	30	30	29	29	29	29	28	28	28
58.5	32	32	32	31	31	31	30	30	30	29	29	29	29	28
59	33	33	32	32	32	31	31	31	30	30	30	29	29	29
59.5	33	33	33	33	32	32	32	31	31	31	30	30	30	29
60	34	34	33	33	33	32	32	32	32	31	31	31	30	30
60.5	35	34	34	34	33	33	33	32	32	32	32	31	31	31
61	35	35	35	34	34	34	33	33	33	32	32	32	32	31
61.5	36	36	35	35	35	34	34	34	33	33	33	32	32	32
62	36	36	36	35	35	35	35	34	34	34	33	33	33	32
62.5	37	37	36	36	36	35	35	35	34	34	34	34	33	33
63	38	37	37	37	36	36	36	35	35	35	34	34	34	34
63.5	38	38	37	37	37	37	36	36	36	35	35	35	34	34
64	39	38	38	38	37	37	37	36	36	36	36	35	35	35
64.5	39	39	39	38	38	38	37	37	37	36	36	36	36	35
65	40	39	39	39	38	38	38	38	37	37	37	36	36	36
65.5	40	40	40	39	39	39	38	38	38	37	37	37	37	36
66	41	41	40	40	40	39	39	39	38	38	38	37	37	37
66.5	41	41	41	40	40	40	39	39	39	39	38	38	38	37
67	42	42	41	41	41	40	40	40	39	39	39	39	38	38
67.5	42	42	42	41	41	41	41	40	40	40	39	39	39	38
68	43	43	42	42	42	41	41	41	40	40	40	40	39	39
68.5	43	43	43	43	42	42	42	41	41	41	40	40	40	39
69	44	44	43	43	43	42	42	42	41	41	41	41	40	40
69.5	44	44	44	44	43	43	43	42	42	42	41	41	41	41
70	45	45	44	44	44	43	43	43	43	42	42	42	41	41
70.5	46	45	45	45	44	44	44	43	43	43	42	42	42	42
71	46	46	45	45	45	44	44	44	44	43	43	43	42	42
71.5	47	46	46	46	45	45	45	44	44	44	43	43	43	43
72	47	47	46	46	46	45	45	45	45	44	44	44	43	43
72.5			47	47	46	46	46	45	45	45	44	44	44	44
73					47	46	46	46	45	45	45	45	44	44
73.5						47	47	46	46	46	45	45	45	44
74								47	46	46	46	46	45	45
74.5									47	47	46	46	46	45
75											47	46	46	46
75.5												47	47	46
76														47

Figure B–2. Percent fat estimates for females-Continued

B–3. Description of circumference sites and their anatomical landmarks and technique

a. All circumference measurements will be taken three times and recorded to the nearest half inch (or 0.50). Each sequential measurement should be within 1 inch of the next or previous measurement. If the measurements are within 1 inch of each other, derive a mathematical average to the nearest half of an inch. If any one of the three measurements differs by more than 1 inch, take an additional measurement. Then, average the three closest measures.

b. Each set of measurements will be completed sequentially to discourage assumption of repeated measurement readings. For males, complete one set of neck and abdomen measurements, not three neck circumferences followed by three abdomen circumferences. Continue the process by measuring the neck and abdomen in series until three sets of measurements have been completed. For females, complete one set of neck, waist (abdomen), and hip measurements, not three neck circumferences followed by three waist (abdomen) circumferences, and so on. Continue the process by measuring neck, waist (abdomen), and hip series until three sets of measurements have been completed.

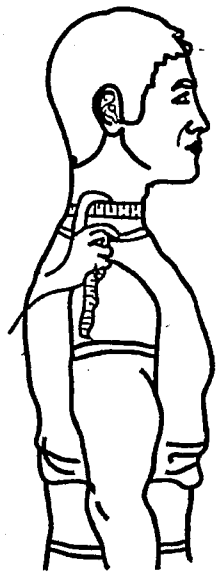
c. Instructions for computing body fat are at tables B–3 (males) and B–4 (females). Percent fat estimates are shown in figures B–1 (males) and B–2 (females). Illustrations of each tape measurement are at figures B–3 (males) and B–4 (females).

Table B–3
Instructions for completing DA Form 5500 (male)

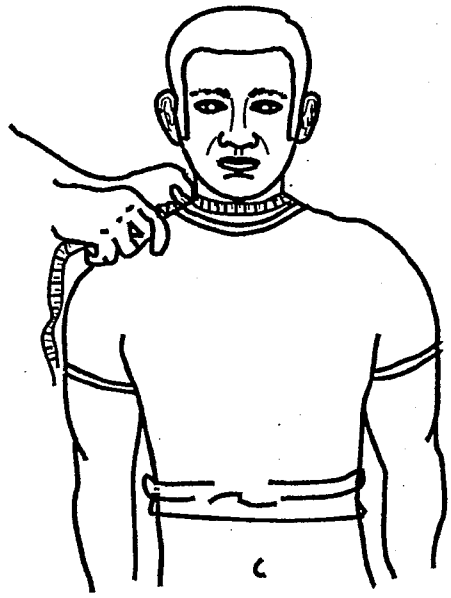
NAME	Print the Soldier's last name, first name, and middle initial in NAME block.
RANK	Print rank in the RANK box.
HEIGHT	Measure the Soldier's height as described in this appendix to the nearest half inch and record the measurement in HEIGHT block.
WEIGHT	Measure the Soldier's weight as described in this appendix to the nearest pound and record in WEIGHT block.
	Note: Follow the rounding rules for rounding height and weight measurement as described earlier in this appendix.
AGE	Print age in years in AGE block.
STEP 1	Neck measurement. Measure Soldier's neck circumference at a point just below the larynx (Adam's apple and perpendicular to the long axis of the neck). The Soldier should look straight ahead during the measurement, with shoulders down (not hunched). Round the neck measurement up to nearest half inch and record in block labeled FIRST.
STEP 2	Abdominal measurement. Measure the Soldier's abdominal circumference to nearest half inch. Round down to nearest half inch and record in block labeled FIRST.
	Note: Repeat STEPS 1 and 2 in series until you have completed three sets of neck and abdomen circumference measurements.
STEP 3	Average neck measurement. Find mathematical average of FIRST, SECOND, and THIRD neck circumference by adding them together and dividing by three. Place this number to nearest half inch in block marked AVERAGE for STEPS 1 and 3.
STEP 4	Average abdominal measurement. Find mathematical average of FIRST, SECOND, and THIRD abdominal circumference by adding them together and dividing by three. Place this number to nearest half inch in block marked AVERAGE for STEPS 2 and 4.
STEP 5	Circumference value equals abdominal circumference (STEP 4) minus neck circumference (STEP 3). Subtract STEP 4 from STEP 3 and enter results in STEP 5.
STEP 6	Height factor. Enter the height in inches to the nearest half inch.
	Note: Follow the rules for rounding of height and weight measurements as described earlier in this appendix.
STEP 7	Percent body fat. Determine percent body fat by finding Soldier's circumference value (value listed in STEP 5) and height in inches (value listed in STEP 6) in figure B–1. The percent body fat is the value that intercepts with circumference value and height in inches as listed in figure B–1. This is the Soldier's PERCENT BODY FAT.
	Note: Go to figure B–1 to locate the circumference value (abdomen minus neck difference) in the left-hand column.

Table B–4
Instructions for completing DA Form 5501 (female)

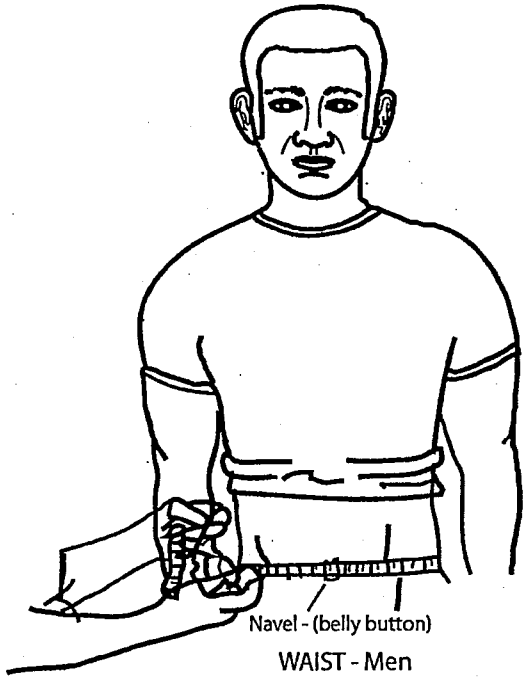
NAME	Print Soldier's last name, first name, and middle initial in NAME block.
RANK	Print rank in RANK block.
HEIGHT	Measure Soldier's height as described in this appendix to nearest half inch and record the measurement in HEIGHT block.
WEIGHT	Measure Soldier's weight as described in this appendix to nearest pound and record in WEIGHT block.
	Note: Follow the rules for rounding of height and weight measurement as described earlier in this appendix.
AGE	Print age in years in AGE block.
STEP 1	Neck measurement. Measure Soldier's neck circumference at a point just below the larynx (Adam's apple and perpendicular to the long axis of the neck). The Soldier should look straight ahead during the measurement, with shoulders down (not hunched). Round the neck measurement up to nearest half inch and record in block labeled FIRST.
STEP 2	Waist (abdomen) measurement. Measure Soldier's natural waist circumference against the skin at the point of minimal abdominal circumference, usually located about halfway between the navel and lower end of sternum (breastbone). If site is not easily visible, take several measurements at probable sites and use the smallest value. Ensure tape is level and parallel to floor. Soldier's arms must be at the sides. Take measurements at the end of Soldier's normal relaxed exhalation. Round the natural waist measurement down to nearest half inch and record in block labeled FIRST.
STEP 3	Hip measurement. Measure Soldier's hip circumference while facing Soldier's right side by placing the tape around the hips so that it passes over the greatest protrusion of the gluteal muscles (buttocks) as viewed from the side. Ensure tape is level and parallel to floor. Apply sufficient tension on tape to minimize effect of clothing. Round hip measurement down to nearest half inch and record in block labeled FIRST.
	Repeat STEPS 1, 2, and 3 in series until you have completed three sets of neck, waist (abdomen), and hip circumference measurements. Find mathematical average of FIRST, SECOND, and THIRD circumference in STEPS 1, 2, and 3 by adding them together and dividing by three for each step. Place this number to nearest half inch in block marked AVERAGE for each step.
STEP 4	Calculations.
Line A	Waist (abdomen) circumference. Enter value from STEP 2 in line 4A.
Line B	Hip circumference. Enter value from STEP 3 in line 4B.
Line C	Total (4A+4B=4C). Add waist circumference (line 4A) and hip circumference (line 4B). Enter result in line 4C.
Line D	Neck circumference. Enter value from STEP 1 in line 4D.
Line E	Circumference value (4C-4D=4E). Subtract value in line 4C from value in line 4D. Enter result in line 4E.
Line F	Enter the height in inches to the nearest half inch in line 4F.
	Note: Follow the rules for rounding of height and weight measurements as described earlier in this appendix.
Line G	Percent body fat. Determine percent body fat by finding Soldier's circumference value (value listed in line 4E) and height in inches (line 4F) in figure B–2. Percent body fat is the value that intercepts with circumference value and height in inches as listed in figure B–2. This is the Soldier's PERCENT BODY FAT.
	Note: Go to figure B–2 to locate the circumference value in the left-hand column.



NECK - Men

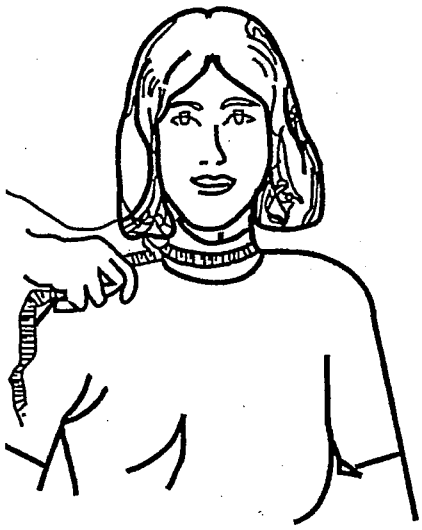


NECK - Men

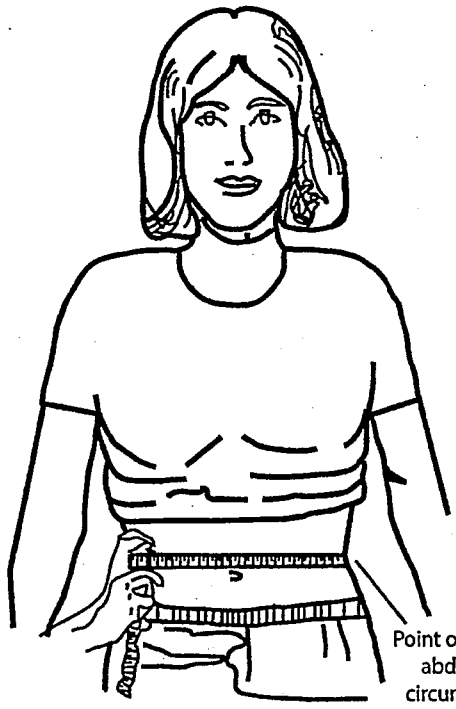


WAIST - Men

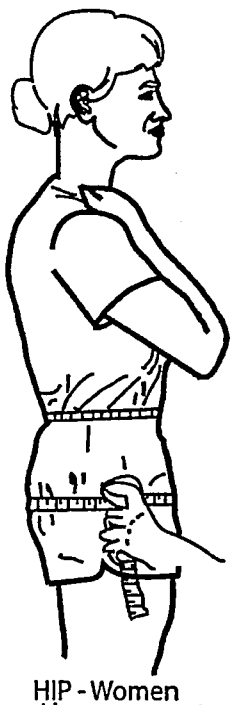
Figure B–3. Male tape measurement illustration



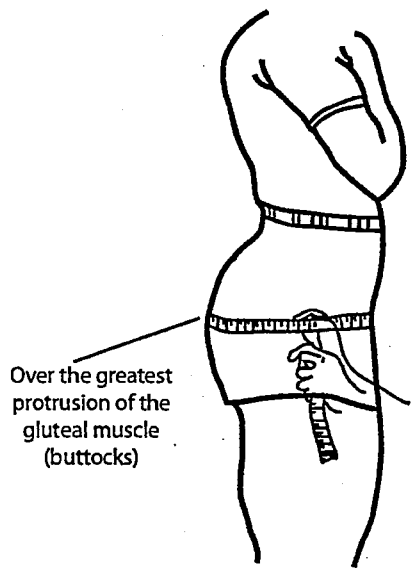
NECK - Women



WAIST - Women



HIP - Women
side measurement



HIP - Women
side measurement

Figure B–4. Female tape measurement illustration

B–4. Circumference sites and landmarks for males

a. Neck. Measure the neck circumference at a point just below the larynx (Adam's apple) and perpendicular to the long axis of the neck. Do not place the tape measure over the Adam's apple. Soldier will look straight ahead during measurement, with shoulders down (not hunched). The tape will be as close to horizontal as anatomically feasible (the tape line in the front of the neck will be at the same height as the tape line in the back of the neck). Care will be taken to ensure the shoulder/neck muscles (trapezius) are not involved in the measurement. Round neck measurement up to the nearest half inch and record (for example, round "16 ¼ inches" to "16 ½ inches").

b. Abdomen. Measure abdominal circumference against the skin at the navel (belly button) level and parallel to the floor. Arms are at the sides. Record the measurement at the end of Soldier's normal, relaxed exhalation. Round abdominal measurement down to the nearest half inch and record (for example, round "34 3/4 inches" to "34 1/2 inches").

B–5. Circumference sites and landmarks for females

a. Neck. This procedure is the same as for males.

b. Waist (abdomen). Measure the natural waist circumference, against the skin, at the point of minimal abdominal circumference. The waist circumference is taken at the narrowest point of the abdomen, usually about halfway between the navel and the end of the sternum (breastbone). When this site is not easily observed, take several measurements at probable sites and record the smallest value. The Soldier's arms must be at the sides. Take measurements at the end of Soldier's normal relaxed exhalation. Tape measurements of the waist will be made directly against the skin. Round the natural waist measurement down to the nearest half inch and record (for example, round "28 5/8 inches" to "28 1/2 inches").

c. Hip. The Soldier taking the measurement will view the person being measured from the side. Place the tape around the hips so that it passes over the greatest protrusion of the gluteal muscles (buttocks), keeping the tape in a horizontal plane (parallel to the floor). Check front to back and side to side to be sure the tape is level to the floor on all sides before the measurements are recorded. Because the Soldier will be wearing authorized physical fitness uniform trunks, the tape can be drawn snugly without compressing the underlying soft tissue to minimize the influence of the shorts on the size of the measurement. Round the hip measurement down to the nearest half inch and record (for example, round "44 3/8 inches" to "44 inches").

B–6. Preparation of DA Form 5500 and DA Form 5501

It is extremely important that the following instructions are read before attempting to complete DA Form 5500 and/or DA Form 5501. Have a copy of the form available when reading these instructions.

a. Tables B–3 and B–4 and figures B–1 through B–4 will provide information needed to prepare DA Form 5500 and DA Form 5501. The instructions for the forms are written in a stepwise fashion. The measurements and computation processes are different for males and females.

b. A DA Form 5500 (male) or DA Form 5501 (female) must be completed for Soldiers who exceed the weight for height table (table B–1) or when a unit commander or supervisor determines that the individual's appearance suggests that body fat is excessive (see para 3–2*d*). The purpose of this form is to help determine the Soldier's percent body fat using the circumference technique described in this regulation.

c. Before starting, have a thorough understanding of the measurements to be made as outlined in this appendix. A scale for measuring body weight, a device for measuring height, and a measuring tape (see specifications in para B–1*d*) for the circumference measurements are also required.

d. If any of the measurements are not listed in figure B–1 or B–2, see table B–5 for guidance on how to calculate body fat percentage.

Note. A scientific calculator, which can be found on computers, must be used. On the computer, pull up 'calculator' from 'programs' and then click on 'view' and choose 'scientific'. Commanders are responsible for the accuracy of all calculations. Use of auto calculators is not authorized.

Note. All measurements must be in inches. Use normal rounding rules for all measurements and calculations unless otherwise specified.

Table B–5
Sample body fat calculations

SAMPLE (WOMEN)
Measurements: Neck=15 inches; Waist=42 inches; Hip=44 inches; Height=64 inches

The equation for women is:
% body fat=[163.205 x Log10 (waist + hip – neck)] – [97.684 x Log10 (height)] – 78.387

A. Solve: [163.205 x Log10 (71)]. Take the Log10 (71)=1.85 (when using a calculator, be careful not to use ln (natural log). Instead, enter 71 and press the LOG key.

B. Solve: [97.684 x Log10 (64)]. Take the Log10 (64)=1.81 (when using a calculator, be careful not to use the ln (natural log). Instead, enter 64 and press the LOG key.

C. Solve the equation:
% body fat=(163.205 x 1.85) – (97.684 x 1.81) – 78.387
=301.93 – 176.81 – 78.387
=47% (actual number is 46.73%; round to the nearest whole %)

SAMPLE (MEN)
Measurements: Neck=16 inches; Waist=49 inches; Height=69 inches

The equation for men is:
% body fat=[86.010 x Log10 (waist – neck)] – [70.041 x Log10 (height)] + 36.76

A. Solve: [86.010 x Log10 (33)]. Take the Log10 (33)=1.52 (when using a calculator, be careful not to use ln (natural log). Instead, enter 33 and press the LOG key.

B. Solve: [70.041 x Log10 (69)]. Take the Log10 (69)=1.84 (when using a calculator, be careful not to use the ln (natural log). Instead, enter 69 and press the LOG key.

C. Solve the equation:
% body fat=(86.010 x 1.521) – (70.041 x 1.841) + 36.76
=130.74 – 128.88 + 36.76
=39% (actual number is 38.62%; round to the nearest whole %)

Appendix C
Weight Loss

C–1. General

Overweight and obesity are significant military medical concerns because these conditions are associated with decreased operational effectiveness. In order to meet Army body fat standards and avoid losing their careers, Soldiers may resort to dangerous tactics. This limits the body's ability to function effectively and hinders physical and cognitive performance. While some weight loss diets may be harmless, others could result in adverse effects that may compromise the health of the Soldier. These diets usually fail in the end and may start a vicious cycle of weight loss and weight regain.

C–2. Leader responsibilities

Leaders must be aware of unsafe weight loss strategies and pay attention to clues that a Soldier might be engaged in unhealthy weight loss practices. Soldiers suspected of engaging in harmful weight loss practices should be referred by the commander to their primary care manager for a medical evaluation. A consultation with a registered dietitian, who can provide guidance in starting a safe and effective weight loss program, is also recommended.

C–3. Key components of a weight loss program

A healthful and safe weight loss program includes these key components:

a. Nutrition therapy.

(1) A reduction of 500 calories per day from the current level will allow for a weight loss of 1 pound per week; a weight loss of no more than 1 to 2 pounds per week is recommended. The best weight loss plan will not be too difficult to follow. It will also help an individual obtain and maintain his or her ideal weight and body fat in the recommended ranges and develop and/or maintain lean muscle tissue required for physical demands.

(2) A healthful diet contains sensible portions of fruits, vegetables, grains, lean protein, and skim and/or low-fat dairy products. In addition, it is recommended that foods and beverages consumed contain little or no added sugar, sodium, and solid fats. Eating four to six small meals per day and not skipping meals, especially breakfast, is helpful for weight loss.

b. Increased physical activity. Physical activity should include aerobic activity, muscular strength and endurance, and flexibility activities. Recommendations:

(1) To maintain a healthy weight: 30 minutes of physical activity 5 to 7 times a week. Bottom line up front: Stay active for a lifetime to keep weight off.

(2) Active weight loss: 60 to 90 minutes of physical activity daily may be needed for weight loss. Physical activity will enhance weight loss as long as the daily resting energy needs are met.

(3) Weight loss maintenance: 30 to 60 minutes daily may be needed to prevent weight gain. Physical activity is the best predictor of weight loss maintenance.

c. Behavior modification. Behavior change is the key to long-term weight management. Specific strategies to change behavior such as self-monitoring, stress management, problem solving, planning, and preparing are needed for successful weight loss and maintenance.

C–4. Unsafe weight loss strategies

a. Fasting or starvation. Crash dieting, fasting, or starvation reduces weight, but also slows down the body's metabolism and forces the body to utilize lean muscle or organs for energy. Prolonged fasting can lead to decrease in muscle endurance and loss of strength and power. Coupled with fluid restriction, the dangers of dehydration are also a factor.

b. Water loss or forced dehydration. Since the body is 75 percent water, this is the easiest way to lose weight (2 cups water equals 2 pounds). Most common practices to lose water weight include fluid restriction, exercising in hot and humid conditions, and the use of saunas, "sauna suits," or diuretics. Risks of dehydration include irritability, dizziness, fatigue, weakness, organ failure, and death.

c. Abuse of diuretics and/or laxatives. Used to reduce further the body of excess "weight." This method combines all the risks of dehydration and starvation by depriving the body of fluids and nutrition.

d. Vomiting and/or purging. May lead to dehydration and can be self-induced or with emetics (laxatives) that stimulate the response. This method combines all the risk of dehydration and starvation by depriving the body of fluids and nutrition.

e. Use of diet or weight loss pills (appetite suppressants, metabolism boosters, fat burners).

(1) These weight loss aids may contain chemicals that act like drugs. Many of these supplements can be lethal, especially when taken before heightened physical activity. Others may result in serious side effects like liver damage, kidney problems, heart failure, stroke, or extreme dehydration. Supplements may have negative interactions with medications, other supplements, or existing medical conditions. The supplement may not have been proven to have any effect on weight loss.

(2) Unlike pharmaceutical products, manufacturers do not need to register dietary supplements with the Food and Drug Administration (FDA) or get FDA approval before producing or selling their products. FDA cannot take action unless problems are reported after the supplement is marketed.

C–5. Unsafe diets

Be suspicious of diets that—

a. Promise rapid weight loss.

b. Allow unlimited quantities of only certain foods and/or are overly strict.

c. Encourage unsafe practices such as fasting, use of diuretics and/or laxatives, or colon cleansing.

d. Promote special dietary supplements of "diet" pills.

C–6. Eating disorders

An eating disorder is an illness that causes serious disturbances to a person's food intake, such as eating extremely small amounts of food or severely overeating. Eating disorders affect both men and women, and result from a variety of emotional, physical, and social issues such as depression, anxiety disorders, or substance abuse. Although eating disorders may begin with a preoccupation with food and weight, they are more than just about food. Leaders who suspect a Soldier of suffering from an eating disorder should submit a referral for medical evaluation.

a. Anorexia nervosa. A serious potentially life-threatening eating disorder characterized by self-starvation and excessive weight loss. Individuals with anorexia nervosa see themselves as overweight even though they are clearly underweight. Eating, food, and weight control become obsessions.

b. Bulimia nervosa. Characterized by a cycle of bingeing and compensatory behaviors such as self-induced vomiting designed to undo or compensate for the effects of binge eating. Bulimia nervosa is a serious, potentially life-threatening eating disorder.

c. Binge eating. Occurs when a person loses control over his or her eating. Unlike bulimia nervosa, it is not followed by purging, excessive exercise, or fasting.

d. Eating disorders not otherwise specified. Eating disorders that include a combination of signs and symptoms but do not meet the full criteria for an eating disorder.

C–7. Resources

a. USAPHC TG 358. The Army Weight Management Guide at http://phc.amedd.army.mil/PHC%20Resource%20Library/USAPHC_TG_358_Army_Weight_Management_Guide.pdf provides a list of current nutrition and weight management resources.

b. De-mything diets. Diet books routinely top the bestseller lists and new fad diets frequently surface. The following Web sites sort out the myths to increase understanding of which diets are reasonable and which should be avoided:

(1) Academy of Nutrition and Dietetics at http://www.eatright.org/dietreviews.

(2) Weight Control Information Network at http://win.niddk.nih.gov/publications/myths.htm. View Web page "*Weight Loss and Nutrition Myths-How Much do you Know?*"

c. Weight loss programs. Weight Control Information Network at http://www.win.niddk.nih.gov/publications/choosing.htm. View Web page "*Choosing a Safe and Successful Weight Loss Program.*"

Appendix D
Internal Control Evaluation

D–1. Function
The function covered by this evaluation is the ABCP.

D–2. Purpose
The purpose of this evaluation is to assist the commanders, supervisors, and health care personnel in evaluating the key internal controls listed. It is intended as a guide and does not cover all controls.

D–3. Instructions
Answers must be based on the actual testing of key internal controls (for example, document analysis, direct observation, sampling, simulation, or other). Answers that indicate deficiencies must be explained and the corrective action identified in supporting documentation. These internal controls must be evaluated at least once every 2 years or whenever the internal control administrator changes. Certification that the evaluation has been conducted must be accomplished on DA Form 11–2 (Internal Control Evaluation Certification).

D–4. Test questions
a. Is there a master fitness trainer or has someone been designated as the unit fitness training NCO?

b. Has a height/weight and/or body fat assessment been performed and documented within the last 6 months for each Soldier in the unit not enrolled in the ABCP?

c. Did the commander enroll all eligible Soldiers exceeding body fat standards into the ABCP through notification counseling within 2 working days from initiation of the DA Form 268 for AC and RC Soldiers on active duty (the next MUTA for RC Soldiers not on active duty)?

d. Is there a completed unit ABCP file for Soldiers enrolled in the ABCP program?

e. Is there a DA Form 268 completed on Soldiers within 3 working days of being found noncompliant with body fat standards?

f. Is there a completed Soldier Action Plan on file within 14 days of the notification counseling?

g. Is nutrition counseling completed within 30 days after enrollment in the ABCP for AC and RC Soldiers on active duty?

h. Does monthly body fat assessment documentation exist for all Soldiers enrolled in the ABCP?

i. Are the Soldiers who perform the circumference-based tape method to determine Soldier body fat composition trained and competent to perform the measurements?

j. Is there a plan and/or policy established and maintained to describe how key internal controls will be evaluated over a 2-year period?

D–5. Supersession
Not applicable.

D–6. Comments
Help to make this a better tool for evaluating internal controls. Submit comments to Deputy Chief of Staff, G–1 (DAPE–HR), 300 Army Pentagon, Washington, DC 20310–0300.

Glossary

Section I
Abbreviations

ABCP
Army Body Composition Program

AC
Active Component

ACOM
Army command

ADT
active duty for training

AGR
Active Guard Reserve

APFT
Army Physical Fitness Test

AR
Army regulation

ARNG
Army National Guard

ASCC
Army service component command

CG
commanding general

DA
Department of the Army

DCS
Deputy Chief of Staff

DRU
direct reporting unit

FDA
Food and Drug Administration

FM
field manual

IRR
Individual Ready Reserve

MODS
Medical Operational Data System

MTF
medical treatment facility

MUTA
multiple unit training assembly

NCO
noncommissioned officer

NGR
National Guard Regulation

RC
Reserve Component

TG
technical guide

USAPHC
U.S. Army Public Health Command

USAR
U.S. Army Reserve

Section II
Terms

Body composition
Consists of two major elements of the human body: lean body-mass (which includes muscle, bone, and essential organ tissue) and body fat. Body fat is expressed as a percentage of total body weight that is fat. For example, an individual who weighs 200 pounds and has 18 percent body fat has 36 pounds of fat. Women generally have a higher percentage of body fat than men because of genetic and hormonal differences; thus, body fat standards differ among men and women by age groups.

Health care personnel
Trained physicians (military or civilian employees or contract personnel), physician's assistants, registered nurses, dietitians, and physical and/or occupational therapists under supervision of the unit surgeon or the commander of the MTF. For the purpose of this regulation, this term includes personnel of U.S. forces and host nations.

Exceed body fat standards
When a Soldier's percent body fat exceeds the standard specified in paragraph 3–2. Soldiers that exceed body fat standards are considered not in compliance with Army body fat standards.

Satisfactory progress
As described in paragraph 3-9*b*, progressing at a reasonable pace toward meeting the body fat standard. A monthly loss of 3 to 8 pounds or 1 percent body fat is required for satisfactory progress.

Section III
Special Abbreviations and Terms

Flag
suspension of favorable personnel action

UNCLASSIFIED
ROUTINE
:1159Z AUG 15
CNO WASHINGTON DC
TO NAVADMIN
INFO CNO WASHINGTON DC
BT
UNCLAS

NAVADMIN 178/15

MSGID/GENADMIN CNO WASHINGTON DC/N1/AUG//

SUBJ/PHYSICAL READINESS PROGRAM POLICY CHANGES//

REF/A/MSG/SECNAV WASHINGTON DC/121505ZJUN15//
REF/B/DOC/OPNAV/11JUL11//
REF/C/DOC/DODI/5NOV02//
NARR/REF A IS ALNAV 050/15, DEPARTMENT OF THE NAVY TALENT MANAGEMENT INITIATIVES. REF B IS OPNAVINST 6110.1J, PHYSICAL READINESS PROGRAM. REF C IS DODINST 1308.3, DOD PHYSICAL FITNESS AND BODY FAT PROGRAMS PROCEDURES.

RMKS/1. This NAVADMIN enumerates changes to the Physical Readiness Program (PRP) as announced in reference (a). Physical Fitness Assessments (PFAs) should be designed and implemented to assess an individual Sailors health and mission readiness. The current PFA model enforces maximum body fat ·entages and minimum physical readiness scores, but falls short on uating a Sailors overall health, and does not adequately reflect the ·llenges unique to sea duty and the increasingly technical nature of our jobs. The intent of these changes is to strike a better balance between health and physical readiness.

2. Amplifying instructions for Cycle 2 2015 (1 July 2015 to 31 December 2015): Cycle 2 2015 will continue to be administered in accordance with reference (b) with the following changes:

a. Physical Activity Risk Factor Questionnaire (PARFQ): The PARFQ process is unchanged. All Sailors will complete a PARFQ as outlined in reference (b).

b. Body Composition Assessment (BCA): Changes to the BCA are as follows:

(1) BCA measurements taken in Cycle 2 2015 will be recorded for monitoring purposes only using the current methodology and BCA standards outlined in reference (b).

(2) All BCA data will continue to be recorded in the Physical Readiness Information Management System (PRIMS), regardless of outcome.

(3) BCA measurements exceeding current standards, as outlined in reference (b), during Cycle 2 2015 ONLY will not count as a Physical Fitness Assessment (PFA) failure. Sailors who exceed current standards shall be enrolled in the Fitness Enhancement Program (FEP) and in nutritional counseling.

c. Physical Readiness Test (PRT): The PRT will continue to be ·nistered in accordance with reference (b). PRT failures incurred during e 2 2015 will be documented in PRIMS and count as PFA failures. PRT ·nges are as follows:

(1) All medically cleared Sailors shall participate in the PRT

command career counselors (CCC) should closely scrutinize Cycle 2, 2015 PFA data. CCCs should edit the Cycle 2, 2015 PFA data on the C-WAY application with detailed notes describing why the data was changed.

d. ISP is authorized for Sailors who complete applicable actions specified in this NAVADMIN and compete for retention but are denied a C-WAY quota. Previously submitted ineligible C-WAY applications (ineligible due to multiple PFA failures) will not be used to penalize the Sailor. Sailors who request retention, pass both Cycle 2, 2015 and Cycle 1, 2016 PFAs, and submit a C-WAY application (if required) after 1 January 2016, but are not retained will be considered to have maximized their opportunity for retention and receive ISP at the appropriate rate per references (k), (l), and (m).

4. For additional clarification, please contact the Navy Personnel Commands Customer Service Center at 1-866-U-ASK-NPC or via e-mail at UASKNPC@navy.mil.

5. This NAVADMIN will remain in effect until 31 December 2016, or unless superseded by new policy, whichever occurs first.

6. Released by Vice Admiral W. F. Moran, N1.//

BT
#0001
NNNN
UNCLASSIFIED//

(1) Once the member successfully passes the official Cycle 2, 2015 PFA, the Sailors command should submit an extension request to Navy Personnel ·mand following the guidance at: http://www.public.navy.mil/bupers-, career/enlistedcareeradmin/Pages/ReenExt.aspx with PRIMS results showing . Cycle 2, 2015 PFA results.

(2) Because this is an ETP, this action will not require a C-WAY quota (if applicable).

(3) Requested extension length should be of sufficient duration to allow for processing of a future special evaluation and application in C-WAY (if applicable), but must not exceed 30 June 2016.

c. Effective 1 January 2016, all Sailors (except those specified in paragraph 2 above) with PFA (body composition assessment or PRT) failures in the most recent 3-year period will be reset to one failure. C-WAY application eligibility rules will be updated to reflect the new limit of two failures in three years. The new 3-year cycle will be calculated forward based on the most recent PFA failure. For Sailors who were ineligible prior to 1 January 2016, the following steps are required to submit a reenlistment request and reestablish advancement criteria:

(1) Submit a special evaluation to restore advancement recommendation after 1 January 2016. Sailors who have passed the Cycle 2, 2015 PFA, are authorized to receive a special evaluation to restore their advancement recommendation per references (b) and (c) once they are reset. However, prior to passing the Cycle 1, 2016 PFA, these Sailors will not be eligible for reenlistment, extension (except as allowed in this NAVADMIN), or a C-WAY quota (if applicable). Eligibility for retention requires that the member be promotable and recommended for retention on the last two graded evaluations per reference (i). The second evaluation required to meet this will be ·ered in following paragraphs.

(2) Pass the Cycle 1, 2016 PFA. The Cycle 1, 2016 PFA begins on 1 ·ary 2016. Sailors retained in the Navy by reference (a) are permitted to perform the Cycle 1, 2016 PFA less than four months after completion of their Cycle 2, 2015 PFA and document it as their official PFA for this cycle as an ETP to reference (g). It is imperative that commands support an early PFA to the extent practical to allow Sailors and personnel administrators the proper amount of time to process special evaluations, communicate with ECMs, and initiate C-WAY resets (if required) for retention.

(3) Submit a second special evaluation once a Sailor passes the Cycle 1, 2016 PFA and PRIMS is updated. This special evaluation is to eliminate the physical readiness deficiency and should state this purpose explicitly in block 41 or 43 (comments on performance). At this point, Sailors will become eligible to reenlist and request a C-WAY reenlistment quota (if applicable).

(4) Once the evaluation is issued, commands should contact the applicable ECM to request a one-time in-rate, willing to convert application reset to compete for a reenlistment quota. Sailors, particularly those in overmanned ratings, and their supporting career counseling teams, are highly encouraged to maximize opportunity for retention by selecting three rating choices that match with Sailor aptitude in open ratings and year groups.

(5) For those Sailors subject to C-WAY, all PFA results must be recorded in PRIMS, special evaluation(s) completed, and C-WAY application submitted by 30 April 2016, which is the deadline for all C-WAY applications. Applications submitted after this deadline will not be reviewed and enlisted contracts will not be extended for additional looks in C-WAY.

(6) Sailors not subject to C-WAY policy must have their PRIMS and ·al evaluation(s) submitted prior to 31 May 2016 to allow proper ·essing of required retention paperwork.

(7) Due to delays in implementing required information technology system changes to support the new PFA policy delineated in reference (a),

record.

g. Retention Policy: References (i) and (j) remain in effect; however, Sailors who do not meet evaluation requirements for continued retention due to PFA failures and do not have enough obligated service to remain in the Navy until they can participate in the Cycle 1, 2016 PFA are directed to paragraph 3 for guidance on the process to compete for retention.

h. There shall be no modification to any part of a Sailors record (i.e. evaluations, past advancement exam participation allowance, physical readiness information management system (PRIMS) historical, etc.) for data that was entered as a result of PFA failures prior to 31 December 2015. These are considered permanent record entries.

3. Amplifying instructions for Sailors pending administrative separation who have insufficient obligated service to reestablish eligibility for retention and advancement under the new physical readiness standards promulgated in reference (a):

a. Active component Sailors with end of active obligated service (EAOS) or end of active obligated service (as extended) (SEAOS) and Selected Reserve (SELRES) Sailors with end of obligated service (EOS) or end of obligated service (as extended) (SEOS) between now and 31 December 2015 who have been ineligible to reenlist, extend or submit a Career Waypoints (C-WAY) application (if required) due to having three or more PFA failures in the most recent 4-year period and desire to be retained are authorized the following extensions:

(1) As an exception to policy (ETP), they may submit an extension request via their command (service not to exceed 31 December 2015) to Enlisted Career Administration/Enlisted Boards (PERS-81) following the guidance at: http://www.public.navy.mil/bupers-npc/career/enlistedcareeradmin/Pages/ReenExt.aspx.

(a) The purpose of this extension is to allow these Sailors an opportunity to participate in the Cycle 2, 2015 PFA, without a C-WAY quota (if applicable).

(b) This ETP extension will be offered to all Sailors in this category regardless of whether their total extension for one enlistment is greater than that authorized per reference (j).

(c) If the total extension time is greater than authorized per reference (j), the personnel support office shall:

1. Prepare a hard copy extension as approved.
2. Submit a trouble ticket to the Navy Standard Integrated Personnel System (NSIPS) Help Desk attaching a copy of the PERS-8 ETP approval received above, a copy of the extension, and a copy of this NAVADMIN as authority. The NSIPS Help Desk will assist the command in updating individual records accordingly.

(2) Upon passing Cycle 2, 2015 PFA, a second extension request must be submitted (service not to exceed 30 June 2016) to PERS-81 following the guidance at: http://www.public.navy.mil/bupers-npc/career/enlistedcareeradmin/Pages/ReenExt.aspx with PRIMS results showing the Cycle 2, 2015 PFA results.

(a) As an ETP, this action will not require a C-WAY quota (if normally required).

(b) Follow-on actions required for retention are provided in reference (j).

b. Sailors with EAOS or SEAOS and EOS or SEOS between 1 January 2016 and 30 June 2016 who are ineligible for retention or cannot submit a C-WAY application due to adverse evaluations as a result of past PFA failure history and desire to be retained are authorized an extension per the following:

to receive evaluation grades per reference (b). No special evaluation is permitted for these Sailors until 1 January 2016, per paragraph 3 below.

. Advancement Policy: Reference (c) remains in effect. Advancement cy in upcoming advancement cycles (Cycles 230, 231, and 232) will be sistent with previous policy.

c. High Year Tenure Policy: Reference (d) remains in effect.

d. Fleet Reserve Policy: References (e) and (f) remain in effect.

(1) Sailors who have submitted Fleet Reserve or retirement requests due to multiple PFA failures must continue their Fleet Reserve or retirement processing. Career Progression Division (PERS-8), in coordination with the enlisted community managers (ECMs), may approve a request for cancellation of a Fleet Reserve or retirement request based on community needs or manning on a case-by-case basis.

(2) Per reference (f), Sailors who are required to submit a request to PERS-8 for an adjustment to an approved Fleet Reserve or retirement date due to PFA failure must still submit this request.

e. Permanent Change of Station (PCS) Transfer Policy: Pending a permanent revision to reference (g), transfer policy is modified as follows:

(1) Unless the most recent PFA was passed, Sailors who have failed one PFA in the past three years will not be assigned to:

(a) Overseas billets;
(b) GSA/OSA;
(c) PCS/Mobilization;
(d) Pre-commissioning billets;
(e) Recruiting division commander assignments;
(f) Recruiting duty;
(` Equal opportunity advisor assignments;
Washington, DC and Millington, TN staffs;
ombatant commander staff; or
(j) Instructor duty.

(2) Changes to any program not listed above that has specific PFA requirements will be announced via revision to its governing instruction.

f. Administrative Separation Policy:

(1) Sailors who met the requirements for mandatory separation processing per reference (g) as of 1 July 2015 and do not pass either a mock or official Cycle 2, 2015 physical readiness test (PRT) will resume separation processing on 1 December 2015 and are ineligible for the reset of PFA failures on 1 January 2016 cited in reference (a).

(2) Sailors who failed their third PFA in the most recent 4-year period in the Cycle 2, 2015 PRT shall be processed for administrative separation and are ineligible for the reset of PFA failures on 1 January 2016 cited in reference (a).

(3) Sailors who are currently being processed for administrative separation due to PFA failures and choose to continue with the separation process instead of requesting to participate in the Cycle 2, 2015 PFA prior to 1 December 2015 shall be processed for administrative separation without delay. Involuntary separation pay (ISP) will not be awarded. The applicable separation program designator (SPD) code from the FT (physical standards) family shall be used. For Sailors who have chosen to continue with separation, this guidance supersedes reference (h), specifically, they are not eligible for the CR (weight control) family of SPD codes.

(4) Per reference (g), all commands are required to and shall capture all" PFA failures using NAVPERS 1070/613 documenting the failure with Sailors acknowledgement. If not already completed, verify all Sailors possessing a PFA failure from 1 July 2012 to present have the required NAVPERS 1070/613 completed and filed in their official military personnel

UNCLASSIFIED//
ROUTINE
R 071159Z OCT 15
FM CNO WASHINGTON DC
TO NAVADMIN
INFO CNO WASHINGTON DC
BT
UNCLAS

NAVADMIN 233/15

MSGID/GENADMIN CNO WASHINGTON DC/N1/OCT//

SUBJ/PHYSICAL READINESS PROGRAM POLICY CHANGES UPDATE 1: ENLISTED POLICIES (CORRECTED COPY)//

REF/A/MSG/CNO WASHINGTON DC/031159ZAUG15//
REF/B/DOC/BUPERS/1MAY15//
REF/C/DOC/BUPERS/2NOV07//
REF/D/DOC/COMNAVPERSCOM/5NOV14//
REF/E/DOC/COMNAVPERSCOM/19DEC11//
REF/F/DOC/COMNAVPERSCOM/2FEB13//
REF/G/DOC/OPNAV/11JUL11//
REF/H/MSG/CNO WASHINGTON DC/292315ZDEC10//
REF/I/DOC/COMNAVPERSCOM/24APR13//
REF/J/DOC/COMNAVPERSCOM/2SEP10//
REF/K/DOC/OPNAV/20DEC05//
REF/L/DOC/COMNAVPERSCOM/23MAR07//
REF/M/DOC/COMNAVPERSCOM/20SEP11//
NARR/REF A IS NAVADMIN 178/15, PHYSICAL READINESS PROGRAM POLICY CHANGES. REF B IS BUPERSINST 1610.10D, NAVY PERFORMANCE EVALUATION SYSTEM. REF C IS BUPERSINST 1430.16F, ADVANCEMENT MANUAL FOR ENLISTED PERSONNEL IN THE U.S. NAVY AND U.S. NAVY RESERVE. REF D IS MILPERSMAN 1160-120, HIGH YEAR TENURE. REF E IS MILPERSMAN 1830-040, TRANSFER TO FLEET RESERVE AND RELEASE FROM ACTIVE DUTY. REF F IS MILPERSMAN 1910-170, SEPARATION BY REASON OF PHYSICAL FITNESS ASSESSMENT (PFA) FAILURE. REF G IS OPNAVINST 6110.1J, PHYSICAL READINESS PROGRAM. REF H IS NAVADMIN 420/10, NEW POLICY REGARDING INVOLUNTARY SEPARATION PAY FOR PHYSICAL FITNESS ASSESSMENT FAILURE. REF I IS MILPERSMAN 1160-030, CERTAIN ENLISTMENTS AND REENLISTMENTS UNDER CONTINUOUS SERVICE CONDITIONS. REF J IS MILPERSMAN 1160-040, EXTENSION OF ENLISTMENTS. REF K IS OPNAVINST 1900.4, SEPARATION PAY FOR INVOLUNTARY SEPARATION FROM ACTIVE DUTY. REF L IS MILPERSMAN 1920-030, INVOLUNTARY SEPARATION PAY (NON-DISABILITY) - DEFINITIONS AND POLICY. REF M IS MILPERSMAN 1920-040, INVOLUNTARY SEPARATION PAY (NON-DISABILITY) ELIGIBILITY CRITERIA AND RESTRICTIONS.//

RMKS/1. This NAVADMIN details the changes to physical readiness policies for enlisted personnel announced in reference (a) and specifies the process by which an enlisted Sailor pending separation as a result of failing three physical fitness assessments (PFA) in the most recent 4-year period may be retained until they are able to participate in the Cycle 1 2016 PFA.

2. Affected Enlisted Personnel Policies:
   a. Evaluation Policy: Reference (b) remains in effect until 31 December 2015 at which point updated guidance will be promulgated. Any Sailor possessing three PFA failures in the most recent 4-year period shall continue

#0001
NNNN
CLASSIFIED//

care provider.

3. Sailors, including eligible members of the Reserve component, who are pregnant or experience a birth event on or before March 3, 2016, will be entitled up to 18 weeks of maternity leave.

4. Navy members who become pregnant after 3 March 2016 will be entitled to 84 total days of non-chargeable maternity leave. The leave must be taken in a single block of 84 days, consecutively and immediately following a birth event or release from hospitalization following a birth event, whichever is later.

5. For Navy members whose maternity leave or additional maternity leave (AML) was approved by their commanding officers on or before 3 March 2016, or who are pregnant or experience a birth event on or before 3 March 2016, the policy established in reference (d) applies. That is, mothers may be granted up to 126 total days of leave (42 days of convalescent/maternity leave and up to 84 days of AML and may take the AML in multiple blocks as allowed by reference (d)). Maternity leave that is not used within a year of the childs birth will be lost. AML shall be calculated based on work days, per reference (d) paragraph 7a.

6. Definition of birth event. Any birth of a child(ren) to a female member wherein the child(ren) is/are retained by the mother. For purposes of this NAVADMIN, multiple children resulting from a single pregnancy (e.g., twins or triplets) will be treated as a single event so long as the multiple births occur within the same 72-hour period.

7. Members who give birth but do not retain custody of the child are eligible for convalescent leave as prescribed by their health care provider.

8. Eligible Reserve Component members will be extended on active duty at their request for the purposes of taking maternity leave.

9. Adoption leave and parental leave policies remain unchanged and will continue to be administered in accordance with references (b) and (f).

10. No member shall be disadvantaged in her career, including limitations in her assignments (except in the case where she voluntarily agrees to accept an assignment limitation), performance appraisals, or selection for professional military education or training, solely because she has taken maternity leave.

11. Tracking of maternity leave and AML.

a. For commands on e-Leave in Navy Standard Integrated Personnel System (NSIPS), members will request the maternity leave type for both maternity leave and AML. Command leave administrators shall run the e-Leave type report regularly to ensure the authorized days of maternity or AML as listed in paragraphs 4 and 5 are not exceeded.

b. Commands not on e-Leave with NSIPS will manually track maternity leave and AML until the command begins utilizing e-Leave.

12. Point of contact for this matter is LT Amy Younger, N130C2, at (703) 604-5477/DSN 664 or via e-mail at NXAG_N130C(at)NAVY.MIL.

13. Released by Vice Admiral W. F. Moran, N1.//

BT

UNCLASSIFIED//

TINE

R 251858Z FEB 16

FM CNO WASHINGTON DC

TO NAVADMIN

INFO CNO WASHINGTON DC

BT
UNCLAS
NAVADMIN 046/16

MSGID/GENADMIN/CNO WASHINGTON DC/N1/FEB//

SUBJ/MATERNITY AND CONVALESCENT LEAVE POLICY UPDATE//

REF/A/LTR/DTM 16-002/5FEB16//

REF/B/DOC/DOD/16JUN09//

REF/C/MSG/SECNAV WASHINGTON DC/021900ZJUL15//

REF/D/MSG/CNO WASHINGTON DC N1/051649ZAUG15//

E/DOC/COMNAVPERSCOM/31MAR11//

REF/F/DOC/OPNAV/14JUN07//

REF/G/DOC/OPNAV/11JUL11//

NARR/ REF A IS A DIRECTIVE-TYPE MEMORANDUM (DTM) 16-002, DOD-WIDE CHANGES TO MATERNITY LEAVE. REF B IS DODINST 1327.06, LEAVE AND LIBERTY POLICY AND PROCEDURES. REF C IS ALNAV 053/15, DEPARTMENT OF THE NAVY MATERNITY AND CONVALESCENT LEAVE POLICY. REF D IS NAVADMIN 182/15, MATERNITY AND CONVALESCENT LEAVE POLICY. REF E IS NAVPERS 15560D, NAVAL MILITARY PERSONNEL MANUAL (MILPERSMAN). REF F IS OPNAVINST 6000.1C, NAVY GUIDELINES CONCERNING PREGNANCY AND PARENTHOOD. REF G IS OPNAVINST 6110.1J, PHYSICAL READINESS PROGRAM.//

RMKS/1. In accordance with the 28 January 2016 Secretary of Defense announcement regarding maternity leave as outlined in reference (a), this NAVADMIN updates Navy maternity leave policy previously promulgated in references (b) through (d). This NAVADMIN will be followed by updates to references (e) through (g), including the release of a new MILPERSMAN article addressing maternity leave.

2. Eligibility.

a. This new maternity leave policy applies to active component members, Reserve component members serving on call or orders to active service for ntinuous period of at least 12 months.

b. Date of pregnancy, which determines whether the member is eligible for 12 or 18 total weeks of leave, shall be determined by a privileged health

5. BCA Spot checks. BCA spot checks provide COs an opportunity to make a difference in Sailor health and fitness without administrative/punitive consequences outside of the official command PFA cycle.

a. Spot checks will be conducted at the discretion of the CO and are intended to identify Sailors in need of additional support by assigning them to the FEP program before they become a PFA failure.

b. With only two failures in a 3-year period now resulting in processing for administrative separation, it is important that all hands stay proactive in achieving and maintaining the health and fitness goals of the Navy.

c. It is the responsibility of every Sailor to be within PFA standards at all times. If a Sailor fails a BCA spot check, they will be enrolled in FEP and will actively participate in mock PFAs until they meet the new graduated BCA and PRT standards.

d. COs are not required to conduct a Administrative Remarks (NAVPERS 1070/613) counseling for Sailors who fail BCA spot checks.

e. CFLs must ensure that Sailor progress is accurately reflected in PRIMS for Sailors enrolled in FEP due to spot checks failures.

f. Recommended guidance (not all inclusive or limiting other options) for conducting spot checks include:

(1) Within five days of checking-in to the command (this should be applied to everyone).

(2) Individual returning from extended leave/TAD periods (length of period to be determined by CO).

(3) Unit sweep BCA spot checks as a means to get at risk Sailors into the FEP program.

(4) Incorporate into the Command Division in the Spotlight.

(5) In conjunction with urinalysis on a random basis.

(6) After extended authorized absences for reserve personnel.

(7) Recommendation from CFL.

6. Commander, Navy Recruiting Command new accession BCA policy will follow guidance set forth in reference (b) effective 1 January 2016.

7. Prior to initiating separation processing on any Naval Nuclear Propulsion Program Sailor (to include those who incur the third failure in the past four years prior to 1 December 2015 and those who incur their second failure in the last three years after 1 January 2016), commands are still required to submit separation requests for review and approval to Nuclear Propulsion Programs (OPNAV N133) per reference (c).

8. For questions, please contact the Physical Readiness Program Help Desk at (901) 874-2210/DSN 882 or via e-mail at prisms(at)navy.mil. Physical Readiness Program polices, operating guides and FAQs can be found on the NPC 21st Century Sailor web page http://www.public.navy.mil/bupers-npc/support/21st_Century_Sailor/physical/Pages/default2.aspx.

9. Released by Vice Admiral W. F. Moran, N1.//

BT
#0001
NNNN
UNCLASSIFIED//

the FEP tab for each member who is enrolled in FEP to include pass or fail of the required monthly mock PFA.

(5) Sailors enrolled in FEP due to BCA failure, or exceeding the new duated BCA standards must also be enrolled in a weight management program receive nutritional counseling as outlined in reference (c). The Nutrition Resource Guide can be found on the NPC 21st Century Sailor web page http://www.public.navy.mil/bupers-npc/support/21st_Century_Sailor/physical/Pages/default2.aspx. Shipshape, the official Navy weight management program and other weight management programs must focus on nutrition and behavior change. FEP participants should also be engaged with their CFL and Navy Fitness resources to improve their physical exercise regimens. Sailors do not have to fail the PFA or a spot check to participate in FEP or Shipshape. These resources are in place for the benefit of all Sailors and COs are encouraged to promote participation. FEP and Shipshape facilitators should flex program availability to meet the needs of the fleet.

(6) Medical clearance to participate in the PFA: If a member fails BCA and is cleared to participate in the PRT with no medical waivers, then the Physical Activity Risk Factor Questionnaire will serve as medical clearance to participate in the PRT and FEP, and no NAVMED 6110/4 form will be required. If member requires a medical waiver for any portion of the PFA it must be documented on a NAVMED 6110/4.

(7) Medical clearance is not required for Sailors who fail to meet the graduated BCA standards, or for Sailors who fail any portion of the PRT.

e. An authorized medical department representative must follow Bureau of Medicine and Surgery guidelines for waiver recommendation process and complete the required training on proper procedures for BCA and PRT medical ening and waivers.

valuation Policy

a. No mandated or prohibited trait mark is required in "Military Bearing"/Professionalism for promotability and/or retention for reporting period in which a first PFA failure in a 3-year period occurs.

b. For reporting period in which a member has failed two or more PFAs in the most recent 3-year period,

(1) Enlisted members shall receive:

(a) A grade no greater than 1.0 in "Military Bearing" or Professionalism (CHIEFEVAL block 35 or EVAL block 36).

(b) Marks of "Significant Problems" and "Retention Not Recommended (Eval block 45 and block 47), respectively.

(2) Officers shall receive:

(a) A grade no greater than 1.0 in "Military Bearing" (FITREP block 35).

(b) Mark for promotability shall be Significant Problems.

(3) For Sailors with two PFA failures in most recent 3-year period that have an approved waiver, reporting seniors shall use their discretion when determining "Military Bearing" or "Professionalism" marks for a reporting period in which the member passes two consecutive PFAs. However, the member must still receive a not recommended for reenlistment or retention for that evaluation period and the member remains ineligible for advancement/promotion and for enlisted members ineligible for participation in the advancement exam. In those situations, insert a bullet in the ıation/fitness report stating why the member is not recommended due to ıg two or more PFA failures in the most recent 3-year period.

. Overall score of "outstanding" or "excellent" are not required for assigning 5.0 in Military Bearing or Professionalism.

(m) If the Sailor exceeds the AC measurement, proceed to step 3.

(3) Step 3: If the Sailor exceeds the AC measurement screen of step 2, a body circumference measurement must be conducted.

(a) Apply the BC measurement technique to determine body fat percentage per reference (c).

(b) The Sailor will pass the BCA by meeting the Department of Defense (DoD) maximum allowable body fat limit of less than or equal to 26 percent for males or less than or equal to 36 percent for females as outlined in reference (d).

(c) The Sailor will fail the BCA if they do not meet any of the standards employed in steps 1, 2, and 3.

(d) Sailors who fail the BCA must be evaluated by a medical provider, enrolled in the FEP, and provided nutritional counseling.

(e) All Sailors who are medically cleared, regardless of BCA results, must take the PRT.

(f) A BCA failure will constitute an overall PFA failure for the cycle regardless of PRT results.

b. Performance Standard Scoring Tables:

(1) Each PRT event will be scored using five categories (Probationary, Satisfactory, Good, Excellent, and Outstanding).

(2) Each category will have three different levels (high, medium and low) of performance except Satisfactory where only two levels (high and low) will apply.

(3) Probationary is the minimum achievable score, anything below probationary is a failure. Sailors who score probationary in any PRT event will be enrolled in FEP.

(4) The new Performance Standard Scoring Tables are published in reference (c), Operation Guide 5 effective 1 January 2016.

c. CFL Certification and Re-Certification:

(1) CFLs must attend the CFL training course to obtain initial training and certification.

(2) In order to maintain certification, the Navy Enlisted Classification 95PT/Additional Qualification Designator, CFLs must attend a CFL seminar or a CFL certification course at a minimum of every three years to maintain their CFL credentials.

(3) CFLs may obtain more information about CFL seminars and courses at the NPC 21st Century Sailor web page http://www.public.navy.mil/bupers-npc/support/21st_Century_Sailor/physical/Pages/default2.aspx.

(4) CFLs are required to score an overall excellent or above on their PFA in order to obtain/ retain certification. CFLs that elect to participate in an alternate cardio event must score an excellent or better on the cardio event elected.

(5) CFLs are required to maintain one percent below the graduated BCA standards for purposes of certification.

(6) CFL certification course will continue to require all Sailors complete the 1.5 mile run, no alternate cardio options will be provided.

d. FEP: A strong command FEP is key in ensuring that Sailors who exceed DoD maximum BCA standards (26 percent males and 36 percent females), exceed new Navy graduated BCA standards, or Sailors failing any portion of the PRT actively work towards getting back in PFA standards.

(1) All medically cleared Sailors enrolled in FEP will be required to participate in a mock PFA every 30 days.

(2) Failures incurred during a mock PFA will not count as official failures.

(3) A Sailor will be disenrolled from FEP when he or she passes a mock or official PRT and is within the new Navy graduated BCA standards.

(4) CFLs must ensure that appropriate entries are made in PRIMS under

3. Effective 1 January 2016 (Cycle 1, 2016), the following changes to reference (c) are in effect:

BCA Methodology: As outlined in reference (a), the new method for measuring BCA consists of a three-step process. A Sailor who is medically cleared to participate in the PRT must participate regardless of his or her BCA results under any of the three steps discussed below.

(1) Step 1: Apply the current height/weight tables per reference (c). If the Sailor is within height/weight standards, he or she will pass the BCA, steps 2 and 3 will not apply, and no Fitness Enhancement Program (FEP) enrollment is required. If the Sailor does not meet the height/weight standard, proceed to step 2.

(2) Step 2: Apply a single-site abdominal circumference (AC) measurement. The following will provide a brief description of the AC measurement process for the Sailor and the Command Fitness Leader (CFL). The CFL will need to be familiar with the appropriate anatomical sites for tape placement to obtain consistent and accurate measurements. Amplifying information and video can be found on the Navy Personnel Command (NPC) 21st Century Sailor web page http://www.public.navy.mil/bupers-npc/support/21st_Century_Sailor/physical/Pages/default2.aspx.

(a) The CFL will start the measurement on the right side of the Sailor.

(b) The CFL will locate the measurement landmark immediately above the right uppermost hip bone (superior border of the iliac crest) at the side of the body vertically in line with the right armpit (mid-axillary line).

(c) If desired, the Sailor may assist the CFL in locating the measurement landmark by resting the right hand on the hip, using rearward sliding right thumb to locate the iliac crest. The CFL will determine final horizontal - vertical intersection point for landmark confirmation.

(d) The Sailor will stand on a flat surface with feet no more than shoulder width apart. The head should be upright, looking directly forward with the chin parallel to the floor.

(e) The Sailor may use one hand to initially assist the CFL in anchoring the tape measure to the body, but must remove the hand from the tape measure before the official measurement is recorded.

(f) Measurement will be taken on bare skin. The free hand may be used to hold the shirt out of the way, but no part of the hands or arms may extend above the shoulders.

(g) The Sailor will remain stationary while the CFL conducts the measurement by initially moving around the Sailor to place the tape in a horizontal plane around the abdomen.

(h) The CFL will ensure the tape is parallel to the floor at the level of the landmark (bottom edge of the tape just contacts landmark), is snug, but does not compress the bare skin.

(i) Upon exhale, the CFL will take the measurement at the end of the Sailors normal respiration.

(j) The CFL will take the circumference measurement twice and record each, round each down to the nearest 1/2 inch. If one of the two measurements differs by more than one inch, the CFL will take an additional measurement and compute a mathematical average of the two closest measurements to the nearest 1/2 inch and record this value as the AC measurement.

(k) A Sailor will pass the BCA if AC is less than or equal to

[redacted] inches for males and less than or equal to 35.5 inches for females.

(l) If the Sailor is within AC standards, he or she will pass the BCA, step 3 will not apply.

UNCLASSIFIED
ROUTINE
R 091538Z MAR 16
FM CNO WASHINGTON DC
TO NAVADMIN
INFO CNO WASHINGTON DC
BT
UNCLAS
PASS TO OFFICE CODES:
FM CNO WASHINGTON DC//N1//
INFO CNO WASHINGTON DC//N1//

NAVADMIN 061/16

MSGID/GENADMIN CNO WASHINGTON DC/N1/MAR//

SUBJ/IMPLEMENTATION OF PHYSICAL READINESS PROGRAM POLICY CHANGES UPDATE #2//

REF/A/MSG/CNO WASHINGTON DC/031159ZAUG15//
REF/B/MSG/CNO WASHINGTON DC/071159ZOCT15//
REF/C/DOC/OPNAV/11JUL11//
REF/D/DOC/DOD/5NOV02//
NARR/REF A IS NAVADMIN 178/15, PHYSICAL READINESS PROGRAM POLICY CHANGES. REF B IS NAVADMIN 233/15, PHYSICAL READINESS PROGRAM POLICY CHANGES UPDATE 1: ENLISTED POLICIES (CORRECTED COPY). REF C IS OPNAVINST 6110.1J, PHYSICAL READINESS PROGRAM. REF D IS DODI 1308.3, DOD PHYSICAL FITNESS AND BODY FAT PROGRAMS PROCEDURES.//

RMKS/1. This NAVADMIN amplifies and clarifies changes to the Physical Readiness Program as announced in reference (a). Physical Fitness Assessments (PFA) are designed and implemented to assess the health and mission readiness of individual Sailors 365 days a year. The intent of these changes and initiatives is to strike a better balance between physical health and mission accomplishment. The ultimate responsibility for implementing the physical readiness program lies with the commanding officer.

2. The following guidance is only applicable for PFA record corrections, administrative separations and exceptions to policy:

a. Letter of Correction (LOC): LOC signed by the commanding officer (CO) must be submitted with supporting documentation to include the scanned original: Body composition assessment (BCA) score sheet, physical readiness test (PRT) score sheet and Physical Fitness Assessment Medical Clearance/Waiver (NAVMED 6110/4) for each individual Sailor to Navy 21st Century Sailor Office (OPNAV N170), Physical Readiness Information Management System (PRIMS) Manager, (prims(at)navy.mil) if changes to a PFA record is required.

b. Administrative Separation: Medically-waived, pregnant and deployed/operational statuses during Cycle 2, 2015 did not count as failures or passes for the PRT. These Sailors are to be retained and their most recent PFA failure will carry over effective 1 January 2016.

c. Exception to Policy. Sailors who were not medically cleared to participate in Cycle 2, 2015 PRT and whose Expiration of Active Obligated Service and Soft Expiration of Active Obligated Service expired prior to 1 January 2016 were authorized an exception to policy extension of sufficient duration to allow participation in the Cycle 1, 2016 PFA. Procedures are described in reference (b), paragraph 3a (1).

in PRIMS should be reflected as pregnant for all stages of the pregnancy and post-partum periods.

3. CFLS must review the operating guides of the Physical Readiness Program for additional information. Additional information can be found on the website: http://www.public.navy.mil/bupers-npc/support/21st_Century_Sailor/physical.

4. Released by Vice Admiral R. P. Burke, N1.//

BT
#0001
NNNN
UNCLASSIFIED//

NAV17141

UNCLASSIFIED
ROUTINE
R 201258Z JUN 17
FM CNO WASHINGTON DC
TO NAVADMIN
INFO CNO WASHINGTON DC
BT
UNCLAS
PASS TO OFFICE CODES:
FM CNO WASHINGTON DC//N1//
INFO CNO WASHINGTON DC//N1//

NAVADMIN 141/17

MSGID/GENADMIN/CNO WASHINGTON DC/N1/JUN//

SUBJ/PHYSICAL READINESS PROGRAM POLICY CHANGES//

REF/A/DOC/OPNAV/11JUL11//
REF/B/DOC/NAVPERS/APR17//
NARR/REF A IS OPNAVINST 6110.1J, PHYSICAL READINESS PROGRAM.
REF B IS NAVPERS 15839I, MANUAL OF NAVY OFFICER MANPOWER AND PERSONNEL CLASSIFICATIONS.//

RMKS/1. This NAVADMIN outlines new policies and initiatives to the Physical Readiness Program and continues our efforts to strike a better balance between physical readiness and mission accomplishment while reducing administrative distractions.

2. The following changes are effective 1 January 2018:

a. Sailors who pass the body composition assessment (BCA), are within the Navy age-graduated body fat standards, and score an overall excellent low or better (with no single event lower than good low) on the physical readiness test (PRT) will be exempt from participation in the following PRT cycle. The first cycle for which Sailors can be exempt is cycle 2018-1, based upon performance during the cycle 2017-2 PRT. All Sailors, regardless of PRT performance, will still be required to participate in the BCA each cycle.

(1) For cycle 2018-1, Physical Readiness Information Management System (PRIMS) will allow command fitness leaders (CFL) the ability to assign a non-participation status of validated for those Sailors who earn the incentive during cycle 2017-2.

(2) If a Sailor is validated from taking the PRT, but fails the BCA, the Sailor is required to participate in the PRT if medically cleared.

b. Elliptical will no longer be authorized as an alternate cardio device beginning with cycle 2018-1 due to the low number of Sailors (4 percent) who use them during a PRT and the increasing cost to maintain PRT-compliant ellipticals. While the 1.5 mile run/walk remains the service standard, commanding officers (CO) may authorize the use of approved stationary bikes, treadmill or the swim as alternate cardio. Navy fitness facilities will continue to provide ellipticals for training, but will now be free to modernize equipment.

c. Based on data from recently completed Navy medical studies and consistent with recent changes to maternity leave policy, post-partum Sailors are now exempt from participating in the physical fitness assessment (PFA) for 6 months following their maternity leave. This change reflects an increase to the Navy maternity leave policy being increased to 84 days following the birth of a child. After completion of the 6 month period, the Sailor will then be required to participate in the following PFA cycle (i.e. if the pregnancy" status ends during cycle 1, Sailors would not be expected to participate in an official command PFA until cycle 2). Pregnant and post-partum Sailors are not required to complete a Physical Activity Risk Factor Questionnaire while in the pregnancy status. Their PFA participation status

6. The Nuclear Propulsion Program Manager, OPNAV (N133), will remain the single point of contact on all PFA failure policy matters relating to Naval lear Propulsion Program (NNPP) personnel.
. Nuclear-trained members may be granted an exception to the criteria paragraphs 3 and 4 with approval of OPNAV (N133).
b. All recommendations for administrative separation processing for nuclear-trained officers will be submitted to OPNAV (N133) for review and approval.

7. Points of contact. Physical Readiness Program, Mr. Bill Moore at (901)874-2210 or PRIMS(at)navy.mil. For all other personnel related policies: NAVPERSCOM at 1-866-827-5672 (U-ASK-NPC).

8. Released by Vice Admiral Robert P. Burke, N1.//

BT
#0001
NNNN
UNCLASSIFIED//

cancellation requests to COMNAVPERSCOM, Enlisted Assignment Division (PERS-40), and to OPNAV (N133) for all nuclear-trained members.

d. Enlisted personnel affected by this change to PFA separation policy, who desire to stay Navy, must maintain advancement eligibility as outlined in reference (d) to participate in the Navy-Wide Advancement Exam (NWAE). This may require a special evaluation to restore advancement recommendation once the member passes an official PFA.

e. Members who desire to stay Navy:

(1) Who are not in receipt of separation/retirement orders but are within seven months of their Projected Rotation Date (PRD) must contact their detailer who can make a Career Management System Interactive (CMS-ID) application for them in the next CMS-ID cycle.

(2) Who are in their normal 7-12 month negotiation window should submit an application via CMS-ID. Those affected members beyond 12 months from their PRD will follow the normal detailing processes.

4. The following applies to all officers who:

a. Fail one PFA will:

(1) Not be eligible for promotion. Commands are required to delay promotion and inform PERS-833. Members will regain eligibility for promotion by passing the next command-directed monthly FEP mock PFA.

(2) Be issued a Letter of Notification to inform them of the PFA failure.

(3) Be enrolled in the FEP until passing the next official PFA.

b. Fail two or more consecutive PFAs will be submitted to PERS-834 for administrative separation processing under reference (e).

(1) If SECNAV determines the officer is to be separated (or retired), this action will occur at the PRD of the officer or upon the determination of SECNAV, whichever is later.

(2) If an officer passes an official PFA prior to the decision of SECNAV on retention or separation, processing will cease and the member will be retained upon notification to PERS-834. A special fitness Report may be submitted to document the officers satisfactory physical readiness status under reference (c).

(3) Additionally, officers who fail two or more consecutive PFAs will receive an adverse report that states Significant Problems on their fitness report under reference (c).

5. Additional information that applies to all members:

a. Effective 1 January 2018 all PFA failures will reset to zero only for enlisted reenlistment policy and officer administrative separation policy as outlined in paragraphs 3.a and 4. No other records will be changed such as PRIMS, Fitness Reports or Evaluations.

b. All members must have a Body Composition Assessment (BCA) completed within five work days of reporting to a new command. This BCA spot-check will not count as the official BCA for newly reported members during the command PFA cycle, regardless of the status of the official command PFA cycle. Members exceeding Age Adjusted Body Fat Standards (AAS) during spot-checks must be enrolled into Command FEP.

c. FEP enrollment and disenrollment determination: Upon either a BCA spot-check failure or PFA failure, members must participate in FEP until they pass an official PFA and are within AAS.

d. All members who have regained promotion/advancement eligibility are reminded of their ability to communicate in writing to promotion and selection boards as outlined in MILPERSMAN 1420-010 of reference (b) and reference (d).

Personnel System (NSIPS) to inform them of the PFA failure.

(b) Be enrolled in the Fitness Enhancement Program (FEP) until sing the next official PFA.

(c) Not be frocked or advanced. Members may regain eligibility . promotion by passing a command-directed monthly FEP mock PFA. However, they must still remain enrolled in FEP until passing the next official PFA.

(2) Fail two or more consecutive PFAs will continue service until SEAOS. Additionally these members:

(a) Will be ineligible for advancement under reference (a).

(b) Will be ineligible to reenlist or extend under reference (b).

(c) Will receive an adverse report that states Significant Problems on evaluation under reference (c).

(d) Will be detailed as required. Changes to any program that has specific PFA requirements will be announced via revision to its governing instruction.

(e) May regain eligibility for advancement and reenlistment by passing one subsequent official PFA. In line with references (c) and (d), members must obtain the recommendation of their CO for advancement and retention on their most recent evaluation. This may require a special evaluation to restore retention or advancement recommendations after a member passes an official PFA.

b. For those members who currently have approved separation or Fleet Reserve dates as a result of the previous PFA separation policy, the following information and guidelines are provided:

(1) Members who currently have approved separation dates not aligned to their SEAOS on or before 31 March 2018 must contact their chain of command and decide no later than 1 February 2018 whether to cancel their naration/reserve orders and remain on active duty or execute their orders riginally planned. Every effort will be made to retain Sailors who re to stay Navy.

(2) Enlisted members with SEAOS between 1 January 2018 and 30 June 2018 who are ineligible for retention or cannot submit a Career Waypoints (C-WAY) application due to adverse evaluations as a result of past PFA failure history and desire to stay Navy are authorized an extension to regain eligibility with command endorsement as follows:

(a) Requested extension length should be of sufficient duration to allow for processing of a future special evaluation and application in C-WAY (if applicable), but must not exceed 30 September 2018.

(b) Because this is an exception to policy, this action will not require a C-WAY quota (if applicable).

(c) Once the member successfully passes the official Cycle 1, 2018 PFA, and has retention eligibility restored from the CO, the member can submit their reenlistment/extension request directly to their CO, or Bureau of Naval Personnel (BUPERS) Enlisted Community Manager (BUPERS-32) for enlisted members who must use C-WAY. For Nuclear-trained members, all requests must be submitted via their CO to Deputy Chief of Naval Operations Nuclear Program Manager (OPNAV (N133)). In all cases, the Physical Readiness Information Management Systems (PRIMS) results must show the Cycle 1, 2018 results.

c. Members with approved Fleet Reserve dates on or after 31 July 2018 who pass Cycle 1, 2018 and desire to remain on active duty must first submit a cancellation request no later than 1 May 2018 to Commander, Navy Personnel nand (COMNAVPERSCOM) Enlisted Retirements Office (PERS-836) at the ving e-mail address: enlisted_active_duty_retirements(at)navy.mil. Once eived, approval of the Fleet Reserve cancellation request serves as authority to cancel previously issued retirement orders, which are issued by the local supporting personnel office. PERS-836 will forward all approved

UNCLASSIFIED
ROUTINE
R 211859Z DEC 17
FM CNO WASHINGTON DC
TO NAVADMIN
INFO CNO WASHINGTON DC
BT
UNCLAS
PASS TO OFFICE CODES:
FM CNO WASHINGTON DC//N1//
INFO CNO WASHINGTON DC//N1//

NAVADMIN 304/17

MSGID/GENADMIN CNO WASHINGTON DC/N1/DEC//

SUBJ/PHYSICAL READINESS PROGRAM POLICY CHANGE//

REF/A/DOC/OPNAV/11JUL11//
REF/B/DOC/NAVPERS/22AUG02//
REF/C/DOC/BUPERS/01MAY15//
REF/D/DOC/BUPERS/6MAY14//
REF/E/DOC/SECNAV/26AUG15//
NARR/REF A IS OPNAVINST 6110.1J, PHYSICAL READINESS PROGRAM.
REF B IS NAVPERS 15560D, NAVAL MILITARY PERSONNEL MANUAL.
REF C IS BUPERSINST 1610.10D, NAVY PERFORMANCE EVALUATION SYSTEMS.
REF D IS BUPERSINST 1430.16F CH-1, ADVANCEMENT MANUAL FOR ENLISTED PERSONNEL IN THE U.S. NAVY AND U.S. NAVY RESERVE.
REF E IS SECNAVINST 1920.6C CH-5, ADMINISTRATIVE SEPARATION OF OFFICERS.//

RMKS/1. This NAVADMIN announces revised Physical Readiness Program separation policies. Adjustments to Physical Readiness Program policies reflect a continued emphasis to invest in and retain our most important resource, our Sailors. Retention of every capable Sailor is critical to the operational readiness of the Navy. The goal of the Navys physical readiness program is to maintain a minimum prescribed level of fitness necessary for world-wide deployment and to maintain a Sailors long-term health and wellness. Revisions to references (a), (b), and (c) are forthcoming and will be published at a later date.

2. Effective immediately:
   a. All commands will discontinue processing members for separation as a result of Physical Fitness Assessment (PFA) failures. Separation orders resulting from PFA failures prior to Soft End of Active Obligated Service (SEAOS) with approved dates after 31 March 2018 are cancelled. Officers with approved separation orders for PFA failure with a directed separation date prior to 1 March 2018 can request their separation orders be cancelled in order to remain in the Navy by contacting PERS-834, subject to Secretary of Navy (SECNAV) approval.
   b. MILPERSMAN 1910-170, Separation by Reason of PFA Failure, is cancelled.

3. The following applies to all enlisted members:
   a. Enlisted members who:
      (1) Fail one PFA will:
         (a) Be issued a NAVPERS 1070/613 via Navy Standard Integrated

regardless of BCA outcome.

(2) If a Sailor is not medically cleared to participate in the PRT, shall be annotated on Medical Waiver Form 6110/4. A Medical Evaluation d shall be initiated if required in accordance with reference (b).

d. Spot Checks: Commanding officers will conduct PFA spot checks. BCA and PRT failures incurred during a spot check will not count toward administrative separation, but may result in FEP enrollment to ensure success during the next official PFA.

e. Fitness Enhancement Program (FEP): The FEP will continue to be administered in accordance with reference (b) or when commanding officers deem it necessary.

3. Effective 1 January 2016 (Cycle 1 2016), the following changes to reference (b) will go into effect:

a. Physical Activity Risk Factor Questionnaire: An updated PARFQ form will better assist medical providers in assessing a Sailors overall health. Details will be provided via SEPCOR.

b. Body Composition Assessment (BCA) Methodology: The new method for measuring BCA will consist of a three-step process. A Sailor who is medically cleared to participate in the PRT shall do so regardless of his or her BCA results under any of the three steps discussed below.

(1) Step 1: Apply the current height/weight tables per reference (b) to a Sailor. If the Sailor is within height/weight standards, he or she will pass the BCA, steps 2 and 3 will not apply, and he or she will not be required to enroll in FEP. If the Sailor does not meet the height/weight standard, proceed to step 2.

(2) Step 2: Apply a single-site abdominal circumference measurement. ntific evidence indicates that individuals are at increased risk for h problems such as diabetes, heart disease, and cancer if their abdomen eeds a certain circumference. Thus, a single-site abdominal circumference measurement will assist in identifying Sailors who are at risk for health problems. A Sailor will pass the BCA if abdominal circumference is less than or equal to 39.0 inches for males and less than or equal to 35.5 inches for females. If the Sailor exceeds the abdominal circumference measurement, proceed to step 3.

(3) Step 3: If the Sailor exceeds the height/weight screen of step 1 and the abdominal circumference measurement screen of step 2, a body circumference measurement shall be conducted. Apply the body circumference measurement technique to determine body fat percentage per reference (b). The Sailor will pass the BCA by meeting the Department of Defense (DoD) maximum allowable body fat limit of less than or equal to 26 percent for males or DoD maximum body fat limit of less than or equal to 36 percent for females outlined in reference (c). The Sailor will fail the BCA only if the Sailor does not meet any of the standards employed in steps 1, 2, or 3 and shall be evaluated by a medical provider, enrolled in FEP, and provided nutritional counseling. All Sailors who are medically cleared, regardless of BCA results, shall take the PRT. A BCA failure will constitute an overall PFA failure for the cycle regardless of PRT results.

c. The Body Circumference Technique currently employed under reference (b) will continue to be used to determine body fat percentage. The new Body Fat Standards will be graduated by age, reflecting a more realistic approach in accordance with DoD guidance, which is consistent with the American cal Association and American Council on Exercise Standards. This oach will allow more Sailors to participate in the PRT portion of the .. New Navy Body Fat Percentage Standards based on a graduated scale that increases with a Sailors age:

(1) Males: 18-21 = 22 percent, 22-29 = 23 percent,

30-39 = 24 percent, 40+ = 26 percent.

(2) Females: 18-21 = 33 percent, 22-29 = 34 percent, 30-39 = 35 percent, 40+ = 36 percent.

Any Sailor who exceeds the Navy's updated graduated body fat standards set forth above shall be enrolled in FEP.

(3) The Physical Readiness Program Operating Guides will be updated and Command Fitness Leaders will be trained on how to accurately conduct the single site abdominal circumference measurement.

(4) In summary, effective 1 January 2016, a Sailor will have three options regarding BCA measurement: height/weight screening, single-site abdominal circumference measurement, and the body circumference measurement.

d. Physical Readiness Test (PRT): The PRT will continue to be administered in accordance with reference (b). All Sailors cleared by their medical providers through the Physical Health Assessment (PHA) and PARFQ processes shall take the PRT, regardless of BCA outcome.

e. Fitness Enhancement Program (FEP): Sailors shall be enrolled in FEP for any of the following reasons:

(1) Exceeding the updated graduated Navy Body Fat Standards; or

(2) Failing any portion of the PRT. Sailors enrolled in FEP due to BCA failure shall also be enrolled in nutritional counseling. All Sailors enrolled in FEP will be required to participate in a mock PFA every 30 days. Failures incurred during a mock PFA will not count as official failures. A Sailor will be disenrolled from FEP when he or she passes the PRT and is within the new Navy BCA standards.

f. PFA Failure Determination for Administrative Separation Processing: Effective 1 January 2016, all PFA (BCA or PRT) failures in the most recent 3-year period will be reset to one failure. A Sailors most recent failure will carry over to Cycle 1 2016. Note: A Cycle 2 2015 BCA failure will not count as a carry-over failure, but a PRT failure incurred in Cycle 2 2015 will count as a carry-over failure.

g. Administrative Separation Policy Guidance:

(1) Effective 1 January 2016, a Sailor who fails two PFA cycles in the most recent 3-year period shall be processed for administrative separation. Failing either the BCA or the PRT will constitute a PFA failure for the cycle in which it is incurred.

(2) Effective immediately, a Sailor subject to an approved or pending administrative separation due to multiple PFA (BCA or PRT) failures, who has not yet been separated, shall be offered the opportunity to be retained. A Sailor who desires to separate from the Navy will continue processing for administrative separation. A Sailor who desires to be retained must notify his or her commanding officer, be medically cleared to participate in the PRT, and pass either a mock or the official PRT before 1 December 2015. All mock PFA data shall be recorded in PRIMS under the FEP tab in each Sailors profile. A Sailor who does not meet present Navy BCA requirements as outlined in reference (b) must be cleared by his or her medical provider to participate in the Cycle 2 2015 PRT.

(a) If the Sailor is not medically cleared to participate in the PRT, this shall be annotated on Medical Waiver Form 6110/4. A Medical Evaluation Board shall be initiated if required in accordance with reference (b). If a Sailor failed the Cycle 1 2015 BCA, the Sailor shall be automatically enrolled in FEP.

(b) During FEP, the Sailor shall participate in a mock PFA every 30 days. The deadline to pass either a mock or the official PRT is 1 December 2015.

(c) If a Sailor does not pass either a mock or the official PRT by 1 December 2015, the failure will be recorded in PRIMS. If a Sailor who was pending administrative separation as of 1 July 2015 does not pass either

a mock or the official PRT by 1 December 2015, he or she will continue to be processed for administrative separation. A Sailor who fails any portion of the PRT during Cycle 2 2015 will incur a failure for the PFA, and the failure will count toward administrative separation. The current Navy administrative separation standard of three failures in the most recent four-year period will continue in effect through 31 December 2015.

(d) Effective 1 January 2016, all PFA failures in the most recent 3-year period will be reset to one failure.

4. Future Planned Changes:
   a. Developing a Navy-wide Registered Dietician (RD) utilization plan;
   b. Enhancing SHIPSHAPE and encouraging approved civilian diet programs;
   c. Establishing Go for Green healthy-eating ashore and at sea;
   d. Providing more support for post-partum Sailors to re-attain or exceed previous fitness goals;
   e. Wearable-fitness device studies to monitor physical output and rest;
   f. Enhance Physical Readiness Test; and
   g. Fitness awards for Sailors who score outstanding.

5. In the long-term, the Navy strives to move away from PFA testing as a calculation of BCA maximums and PRT minimums, to a more realistic measure of health, fitness, and mission readiness. To do this, the Navy will incorporate methods of assessing sleep patterns, activity, nutrition, and genetic risk factors.

6. For questions, please contact the Physical Readiness Program Help Desk at (901) 874-2210/DSN 882 or via e-mail at navyprt(at)navy.mil. Physical Readiness Program polices, operating guides and FAQs can be found on the NPC 21st Century Sailor web page http://www.npc.navy.mil/bupers-support/21st_Century_Sailor/physical/Pages/default2.aspx.

7. Released by Vice Admiral W. F. Moran, N1.//

BT
#0001
NNNN
UNCLASSIFIED//

RTTUZYUW RUEWMCS0001 2552105-UUUU--RUCRNAD
ZNR UUUUU
R 122105Z SEP 13
FM CNO WASHINGTON DC//N1//
TO NAVADMIN
INFO/CNO WASHINGTON DC//N1//
UNCLAS//N06110//
NAVADMIN 231/13

MSGID/GENADMIN/CNO WASHINGTON DC/N1/SEP// SUBJ/PHYSICAL READINESS PROGRAM POLICY CHANGES// REF/A/DOC/OPNAV/11JUN11// REF/B/DOC/OPNAV/12JAN09// NARR/REF A IS OPNAVINST 6110.1J, PHYSICAL READINESS PROGRAM. REF B IS OPNAVINST 6100.3, DEPLOYMENT HEALTH ASSESSMENT (DHA) PROCESS.//

RMKS/1. This NAVADMIN outlines policy changes to ref (a) that are effective upon the release of this NAVADMIN.

a. Sailors requiring a deployment health assessment (DHA) in the form of either a Post Deployment Health Assessment (PDHA) or a Post Deployment Health Re-assessment (PDHRA), must be within assessment periodicity to participate in the PFA.

b. The number of days allowed for Sailors to complete the physical readiness test (PRT) after the official body composition assessment (BCA) date is increased from 10 to 45 days.

2. Medical clearance. Per ref (a), paragraph 5b; the PFA includes a medical screening, BCA, and PRT.

a. Per ref (a), enclosure (1) paragraph 4d, Sailors shall not participate in the PRT without medical clearance. New medical screening policy requires all Sailors to maintain a current PHA, which includes, when required, a current DHA - either PDHA or PDHRA.
Sailors required to complete a DHA that are not current and those who have not completed a PHA within the required periodicity are precluded from participation in the PRT portion of the PFA. If a PFA (BCA and PRT) is not completed because of a delinquent PHA or DHA, the commanding officer (CO) may assign the member a "UA" status in the Physical Readiness Information Management System (PRIMS) for the missed PFA.

b. All personnel are required to complete their Physical Activity Risk Factor Questionnaire (PARFQ) in PRIMS as a prerequisite to participate in the PFA. The PARFQ is not valid unless the PHA and, if required, the DHA are within the required periodicity.

c. A "yes" response to any question on the current cycle PARFQ other than question one, requires medical clearance be documented on the bottom of the PARFQ and certified by an authorized medical provider unless a medical waiver is required. If a medical waiver is required, the waiver must be issued on the official PFA medical waiver/clearance (NAVMED 6110/4) and approved by the CO prior to the BCA portion of the PFA.

d. A PARFQ is not required if the PRT will not be conducted (i.e. DEP/OP, IA, TAD, etc).

3. Sailors can check the status of their PHA/DHA by logging into BUPERS on-line at https://www.bol.navy.mil/ and selecting individual medical readiness status.

4. BCA scheduling requirements. The BCA shall be completed within 45 days of, but not less than 24 hours prior to, participation in the PRT. The official BCA is the first and only BCA taken during the command PFA. If the recorded PRT is not completed within 45 days of the official BCA, the CO may assign a participation status of "UA" for the PRT. This policy applies to both active and reserve Sailors.

5. Above policy updates will be incorporated into the forthcoming revisions of refs (a) and (b).

6. Point of contact is Mr. Bill Moore, Director, Physical Readiness Program, N170 at (901) 874-2210/DSN 882, or via e-mail at navyprt(at)navy.mil.

7. Released by Vice Admiral W. F. Moran, N1//

BT

#0001
NNNN

DEPARTMENT OF THE NAVY
OFFICE OF THE CHIEF OF NAVAL OPERATIONS
2000 NAVY PENTAGON
WASHINGTON, D.C. 20350-2000

OPNAVINST 6110.1J
N135
11 JUL 2011

OPNAV INSTRUCTION 6110.1J

From: Chief of Naval Operations

Subj: PHYSICAL READINESS PROGRAM

Ref: (a) DoD Instruction 1308.3 of 5 Nov 2002
(b) OPNAVINST 6100.2A
(c) OPNAVINST 5102.1D
(d) BUPERSINST 1610.10C
(e) NAVPERS 15560D, Military Personnel Manual
(f) SECNAVINST 1920.6C
(g) SECNAVINST 6120.3
(h) OPNAVINST 6000.1C
(i) BUPERSINST 1430.16F
(j) SECNAVINST 1420.1B
(k) DoD Instruction 1215.13 of 11 May 2009

Encl: (1) Physical Fitness Assessment (PFA) Policy Guidelines
(2) Physical Fitness Assessment (PFA) Failure Process
(3) Physical Fitness Assessment (PFA) Tables
(4) Body Composition Assessment (BCA) Medical Waiver Chart
(5) Physical Readiness Test (PRT) Medical Waiver Chart

1. Purpose. To establish policy and requirements for Navy's Physical Readiness Program to ensure both Active Component (AC) and Reserve Component (RC) personnel maintain a level of physical fitness required to support overall mission readiness per reference (a) through (k).

2. Cancellation. OPNAVINST 6110.1H.

3. Scope. This instruction applies to all AC and RC Navy personnel, commands, and activities.

a. This instruction describes the Navy's Physical Readiness Program, issues program requirements, defines the responsibilities for compliance, and establishes required minimum standards of physical fitness.

b. The Physical Readiness Program Operating Guide is the official Physical Readiness Program supplement guide to the this instruction and will be referred to as the Operating Guide throughout this instruction. All information contained within the guide is available for download on the Physical Readiness Program Web site: http://www.public.navy.mil/bupers-npc/support/physical/Pages/default2.aspx. The Operating Guide is divided into three sections:

(1) Physical Readiness Program "How To" Guide;

(2) Command Fitness and Fitness Enhancement Program (FEP) Guide; and

(3) Physical Readiness Program Nutrition Resource Guide.

4. Discussion. It has become increasingly important for all Navy personnel to maintain a minimum prescribed level of physical fitness necessary for world-wide deployment, whenever or wherever needed. Per reference (b), the Navy utilizes a holistic approach to overall wellness via exercise, nutrition, weight control, tobacco cessation, prevention of alcohol abuse, and health and wellness education. While all of these factors contribute to overall wellness, the primary focus of this instruction is to define the policies and requirements for both maintaining and assessing Navy physical fitness.

5. Policy. All Navy AC and RC personnel shall meet minimum physical fitness standards for continued naval service.

a. Command Physical Training (PT) Program. Commanding officers (COs) are responsible and accountable for the physical fitness of their personnel and shall establish and maintain an effective year-round physical readiness program. Physical fitness shall be integrated into the workweek, consistent with mission and operational requirements. To maintain health and decrease the risk of chronic disease:

(1) Members shall comply with medical screening requirements for participation in all physical training consistent with this instruction.

(2) Members should participate in moderate activity at least:

(a) Two hours and 30 minutes (150 minutes) per week, i.e., 50 minutes three times per week or 75 minutes two times per week; plus

(b) Perform strength training exercises at least twice per week to work all major muscle groups.

(3) Detailed requirements for exercise sessions are located in the command fitness section of the Operating Guide on the Physical Readiness Program Web site: http://www.public.navy.mil/bupers-npc/support/physical/Pages/default2.aspx.

b. Physical Fitness Assessment (PFA). The Navy assesses personal physical fitness via a semi-annual PFA (see enclosure (1)). The PFA includes a medical screen, a body composition assessment (BCA) and physical readiness test (PRT) (see enclosure (1)). The medical screening includes the annual periodic health assessment (PHA), a semi-annual NAVPERS 6110/3 Physical Activity Risk Factor Questionnaire (PARFQ), and pre-physical activity questions (see enclosure (1)). The BCA is based upon height and weight tables and circumference measurements, when required. The PRT is a series of physical events that assess cardio-respiratory fitness, muscular strength, and endurance. Physical fitness standards should be maintained constantly and consistently, not solely at the time of semi-annual testing.

c. Failure to Meet PFA Standards. Meeting minimum PFA standards are a condition of continued naval service. Members with PFA failures will be subject to administrative actions. Members failing to meet BCA or PRT standards shall participate in an FEP. Members failing to meet PFA standards three times in the most recent 4-year period shall be processed for administrative separation (ADSEP) from the Navy.

d. Medical Waiver Management. Members with two consecutive medical waivers or three in a 4-year period shall be referred to the military treatment facility (MTF) for a medical evaluation board (MEB). MEB findings shall be forwarded to Navy Personnel Command (NAVPERSCOM), Career Progression Department (PERS-8) for disposition.

6. Actions and Responsibilities

a. Deputy Chief of Naval Operations (Manpower, Personnel, Training and Education (DCNO (MPTE)) (N1) shall:

(1) Develop physical readiness policy and provide oversight.

(2) Manage Physical Readiness Information Management System (PRIMS).

(3) Provide "Train-the-Trainer" courses to certify instructors for the Command Fitness Leader (CFL) course. Provide quality assurance and assistance to Commander, Navy Installations Command (CNIC) for CFL training and certification courses.

(4) Provide direct community management for all PFA-related matters affecting Office of the Chief of Naval Operations (OPNAV), Nuclear Propulsion Management Branch (N133) personnel. All community management and policy decisions affecting Naval Nuclear Propulsion Program personnel must be referred to OPNAV (N133) for review and approval. This includes all administrative separation packages that are submitted per this instruction.

(5) OPNAV, Physical Readiness Program Office (N135F) shall provide program management to include policy oversight, enforcement, standards, and quality assurance for CFL certification, ADSEP waiver processing and waiver compliance, management of CFL curriculum, and accession point training programs.

b. CNIC shall:

(1) Provide fitness staff and facilities for physical fitness training at each installation. Ensure CFL instructors and morale, welfare, and recreation (MWR) fitness staff comply with current policies when assisting with command PT, FEP, and PFA.

(2) Schedule and execute CFL certification courses based on regional requirements.

c. Bureau of Medicine and Surgery (BUMED) shall:

(1) Establish guidelines to ensure consistency of the authorized medical department representative (AMDR) BCA and PRT waiver recommendation process.

(2) Develop and execute a training program for all physicians, nurse practitioners, physician assistants and independent duty corpsman (IDCs) on proper procedures for BCA and PRT medical screening and waivers.

(3) Provide management and oversight of the BUMED approved ShipShape Weight Management Program.

d. Commander, Naval Education and Training Command shall:

(1) Develop and maintain a pre-requisite course for prospective CFLs on Navy Knowledge Online E-Learning.

(2) In coordination with OPNAV (N135F) and CNIC, develop and maintain CFL course curriculum.

(3) Conduct a PFA on all members attending schools greater than 10 weeks in duration.

(4) Ensure all recruits meet or exceed physical readiness standards by completion of recruit training.

(5) Establish a PRIMS account for each recruit and enter final PFA score prior to completion of recruit training.

(6) Ensure compliance with the standardized fitness and nutrition programs, in consultation with OPNAV (N135F).

(7) Establish a physical fitness program at all schools, regardless of duration.

e. Commander, Naval Safety Center shall: Collect and analyze data on Physical Readiness Program injuries and deaths, per reference (c).

f. Commander, Navy Personnel Command (COMNAVPERSCOM) shall:

(1) Ensure PFA results are incorporated into the promotion, advancement, and reenlistment process.

(2) Ensure compliance with PFA requirements is incorporated into personnel transfer and detailing decisions.

(3) NAVPERSCOM (PERS-8) and NAVPERSCOM, Reserve Personnel Matters (PERS-9) will manage ADSEP processing for all members who have three or more PFA failures in the most recent 4-year period.

(4) Evaluate PFA MEB findings for disposition.

g. Commander, Navy Reserve Forces Command shall:

(1) Ensure all Drilling Reservists, including Voluntary Training Unit members, complete a PFA twice annually.

(2) Ensure reserve unit commanders, COs, officers in charge (OICs) and reserve healthcare professionals assist, advise, and educate command members in implementing the Physical Readiness Program.

(3) Ensure compliance with all Physical Readiness Program reporting requirements.

(4) Establish policy for Drilling Reservists pertaining to timing of PFAs and conduct of FEP.

h. Echelon 3 Commanders shall:

(1) Evaluate command requests for waivers for readiness and approve as appropriate, with consultation from the individual's Bureau of Naval Personnel (BUPERS) Officer Community Manager/Enlisted Community Managers (BUPERS-31/32).

(2) Appoint a collateral duty physical readiness control officer (PRCO) to liaison with OPNAV (N135F) and to provide assistance to subordinate commands on the Physical Readiness Program policy and compliance.

(3) Ensure PFA compliance reporting from PRCO at least semi-annually.

i. Immediate Seniors in Command (ISICs) shall:

(1) Ensure command compliance with Physical Readiness Program policies.

(2) Evaluate and forward recommendations to next higher echelon commander on command requests for waivers for readiness.

j. Commanders, COs, OICs shall:

(1) Comply with and execute all requirements of this instruction, utilizing the Operating Guide and Web site to obtain additional guidance for program operation.

(2) Integrate PT into the workweek, consistent with mission and operational requirements.

(3) Designate (in writing) and maintain one certified CFL to administer the requirements of this instruction and one assistant CFL (ACFL) per 25 command members.

(4) Ensure proper safety precautions are followed during command or unit PT, PFAs and FEP.

(5) Ensure members receive proper medical screening:

(a) To participate in a PFA, members must have a current PHA, NAVPERS 6110/3, and answered "no" to all of the pre-physical activity questions (except question one).

(b) To participate in command or unit PT and FEP, members must have answered "no" to all of the pre-physical activity questions (except question one).

(6) Ensure fitness reports and performance evaluations accurately reflect PFA performance and that all recommendations for promotions and advancements are conducted per the requirements of reference (d).

(7) Ensure counseling of enlisted personnel who fail the PFA is properly documented through issuance of a permanent

NAVPERS 1070/613 Administrative Remarks which is properly verified in the Navy Standard Integrated Personnel System (NSIPS) and electronically forwarded to NAVPERSCOM via the servicing personnel support detachment or personnel office (PERSUPPDET/PERSOFF). A sample can be found in PRIMS.

(8) Ensure counseling and signatures are completed when issuing a letter of notification (LON) for officer PFA failures. A sample can be found in PRIMS.

(9) Ensure the management of an effective FEP.

(10) Ensure all data for semi-annual PFA are entered into PRIMS within 30 days and all waivers are entered within 14 days of the completion of the command PFA cycle.

(11) Initiate ADSEP processing within 14 days of the third or greater PFA failure in most recent 4-year period for all individuals, per references (e) and (f), unless a waiver of readiness has been approved by the echelon 3 commander.

(12) Ensure compliance with reference (c) reporting requirements for any physical readiness-related injuries or fatalities.

k. CFLs shall:

(1) Meet the following requirements:

(a) E6 or above (preferred);

(b) Non-user of tobacco products;

(c) Overall PRT score of "Excellent" or "Outstanding;"

(d) Be within Navy BCA standards;

(e) Maintain current cardiopulmonary resuscitation (CPR) qualifications; and

(f) Complete OPNAV approved 5-day CFL certification course within 3 months of assignment as CFL;

(2) Conduct the semi-annual PFA per this instruction and the Operating Guide.

(3) Advise chain of command on all Physical Readiness Program matters at least quarterly.

(4) Maintain responsibility and oversight for command PT and FEP as outlined in the command fitness section of the Operating Guide.

(5) Ensure all ACFLs are CPR certified and competent to conduct PRT, BCA, FEP, and command PT. All ACFLs shall be non-smokers and meet the same PFA requirements as the CFL.

(6) Use PRIMS to manage PFA data:

(a) Ensure semi-annual PFA scores are entered within 30 days of the completion of the command PFA cycle.

(b) Ensure all Physical Readiness Program waivers are entered into PRIMS within 14 days.

(c) Verify NSIPS electronic service record (ESR) and the official military personnel file (OMPF) against PRIMS for all newly reported personnel. Ensure written counseling NAVPERS 1070/613 (for enlisted) or LON (for officers) is drafted and submitted to the appropriate chain of command for all personnel with documented PFA failures in PRIMS, but no evidence of written counseling.

1. PHA Status. Inform all members of their PHA status. Ensure members understand the policy which prohibits participation in command or unit PT, PFAs, or FEP if the PHA is not current.

2. Written Counseling. Ensure written counseling (NAVPERS 1070/613 for enlisted) or LON (for officers) is drafted and submitted to the appropriate chain of command for all personnel with documented PFA failures in PRIMS, but no evidence of written counseling in the OMPF.

(d) Ensure PRIMS data is current and accurate for all detaching personnel and select appropriate permanent change of station option.

(7) Maintain original written documentation (notes and or worksheets, etc.) of official command PFAs and FEP for a period of 5 years and per current personal identifiable information policy.

(a) Ensure all LONs for the first PFA failure are maintained in the CFL records. LONs for the second and third PFA failure shall be forwarded to NAVPERSCOM, Records Management/Policy Branch (PERS-313) for entry into the OMPF.

(b) Forward all Administrative Remarks to PERSUPPDET/PERSOFF for NSIPS ESR verification and submission to the OMPF.

(8) Report all Physical Readiness Program-related injuries to the command safety officer.

(9) Draft letters of correction (LOC) and forward with supporting documentation to OPNAV (N135F) for PRIMS correction within 1 year of error.

1. Individual Members shall:

(1) Participate in a year-round physical fitness program to meet Navy fitness and BCA standards.

(2) Review and verify accuracy of PFA data in PRIMS within 60 days of the PFA cycle.

(3) Maintain an updated annual PHA.

(4) Complete a NAVPERS 6110/3 for every PFA cycle.

(5) Fulfill all FEP requirements in the event of a PFA failure.

7. Records Management. Records created as a result of this instruction, regardless of media and format, shall be managed per Secretary of the Navy (SECNAV) Manual M-5210.1 of November 2007.

8. Form and Reports

a. The preferred means of preparation of the Administrative Remarks is via the NSIPS ESR or PRIMS. In the event that neither capability is available, NAVPERS 1070/613 Administrative Remarks is available at Naval Forms Online: https://navalforms.daps.dla.mil/web/public/forms. NAVPERS 6110/3 Physical Activity Risk Factor Questionnaire (PARFQ) and, NAVMED 6110/4 Physical Fitness Assessment Medical Clearance/ Waiver are also available at the above Web site.

b. Reporting requirements contained in this instruction are exempt from reports control per SECNAV M-5214.1 of December 2005.

M. E. FERGUSON III
Vice Admiral, U.S. Navy
Deputy Chief of Naval Operations
(Manpower, Personnel, Training and Education)

Distribution:
Electronic only, via Department of the Navy Issuances Web site http://doni.daps.dla.mil/

PHYSICAL FITNESS ASSESSMENT (PFA) POLICY GUIDELINES

1. PFA. The PFA consists of a medical screening, BCA, and PRT. To facilitate operational commitments or mission requirements, a command may conduct an official PFA anytime within each Navy PFA cycle providing there is a minimum of 4 months between PFAs and only one per Navy cycle. The command PFA cycle is determined by the CO to include the regular and make-up dates for PFA components.

a. Failing the BCA portion of the PFA is an overall PFA failure.

b. To ensure safety during the PFA process, members that fail the BCA or who are medically waived from the BCA shall not participate in the PRT.

2. CO Authority. The CO has authority over the schedule, conduct, safety, and medical waivers for the PFA.

a. The Physical Readiness Program requires the completion of a 1.5 mile run or walk, the definitive assessment of cardio-respiratory fitness. The CO and or OIC may authorize participation in PFA approved alternative cardio-respiratory events.

b. The CO may waive the PRT component of the official PFA for the entire command based upon deployment and operational ("DEP/OP") commitments. Additional reasons for non-participation are listed in paragraph 6.

c. The CO must request approval from the ISIC to "DEP/OP" BCA for the command.

d. Waiving more than two consecutive PRT cycles for "DEP/OP" for the entire command requires concurrence from the echelon 3 commander via the ISIC.

e. The CO, using "Bad Day" guidelines, may authorize one retest on the PRT portion of the PFA (see enclosure (5)).

f. At the end of each PFA cycle, the CO has authority to determine whether non-participation was authorized or

unauthorized. All unauthorized non-participation shall be designated as "UA" in PRIMS and scored a PFA failure.

3. PFA Notification. The command shall provide a notification at least 10 weeks in advance of scheduled PFA dates. This notification is intended for the preparations required by the CFL and for medical screening of members. It is not intended as a "preparation window" for individuals. Navy personnel are not exempt from taking the PFA if they did not receive a PFA notification as long as they are medically cleared and acclimatized, per paragraph 6b(2)(b).

4. PFA Participation. Participation in the semi-annual PFA is required for all Active Duty and Drilling Reservists, regardless of gender, age, rank, title, billet, or retirement request status.

a. All members are required to participate in one PFA per cycle. PFA cycles are defined as:

(1) Cycle 1 (1 January through 30 June).

(2) Cycle 2 (1 July through 31 December).

b. PFAs for the current cycle must be completed within the cycle dates. PFAs may not be conducted after the cycle and entered as the previous cycle.

c. See paragraph 6 for authorized non-participation.

d. No member shall participate in the PRT without medical clearance. PRT medical clearance requires:

(1) Periodic Health Assessment (PHA). A PHA is an annual requirement (reference (g)). Members who do not have a current PHA shall not participate in a PRT or physical conditioning.

(2) NAVPERS 6110/3. All personnel shall complete a NAVPERS 6110/3 via PRIMS as soon as possible following the PFA notification.

(3) Pre-physical activity questions. The CFL shall ensure every member is asked the questions prior to participating in the PRT (see paragraph 8).

5. Medical Clearance. Members who respond "yes" to one or more of the pre-physical activity questions (except question one) shall be referred to the AMDR for medical clearance. PFA medical clearance for participation in the PFA will be annotated on a NAVMED 6110/4 Physical Fitness Assessment Medical Clearance/ Waiver provided in PRIMS or from the medical department.

a. AMDR Review. Only AMDRs are authorized to make PFA medical recommendations to the CO. AMDRs shall be a physician, adult nurse practitioner, physician assistant, or IDC and shall be appointed in writing.

b. AMDR Recommendation. The AMDR shall review all NAVPERS 6110/3s with "yes" responses and make appropriate recommendations via a NAVMED 6110/4. The medical department will file a copy of the NAVMED 6110/4 in the member's medical record.

c. PFA Medical Waivers. Individuals who receive a BCA or PRT medical waiver for two consecutive PFA cycles or three in the most recent 4-year period shall be referred to the MTF for a medical board (MEDBOARD). The medical board findings shall be referred to NAVPERSCOM (PERS-8) for disposition (enclosures (4) and (5)).

6. Authorized PFA Non-participation. Personnel who fail the PFA, and are subsequently granted a medical waiver for subsequent cycles, remain a PFA failure until completing and passing an official PFA. The following are the only authorized medical and non-medical exceptions for not participating in the PFA:

a. Exceptions for Medical Reasons. Medically waived status does not count as a failure or pass for the PFA and will not be used to count towards such for administrative, promotion, or retention purposes. In all cases, the Service member's CO is the final authority for granting all PFA medical waivers, and all medical waivers shall be recorded in PRIMS and will be filed in the member's medical record consistent with the paragraphs below:

(1) BCA Medical Waivers. Members must address potential medical circumstances affecting accurate measurement prior to the official BCA. After-the-fact BCA waivers are not authorized. BCA waivers may be granted only if the member is in

approved limited duty (LIMDU) status (ACC 105) for the medical condition prompting the BCA waiver request, and only under the following circumstances:

(a) BCA waivers may be granted in the setting of an inability to obtain an accurate weight (e.g., leg cast) or measurement (e.g., recent surgery on an area directly involved with the measurements used to calculate BCA).

(b) BCA waivers may also be granted if the member has fallen out of BCA standards within the preceding 6 months due to a medical condition or medical therapy which has been newly diagnosed, worsened in severity, or increased in dosage in that 6 month period, which is known to result in weight gain.

(c) The inability to exercise is not a valid reason for a BCA waiver.

(d) All BCA medical waivers will be issued on a NAVMED 6110/4 and will require two signatures:

1. The physician (military or civilian) recommending the waiver; and

2. AMDR physician.

3. If the AMDR is the recommending physician, the AMDRs supervisor's signature is required.

(2) PRT Medical Waivers. AMDRs may make a recommendation to the CO to medically waive all or a portion of the PRT for an individual.

(3) Pregnancy Status. For the purpose of this instruction, pregnancy status is defined from the time pregnancy is confirmed by a military health care provider (HCP) or civilian HCP in cases of inaccessibility to an MTF, until the end of the 6 months following convalescent leave (postpartum):

(a) Pregnant Service women will not be issued medical waivers. "Pregnant Status" will be assigned in PRIMS. PFA results prior to confirmation of pregnancy shall not change.

(b) Pregnancy-status Service women shall not be required to meet BCA and PRT standards.

(c) Per reference (h), pregnant Service women in a pregnancy status shall receive guidance from a physician, adult nurse practitioner, or physician assistant concerning type(s) and duration(s) of activities (e.g., walking, water aerobics, elliptical, stationary bicycling) to maintain appropriate physical conditioning and body composition. Pregnancy-status Service women will not be mandated to participate in command or unit PT or FEP.

(d) AMDRs shall indicate when pregnant Service women, who have been removed from a pregnancy status, can participate in the BCA, PRT, or PT. COs may place personnel removed from a pregnancy status into the FEP to assist those members with preparing for the PFA, provided they are medically cleared.

(e) See reference (h) for policy regarding medical waivers and PFA exemptions for Service women undergoing infertility treatment with in vitro fertilization.

b. Exceptions for Other Reasons. Circumstances exits in which participation in the PFA, as required by this instruction, may not be possible. The CO may waive PRT participation for circumstances. Justification for approved non-participation shall be entered into PRIMS and will not be considered a PFA failure. A full list of authorized non-participation reasons are listed below:

(1) "DEP/OP." For deployed units where conducting a PRT is impractical, however BCA is still required.

(2) Excused. The reporting senior of the member must submit a PFA non-participation letter to OPNAV (N135F) to designate "excused" non-participation in PRIMS:

(a) Isolated Duty. For members assigned to non-military organizations such as embassies, "one-of-a-kind" duty such as the Personnel Exchange Program, or a joint command without an available qualified CFL or Service equivalent.

(b) Acclimatization. No single policy can be developed to fit every circumstance regarding the need for acclimatization of newly-reported personnel. COs are authorized, with AMDRs consultation, to set appropriate acclimatization periods for newly-reported personnel for participation in command or unit PT, PFAs and FEP. In the event the acclimatization period extends into a new PFA cycle, the member shall participate in the BCA and the PRIMS record for the PRT shall reflect "excused."

(3) Individual Augmentee (IA). Due to the nature of IA assignments, IAs may be designated in PRIMS as "IA" participation status if either the BCA, PRT, or both were not completed due to conditions at the deployed location, such as safety or the nature of the assignment. Note: Per NAVADMIN 160/08, an IA is defined as any member in receipt of individual deployment orders issued by NAVPERSCOM, Career Management Department (PERS-4), to include individual augmentee manpower management (IAMM), global war on terrorism support assignments (GSA), overseas contingency operations support assignment (OSA), and mobilized reserve personnel (RC MOB) not mobilized as part of an established commissioned reserve component unit, and health services augment personnel (HSAP). Individuals in such assignments will be treated as newly reported personnel upon return and are expected to meet Navy standards for physical fitness and military appearance.

(4) Temporary Additional Duty. May be used for consecutive schools lasting less than 10 weeks in duration or temporary duty assignment with no means of participating in an official PFA for entire PFA cycle.

(5) Leave. May be used for convalescent leave and emergency leave which extends beyond the command and Navy PFA cycle (not intended for regular or leave in conjunction with permanent changes of station orders).

7. BCA. The BCA portion of the PFA is passed (within BCA standards) when a member is within established Navy body composition assessment standards.

a. BCA Standards. Navy body composition standards are determined by established maximum weight for height standards (enclosure (3)). If an individual exceeds the weight for height

screen, the circumference technique shall be used per the Operating Guide to determine body fat percentage. Individuals who are within standards via the height and weight measurement are exempt from the circumference calculation procedure.

b. PRIMS is the official source to determine the percent fat estimation for men and women. The BCA tables contained in the Physical Readiness Program Operating Guide may be used as an on-site reference. The maximum allowable Navy body fat limits are:

	Age (years)	
	17-39	40-40+
Male	22%	23%
Female	33%	34%

c. COs and officers in charge should specify the required uniform - uniform of the day or Navy physical training uniform - that will be worn during official and unofficial height and weight screening and circumference measurements.

d. Official BCA. An official BCA is a BCA conducted during the command PFA cycle or after the command PFA cycle for members without a PFA record for the current cycle.

(1) One-on-one BCAs are not authorized. A CFL or trained ACFL and trained observer must be present;

(2) Only a designated and certified CFL or trained ACFL can administer the BCA for an official PFA, except as noted below; and

(3) In the event a member is assigned to a joint command without a Navy CO or CFL, the official Navy PFA may be conducted by the CFL-equivalent of the sponsoring Military Service using Navy criteria and procedures. The CFL-equivalent will forward PFA data to OPNAV (N135F) for entry into PRIMS.

e. Unofficial BCA. A check-in or courtesy BCA is a proactive measure to assist members in consistently meeting BCA standards. Check-in and courtesy BCAs shall not be used as an official BCA, unless the measurement occurs after the command PFA cycle and no current PFA record exists.

f. Non-authorized BCA. For the official PFA, measurements taken by medical department personnel, civilian doctors, MWR fitness staff, or any other person are not authorized and shall not override the BCA taken by the CFL or ACFL.

g. BCA Participation. The BCA shall be accomplished on every member even if the PRT component of the PFA is "DEP/OP." Command-wide "DEP/OP" for BCA must be approved by the ISIC (for individual exemptions, refer to paragraph 6).

h. BCA Scheduling Requirements for AC. The BCA shall be completed within 10 days of, but not less than 24 hours, prior to participation in the PRT.

i. BCA Scheduling Requirements for Drilling Reservists. Drilling Reservists shall strive to comply with the BCA requirements of paragraph 6b, but have up to 31 days from the time they complete the BCA to conduct the PRT. Reservists shall not conduct a BCA less than 24 hours prior to the PRT.

j. Altering BCA measurements. Any attempt by a member to alter their BCA measurements by using body wraps, starvation diets, and sauna suits is prohibited. If temporary altering is detected by the command, the CFL or the ACFL, the member shall be required to wait a minimum of 72 hours before completing the official BCA measurement. Any attempt to influence the BCA measurement through intimidation, coercion, or other means may result in disciplinary action under the Uniform Code of Military Justice.

8. PRT. The PRT is passed when a member scores satisfactory or above in all events.

a. Administration. The PRT shall only be administered by designated and certified CFLs and trained ACFLs. All personnel participating in the PRT shall wear Navy PTU.

b. Participation. Member is medically cleared to participate in the PRT and the BCA is passed.

c. Alternate Cardio Events. The swim, elliptical and bike are alternate cardio events. Participation in an alternative cardio-respiratory event is not an entitlement. The

Operating Guide provides detailed information on the use and testing procedures for the cardio-respiratory alternative events.

d. Scoring. Each PRT event is scored for five levels of performance and assigned points based on performance (enclosure (3)) (points from each event are added together and divided by three to determine the overall score):

(1) Outstanding: 90 to 100 points;

(2) Excellent: 75 to 89 points;

(3) Good: 60 to 74 points;

(4) Satisfactory: 45 to 59 points; and

(5) Failure: 44 points or below.

e. Personnel at Increased Elevation. Members permanently assigned to locations at increased elevation shall participate in the PRT per the Operating Guide. Increased elevation is defined as greater than or equal to 5,000 feet above sea level only:

(1) PRT events completed at altitudes of 5,000 feet or higher shall use adjusted tables located in the Operating Guide; and

(2) Other than using adjusted tables, PFA procedures are not modified due to increased elevation nor do COs have any authority to modify other components of the requirements.

f. Pre-physical Activity Questions. Any members with positive responses to any of the below questions (except question one), must be evaluated by an AMDR before participating in the PRT. The CFL will make a determination if further medical evaluation is necessary. The pre-physical activity questions are:

(1) Do you have a current PHA? If no, you may not participate today.

(2) Do you have chest pain (with or without exertion), bone or joint pain, high blood pressure or high cholesterol? If yes, have you been cleared, by your medical provider, to participate in PT?

(3) Have you had a change in your medical status since the last time you were asked these questions?

(4) Are you ill today or know of any medical condition that may prevent you from participating in physical activity today?

(5) (For PRT Only) Did you answer yes to any NAVPERS 6110/3 questions? If yes, do you have a PFA medical waiver or clearance form on file? If no you may not participate today?

g. PRT Safety Guidelines. Participation in physical activity, even those related to improving health status, pose a risk of injury. Environment and characteristics of participants also contributes to overall injury risk. Members must be informed of these risks and taught how to minimize the possibility of injury:

(1) The CFL is responsible for conducting a safe PRT and shall complete the PFA checklist in the Operating Guide. All events of the PRT shall be performed per the Operating Guide.

(2) One-on-one PRT are not authorized. Every PRT must have a CFL or ACFL and one qualified CPR monitor present per every 25 participants.

(3) All PRTs shall begin with the pre-physical activity questions to determine whether there have been any changes in medical status since completion of the NAVPERS 6110/3.

(4) The CFL or ACFL will lead the participants in a 5 to 10 minute dynamic warm-up. Appropriate exercises are described in the Operating Guide.

(5) All PRT events shall be completed on the same day, and in the following sequence: warm-up, curl-ups, push-ups, cardio-respiratory event (run or walk, swim, elliptical trainer or stationary bike), and cool-down.

(6) Following completion of the PRT events, the CFL or ACFL shall ensure participants perform recommended cool-down exercises and sign the official PRT score sheet.

9. PFA Status

a. PFA is passed when a member passes both the BCA and the PRT.

b. When the BCA is "passed" and one or more PRT event is medically waived, the overall score of the PFA is "partial pass."

c. When the BCA is "passed" and the entire PRT has been exempt due to an authorized non-participation reason, the overall score of the PFA is "BCA pass."

d. The PFA is a failure when the BCA or any PRT event is failed.

10. Data Reporting. PRIMS is the only approved means of organizing and documenting information including the results of medical screening and waivers. All data for a PFA semi-annual cycle including waivers and justification for non-participation, shall be entered into PRIMS within 30 days of completion of the command's PFA cycle. Data entered must match the cycle in which the PFA was conducted. Each command is responsible for tracking PFA results via PRIMS and taking appropriate administrative action.

a. CFLs have up to 60 days from test date to edit existing PFA records.

b. All AC and RC personnel are responsible for reviewing their PRIMS data within 60 days after each PFA cycle, as it may impact promotion, retention, transfer, or selection status.

11. PRIMS Corrections. Requests to correct PRIMS data must be submitted to OPNAV (N135F) within 1-year of occurrence. The request must be sent via a LOC from the originating command, along with supporting documentation. Examples of required documentation are available on the Physical Readiness Program Web site: http://www.public.navy.mil/bupers-npc/support/physical/Pages/default2.aspx.

PHYSICAL FITNESS ASSESSMENT (PFA) FAILURE PROCESS

1. PFA Failures. A failure of either the BCA or PRT component of the PFA constitutes a PFA failure. In the event a medical waiver is granted for all or part of the PRT, members must still pass the BCA component unless it is also medically waived. Members failing the BCA component for the first time or receiving a new failure in a 4-year period shall be referred to medical for evaluation for clearance to participate in command or unit PT or FEP.

a. "Bad Day." A CO may authorize one retest to pass the PRT portion of the current PFA cycle:

(1) An individual must request a "Bad Day" within 24 hours of completing the PRT. If approved, the retest must be administered within 7 days of the initial PRT failure and within the same PFA cycle for which the "Bad Day" was requested. Drilling Reservists have until the end the following month;

(2) The member must retake all components of the PRT. The "Bad Day" option does not apply to BCA determinations; and

(3) If the individual is approved for a "Bad Day" but does not participate in the retest, becomes "medically waived" before the retest, or transfers to another assignment before the retest, the initial test score is to be entered into PRIMS as the official PFA.

b. PFA Failure Notification. Documentation of written counseling provided any time prior to member acquiring third PFA failure is sufficient notice for all administrative actions specified in this instruction.

(1) Enlisted PFA Failure Notification. COs will provide enlisted personnel failing the PFA a written notification of the failure within 30 days following the completion of the command PFA cycle. Per reference (e), notification shall be in the form of at least one NAVPERS 1070/613.

(2) Officer PFA Failure Notification. COs will provide officers a LON within 30 days following the completion of the command PFA cycle.

c. Assignment to FEP. FEP is mandatory for any member who fails any portion of the PFA and is available, at the discretion of the CO, to any member who desires to improve their fitness. Participation in FEP shall continue until the member passes the next regularly scheduled command PFA and scores "good" or better in all PRT components

d. Fitness Reports and Performance Evaluations. PFA failures shall be reported in fitness reports and performance evaluations as directed by reference (d).

e. Enlisted Advancements. Enlisted members shall have advancement or frocking deferred if they have failed the most recent official PFA. In the circumstances where a "special PFA" is required for frocking and promotion purposes (i.e., chief petty officer induction), the command shall defer frocking for members that fail to meet Navy PFA standards. Members may participate in monthly FEP PFA to regain eligibility. If not within standards by promotion cycle limiting date, the advancement authority will be withdrawn, per reference (i).

f. Officer Promotions. Officers shall be ineligible for promotion if they have failed the most recent PFA. Reference (j) outlines requirements for a CO to forward notification of failure to delay promotion to NAVPERSCOM, Officer Performance and Separation Branch (PERS-834). Members may regain eligibility by passing the next command directed PFA (i.e., monthly FEP mock PFA) and notification shall again be made to NAVPERSCOM (PERS-834).

g. Reenlistment and Extension. AC members who have three or more PFA failures in the most recent 4-year period shall not be reenlisted or extended. Requests for exceptions to policy for active duty reenlistments or extensions shall be addressed to NAVPERSCOM, Active Enlisted Programs Branch (PERS-811), via the chain of command. Requests for exceptions to reenlistment or extension policy for Reservists should be addressed to NAVPERSCOM, Reserve Enlisted Status Branch (PERS-913), via the chain of command.

h. Transfers. AC and Full Time Support (FTS) personnel who have three or more PFA failures in the most recent 4-year period

shall not transfer to a new permanent duty station and will be retained onboard. This restriction also applies to those who have waivers for readiness.

(1) Requests for exceptions for active duty transfers shall be addressed to NAVPERSCOM (PERS-4) via the chain of command. A template for transfer waiver requests can be found on the Physical Readiness Program Web site: http://www.public.navy.mil/bupers-npc/support/physical/Pages/default2.aspx;

(2) Transfers will continue to be authorized for Drilling Reservists who, due to a change in residence or unit disestablishment, are no longer within reasonable commuting distance from a reserve unit, as defined in reference (k);

(3) Unless the most recent PFA was passed, Drilling Reservists who have failed two consecutive PFAs in the past 3 years shall not be assigned to IAMM assignments;

(4) AC and FTS personnel who have failed the two most recent PFAs consecutively shall not transfer to a new permanent duty station until the member successfully passes a PFA during an official PFA cycle; and

(5) Unless the most recent PFA was passed, AC personnel who have failed two PFAs in the past 3 years shall not be assigned to:

(a) Overseas billets;

(b) GSA/OSA;

(c) IAMM assignments;

(d) Pre-commissioning billets;

(e) Recruiting division commander assignments;

(f) Recruiting duty;

(g) Equal opportunity advisor assignments;

(h) Washington DC and Millington staffs;

(i) Combatant commander staff; or

(j) Instructor duty.

i. Naval Nuclear Propulsion Program. OPNAV (N133) is the single point of contact on all PFA failure policy matters relating to Naval Nuclear Propulsion Program personnel. All community management and policy decisions affecting Naval Nuclear Propulsion Program personnel must be submitted to OPNAV (N133) for review and approval vice NAVPERSCOM (PERS-811). This includes waivers for readiness, ADSEPs, reenlistments and extensions, and transfers.

j. Medical Officers. All community management and policy decisions affecting medical officers must be referred to BUMED, Total Force Directorate (M1) for review and approval.

2. ADSEP. Mandatory separation processing shall occur for all members who fail three PFA cycles in the most recent 4-year period. Refer to reference (e) for enlisted and reference (f) for officer processing requirements.

a. ADSEP for Over 18 Years of Service. Members with over 18 years of service are not exempt from ADSEP. Members with a third PFA failure prior to 30 June 2011 and an approved fleet reserve and retirement date will be allowed to retire (grandfathered in). Those with a third failure subsequent to 30 June 2011 will be processed for ADSEP.

b. RC Personnel. RC personnel who have three or more PFA failures in the most recent 4-year period shall not be transferred to the Inactive Ready Reserve in lieu of ADSEP processing:

(1) This restriction applies to Drilling Reservists and RC personnel who are being released from all types of active duty for operational support orders (temporary active duty recalls, voluntary mobilization and active duty for special work orders) and IAMM assignments; and

(2) Requests for exception to this policy should be addressed to NAVPERSCOM (PERS-9) via the chain of command.

c. Waiver for Readiness. A waiver for readiness is a waiver of ADSEP processing and is granted for a specific PFA cycle only. The waiver is designed to address the adverse effect on unit, fleet, or community that would result from the loss of a specific individual:

(1) COs must request a waiver for readiness through their ISIC. Echelon 3 (or higher) commanders maintain responsibility for approval and disposition of all waivers for readiness. Command requests must be initiated within 14 days of the end of the command PFA cycle. Approving commanders will consult with the appropriate BUPERS (BUPERS-31/32) before making a final determination on waiver approval.

(2) A waiver for readiness expires at either completion of obligated service, or at the completion of the next PFA cycle (whichever occurs first). If, upon waiver expiration, the member still has three or more PFA failures in the most recent 4-year period, COs shall initiate ADSEP processing per references (e) and (f) or request renewal of the waiver for readiness.

(3) Individuals with waivers for readiness will not be transferred (without transfer waiver), reenlisted, or extended.

(4) A waiver for readiness does not excuse an individual from participation in the PFA nor will it change existing data in PRIMS.

3. Retention Following an ADSEP Board. Individuals retained in the Navy following COMNAVPERSCOM approval of the ADSEP board recommendation are eligible to transfer to billets other than those listed in paragraph 1h(d), however, the individuals will need a transfer waiver from NAVPERSCOM (PERS-4) prior to transfer. Individuals will be referred to an additional ADSEP board if they fail a subsequent PFA and still have three or more PFA failures in the most recent 4-year period.

TABLE 1
PHYSICAL FITNESS ASSESSMENT (PFA) TABLES

MAXIMUM WEIGHT FOR HEIGHT SCREENING TABLE

Men Maximum Weight (pounds)	Member's Height (inches with fractions rounded up to nearest whole inch)	Women Maximum Weight (pounds)
127	57	127
131	58	131
136	59	136
141	60	141
145	61	145
150	62	149
155	63	152
160	64	156
165	65	160
170	66	163
175	67	167
181	68	170
186	69	174
191	70	177
196	71	181
201	72	185
206	73	189
211	74	194
216	75	200
221	76	205
226	77	211
231	78	216
236	79	222
241	80	227

TABLE 2
PRT STANDARDS FOR MALES
"Maximum" is the highest number of points attainable for an event.

Performance Level	Points	Curl-ups	Push-ups	1.5-mile run	500-yd swim	450-m swim
		Males: Age 17-19 years				
"Maximum"	100	109	92	8:15	6:30	6:20
Outstanding	90	102	86	9:00	7:15	7:05
Excellent	75	90	76	9:45	8:30	8:20
Good	60	62	51	11:00	11:15	11:05
Satisfactory	45	50	42	12:30	12:45	12:35
Failure	<45	<50	<42	>12:30	>12:45	>12:35
		Males: Age 20-24 years				
"Maximum"	100	105	87	8:30	6:30	6:20
Outstanding	90	98	81	9:15	7:30	7:20
Excellent	75	87	71	10:30	8:45	8:35
Good	60	58	47	12:00	11:30	11:20
Satisfactory	45	46	37	13:30	13:00	12:50
Failure	<45	<46	<37	>13:30	>13:00	>12:50
		Males: Age 25-29 years				
"Maximum"	100	101	84	8:55	6:38	6:28
Outstanding	90	95	77	9:38	7:38	7:28
Excellent	75	84	67	10:52	8:53	8:43
Good	60	54	44	12:53	11:38	11:28
Satisfactory	45	43	34	14:00	13:08	12:58
Failure	<45	<43	<34	>14:00	>13:08	>12:58
		Males: Age 30-34 years				
"Maximum"	100	98	80	9:20	6:45	6:35
Outstanding	90	92	74	10:00	7:45	7:35
Excellent	75	81	64	11:15	9:00	8:50
Good	60	51	41	13:45	11:45	11:35
Satisfactory	45	40	31	14:30	13:15	13:05
Failure	<45	<40	<31	>14:30	>13:15	>13:05
		Males: Age 35-39 years				
"Maximum"	100	95	76	9:25	6:53	6:43
Outstanding	90	88	70	10:08	7:53	7:43
Excellent	75	78	60	11:23	9:08	8:58
Good	60	47	37	14:08	11:53	11:43
Satisfactory	45	37	27	15:00	13:23	13:13
Failure	<45	<37	<27	>15:00	>13:23	>13:13
		Males: Age 40-44 years				
"Maximum"	100	92	72	9:30	7:00	6:50
Outstanding	90	85	67	10:15	8:00	7:50
Excellent	75	76	56	11:45	9:15	9:05
Good	60	44	34	14:30	12:00	11:50
Satisfactory	45	35	24	15:30	13:30	13:20
Failure	<45	<35	<24	>15:30	>13:30	>13:20

TABLE 2 (CONT'D)
PRT STANDARDS FOR MALES
"Maximum" is the highest number of points attainable for an event.

Performance Level	Points	Curl-ups	Push-ups	1.5-mile run	500-yd swim	450-m swim
		Males: Age 45-49 years				
"Maximum"	100	88	68	9:33	7:08	6:58
Outstanding	90	81	63	10:30	8:08	7:58
Excellent	75	73	52	12:08	9:23	9:13
Good	60	40	32	14:53	12:08	11:58
Satisfactory	45	31	21	16:08	13:38	13:28
Failure	<45	<31	<21	>16:08	>13:08	>13:28
		Males: Age 50-54 years				
"Maximum"	100	85	64	9:35	7:15	7:05
Outstanding	90	78	59	10:45	8:15	8:05
Excellent	75	71	49	12:30	9:30	9:20
Good	60	37	30	15:15	12:15	12:05
Satisfactory	45	29	19	16:45	13:45	13:35
Failure	<45	<29	<19	>16:45	>13:45	>13:35
		Males: Age 55-59 years				
"Maximum"	100	81	60	10:42	7:17	7:07
Outstanding	90	74	56	11:25	8:17	8:07
Excellent	75	62	46	13:12	9:47	9:37
Good	60	36	16	16:15	12:33	12:23
Satisfactory	45	26	10	17:09	13:55	13:45
Failure	<45	<26	<10	>17:09	>13:55	>13:45
		Males: Age 60-64 years				
"Maximum"	100	75	57	11:21	7:20	7:10
Outstanding	90	70	52	12:04	8:20	8:10
Excellent	75	56	44	13:53	10:05	9:55
Good	60	26	14	17:47	12:50	12:40
Satisfactory	45	20	8	18:52	14:05	13:55
Failure	<45	<20	<8	>18:52	>14:05	>13:55
		Males: Age 65+ years				
"Maximum"	100	65	48	11:41	7:25	7:15
Outstanding	90	60	44	12:43	8:25	8:15
Excellent	75	44	36	14:34	10:30	10:20
Good	60	20	10	18:13	13:20	13:10
Satisfactory	45	10	4	20:35	14:15	14:05
Failure	<45	<10	<4	>20:35	>14:15	>14:05

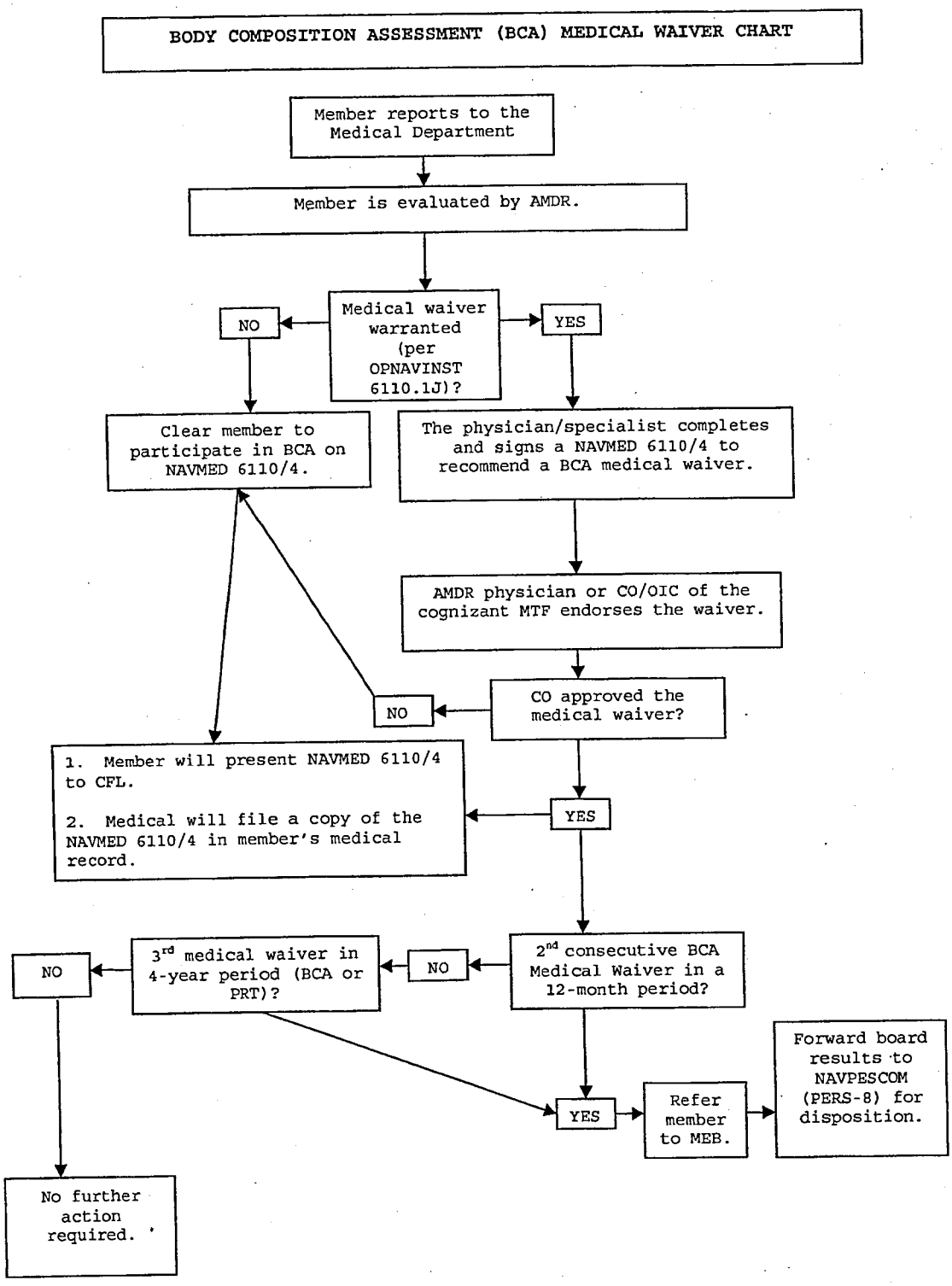
TABLE 3
PRT STANDARDS FOR FEMALES

"Maximum" is the highest number of points attainable for an event.

Performance Level	Points	Curl-ups	Push-ups	1.5-mile run	500-yd swim	450-m swim
		Females: Age 17-19 years				
"Maximum"	100	109	51	9:29	6:45	6:35
Outstanding	90	102	47	11:30	8:30	8:20
Excellent	75	90	42	12:30	9:45	9:35
Good	60	62	24	13:30	13:00	12:50
Satisfactory	45	50	19	15:00	14:15	14:05
Failure	<45	<50	<19	>15:00	>14:15	>14:05
		Females: Age 20-24 years				
"Maximum"	100	105	48	9:47	7:15	7:05
Outstanding	90	98	44	11:30	8:45	8:35
Excellent	75	87	39	13:15	10:00	9:50
Good	60	58	21	14:15	13:15	13:05
Satisfactory	45	46	16	15:30	14:30	14:20
Failure	<45	<46	<16	>15:30	>14:30	>14:20
		Females: Age 25-29 years				
"Maximum"	100	101	46	10:17	7:23	7:13
Outstanding	90	95	43	11:45	9:00	8:50
Excellent	75	84	37	13:23	10:15	10:05
Good	60	54	19	14:53	13:30	13:20
Satisfactory	45	43	13	16:08	14:45	14:35
Failure	<45	<43	<13	>16:08	>14:45	>14:35
		Females: Age 30-34 years				
"Maximum"	100	98	44	10:46	7:30	7:20
Outstanding	90	92	41	12:00	9:15	9:05
Excellent	75	81	35	13:30	10:30	10:20
Good	60	51	17	15:30	13:45	13:35
Satisfactory	45	40	11	16:45	15:00	14:50
Failure	<45	<40	<11	>16:45	>15:00	>14:50
		Females: Age 35-39 years				
"Maximum"	100	95	43	10:51	7:45	7:35
Outstanding	90	88	39	12:08	9:30	9:20
Excellent	75	78	34	13:45	10:45	10:35
Good	60	47	14	15:53	14:00	13:50
Satisfactory	45	37	9	17:00	15:15	15:05
Failure	<45	<37	<9	>17:00	>15:15	>15:05
		Females: Age 40-44 years				
"Maximum"	100	92	41	10:56	8:00	7:50
Outstanding	90	85	37	12:15	9:45	9:35
Excellent	75	76	32	14:00	11:00	10:50
Good	60	44	12	16:15	14:15	14:05
Satisfactory	45	35	7	17:15	15:30	15:20
Failure	<45	<35	<7	>17:15	>15:30	>15:20

TABLE 3 (CONT'D)
PRT STANDARDS FOR FEMALES
"Maximum" is the highest number of points attainable for an event.

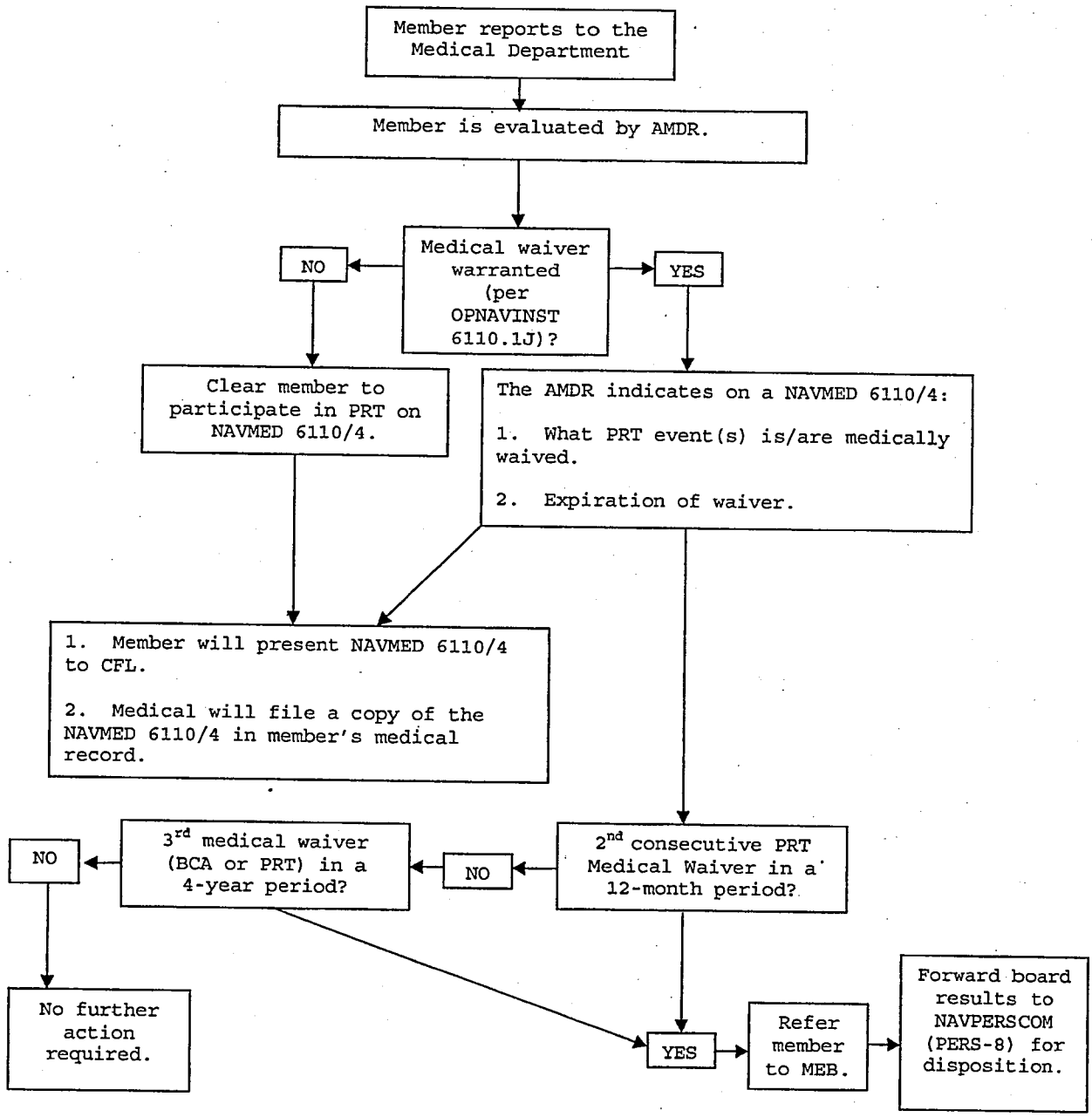
Performance Level	Points	Curl-ups	Push-ups	1.5-mile run	500-yd swim	450-m swim
		Females: Age 45-49 years				
"Maximum"	100	88	40	10:58	8:15	8:05
Outstanding	90	81	35	12:30	9:53	9:43
Excellent	75	73	30	14:08	11:08	10:58
Good	60	40	11	16:30	14:30	14:20
Satisfactory	45	31	5	17:23	15:38	15:28
Failure	<45	<31	<5	>17:23	>15:38	>15:28
		Females: Age 50-54 years				
"Maximum"	100	85	38	11:00	8:30	8:20
Outstanding	90	78	33	12:45	10:00	9:50
Excellent	75	71	28	14:15	11:15	11:05
Good	60	37	10	16:45	14:45	14:35
Satisfactory	45	29	2	17:30	15:45	15:35
Failure	<45	<29	<2	>17:30	>15:45	>15:35
		Females: Age 55-59 years				
"Maximum"	100	81	30	12:23	8:45	8:35
Outstanding	90	74	26	13:57	10:07	9:57
Excellent	75	62	20	15:20	11:25	11:15
Good	60	36	6	17:48	15:00	14:50
Satisfactory	45	26	2	18:34	16:00	15:50
Failure	<45	<26	<2	>18:34	>16:00	>15:50
		Females: Age 60-64 years				
"Maximum"	100	75	26	13:34	9:00	8:50
Outstanding	90	70	22	15:08	10:15	10:05
Excellent	75	56	16	16:25	11:35	11:25
Good	60	26	5	18:51	15:15	15:05
Satisfactory	45	20	2	19:43	16:15	16:05
Failure	<45	<20	<2	>19:43	>16:15	>16:05
		Females: Age 65+ years				
"Maximum"	100	65	22	14:45	9:15	9:05
Outstanding	90	60	18	16:19	10:23	10:13
Excellent	75	44	12	17:30	11:50	11:40
Good	60	20	4	19:54	15:30	15:20
Satisfactory	45	10	1	20:52	16:30	16:20
Failure	<45	<10	<1	>20:52	>16:30	>16:20



*** This diagram depicts the Navy's BCA medical waiver and PFA MEB process. All PFA medical waivers will be issued on a NAVMED 6110/4.**

Enclosure (4)

PHYSICAL READINESS TEST (PRT) MEDICAL WAIVER CHART



*** This diagram depicts the Navy's PRT medical waiver and PFA MEB process. All PFA medical waivers will be issued on a NAVMED 6110/4.**

BY ORDER OF THE SECRETARY OF THE AIR FORCE

AIR FORCE INSTRUCTION 36-2905

21 OCTOBER 2013

Incorporating Change 1, 27 AUGUST 2015

Personnel

FITNESS PROGRAM

COMPLIANCE WITH THIS PUBLICATION IS MANDATORY

ACCESSIBILITY: Publications and forms are available on the e-Publishing website at **www.e-publishing.af.mil** for downloading or ordering.

RELEASABILITY: There are no releasability restrictions on this publication.

OPR: AFPC/DPS

Certified by: AF/A1P
(Brig Gen Gina Grosso)

Supersedes: AFI36-2905, 1 July 2010

Pages: 147

This instruction implements Air Force Policy Directive (AFPD) 36-29, *Military Standards*. It complements the physical fitness requirements of DoD Directive 1308.1, *DoD Physical Fitness and Body Fat Program*, DoD Instruction 1308.3, *DoD Physical Fitness and Body Fat Procedures*, AFI 40-101, *Health Promotion*, and Air Force Policy Directive (AFPD) 10-2, *Readiness*. This instruction applies to all Regular Air Force (RegAF), Air National Guard (ANG), and Air Force Reserve (AFR) members, except where noted otherwise. This instruction relates to AFI 10-203, *Duty Limiting Conditions*, AFI 34-266, *Air Force Fitness and Sports Programs* and AFI 40-104, *Health Promotion Nutrition*. This AFI may be supplemented at any level, but all supplements must be routed to AF/A1P for coordination prior to certification and approval. Refer recommended changes about this publication to the Office of Primary Responsibility (OPR) using the AF Form 847, *Recommendation for Change of Publication*. Ensure that all records created as a result of processes prescribed in this publication are maintained in accordance with AFMAN 33-363, *Management of Records*, and disposed of in accordance with the Air Force Records Disposition Schedule (RDS) located at **https://www.my.af.mil/afrims/afrims/afrims/rims.cfm**. This publication requires the collection and or maintenance of information protected by the Privacy Act of 1974 authorized by 10 U.S.C. 8013 and Executive Order 9397. The applicable Privacy Act SORN F036 AF A1 I, Fitness Program Case File, is available at **http://privacy.defense.gov/notices/usaf/**.

SUMMARY OF CHANGES

This interim change revises AFI 36-2905 to provide updates to program policies by (1) extending post-pregnancy Fitness Assessment (FA) requirement from 6 months to 12 months, (2) removing Exercise Physiologist (EP) positions, (3) authorizing Airmen on permanent medical

exemptions to test annually, (4) making referral performance reports optional for FA failures upon close-out of EPR/OPR/TR, (5) making enlisted Airmen either not current or with a FA failure at Promotion Eligibility Cut-Off Date (PECD) ineligible for promotion, (6) adding mandatory and modified optional command actions for failed FA, (7) exempting Airmen with approved retirement/separation dates within 12 months of last FA, (8) officially recognizing FAs administered at commissioning sources, and (9) authoritizing local Fitness Info Managers (FIM) to update corrections resulting from administrative errors/records approved through the appeal process in the Air Force Fitness Management System II and is effective 31 July 2015. A margin bar (|) indicates newly revised material.

This instruction implements Air Force Policy Directive (AFPD) 36-29, *Military Standards*. It complements the physical fitness requirements of DoD Directive 1308.1, *DoD Physical Fitness and Body Fat Program*, DoD Instruction 1308.3, *DoD Physical Fitness and Body Fat Procedures*, AFI 40-101, *Health Promotion*, and Air Force Policy Directive (AFPD) 10-2, *Readiness*. This instruction relates to AFI 10-203, *Duty Limiting Conditions*, AFI 34-266, *Air Force Fitness and Sports Programs,* and AFI 40-104, *Health Promotion Nutrition*. It applies to Regular Air Force (RegAF), Air Force Reserve (AFR), and Air National Guard (ANG) personnel. In collaboration with the Chief of Air Force Reserve (AF/RE) and the Director of the Air National Guard (NGB/CF), the Deputy Chief of Staff for Manpower, Personnel, and Services (AF/A1) develops personnel policy for the fitness program. This Air Force Instruction (AFI) may be supplemented at any level; MAJCOM-level supplements must be approved by the Human Resource Management Strategic Board (HSB) prior to certification and approval. Refer recommended changes about this publication to the office of primary responsibility (OPR) using the AF Form 847, *Recommendation for Change of Publication*; route AF Forms 847 from the field through the appropriate functional chain of command. Ensure that all records created as a result of processes prescribed in this publication are maintained in accordance with AFMAN 33-363, *Management of Records,* and disposed of in accordance with the Air Force Records Management System (AFRIMS) Records Disposition Schedule (RDS). This publication requires the collection and or maintenance of information protected by the Privacy Act of 1974 authorized by Title 10, United States Code (U.S.C.), Section 8013 and Executive Order 9397 (SSN), as amended. The applicable Privacy Act System of Records Notices F036 AF PC C, *Military Personnel Records Systems*, F036 AFPC J, *Promotions Documents and Records Tracking System (PRODARTS)* and F036 AFPC K, *Enlisted Promotion Testing Record,* are available at **http://dpclo.defense.gov/Privacy/SORNs.aspx**. The authorities to waive wing/unit level requirements in this publication are identified with a Tier ("T-0, T-1, T-2, T-3") number following the compliance statement. See AFI 33-360, *Publications and Forms Management*, for description of the authorities associated with the Tier numbers. Submit requests for waivers through the chain of command to the appropriate Tier waiver approval authority, or alternately, to the publication OPR for non-tiered compliance items.

Chapter 1

COMMANDER'S INTENT

1.1. It is every Airman's responsibility to maintain the standards set forth in this AFI 365 days a year. Being physically fit allows you to properly support the Air Force mission. The goal of the Fitness Program (FP) is to motivate all members to participate in a year-round physical conditioning program that emphasizes total fitness, to include proper aerobic conditioning, muscular fitness training, and healthy eating. An active lifestyle will increase productivity, optimize health, and decrease absenteeism while maintaining a higher level of readiness. Commanders and supervisors must incorporate fitness into the Air Force culture establishing an environment for members to maintain physical fitness and health to meet expeditionary mission requirements. The Fitness Assessment (FA) provides commanders with a tool to assist in the determination of overall fitness of their military personnel. Commander-driven physical fitness training is the backbone of the Air Force Fitness Program and an integral part of mission requirements. The program promotes aerobic and muscular fitness, flexibility, and optimal body composition of each member in the unit.

Chapter 2

RESPONSIBILITIES

2.1. US Air Force Chief of Staff (CSAF). Directs implementation of the Air Force Fitness Program (FP).

2.2. US Air Force Deputy Chief of Staff for Manpower, Personnel, and Services (AF/A1).

2.2.1. Develops fitness standards.

2.2.2. Develops personnel policy and guidance for implementation/administration of the FP.

2.2.3. Consults with AF/SG for medical-related issues related to fitness policy.

2.2.4. Coordinates with NGB/A1 and AF/REP on all fitness policy and guidance.

2.2.5. Ensures fitness standards at the US Air Force Academy (USAFA), Officer Training School (OTS), Commissioned Officer Training (COT) course, Reserve Officer Training Corps (ROTC), Basic Military Training (BMT), and technical training schools align with this instruction.

2.2.6. Directs research to further FA methods and fitness standards.

2.2.7. Develops body composition accession standards in coordination with AF/SG.

2.2.8. Provides software development to support the FP.

2.2.9. Supports the FP by ensuring availability of fitness resources: facilities, equipment, and programs.

2.2.10. Ensures healthy food selections are available at in-garrison and deployed base dining facilities.

2.3. US Air Force Surgeon General (AF/SG).

2.3.1. Directs intervention and training programs related to medical aspects of the FP.

2.3.2. Programs and resources the medical aspects required to support the FP.

2.4. Military Force Policy Division (AF/A1PP).

2.4.1. Develops and maintains guidance in this publication on personnel policy regarding implementation/administration of the FP.

2.4.2. Collaborates with AF/SG, Directorate of Services (AF/A1S), Office of The Judge Advocate General (AF/JA), and Chief Master Sergeant of the Air Force (AF/CCC) on matters related to fitness policy.

2.4.3. Obtains exercise science input from AETC/A3TH on matters relating to fitness standards and methods, research to further FA and FP, and technical matters related to fitness policy.

2.4.4. Provides oversight for the development and improvement of the Air Force Fitness Management System (AFFMS II) software application.

2.5. Air Force Personnel Center (AFPC/DPSIM).

2.5.1. Works directly with AF/A1PP to support program administration.

2.5.2. Implements personnel policy.

2.5.3. Coordinates with Systems Programs Office (SPO) on FP software AFFMS II based on guidance and policy. (T-1).

2.5.4. Provides FP metrics to Air Force Personnel Center Services Directorate (AFPC/SV).

2.5.5. Oversees and executes the Fitness Assessment Appeals Board (FAAB) process.

2.5.6. Reviews fitness related AFBCMR submissions and provides a written advisory opinion to the AFBCMR.

2.6. Assistant Surgeon General, Healthcare Operations (AF/SG3).

2.6.1. Provides guidance on the development and implementation of medically-related intervention and training programs.

2.7. Air Force Personnel Center Services Directorate (AFPC/SV).

2.7.1. Provides technical assistance and program guidance to the base Fitness and Sport Centers (FSC) for installation Fitness Assessment Cell (FAC) implementation/ operation. Provides guidance on classes/programs that support individual/group exercise and unit Fitness Improvement Programs (FIP) at home station and deployed locations. (T-1).

2.7.2. Develops and distributes Physical Training Leader-Basic (PTL-B) and Unit Fitness Program Manager (UFPM) training materials in consultation with Air Force Medical Operations Agency (AFMOA).

2.7.3. Submits HAF, MAJCOM, Services Installation Support Division, and FOA requests for AFFMS II Super User access to system OPR. (T-1).

2.7.4. Provides technical assistance and guidance to AFFMS II Super Users/Fitness Information Managers (FIM), and UFPM users. Provides FIM user roles to authorized base personnel. Forwards AFFMS II operational and program issues to AFPC/ DPSIM. NOTE: NGB/A1 will provide FIM user roles to authorized ANG personnel.

2.7.5. Provides program guidance for healthy food options in-garrison and at deployed base dining facilities.

2.7.6. Acts as the liaison between AF/A1PP, AF/REP, NGB/A1, and installation FP personnel.

2.8. Air Force Medical Operations Agency (AFMOA).

2.8.1. Provides support and assistance for the medical aspects of the FP.

2.8.2. Develops medically-related intervention and training programs for Health Promotion Staff and MTF providers. (T-1).

2.9. MAJCOM, National Guard Bureau (NGB), and Direct Reporting Unit (DRU) Commanders or Equivalent (Field Operating Agency (FOA) where applicable).

2.9.1. Ensures subordinate units execute the FP.

2.9.2. Ensures an environment that supports and motivates a healthy lifestyle through optimal fitness and nutrition.

2.10. MAJCOM/A1, DRU/A1 or Equivalent.

2.10.1. DELETED

2.10.2. Ensures UFPMs/PTLs are used to supplement FACs for testing in a manner that minimizes undue burden on units.

2.10.3. NGB/A1 ensures policy is disseminated and implemented by states/wings.

2.10.4. DELETED

2.11. AFRC Fitness Program Manager (FPM).

2.11.1. Senior noncommissioned officer, officer, or civilian equivalent appointed by the AFRC/CC or AFRC/CV.

2.11.2. IMA Readiness Management Group/CC will appoint a senior noncommissioned officer or above as an FPM to train and support Individual Mobilization Augmentee (IMA) Program Managers and Base IMA Administrators.

2.12. Installation Commander, ANG WG/CC, or Equivalent.

2.12.1. Executes and enforces the FP and ensures compliance with appropriate administrative action in cases of non-compliance.

2.12.1.1. Ensures equitable administration of FA throughout the installation.

2.12.2. Provides an environment that supports and motivates a healthy lifestyle through optimal fitness and nutrition IAW AFI 40-104, *Health Promotion Nutrition.*

2.12.3. Ensures commanders implement and maintain unit fitness programs.

2.12.4. Provides the appropriate oversight for FAs going through the appeal process. (T-1). Provides the first coordination on any appeal FAs. (T-1).

2.12.4.1. DELETED

2.12.4.2. DELETED

2.12.4.3. DELETED

2.12.5. Provides appropriate manpower, safe facilities, equipment, resources, and funding to support the FAC and FP. (T-1). Installation commanders will approve, in writing, the plan appointing certified PTLs/UFPMs to augment the FAC to conduct FAs and input scores. (T-1). Periodically reviews use of personnel to augment FAC operations to ensure they are used in a manner that minimizes undue burden on units. (T-1).

2.12.5.1. Provides a location for administration of all components of the FA. (T-1).

2.12.5.2. Approves 1.5-mile run/2.0-kilometer walk assessment course in conjunction with local CES, FSS, and Wing Safety and files approval memorandum at the FAC. (T-1).

2.12.5.3. Plans, programs, and budgets training to support the installation FP. (T-1). This includes UFPM/PTL training and the FIP education/intervention program.

2.12.6. ARC Wing commanders promote and support unit FP as mission requirements allow. Wing commanders will establish local guidance for subordinate Unit commanders regarding

use of duty time for physical training (PT) during Unit Training Assemblies (UTA), Annual Tours (AT), and special tours. (T-1).

2.12.6.1. Coordinates with host Military Treatment Facility (MTF) to establish medical support for the fitness program, to include space-available access to FIP and UFPM/PTL training.

2.12.7. Designates, in writing, an individual to oversee the Fitness Assessment Cell (FAC), or Wing Fitness Program for ANG. (T-1). This individual can be any AFSC and is required to be an NCO or SNCO. (T-2). NOTE: At AFRC stand-alone bases, the EP oversees the FAC and is appointed by the Installation Commander.

2.12.7.1. At installations where the Fitness and Sports Center (FSC) is operated by military and/or GS employees, the Fitness and Sports Manager (FSM) assigns a 3M SNCO/ NCO/GS civilian employee already working at the FSC to oversee the FAC program management (including UFPM/PTL augmentees). These duties, however, cannot be performed by Non-Appropriated Fund (NAF) or contract employees.

2.12.7.2. At installations where the FSC is operated under a NAF Instrumentality (NAFI) memorandum of agreement (MOA) or contract and there are no 3M NCOs, FSS/CC in conjunction with installation leadership, will identify a military member (minimum grade of SSgt) from anywhere on the installation to perform FAC Program Manager duties. The military member assigned as the FAC Program Manager reports to and elevates FAC issues and concerns to the Sustainment Flight Chief (FSV).

2.13. Medical Group Commander (MDG/CC).

2.13.1. Provides medical support for the installation FP. (T-1). Plans, programs, and budgets for medically-related intervention and training programs. (T-1).

2.13.2. DELETED

2.13.3. Ensures all MTF providers for AF members receive training on FP and Duty Limiting Conditions (DLC) guidance during initial and annual refresher training.

2.13.3.1. Ensures training includes FP policies, DLC procedures and medical conditions and medications affecting FAs.

2.13.4. DELETED

2.14. ARC Medical Unit Commander Responsible for Health Service Support to the Wing/ Group.

2.14.1. Appoints a credentialed provider as FP Medical Liaison Officer (MLO) to serve as the FP consultant to all other medical providers and support staff.

2.14.2. Ensures all medical providers receive training on FP and DLC guidance. Training should include FP policies, medical conditions, and medications affecting FAs and DLC procedures.

2.15. Chief, Aerospace Medicine (MDG/SGP) or Equivalent.

2.15.1. Duty Limited Conditions (DLC) related to Fitness Restrictions (FR) and Fitness Assessment Restrictions (FAR) IAW AFI 10-203, *Duty Limiting Conditions*. (T-1).

2.15.1.1. DELETED

2.15.2. For ARC units, medical oversight includes medical exemptions, medical profiling, and medical aspects of line-of-duty (LOD) determinations.

2.15.2.1. DELETED

2.15.2.2. DELETED

2.15.3. Ensures ARC medical units provide health service support to a wing/group as follows: (T-1).

2.15.3.1. Ensures provision of medical dispositions relating to members' training and assessment in the FP based on reports from Personal Care Provider (PCP). ARC providers will document profiles with FP restrictions/exemptions IAW AFI 10-203, *Duty Limiting Conditions*. (T-1).

2.15.3.2. Ensures procedures are established with RegAF host MTF for referral of eligible ARC component members for evaluation and treatment.

2.16. Health Promotion Flight Commander/Element Chief. NOTE: ARC as applicable.

2.16.1. Provides support and consultation to commanders to provide an environment that supports and motivates a healthy lifestyle.

2.16.2. Ensures physical activity, nutrition, and behavioral health education programs are incorporated into required FP education and implements AFMOA Health Promotion Operations approved FIP. (T-1).

2.16.3. Partners with FSS/CC/CL and food facility directors to provide healthy food options and a healthy eating awareness program at FSS facilities.

2.17. DELETED

2.17.1. DELETED

2.17.2. DELETED

2.17.3. DELETED

2.17.3.1. DELETED

2.17.3.2. DELETED

2.17.4. DELETED

2.17.5. DELETED

2.17.6. DELETED

2.17.6.1. DELETED

2.17.7. DELETED

2.17.8. DELETED

2.17.8.1. DELETED

2.17.8.2. DELETED

2.17.9. DELETED

2.18. AFRC Installation EP/ Fitness Program Manager

2.18.1. Serves as the subject matter expert on exercise science and as the fitness program expert for the ARC FP.

2.18.2. Provides guidance and recommendations on unit PT programs as requested by Unit CCs.

2.18.3. Provides initial and refresher training for ARC PTL's to lead Commander directed unit PT for those units identified to have a mandatory group PT program in place (PTL-A, if required) and conduct FAs (PTL-B).

2.18.4. Only awards PTL-A certification to those individuals that possess current PTL-B certification.

2.18.5. Provides initial and refresher training for ARC Fitness Program Medical Liaison Officer (MLO) regarding FP policies procedures.

2.18.6. Conducts Staff Assistance Visits (SAVs) on unit FP at the request of commanders (or equivalent).

2.18.7. Provides exercise assessment, prescription and counseling, or rehabilitation program IAW functional limitations provided on AF Form 469, *Duty Limiting Condition Report.*

2.18.8. Provides documentation of exercise recommendations on AF Form 422, *Notification of Air Force Member's Qualification Status* when a member is referred by their healthcare provider, UFPM, Commander, or self-referral.

2.18.9. Attends the Installation Deployment Availability Working Group (DAWG).

2.18.10. Coordinates with HQ AFRC FPM to report adverse events related to FP participation to AFRC/SGPH and AFRC/A1.

2.18.11. Assigns AFFMS II UFPM roles.

2.18.12. Ensures exercise, nutrition, and behavioral health education programs are incorporated into required FP education and implements AFMOA Health Promotion Operations approved FIP. (T-1).

2.18.13. Conducts weekday FAs and manages UTA FA testing schedule utilizing PTL augmentees.

2.19. Fitness Program Manager (FPM) for ARC units.

2.19.1. Serves as the fitness program expert for the ARC FP. Completes UFPM/PTL training/certification within 90 days of appointment. (T-1). **NOTE:** will obtain a minimum PTL-B certification. PTL-A certification will be pursued as required.

2.19.2. Provides guidance and recommendations on unit PT programs as requested by Unit Commander.

2.19.3. Ensures ARC UFPMs/PTLs are trained and certified to lead unit PT (PTL-A) and conduct FAs (PTL-B) if not collocated with a base. (T-1). Secures training/certification at specified locations on base, or utilizes remote/online training options if space is unavailable.

(T-1). Ensures all PTLs (Basic and Advanced) are trained for Basic Life Support (BLS) and in the use of an Automated External Defibrillator (AED). (T-1).

2.19.4. Conducts Staff Assistance Visits (SAVs) on unit FP at the request of the commander (or equivalent). (T-1).

2.19.5. Provides initial and refresher training for ARC Fitness Program Medical Liaison Officer (MLO) regarding FP policies procedures.

2.19.6. Coordinates with HQ AFRC FPM to report adverse events related to FP participation to AFRC/SGPH and AFRC/A1.

2.19.7. Assigns AFFMS II UFPM roles.

2.20. ARC Fitness Program Medical Liaison Officer (MLO).

2.20.1. Receives initial and refresher training provided by the FPM regarding FP policies/procedures. (T-1).

2.20.2. Maintains current information on FP policy, Fitness Screening Questionnaire (FSQ) screening, and medical exemption procedures and trains other credentialed ARC providers to:

2.20.2.1. Validates FP medical exemption recommendations by Primary Care Provider.

2.20.2.2. Complete AF Form 469 for Airmen with functional limitation impacting unit fitness activity to include assessment and training IAW AFI 10-203 and **Chapter 5**. **NOTE:** to be completed by EP at ARC stand-alone bases, if available.

2.20.2.3. Provides medical reporting guidance for any injury sustained during FA and initiates appropriate PCP referral, LOD, and profiling actions.

2.20.2.4. Reviews high-risk FSQ for further disposition.

2.21. MTF Provider.

2.21.1. Maintains current information on FP policy, FSQ screening, medical conditions, and medications affecting FAs and DLC procedures as it pertains to the FP.

2.21.2. DELETED

2.21.3. Makes a DLC determination at any patient encounter in which the medical condition impacts fitness activity (to include assessment and training) or when a FA is due. Documents duty limitations and FA exemptions on AF Form 469 IAW AFI 10-203.

2.21.4. Provides risk assessment and recommendations for Airmen with a high-risk response on the FSQ (**Attachment 4**) upon referral by the FAC or unit. (T-1).

2.21.5. Evaluates Airmen to determine whether the Airmen has a medical condition precluding him/her from achieving a passing score on the fitness assessment, as requested by the FPM for ARC, Airman's commander, or UFPM. (T-1).

2.21.6. Refers RegAF members for exercise assessment, prescription and counseling, or rehabilitation program (when medically appropriate). (T-1).

2.22. Force Support Squadron Commander/Director (FSS/CC/CL).

2.22.1. Responsible for overall functioning and management of the FSC and the FAC. (T-1). Ensures all FAC staff, FAC augmentees, and special population instructors (e.g. MTIs, MTLs, OTS cadres, etc.) have been fully trained and are a minimum PTL-B certified prior to conducting official FAs. (T-1). Ensures adequate facilities and other resources are available to support fitness operations at home station and at deployed locations.

2.22.2. Plans, programs, budgets, and funds safe and effective FAs by the FAC. Supports joint FSS and SG total fitness and nutrition marketing efforts.

2.22.3. Ensures food service personnel have knowledge, skills, and training necessary for food preparation to maximize the nutritional value of foods and promote the purchase and consumption of healthy food options. (T-1).

2.22.4. Ensures Fitness and Sports Manager and staff are trained and prepared to support FP at home station and at deployed locations. (T-1). The exceptions are Non-Appropriated Fund (NAF) employees, contract civilians, and Appropriated Fund (APF) employees who only work the front desk, maintenance, and sports field operations.

2.22.4.1. Ensures FSC staff are trained (as required) to support FP, e.g., training courses IAW AF Fitness Standards, developing and leading group exercise, leading (FIP) classes, etc. (refer to AFI 34-266, *Air Force Fitness and Sports Programs for Fitness Staff Training*). (T-1).

2.22.4.2. Provides unit and collocated ARC PTLs a thorough FSC orientation to include group PT class setup, equipment use, and safety procedures.

2.22.5. Reports monthly FA statistics to wing/CC, unit/CC or designee in accordance with paragraph 9.1.2.2.

2.22.6. Responsible for designating an installation POC to conduct the FA procedures training of PTL-B certification. Ensures trainer tracks PTL-B certification and provides FA training to individuals that present a current CPR certification card. NOTE: AFRC EPs retain the responsibility of providing FA procedures training to their servicing population.

2.22.7. Responsible for identifying an installation POC to conduct the FA procedures training of PTL-B certification. Ensures identified trainer tracks PTL-B certification and only provides FA procedures training to those individuals that possess and present a current CPR certification card. **NOTE:** AFRC EPs retain the responsibility of providing FA procedures training to their servicing population.

2.23. Fitness Assessment Cell (FAC) Augmentee.

2.23.1. Military UFPMs and unit PTLs selected to augment the FAC in the administration of FAs are known as FAC augmentees. All PTLs and UFPMs, regardless of certification level as PTL-B or PTL-A, will augment the FAC. However augmentees must possess a minimum PTL-B certification. (T-1). NOTE: All FAC augmentees will be military members. (T-1).

2.23.1.1. Completes FAC-provided refresher training on FA procedures at the beginning of their FAC rotation. (T-1) This refresher training will include an overview of proper FA procedures as well as local FA instruction and must be completed prior to conducting any FAs as a FAC augmentee. (T-1).

2.23.2. When conducting FAs, FAC augmentees will read the component instructions in Attachment 5 to all Airmen and demonstrate the proper technique, or show the Air Force instructional video. (T-1). If the instructional video is shown, reading the instructions and demonstration is not required. The video can be found at: http://www.afpc.af.mil/affitnessprogram/index.asp.

2.23.3. Reviews FSQs completed the day of the FA and notifies the UFPM of any Airman with high-risk responses on the FSQ for referral to a Health Care Provider. (T-1). If the Airman has a component exemption, the Airman must present a current AF Form 469 at the time of testing. (T-1). NOTE: ANG Airmen with high-risk responses on the FSQ will be referred to their MLO. (T-1).

2.23.4. Provides completed Written Order at Attachment 18 and a copy of his/her CPR card to the FAC Manager prior to administering any FAs as a FAC augmentee. (T-1).

2.23.5. Administers all portions of the FA IAW **Chapter 3.** Will not test Airmen from their own unit/ Personal Accounting Symbol (PAS) code.

2.23.5.1. FAC augmentees will perform AC measurements on Airmen of the same gender. (T-1). Where a FAC augmentee of the same gender is not available, an observer of the same gender must be present. (T-1). NOTE: Please reference paragraph 3.10.1.1. for determination of Airmen gender.

2.23.5.2. Supervises Airmen conducting push-ups, sit-ups, and the 1.5 mile run/2.0-kilometer walk at a ratio of no more than 12 Airmen for every one FAC augmentee. (T-1). When multiple Airmen are testing, they will pair off and count for each other while the FAC augmentee provides oversight to ensure proper form and repetition count. (T-1). NOTE: ARC may deviate from 12:1 ratio when weekend testing requires a ratio greater than 12:1 but will not exceed a ratio greater than 24:1. (T-1). ARC Airmen must be in a military duty status (active or inactive) while the FA is being administered. ARC UFPM/PTLs may administer the test in any status. (T-1).

2.23.5.3. Documents FA results on a hard copy AF Form 4446, *Air Force Fitness Assessment Scorecard*, signs the score sheet, and obtains Airman's signature on the score sheet, acknowledging run/walk time, abdominal circumference measurements, and muscular fitness repetitions. (T-1). Provides a copy of the signed score sheet to the Airman for his/her personal records. (T-1). NOTE: Use of the AF Form 4446 is mandatory. Locally-produced scorecards cannot be used.

2.23.5.4. At locations not collocated at a major AF installation (i.e. GSUs, Detachments, etc.), UFPMs and PTLs will fulfill the roles of the FAC by conducting FAs and inputting scores. These UFPMs and PTLs will ensure all portions of the FA are administered IAW Chapter 3. (T-1). FAs will be conducted by a certified PTL from a different unit/PAS code than the Airman being tested. (T-1). Procedures to ensure this direction is adhered to will be determined by local leadership. (T-3).

2.24. Fitness Assessment Cell (FAC) Manager.

2.24.1. Operates in the Fitness and Sports Section (FSVS) as part of the FSV within the FSS. **NOTE:** Non-collocated ANG units will use UFPMs/PTLs to fulfill the roles of the FAC Manager/Augmentee.

2.24.2. Provides PTL-B training to all FAC augmentees prior to administering any FAs. (T-1). NOTE: Training materials will be provided by IMSC/SV.

2.24.3. Provides refresher training on proper FA procedures to include instructions pertinent to local administration. All FAC augmentees will complete refresher training prior to conducting any FAs as a FAC augmentee.

2.24.4. Trains UFPMs on their responsibilities, FA procedures, AFFMS II and unit metric reports. (T-1). Provides UFPM or designated unit representative blocks of testing dates and times for FAs. (T-1). NOTE: AFFMS II training materials will be provided by AFPC/DPSIM. (T-1).

2.24.5. Procures, maintains, and replaces FA equipment as needed.

2.24.6. Oversees use of AFFMS II by UFPMs and assigns AFFMS II user roles and privileges to authorized personnel. (T-1).

2.24.7. Ensures FA scores are entered into AFFMS II within five duty days by FAC personnel or designated UFPMs/FAC augmentees per local guidance. (T-1). UFPMs/FAC augmentees will not update scores for Airmen from their own unit/PAS code. (T-1).

2.24.8. Ensures all portions of the FA are administered IAW **Chapter 3.**

2.24.8.1. When using unit PTLs/UFPMs to augment the FAC, ensures FAC augmentees do not test Airmen from their own unit/PAS code. (T-1).

2.24.9. Files completed Written Orders for all FAC augmentees (**Attachment 18**). (T-1).

2.24.10. Notifies UFPMs of all FA failures.

2.24.11. Conducts Staff Assistance Visits (SAVs) on unit fitness programs at the request of commanders (or equivalent).

2.24.12. Files copy of AF Form 4446, AF Form 469 (as applicable), and FSQ for all tests administered by FAC and maintains for one year. (T-1).

2.24.12.1. For unsatisfactory FAs, maintain the original or electronic copy of the AF Form 4446, FSQ, and any applicable AF Forms 469, until the Airman achieves a passing FA score or for 24 months, whichever is earlier. Airmen in PCS status hand-carry a copy of their official unsatisfactory score card to their next duty station and provides a copy to their UFPM upon inprocessing. NOTE: In cases where no FAC exists, the UFPM files and maintains either paper or electronic copy.

2.25. Unit/Squadron Commander (CC) or equivalent.

2.25.1. Executes and enforces the unit FP and ensures appropriate administrative action is taken in cases of non-compliance.

2.25.1.1. Provides a work environment that supports healthy lifestyle choices.

2.25.2. Implements and maintains a unit/squadron PT program in accordance with guidance at **Attachment 2** and **Attachment 3**. (T-1). While not mandatory, Unit Commanders are encouraged to provide written guidance to Airmen describing fitness expectations.

2.25.3. Ensures Airmen maintain FA currency as prescribed in paragraph 3.12. (T-1).

2.25.4. PT program requirements: unit PT programs will encourage Airmen to participate in physical fitness training for up to 90 minutes, 3-5 times per week. (T-1). Consistent with mission requirements, commanders are encouraged to schedule or authorize Airmen time to participate in physical fitness training during the duty day.

2.25.5. Appoints individuals in writing to conduct FAs in support of the FAC (FAC augmentees). Ensures appointed FAC augmentees receive initial and refresher PTL-B training/certification prior to administering any official FAs.

2.25.5.1. If Commander directed group PT is implemented in the unit, appoints PTLs in writing to lead unit PT. (T-3). Ensures appointed PTLs receive initial and refresher training/PTL-A certification prior to overseeing and conducting the unit PT.

2.25.5.2. PTLs and FAC augmentees must be available for a minimum of 1 year from the time of appointment. (T-3).

2.25.6. Appoints UFPM(s) in writing and ensures current appointment letter is filed with the FAC. (T-1).

2.25.7. Administers personnel actions for failure to comply with the FP.

2.25.7.1. Ensures all assigned or attached unit personnel are in compliance with all FP requirements (e.g., unit PT, scheduled FAs, maintaining currency). (T-1).

2.25.7.2. Documents command response to Unsatisfactory fitness scores on FAs IAW paragraph 8.2 of this instruction. Elevates matters to higher command where appropriate.

2.25.7.3. Ensures open and closed fitness case files are sealed and mailed to the gaining commanders of Airmen departing for Permanent Change of Station (PCS), Permanent Change of Assignment (PCA), or transferring ARC units. (T-1). The losing UFPM will retain a copy for 90 days. (T-1).

2.25.8. Ensures Airmen who are due to take their FA and are returning from deployment, extended TDY (> 30 days), or having just completed a PCS are assessed after the period of acclimatization (42 days from return to home station for RegAF, NGB Statutory Tour, and AGR (Title 10 & 32) and 90 days for other ARC members unless Airman volunteers to take his/her FA earlier. (T-1). The period of acclimatization starts when the Airman officially signs in to their unit prior to taking reconstitution time, leave or permissive TDY. See Chapter 5 for additional information.

2.25.9. Ensures Airman's FA score is current prior to deployment, extended TDY (> 30 days), PCS, and PME or training courses. (T-1).

2.25.10. Directs unofficial unit-run practice tests, at his/her discretion. Tests conducted as unofficial practice tests cannot be counted as official.

2.25.10.1. Practice/unofficial FAs are not reported as official scores in AFFMS II but may be used as a commander's tool to evaluate fitness/readiness, dress and appearance, etc. NOTE: Chain of command will refrain from taking adverse action based solely on the results of unofficial practice tests. (T-1).

2.25.10.2. Commanders may refer and track Airmen not meeting standards.

2.25.11. Commanders will recommend to the MDG/SGP or EP that a medical review be accomplished for any Airmen who has received four component exemptions in a 24-month period.

2.26. Air Reserve Component (ARC) Commander.

2.26.1. Determines frequency of PT programs during UTA and AT duty-time based on mission requirements.

2.26.2. Encourages Air Reserve Technician and ANG Dual-Status Technicians to participate in duty-time PT according to ARC policy for civilian employees and develops plans for their participation.

2.26.3. May authorize points and pay to accomplish mandatory FIP, and to receive counseling from Health Promotion staff. This does not include authorization of points or pay for the sole purpose of performing a FA. NOTE: IMAs may be put in status to serve Inactive Duty Training (IDT) locally in order to maintain currency.

2.27. Deployed Unit Commander.

2.27.1. Provides environment that supports, encourages, and motivates a healthy lifestyle.

2.27.2. Appoints deployed PTLs to facilitate unit PT program (if required) and administer FAs. Required PTL certification level (Basic or Advanced) is dependent upon unit having a commander-directed mandatory fitness program.

2.27.3. Ensures personnel enrolled in FIP (**see definition in Attachment 1**) continue to meet program requirements, if feasible.

2.27.4. Ensures PTLs conducting official FAs are PTL-B certified by the Expeditionary FSS and do not administer FAs to members within their own unit/PAS code. (T-1).

2.27.5. Ensures PTLs forward the signed AF Form 4446 to PERSCO, who in-turn will forward it to AFFOR/A1 for update in AFFMS II. (T-1).

2.28. Unit Fitness Program Manager (UFPM).

2.28.1. Must be PTL-B certified and will augment the FAC to conduct official FAs, but will not test Airmen from their own unit/PAS code or update scores in AFFMS II on Airmen from their own unit/PAS code. (T-1). Where a FAC does not exist (GSUs, Detachments, etc.) the UFPM and/or PTL will fulfill the roles of the FAC in conducting FAs and inputting scores in AFFMS II. This may include obtaining access to the AFFMS II and training by servicing FAC manager within 30 days (90 days for ARC) of appointment by Unit commander. Where no FAC exists, UFPMs will enter FA scores into AFFMS II within 5 duty days. (T-1).

2.28.1.1. Required to complete UFPM and PTL training annually.

2.28.2. Provides FSQ to Airmen to complete prior to any official or command-directed unofficial/practice FA. (T-1). FSQ will be completed by Airman no earlier than 30 days (90 days for ARC). (T-1). Reviews completed FSQ prior to allowing any Airman to conduct an official FA. Refers any Airman with high-risk responses on the FSQ to a Provider or MLO for ANG. Retains a current copy of the FSQ for each unit member.

2.28.3. Schedules individuals for FAs. (T-1). Communicates status of deployed unit personnel to the FAC IAW 3.12.4.3.

2.28.4. Informs Airmen of FIP requirements and inputs start date in AFFMS II. (T-1). See paragraph 10.4 for notification requirements.

2.28.4.1. ARC Airmen in the Unsatisfactory fitness category must complete the online BE WELL Program IAW paragraph 3.12.3. (T-1). The online option of this program can be accessed via the Advanced Distributed Learning Service (ADLS) system. If available, Airmen may volunteer or be commander directed to attend in-person. Pay and points may be authorized to accomplish mandatory FIP. Notifies FAC, or Wing FPM for ANG, of Airman's completion of FIP for update in AFFMS II.

2.28.4.2. Notifies unit commander of Airmen failing to show for any FIP appointment IAW paragraph 10.4.6. (T-1).

2.28.5. Initiates and maintains fitness program case files IAW paragraph 8.2. (T-1). All UFPMs will ensure case files are maintained in a secured location. (T-1).

2.28.6. Provides fitness metrics and unit status report to the Unit Commander/unit leaders monthly IAW paragraph 9.1.2.1

2.28.6.1. Notifies Unit Commander when an Airman has received four component exemptions in a 24-month period. (T-1).

2.28.7. Ensures PTLs are informed on local FA processes and procedures.

2.28.8. Refers Airmen IAW AFI 10-203 paragraph 3.2.1.3. and for pregnancy, to the FPM for an exercise assessment, prescription and counseling, or reconditioning program. (T-1). ARC Airmen not co-located at a RegAF base will be advised to consult a personal care provider/trainer or base ARC EP as applicable. (T-3).

2.28.9. Maintains a minimum Satisfactory score on the FA. (T-1). NOTE: If, at any time, their score drops below 75.0, they will be removed as a certified PTL-B. Once they achieve a passing score and reaccomplish necessary training, PTL-B certification can be reinstated.

2.29. Physical Training Leader-Basic (PTL-B).

2.29.1. Obtains PTL-B certification prior to administering any FAs. PTL-B includes annual and refresher training on BLS and FA procedures.

2.29.1.1. Completes BLS training prior to attending FA procedures training. Maintains BLS currency while serving as PTL.

2.29.1.2. Completes all refresher training annually for the duration of appointment as a PTL. (T-1). Note: BLS certification is valid for two years, however a valid certificate must be provided by the member at the time of the refresher training to satisfy the requirement for an additional year.

2.29.2. ARC PTL-Bs at collocated bases will receive initial and refresher training from RegAF FSS/FPM, and will be trained to complete official FAs. ARC PTL-Bs will supplement the host FAC to support ARC official FAs IAW paragraph 7.4.

2.29.3. Augments FAC to support installation FA administration and AFFMS II score updates.

2.29.4. Conducts all portions of the FA IAW **Chapter 3.**

2.29.4.1. Documents FA results on a hard copy AF Form 4446, signs scorecard, and obtains member's signature on the scorecard, acknowledging run/walk time, abdominal circumference measurements, and muscular fitness repetitions. (T-1). PTL provides a copy of the signed scorecard to the FAC (or UFPM where no FAC exists) for AFFMS II entry and to the member for their personal records.

2.29.5. Can conduct unofficial practice tests on Airmen from their own unit. Tests conducted as unofficial practice tests cannot be counted as official. NOTE: ARC Airmen testing must be in a military status (active or inactive) when taking official and unofficial practice tests. (T-1).

2.29.6. Maintains a minimum Satisfactory score on the FA. (T-1). NOTE: If, at any time, their score drops below 75.0, they will be removed as a certified PTL-B. Once they achieve a passing score PTL-B certification can be reinstated, but all training must be reaccomplished.

2.29.7. Wears Uniform of the Day (UOD) or PT uniform when administering official and unofficial FAs. Local leadership will establish which uniform (UOD or PT Uniform) must be worn in the performance of this duty.

2.30. Physical Training Leader-Advanced (PTL-A).

2.30.1. PTL-A certification consists of PTL-B certification plus certification from online PTL-A training course. (T-1). PTL-A online training course may be completed before attending PTL-B certification however, until both certifications are complete the Airman cannot conduct any FAs or lead any squadron, group, etc. fitness sessions. Refresher training must be accomplished annually.

2.30.2. Leads CC-approved unit PT and conducts all portions of the FA IAW **Chapter 3.**

2.30.3. Can conduct unofficial practice tests on Airmen from their own unit. Tests conducted as unofficial practice tests cannot be counted as official if an Airman achieves a passing score. NOTE: ARC Airmen testing must be in a military status (active or inactive) when taking official and unofficial practice tests. (T-1).

2.30.4. Documents FA results on a hard copy AF Form 4446, signs scorecard, and obtains Airman's signature on the scorecard, acknowledging run/walk time, abdominal circumference measurements, and muscular fitness repetitions. PTL provides a copy of the signed scorecard to the FAC (or UFPM where no FAC exists) for AFFMS II entry and to the Airman for their personal records. (T-1).

2.30.5. Maintains a minimum Satisfactory score on the FA. (T-1). NOTE: If, at any time, their score drops below 75.0, they will be removed as a certified PTL-A. Once they achieve a passing score they can be recertified as a PTL-A.

2.30.6. Wears Uniform of the Day (UOD) or PT Uniform (PTU) when administering official and unofficial FAs. Local leadership will establish which uniform (UOD or PTU) must be worn in the performance of this duty.

2.31. Member.

2.31.1. Maintains individual year-round physical fitness through self-directed and unit-based fitness programs and proper nutrition standards.

2.31.2. All Airmen are responsible for:

2.31.2.1. Knowing the block of time within which his or her FA is required in order to remain current IAW paragraph 3.12.

2.31.2.2. Notifing the UFPM, designated FAC representative, or superior authority, in writing (includes e-mail) of the need to schedule the FA and requests that it be scheduled immediately for accomplishment within the required window, if not scheduled in a period required to remain current.

2.31.2.3. Remaining current as defined in paragraph 3.12. It is the commander's discretion to annotate a non-current/failing FA within the reporting period on the evaluation. Additionally, it is the commander's discretion to document the evaluation as a referral for a non-current/failing FA at the evaluation close-out date or EPR SCOD. NOTE: See Table A14.1. and A14.2. for mandatory and optional commander actions upon FA failure.

2.31.2.4. Monitoring any personal FA exemptions, scheduling all necessary medical appointments, and initiating FA test arrangements in a timely manner.

2.31.2.5. Seeking medical evaluation/intervention if a medical condition is believed to impact his/her ability to complete the FA.

2.31.3. Completes FSQ IAW paragraph 3.3.2. (T-1). If the Airman arrives at the FAC without a FSQ, the FAC staff/augmentee will ensure the Airman completes a FSQ for review before the FA is administered. NOTE: Failure to complete FSQ does not invalidate the FA. FAC will document any cases where FSQ is not complete and attach to FA. (T-1).

2.31.3.1. Upon completion of the FSQ, provide a copy of the FSQ to the UFPM and FAC member prior to the FA.

2.31.3.2. If the Airman has a medical condition or identifies a medical condition on the FSQ that would limit him/her from completing all components of the FA and he/she does not have a current AF Form 469 documenting FA exemptions, the Airman must notify his/her UFPM and schedule an appointment with his/her MTF (ANG MLO). A new FA appointment must be scheduled within 5 duty days (90 days for ANG) of the original FA date. NOTE: If no FA appointments are available within this timeframe, Airman must be scheduled for first available FA appointment and notify their UFPM. Failure to comply with this direction will be addressed by Airman's leadership.

2.31.3.3. Notifies UFPM upon receiving an AF Form 469 from healthcare provider with Fitness Restrictions and/or Fitness Assessment Exemptions IAW AFI 10-203. Provides a copy of AF Form 469 to FAC staff/augmentee/PTL prior to taking FA.

2.31.3.4. Submits an updated FSQ, prior to completing a FA, if health condition changes at any time prior to FA.

2.31.4. If entered into intervention program(s), meets all program requirements and if appropriate, provides documentation of compliance IAW **Chapter 6.**

2.31.5. May access individual fitness reports directly from the Air Force Personnel Center (AFPC) Secure website.

2.31.6. Will acknowledge FA component results by signing a hard copy AF Form 4446 following completion of the FA. (T-1). Refusal to sign the scorecard does not invalidate the FA results.

2.31.7. Will wear the Air Force PT uniform to complete all components of the FA IAW AFI 36-2903, *Dress and Personal Appearance of Air Force Personnel.* **NOTE:** Due to operational requirements AFOSI special agents are authorized to complete official fitness assessments without meeting dress and appearance requirements as outlined in AFI 36-2903 , but must be capable of providing documentation to confirm grooming waiver is in effect. AFOSI agents in this status may wear suitable civilian PT clothing during testing.

2.31.8. ARC Airmen must ensure they are in an approved military status for FAs. (T-1). Appropriate military duty status for FAs is IAW AFI 36-2254,V1. FAs may be performed in the following statuses: active duty status: Annual Tour (AT), Initial Active Duty Training (IADT), Proficiency Training (PT), Reserve Personnel Appropriation (RPA)/Military Personnel Appropriation (MPA), Reserve Management Period (RMP), and School Tour; inactive duty status: Inactive Duty Training (IDTs) and Unit Training Assemblies (UTAs).

2.31.8.1. No other duty status, i.e., Equivalent Reserve Instruction (ERI), Equivalent Training (ET), Additional Training Period (ATP), Additional Flying Training Period (AFTP), Ground Training Period (GTP), etc., is an appropriate status to be used for the performance of the FA requirement.

2.31.9. Understand and comply with the guidelines contained in AFI 44-102, *Medical Care Management* regarding the use of weight control drugs and surgery.

Chapter 3

FITNESS ASSESSMENT

3.1. General. The AF uses an overall composite fitness score and minimum scores per component based on aerobic fitness, body composition, and muscular fitness components to determine overall fitness. Members must earn a composite score of 75 or greater, and meet the component minimums identified in Attachment 10 (and Attachment 12 if taking the 2.0 kilometer walk test). (T-1). NOTE: Airmen will be tested against performance standards by gender reflected in MilPDS.

3.1.1. Scoring. Minimum component points do not constitute the minimum required to earn a composite passing score and points below the required minimum component values read zero. Scoring the minimum component points in all FA components will not generate enough points to earn a composite score of 75 or greater. The minimum components are established to ensure that members test adequately in all components rather than excelling in some and disregarding others.

3.1.2. Target values are designed to illustrate a combination of component points which would equal an overall 75 composite score. Airmen failing to meet a target component value, but still scoring at or above the minimum component point value (lowest "fitness/health risk" limit), can still pass the assessment by exceeding targets in other components.

3.1.3. Overall fitness is directly related to health risk, including risk of disease and death. Health and readiness benefits increase as aerobic fitness, body composition, and muscular fitness improve with increases in physical activity.

3.1.4. A FA will be deemed official or unofficial prior to the administration of the first component. A FA started as official cannot be changed to unofficial during administration. Likewise, a FA started as unofficial cannot be changed to official.

3.2. Fitness Assessment Components.

3.2.1. Body composition component.

3.2.1.1. Evaluated by abdominal circumference (AC) measurements.

3.2.2. Aerobic component.

3.2.2.1. Evaluated by the 1.5-mile timed run.

3.2.2.2. Alternative Aerobic Test: Members not medically cleared to complete the 1.5-mile run will be assessed by the 2.0-kilometer walk as determined by the PCM or ANG MLO unless otherwise exempted.

3.2.3. Muscular fitness component.

3.2.3.1. Evaluated by number of push-ups and sit-ups completed within 1 minute.

3.3. Fitness Assessment Requirements. FAC augmentees will conduct the FA for all Airmen (RegAF, AFR, and ANG), (except basic military and technical training students, tested by training cadre PTLs/MTLs IAW paragraph 7.1.3) and will support FAs for ARC tenant units at RegAF installations to include UTA weekends. (T-1). Installations will develop a local plan,

signed by the Installation Commander, for Unit Commanders to appoint PTLs and UFPMs to augment the FAC for the purpose of administering FAs. (T-3). FAC augmentees will conduct FAs and the designated FAC Manager will provide oversight. (T-1). FAC augmentees will not test Airmen from their own unit/PAS code. (T-1). FA scores will only be updated by Fitness and Sports Center personnel, or designated UFPMs/FAC augmentees per local guidance. (T-3). NOTE: UFPMs/FAC augmentees will not update FA scores in AFFMS II for personnel from their own unit/PAS code. (T-1). Fitness Center staff should not be used to augment the FAC to conduct FAs.

3.3.1. FA procedures training will cover official testing procedures, using the AF/A1 approved standardized slides, and will not be deviated from under any circumstances. UFPMs and PTLs augmenting the FAC must possess PTL-B certification and complete refresher FA procedure training prior to administering any FAs as a FAC augmentee.

3.3.2. All members must complete the FSQ (**Attachment 4**) and provide it to their UFPM (Wing FPM for ANG) for review prior to FA. If the member arrives at the FAC without a FSQ, the FAC will ensure the member completes a FSQ for review before the FA is administered. **NOTE:** Failure to complete FSQ does not invalidate the FA. FAC will document any cases where FSQ is not complete and attach to FA.

3.3.2.1. The FSQ will be completed no earlier than 30 calendar days (90 days for ARC), but NLT 7 days prior to FA to provide time for medical evaluation, when indicated.

3.3.2.2. A medical provider must evaluate all members with health issues identified on the FSQ prior to the FA. If any item on the FSQ indicates a condition which might limit performance of any component of the FA, and there is not an accompanying current AF Form 469, the UFPM will refer the member for medical evaluation. The member will carry the FSQ to the medical evaluation. The provider or ARC MLO will complete and sign the appropriate place on the FSQ, and complete an AF Form 469 if applicable, and the member will return the FSQ to the UFPM and/or FAC.

3.4. Assessment Procedures.

3.4.1. All components of the FA must be completed within a 3-hour window on the same day. If FAC staff/augmentees determine extenuating circumstances prevent completion of the test (e.g., rapidly changing or severe weather conditions, emergencies, injury during FA, or travel time needed to complete other components at alternate locations, etc...) then all components must be rescheduled and completed at the earliest opportunity, but within 5 duty days. ARC members must be in military duty status for assessments. ARC Airmen will be required to retest the next date they are in appropriate military duty status and official FAs are being conducted.

3.4.2. Airmen only have one opportunity to complete each of the FA components per FA. If an Airman refuses to complete their FA due to failing to meet the minimum in one or multiple components, their incomplete FA will still count and be updated in AFFMS II. (T-1) Scores for all components are final when entered into AFFMS II.

3.4.2.1. Illness or injury during the FA. If an Airman becomes injured or ill during the FA, he/she will have the option of being evaluated at the Medical Treatment Facility (MTF) whether they complete the FA or not. Before departing the test location, Airmen must notify the FAC of the presence of illness/injury by checking the illness/injury block

on the AF Form 4446. NOTE: ARC Airmen must promptly report any medical condition (i.e. disease, injury, operative procedure or hospitalization, etc) that might impact their utilization and readiness to his or her commander, supervisor, or supporting military medical facility personnel. Each commander and supervisor must notify the servicing medical facility when he/she becomes aware of any changes in an ARC member's medical status including any medical condition that occurred during the FA and/or prevented the member from completing the FA. Any concealment or claim of disability proven to be made with the intent to defraud the government may result in appropriate punitive action under the Uniform Code of Military Justice or appropriate administrative action.

3.4.2.1.1. If an Airman checks the illness/injury block of the AF Form 4446, the FAC staff (or UFPM where no FAC exists) will sign the form acknowledging that they will hold scores to allow for medical evaluation and Commander review. (T-1). Additionally, the FAC staff will transmit a copy of the AF Form 4446 to the UFPM for the Unit Commander's review within two duty days. (T-1). For RegAF and AGR Airmen, the FAC (or UFPM where no FAC exists) will enter the FA results in AFFMS II on the 6th duty day if the Commander does not invalidate test results or no response from the Commander is received within this timeframe. (T-1). For non-AGR and Traditional ARC Airmen, the FAC (or UFPM where no FAC exists) will enter scores into AFFMS II at the conclusion of the next UTA if the Commander does not invalidate the test results or no response from the Commander is received within this timeframe. (T-1).

3.4.2.1.2. If the medical evaluation validates the illness/injury (**Attachment 15**), the Unit Commander may invalidate the FA results by checking the "I render this test invalid" block of the AF Form 4446, signing, and returning the form to the FAC. If the FA is invalidated, the Airman will be required to retest on all non-exempt FA components within five duty days from original FA test date. If an AF Form 469 is required, an additional five duty days from medical evaluation date will be allowed for the AF Form 469 to be generated and provided. Non-AGR and Traditional ARC Airmen will be required to retest the next date they are in appropriate military duty status and official FAs are being conducted. **NOTE:** Original FA will count unless rendered invalid by the Unit Commander.

3.4.2.1.3. Airmen will notify their Commander within one duty day of the FA regarding the injury/illness to ensure communication regarding test validity with the MTF and FAC staff occurs prior to score entry into AFFMS II. (T-1).

3.4.3. Body composition (height, weight, and AC) must be the first component assessed in the FA.

3.4.4. The muscular fitness components (push-ups and sit-ups) may be accomplished before or after the 1.5-mile run or 2.0-kilometer walk according to the installation FACs established procedures.

3.4.5. There is a minimum 3-minute rest period between components.

3.4.6. Airmen must take the FA at their home station FAC unless written approval by the Unit CC has been given to test at another AF FAC.

3.5. Body Composition Assessment.

3.5.1. Height and Weight.

3.5.1.1. Obtain height and weight IAW DoDI 1308.3. These measurements are not factored into the member's composite score

3.5.2. Abdominal Circumference (AC).

3.5.2.1. The AC measurement is used to obtain the body composition component score. The use of AC measurement has been authorized by DoD to meet the body composition requirement. See **Attachment 7.**

3.6. Body Composition Assessment Procedures.

3.6.1. Height Assessment.

3.6.1.1. Measurement will be taken in the FAC in conjunction with weight and AC measurements. Where a FAC does not exist, Unit CCs may designate a location for body composition measurements.

3.6.1.2. Measurement will be taken with member in Air Force PT t-shirt, PT shorts and/or PT pants. Air Force PT jacket and shoes will not be worn during measurements.

3.6.1.3. Member will stand on a flat surface with the head held horizontal looking directly forward, and the chin parallel with the floor. The body should be straight, but not rigid, similar to the body position when at attention.

3.6.1.4. Measurement will be recorded to the nearest inch.

3.6.1.4.1. If the height fraction is less than ½ inch round down to the nearest inch.

3.6.1.4.2. If the height fraction is ½ inch or greater round up to the nearest inch.

3.6.2. Weight Assessment.

3.6.2.1. The measurement will be made on a scale calibrated IAW TO 33K-1-100-1, Section 3, *Technical Manual on Calibration Procedure for Maintenance Data Collection Codes and Calibration Measurement Summaries,* and recorded to the nearest pound with the following guidance.

3.6.2.2. If the weight fraction is less than ½ pound, round down to the nearest pound.

3.6.2.3. If the weight fraction is ½ pound or greater, round up to the nearest pound.

3.6.2.4. Two pounds will be subtracted for clothing worn during official FA.

3.6.3. Abdominal Circumference (AC) Assessment.

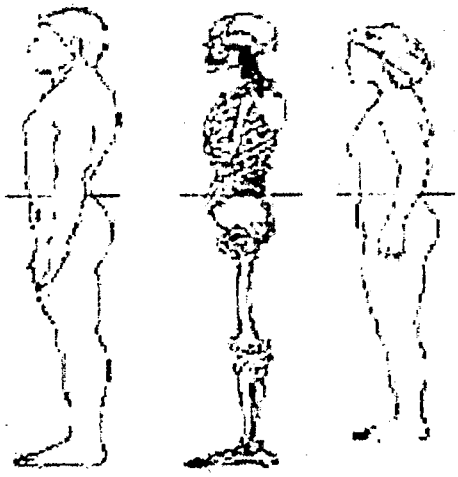
3.6.3.1. FAC staff or trained augmentee will take the AC measurement in a private room or in a partitioned area. Individuals conducting AC measurements will be of the same gender as the member being taped. Where a FAC member or a PTL of the same gender is not available, an observer of the same gender must be present.

3.6.3.2. Tape measure made of non-stretch (fiberglass) material will be used for the AC measurement.

3.6.3.3. The tester will start the measurement on the right side of the Airman. The tester will locate the measurement landmark immediately above the right uppermost hip bone (superior border of the iliac crest) at the side of the body vertically in line with the right armpit (midaxillary line). If desired, the Airman may assist the tester in locating the measurement landmark by resting the right hand on the hip, using rearward facing right thumb to locate the iliac crest. The tester will determine final horizontal - vertical intersection point for landmark confirmation.

3.6.3.4. The Airman will stand on a flat surface with feet no more than shoulder width apart. The head should be horizontal, looking directly forward with the chin parallel to the floor. The Airman may use one hand to initially assist the tester in anchoring the tape measure to the body, but must remove the hand from the tape measure before the official measurement is recorded. Measurement will be taken on bare skin. The free hand may be used to hold the shirt out of the way, but no part of the hands or arms may extend above the shoulders.

Figure 3.1. Measuring Tape Position for Abdominal Circumference.



3.6.3.5. The Airman will remain stationary while the tester conducts the measurement by initially moving around the Airman to place the tape in a horizontal plane around the abdomen (**Figure 3.1**). The tester will ensure tape is parallel to the floor at the level of the landmark (bottom edge of the tape just contacts landmark), is snug, but does not compress the bare skin. The tester will take the measurement at the end of the Airman's normal respiration.

3.6.3.6. The tester will take the circumference measure three times and record each measurement rounding down to the nearest ½ inch. If any of the measures differ by more than one inch from the other two, the tester will take an additional measurement. The tester will add the three closest measurements, divide by three, and round down to the nearest ½ inch. The tester will record this value as the AC measurement.

3.6.3.7. If an Airman tests on the AC only, he/she is required to meet the minimum component measurement (39.0 for males and 35.5 for females) to pass the FA.

3.6.3.7.1. DELETED

3.6.3.7.2. DELETED

3.6.3.8. If an Airman fails the abdominal circumference measurement of the FA yet takes and passes the other three components with a score of at least 75 points of the remaining 80 points, the FAC will administer the DoD prescribed Body Mass Index (BMI) screen. (T-1) If the Airman passes the BMI screen, the Airman passes the body composition component of the fitness assessment. If the Airman does not pass the BMI screen, the Airman will receive a Body Fat Assessment (BFA). (T-1) If the Airman passes the BFA, the Airman passes the body composition component of the fitness assessment. If the Airman fails the BFA, the Airman fails the body composition component of the fitness assessment.

3.6.3.8.1. If an eligible Airman passes either the BMI screen or BFA, the Airman passes the FA and will be marked "Exempt" in AFFMS for the AC measurement, but all other scores will be recorded as tested. To properly track these instances, the FAC manager will submit an exception to policy (ETP) letter (refer to Attachment 22) within two duty days to AFPC/DPSIM (**DPSIM.orgbox@randolph.af.mil**) if an Airman qualifies to take and passes either the BMI screen or the BFA. (T-1). The AC measurement, BMI score, and BFA (if performed) will be provided in the letter.

3.6.3.8.2. Airmen who take the alternate aerobic component (2.0 kilometer walk-test), or are exempt from any other component, are ineligible to take the BMI screen and BFA.

3.6.4. Body Mass Index (BMI) Screen

3.6.4.1. The tester will perform the BMI screen after all other components of the fitness assessment have been accomplished

3.6.4.2. The tester will use the height and weight mesurements obtained earlier in the fitness assessment. To pass the BMI the Airmen, regaurdless of age or gender shall not exceed the maximum BMI of 25 kg/m^2. Refer to the BMI chart at **Attachment 13.**

3.6.5. Body Fat Assessment (BFA)

3.6.5.1. The BFA will be performed by the FAC Manager, FAC staff, or an alternate. The FAC Manager must approve all alternates and ensure enough alternates are appointed to handle the needs of each specific location.

3.6.5.2. The FAC Manager approved tester will perform the BFA using a 2-site taping (neck and waist) for males or a 3-site taping (neck, waist, hip) for females. Refer to **Attachment 19** for instructions.

3.6.5.3. To pass the BFA, a female Airman must achieve a body fat percentage equal to or lower than 26%. A male Airman must achieve a BFA equal to or lower than 18%. Refer to **Attachments 20 and 21** for score tables.

3.7. Aerobic Fitness Assessment.

3.7.1. The run and walk will be performed on an approved distance course.

3.7.1.1. When the run is performed at elevation levels of 5,250 feet and higher, refer to the altitude adjustment chart at **Attachment 17.**

3.7.2. Aerobic fitness is measured with a 1.5-mile run according to procedures outlined in **Attachment 5.** Test administrator will read verbal instructions to those performing 1.5 mile run at **A5.5.** All members will complete the 1.5-mile timed run unless medically exempted.

3.7.3. Members medically exempted from the run and cleared for an alternate assessment will, upon recommendation by the clinical provider/FPM/MLO, complete the 2.0-kilometer walk, according to procedures in **Attachment 11.** Members performing the 2.0-kilometer walk will not be allowed to run (i.e., at least one foot must be in contact with the ground at all times) or the assessment will be terminated. Test administrator will read verbal instructions to those performing 2.0 kilometer walk at **A5.6.**

3.7.3.1. The 2.0-kilometer walk is the only authorized alternate assessment. **NOTE:** Airmen do not select the aerobic assessment method. The clinical provider/FPM/MLO determines which assessment to use based on the member's assessment history and medical recommendation as documented on the AF Form 469.

3.8. Muscular Fitness Assessment.

3.8.1. Muscular fitness is measured with a 1-minute timed push-up component and a 1-minute timed sit-up component. Assessment procedures and techniques are outlined in **Attachment 5.** FAC augmentees will demonstrate proper push-ups and sit-ups prior to administering the FA unless the instructional video is shown. The FAC is the authority on standards and procedures; they will address all discrepancies and will provide indisputable on the spot correction.

3.8.2. Push-Up Component: Purpose. The push-up is used to assess the member's upper body muscular fitness.

3.8.2.1. Assessment Duration. Members have 1 minute to complete as many correct push-ups as possible.

3.8.2.2. Assessment Explanation. The test assessor must read the push-up script to the member and demonstrate proper technique **(A5.3)** or may show the Air Force instructional video. If the instructional video is shown, script reading and demonstration is not required. This video can be found at: **http://www.afpc.af.mil/affitnessprogram/index.asp**:

3.8.2.3. Starting Position. The member will begin in the starting position with hands slightly wider than shoulder width apart, palms or fists on the floor with arms fully extended and the body in a straight line from head to heel. The feet may be no more than 12 inches apart. The member may rest in the up position only. The member may remove their hands or feet from the floor, or bridge or bow their back, but only in the up/rest position. The body should maintain a rigid form from head to heel. The feet may not be supported or braced (e.g., no crossing of the feet).

3.8.2.4. Complete Push-up. From the starting position (elbows extended), the member will lower the body to the ground until the upper arm is at least parallel to the floor (elbow bent at least 90 degrees or less) before pushing back up to the starting position (the chest may touch but not rest on or bounce off the floor). The member completes one

full push-up after returning to the starting position with elbows fully extended. It is important to monitor the member's form and make sure the body does not bow at the waist as the member tires. The body must remain rigid during the assessment (the back must remain straight unless resting). Incorrect push-ups (e.g., member does not lower body until upper arm is at least parallel to the floor, member does not fully extend elbows when returning to starting position, body bows at the waist, etc.) will not be counted. If an incorrect push-up is performed, assessor will repeat the number of the last correct push-up and explain what is being done incorrectly. Member may rest in the up position only. If member rests in the down position with their body on the ground, the push-up component of the test will be terminated.

3.8.2.5. Stopwatch. The test assessor is responsible for operating the stopwatch. The assessor will start the stopwatch when the member(s) is/are instructed to begin, observe the assessment and notify the member how much time is remaining at 30 seconds and 15 seconds. Prior to beginning the assessment the assessor will inform the members to continue to perform push-ups until directed to stop or until the member is no longer able to continue.

3.8.2.6. Counting/Monitoring. FAC augmentee or another Airman paired to accomplish muscle fitness components will monitor and count the correct number of push-ups. (T-1). When Airmen are paired off for the assessment, the FAC will oversee and spot-check technique to ensure accurate and safe assessment. The counter/monitor will count the number of push-ups out loud. (T-1). If the Airman breaks correct form, the counter/monitor repeats the last correct number (e.g., one, two, three, three, four, etc.), as well as gives instruction on what was done incorrectly (e.g., you are not extending your arms fully, keep your back straight, etc.). Counter and FAC staff/augmentee will monitor the Airman from a position that allows observance of the Airman's form and the arm angles.

3.8.2.7. Completion/Recording. Upon completion of the assessment, record the total number of correct push-ups.

3.8.3. Sit-Up Component Purpose. The sit-up component is used to assess a member's muscular fitness.

3.8.3.1. Assessment Duration. The member will have 1 minute to complete as many correct sit-ups as possible

3.8.3.2. Assessment Explanation. The test assessor will read the sit-up script to the member **(A5.4)** and demonstrate proper technique or may illustrate using the Air Force instructional video. If the instructional video is shown, script reading and demonstration is not required. This video can be found at: **http://www.afpc.af.mil/affitnessprogram/index.asp**.

3.8.3.3. Starting Position. The use of a mat is optional. The member will be instructed to lie face up on the floor/mat. In the starting position, the member's feet may extend off the mat, but the buttocks, shoulders, and head must not extend beyond the mat. The member's knees will be bent at a 90 degree angle (throughout the assessment), with the feet or heels in contact with the floor at all times. The member's arms will be crossed over the chest with the hands/fingers on the shoulders or resting on the upper chest.

3.8.3.4. Foot Hold. The member's heels must remain anchored to the floor throughout the assessment. The member may request to have their feet held down with the hands or by putting knees on feet but the monitor may not anchor the member's legs by holding onto the calves or stand on the feet during the assessment. Enough force must be applied to keep the feet/ankles from rising while the sit-ups are being accomplished. If member requests a member of the same gender to hold their feet, they must be granted that request. In place of a monitor holding the feet, a bolted non-portable toe-hold bar may be used (where available) to anchor the feet so long as the member's heels remain in contact with the ground at all times and the bar cannot move.

3.8.3.5. Complete Sit-up. A complete sit-up is accomplished when the upper torso of the member is raised off the floor/mat, the elbows touch the knees or thighs, and the upper torso is lowered back to the floor/mat until the shoulder blades touch the floor/mat. Elbows must touch the knees or thighs at the top of the sit-up, and the shoulder blades must touch the floor/mat at the bottom of the sit-up. Any part of your hands/fingers must remain in contact with your shoulders/upper chest at all times. Incorrect sit-ups (e.g., elbows do not touch the knees or thighs at the top of the sit-up, shoulder blades do not touch the floor/mat at the bottom of the sit- up, hands/fingers lift completely off the shoulders/upper chest, etc.) will not be counted. If an incorrect sit-up is performed, assessor will repeat the number of the last correct sit-up and explain what is being done incorrectly. The member may only rest in the up position. If the member rests in the down position or holds onto their knees/legs while in the up position, the sit-up component of the assessment will be terminated.

3.8.3.6. Stopwatch. The assessor is responsible for operating the stopwatch. The assessor will start the stopwatch when the member(s) is/are instructed to begin, observe the assessment and notify the member how much time is remaining at 30 seconds and 15 seconds. Prior to beginning the assessment the assessor will inform the members to continue to perform sit-ups until directed to stop or until the member is no longer able to continue.

3.8.3.7. Counting/Monitoring. The FAC augmentee or another member paired to accomplish muscle fitness components will monitor and count the correct number of sit-ups. When members are paired off for the assessment, the FAC will oversee and spot-check technique to ensure accurate and safe assessment. The counter will count the number of sit-ups out loud. If the member breaks correct form, the FAC staff/augmentee repeats the last correct number (e.g., one, two, three, three, four, etc.), as well as gives instruction on what was done incorrectly (e.g., your shoulder blades are not touching the mat/floor, keep your hands on your shoulders or chest, etc.). Counter and FAC staff/augmentee will monitor the member from a position that allows observance to ensure the shoulder blades touch the floor and elbows touch the knees or thighs.

3.8.3.8. Completion/Recording: upon completion of the assessment, record the total number of correct sit-ups.

3.9. Fitness Categories.

3.9.1. **Excellent.** Composite score ≥ 90 and minimums met.

3.9.2. **Satisfactory.** Composite score of 75 - 89.99 and minimums met.

3.9.3. Unsatisfactory. Composite score ≤ 74.9 and/or one or more component minimums not met.

3.9.4. Exempt. Airmen must be exempt in all four components to be entered exempt in AFFMS II. (T-1). For deployment/extended TDY purposes, Airmen must be categorized as Excellent, Satisfactory, or Unsatisfactory before being updated as exempt in AFFMS II. (T-1).

3.10. Determining Composite Fitness Score.

3.10.1. Age and gender-specific fitness score charts are provided in **Attachments 10** and **12**.

3.10.1.1. Airmen will be tested against performance standards by gender reflected in MilPDS.

3.10.2. Members will receive a composite score on a 0 to 100 scale based on the following maximum component scores: 60 points for aerobic, 20 points for body composition, 10 points for push-ups and 10 points for sit-ups.

3.10.3. Determine the score by the following formula in **Figure 3.2**:

Figure 3.2. Composite Fitness Score Formula.

Composite score =		Total component points achieved X 100 / Total possible points		
Component:	Aerobic	Body Composition	Push-ups	Sit-ups
Possible Points:	60	20	10	10

3.10.4. Scoring for exemptions: Members with an AF Form 469 prohibiting them from performing one or more components of the FA will have a composite score calculated on the assessed components. AC will be performed on all members, unless exempted by medical provider IAW **paragraph 5.2**, since there is no risk to the member. Members must achieve a minimum of 75 adjusted points, based on points available, and meet minimum component standards in order to receive a Satisfactory rating.

3.10.4.1. Example: Airman exempted from push-ups: If Airman receives 48 points for aerobic fitness, 16 points for AC and 8 points for sit-up component; the total component points achieved = 72. Possible points from aerobic fitness, AC, and sit-up components = 90 points. Composite score is: (72/90) x 100 = 80 points. As long as the Airman meets component minimums, Airman receives a Satisfactory rating.

3.10.4.2. Example: Airman exempted from aerobic fitness: If Airman has a 39.5 inch waist and receives 11.7 points for AC, 9.5 points for push-ups and 9.5 points for sit-ups; the total component points achieved = 30.7. Possible points from AC, push-up and sit-up components = 40 points. Composite score is: (30.7/40) x 100 = 77 points. However, based on minimum component score (because Airman did not meet minimum AC requirement of 39.0 inches), Airman receives an Unsatisfactory rating.

3.10.4.3. Example: Airmen testing on AC-only: Airmen testing on just the AC are only required to meet the minimum component standard in this area to pass the assessment. As such, an AC of ≤39.0 for males and ≤35.5 for females will result in a Satisfactory rating.

NOTE: All measurements between the AC target and minimum will yield an overall FA score of 75.0 (e.g., Male: AC of 38.0 – 39.0 = 75.0 points & Female: AC of 34.5 – 35.5 = 75.0 points)

3.10.4.4. Airmen on a *permanent* medical profile, documented appropriately as a "permanent component exemption" on an AF Form 469 (only), that achieve a score of 90 or above (Excellent) on the remaining components (using calculations above) will be tested annually. Example: Airman is *permanently* exempted from the run but can test on the walk: If the Airman is female and 35 years of age, passes the walk test, receives 17.6 points for AC, 9.5 points for push-ups and 10.0 points for sit-ups; the total component points achieved = 37.1. Total possible points from AC, push-ups and sit-up components = 40 points. Composite score is: (37.1/40) x 100 = 92.75. The Airman scored above a 90 (Excellent) and will test annually. NOTE: Every 365 days *permanent* medical profiles are reviewed by medical to determine if they are still valid.

3.11. Scheduling.

3.11.1. Frequency of the FA will be based on the previous fitness score unless an earlier assessment is necessary to accommodate a TDY, PME or other training courses, PCS moves, leave schedules, or other situations that would preclude member from maintaining fitness currency. Commanders may not direct out of cycle official FAs. However, Airmen may volunteer to take a fitness assessment early at their own discretion.

3.11.1.1. Excellent. All Airmen will test by the last day of the month, 12 calendar months following the previous Excellent test as outlined above. (T-1). NOTE: Airman must have earned an Excellent by completing all four FA components (aerobic: 1.5 mile run; AC measurement; push-ups; and sit-ups) or be on a *permanent* medical profile and declared medically incapable of performing one or more components of the FA and achieve a composite score of 90 or above on the remaining components in order to test on a 12-month currency cycle. (T-1). See paragraph 3.10.4.4.

3.11.1.2. Satisfactory. RegAF, AFR, and NGB (Title 10/Statutory Tour) Airmen who score a Satisfactory score on their FA must complete an official FA at a minimum of twice per year. RegAF, AFR, and NGB (Title 10/Statutory Tour) Airmen with a current Satisfactory FA will test by the last day of the month, six calendar months following the previous Satisfactory test (e.g., if Airman tested on 15 April, then Airman must retest on/before 31 October of the same year). (T-1). ANG Title 32 must complete an official FA at least annually and must be tested by the last day of the month, 12 calendar months following the previous Satisfactory test, even if the administered test included one or more component exemptions (e.g., if an Airman tested on 15 April, the Airman must retest on/before 30 April of the following year). (T-1). NOTE: Airmen who take the walk test, and who are not on a *permanent* aerobic exemption, are ineligible to take the FA on an annual basis and will test by the last day of the month, six calendar months following the previous Satisfactory test.

3.11.1.3. Unsatisfactory. RegAF, AFR, and NGB (Title 10/Statutory Tour) Airmen must retest within the 90 days following an Unsatisfactory FA. (T-1). Unit Commanders may not mandate Airmen to retest any sooner than the end of the 90-day reconditioning period, however, Airmen may voluntarily retest before the end of the 90-day reconditioning period. It is the Airman's responsibility to ensure he/she retests before the

90-day reconditioning period expires as non-currency begins on the 91st day. NGB Title 32 must retest within 180 days following an Unsatisfactory FA. Unit Commanders may not mandate NGB Title 32 Airmen retest any sooner than the end of the 180-day reconditioning period; however, Airmen may voluntarily retest. Non-currency for NGB Title 32 begins on the 181st day. (T-1). NOTE: Retesting in the first 42 days (90 days for ANG Title 32) after an Unsatisfactory FA is not recommended; recognized medical guidance recommends a minimum of 42 days as the timeframe to recondition from Unsatisfactory to Satisfactory status in a manner that reduces risk of injury.

3.11.1.3.1. Airmen who want to retest during the 42-day period (90 days for ANG Title 32) immediately following an Unsatisfactory FA are highly encouraged to complete an unofficial practice FA (administered by a unit PTL) prior to scheduling their official FA. If an Airman disregards this recommendation, the FA test score will still count as an official score and be entered in AFFMS II.

3.11.2. In addition to the mandatory official test, commanders may direct unofficial practice tests administered by trained/certified PTLs. This will afford Airmen regular opportunities to assess their compliance with AF fitness standards, minimizing any surprise assessment failures at the time of official assessments. These assessment scores do not require FAC presence and will not be entered into AFFMS II; however, they may be used as a commander's tool to evaluate fitness/readiness. Tests conducted as unofficial practice tests cannot be counted as official.

3.12. Currency. Each Airman is responsible for knowing the block of time within which his or her Fitness Assessment is required. Currency is established upon completion of the following program requirements based on the member's most recent fitness level as described in paragraph 3.11.

3.12.1. If a FA has not been scheduled in the period required to remain current, notify the designated FAC representative, UFPM, or superior authority, in writing (includes e-mail) of the need to schedule the FA and requests that it be scheduled immediately for accomplishment within the required window. It is ultimately the Airman's responsibility to ensure their FA is scheduled within their installation's guidelines.

3.12.2. Failing to remain current, as well as failing to attain a passing score on the applicable FA before the end of any performance report reporting period, will be considered as part of the performance assessment on the Airman's evaluation if, as of the closeout date of any performance report, currency or a passing score is not obtained. Enlisted Airmen failing to have a current/passing FA score by the SCOD/PECD will render them ineligible for promotion during that cycle. Accordingly, commanders should consider delaying the promotion of officers failing to have a current/passing FA at the Projected Date of Promotion (PDOP). Officers in this fitness status will remain eligible for promotion (See AFI 36-2501, *Officer Promotions and Selective Continuation*, Chapter 5). Monitor any personal FA exemptions, schedule any necessary medical examinations, and initiate FA test arrangements in a timely manner. NOTE: See Table A14.1. and A14.2. for mandatory and optional commander actions upon FA failure.

3.12.3. Waivers. If an Airman is unable to complete any required portion of the AF Fitness Program (e.g., FA, intervention classes), the Airman must receive written approval (Table 5.1) from the Unit commander for rescheduling. (T-3). A copy of the written approval is

filed by the UFPM in the Airman's fitness program case file. For ARC Airmen unable to complete any scheduled FA, the Airman must be rescheduled to test on the next date the Airman is in a military duty status and official FAs are being conducted. (T-1).

3.12.4. Deployments. Airmen must have a current FA on file prior to arrival at their deployed location. (T-1). Airmen will not be considered Exempt in the deployed location until their current FA expires. If an Airman fails before deploying/extended TDY and their evaluation closes out after the deployment starts, this failure will be considered as part of the performance assessment on the evaluation. Exempt will be marked when the Airman's current FA expires in a deployed location where they CANNOT test or choose not to volunteer to test at locations where FA testing is available. NOTE: See Table A14.1. and A14.2. for mandatory and optional commanderactions upon FA failure.

3.12.4.1. Any failures will be annotated in AFFMS II and will be considered IAW 10.1. However, if an Airman reaches the 91-day mark after the FA (failure), but before the evaluation closes out, the Unsatisfactory score is no longer current and the evaluation will be marked Exempt. For Satisfactory and Excellent scores, deployed Airmen become Exempt when they reach the first day of the month, seven/thirteen calendar months following the previous official FA rating.

3.12.4.2. Home station UFPM will notify the FAC to update AFFMS II placing the deployed Airman in exempt status after their "current" FA expires. (T-1). UFPMs performing FAC duties at GSUs will update exempt status in AFFMS II. (T-1). NOTE: The end date/duration of the deployment exemption should include in the 42-day reconditioning period (90 days for non-AGR and Traditional ARC) afforded to all Airmen returning from a deployment of greater than 30 days.

3.12.4.3. Members who are due to take a FA upon return from deployment will be given 42 days for post deployment reconstitution and training from the date they sign into their home unit. UFPMs must communicate with the FAC when members return from deployment.

3.12.4.3.1. RegAF and AGR personnel deployed for greater than 30 consecutive days will be given a 42-day acclimatization period starting the date they arrive back at homestation prior to taking their FA, unless the member requests to be assessed earlier. All non-AGR and Traditional ARC personnel will be given a 90-day acclimatization period starting the date they arrive back at homestation prior to taking their FA, unless the member requests to be assessed earlier. Member will become noncurrent on day 43 (day 91 for non-AGR and Traditional ARC), if applicable. **NOTE:** OPRs/EPRs that close out during this post deployment 42-day reconditioning period will be marked "exempt".

3.12.5. Extended TDYs. Airmen must have a current FA prior to departure to an extended TDY location. (T-1). For the purpose of this instruction, extended TDY is defined as more than 30 consecutive days. Airmen will not be considered Exempt at the extended TDY location until their current FA expires. If an Airman fails the FA before the extended TDY and the evaluation closes out while the Unsatisfactory FA score is still applicable, this failure will be considered as part of the performance assessment on the evaluation. Exempt will be marked when the Airman's current FA expires at the extended TDY location prior to

evaluation close out. NOTE: The deployment exemption category in AFFMS II will be utilized to annotate Airmen whose FA expired during an extended TDY.

3.12.5.1. RegAF and AGR personnel TDY for greater than 30 consecutive days will be given a 42-day acclimatization period starting the date they arrive back at homestation prior to taking their FA, unless the member requests to be assessed earlier. All non-AGR and Traditional ARC personnel will be given a 90-day acclimatization period starting the date they arrive back at homestation prior to taking their FA, unless the member requests to be assessed earlier. Member will become noncurrent on day 43 (day 91 for non-AGR and Traditional ARC), if applicable. **NOTE:** OPRs/EPRs that close out during this post TDY 42-day reconditioning period will be marked "exempt".

3.13. Unsatisfactory education and intervention.

3.13.1. RegAF and ARC AGR Airmen must participate in a unit FIP and start FIP (if co-located, otherwise online) within 10 days of the failed FA. (T-1). All Airmen in the Unsatisfactory fitness category will remain in the FIP/SFIP until they achieve a Satisfactory or Excellent FA score.

3.13.1.1. RegAF GSU Airmen at non-collocated Air Force bases will start the FIP within 10 days of the FA. (T-1). The online FIP is available via ADLS.

3.13.1.2. Non-AGR ARC (AFR and ANG) must accomplish FIP within 60 days of Unsatisfactory FA. (T-1). The online FIP is available via ADLS.

Chapter 4

FITNESS ASSESSMENT WAIVERS

4.1. Installations with Extreme Weather Conditions and/or Higher Altitudes.

4.1.1. Installation CCs may request a waiver from MAJCOM/CV or equivalent (NGB/A1 for ANG) to adjust scheduling of the 1.5-mile run or 2.0-kilometer walk assessments for extreme seasonal weather conditions (see **Attachment 6**) if an appropriate indoor facility is not available. The waiver must specify periods unable to complete the run/walk assessment safely. Any approved installation waiver will be extended to all tenant units physically located on the installation. The ARC MAJCOM/CV (or equivalent) that owns the tenant unit also has the authority to approve a tenant waiver. Members will still test on remaining components and will be granted an exemption from the aerobic component of the test for the time period specified in the approved waiver. RegAF, Title 10 Statutory Tour and ARC AGR members will be required to test again in 6-months, even if they score 90 or above. Member's composite score will be determined in accordance with paragraph 3.10.

4.1.1.1. MAJCOM/A1s will forward a copy of approved waivers to AF/A1PP. For ARC stand-alone installations, AFRC/A1 and ANG/A1 will forward a copy of approved waivers to AF/A1PP.

4.1.2. ARC Airmen who commute from a lower altitude to perform duty at their assigned/attached unit at a location where the altitude $\geq$ 5,250 feet, may perform FA with an AF unit at or near their home altitude, with commander's approval. The UFPM at the unit of assessment will forward a copy of FA results to ARC member's assigned/attached UFPM for AFFMS II update and tracking purposes. This variation is only for ARC Airmen who are not afforded the 42-day acclimatization period at the assessment site.

Chapter 5

EXEMPTIONS

5.1. General. Exemptions are designed to categorize Airmen as unable or unavailable to train or assess for a limited time period. Exemptions, for medical reasons, are entered into AFFMS II using the current AF Form 469 following FA completion.

5.2. Exemptions. Commanders may grant exemptions as outlined in Table 5.1. Airmen with exemptions prohibiting them from performing one or more components of the FA will be assessed on the remaining components and scored IAW paragraph 3.10. FA exemption recommendations for medical reasons can only be made by a MTF provider or ANG MLO. All Airmen will complete an AC assessment as listed in paragraph 5.2.7., unless they have a Deployment Availability Working Group (DAWG) approved exemption for a condition that the MTF provider/FPM/MLO deems would warrant AC assessment exemption. (T-1). Temporary exemptions will not be issued for Airmen still currently assigned to a unit solely for the purpose of improving currency compliance rates (i.e., where Airman is not on terminal leave).

5.2.1. Airmen with an approved retirement or separation date within 12 months (365 days) of the last Satisfactory, Excellent, or Exempt FA that is current are Exempt. If the separation or retirement date is cancelled, Airmen will complete the FA IAW their original FA cycle (i.e. 6 or 12 months) or, if the original cycle date has passed, within 42 days (reacclimation time).

5.2.2. Airmen with chronic medical DLCs preventing them from performing one or more components of the FA will be medically reviewed during the annual PHA, at a minimum, and referred to the DAWG for evaluation as appropriate IAW AFI 10-203, AFI 48-123, *Medical Examinations and Standards*, and AFI 41-210, *Patient Administrative Functions*. (T-1).

5.2.2.1. DELETED

5.2.2.1.1. DELETED

5.2.2.2. DELETED

5.2.2.3. DELETED

5.2.2.4. DELETED

5.2.3.

5.2.3.1. Providers will list physical limitations and FA exemptions on the AF Form 469. (T-1). Unless given a composite exemption, Airman will continue to prepare for and be assessed on non-exempt component of the FA.

5.2.3.1.1. ANG. Airmen with physical limitation that prevent participation in fitness activities for greater than 30 days and/or preclude the Airmen from completing a full FA will provide medical documentation from their Personal Care Provider (PCP) to the Wing Medical Group. (T-1). The Wing Medical Group will issue an AF Form 469 as appropriate addressing each component of the FA. (T-1). MLO will review AF Form 469 and issue an AF Form 422 to the Airman's UFPM. (T-1). UFPM

ensures Airmen due an FA are assessed on non-exempted components per the AF Form 469.

5.2.3.2. A military provider must make the final disposition for any physical limitations in cases where Airmen are seen by non-military providers or when ARC Airmen bring recommendations from their PCP. (T-1). Limitations will be transcribed by an AF provider to an AF Form 469 IAW AFI 10-203.

5.2.3.3. The expiration date on the AF Form 469 represents the date the Airman is medically cleared to resume physical activities previously restricted. For DLCs of 30 days or less, Airmen are eligible to complete a full, four component FA when their AF Form 469 restrictions expire, and will be tested within 30 days, if due or overdue. (T-1). For DLCs lasting 31 days or more, Airmen will be eligible to complete the full, four component FA 42 days after the expiration date of physical limitation, as annotated on the AF Form 469, if due or overdue. This allows time for reconditioning, if exempted for 31 days or more. NOTE: Reference 5.2.4. for guidance regarding prenant members.

5.2.3.3.1. Expiration date on the AF Form 469 will be determined by the provider and represents the date the member is medically cleared to begin an unrestricted physical training program.

5.2.3.4. Airmen with an AF Form 469, lasting any length of time, must maintain FA currency standards. (T-1). If an Airman, is due to test during the AF Form 469 effective dates or during the 42-day reconditioning period, the Airman will complete the FA components that he/she is cleared to test on per the AF Form 469. **NOTE:** Airmen who are not due to test during the AF Form 469 effective dates or 42-day reconditioning period to maintain currency may not volunteer to take an FA until the AF Form 469 or 42-day reconditioning period expires. NOTE: Reference 5.2.4. for guidance regarding pregnant Airmen.

5.2.4. Pregnancy.

5.2.4.1. Provider will include information on physical activity during prenatal counseling.

5.2.4.1.1. DELETED

5.2.4.2. Airmen will be Exempt from the FA during pregnancy. Effective 1 Jan 2015, Airmen with pregnancies lasting 20 weeks or more are also exempt from FA for 12 months after discharge from the hospital upon completion of pregnancy (delivery, miscarriage, etc.). The Airman must test by the last day of the 12th month. On the 1st day of the 13th month after the discharge from the hospital of pregnancies lasting 20 weeks or more the Airman becomes non-current. Pregnancy-related exemptions apply to the FA and do not Exempt the Airman from participating in an approved physical fitness program.

5.2.4.2.1. DELETED

5.2.4.3. AF Form 469 will be re-accomplished by the provider (or ANG Wing Medical Group) IAW AFI 10-203 in cases where pregnancy ends prior to 20 weeks. Providers will take into account physiological and psychological changes when determining days

required for recovery and reconditioning prior to FA eligibility. MLO will issue corresponding AF Form 422 for the duration of the AF Form 469.

5.2.4.3.1. Expiration date on the AF Form 469 will be determined by the provider and represents the date the Airman is medically cleared to begin an unrestricted physical training program.

5.2.4.4. Pregnant ARC Airmen should discuss their fitness program with their PCP.

5.2.5. PCS Moves. Airmen are given 42 days from Date Arrive Station (DAS) at new duty location to acclimatize before being required to complete an FA. Airmen pending PCS must have a current FA score on file that will not expire through the Report-No-Later-Than-Date (RNLTD) and 42-day acclimatization period. (T-1). If the current FA expires prior to the member's RNLTD + 42 days, the Airman must complete a FA before departing their losing duty station. (T-1). Exemptions will not be granted for Airmen in outbound status for any circumstance other than those addressed in paragraphs 5.2.5.1. and 5.2.5.2.

5.2.5.1. Airmen returning from a deployment who PCS before the end of their 42-day post deployment acclimatization period will have their deployment exemption duration extended by the losing home station to cover the additional 42 days they will receive post RNLTD to acclimatize. (T-1). To prevent going non-current, Airman will test 43 days following RNLTD. NOTE: Not applicable if Airman's FA remains current for 43 days post RNLTD.

5.2.5.1.1. Airmen who are due to PCS following the completion of the post-deployment acclimatization period must complete an FA if their FA is already expired or expires any time prior to RNLTD + 42 days. (T-1).

5.2.5.2. Airmen returning from an extended TDY (> 30 consecutive days) who PCS before the end of their post-TDY 42-day acclimatization period will be granted a composite "deployment exemption" by their losing home station. This exemption will only be awarded upon expiration of the Airman's current FA. Exemption duration will not exceed RNLTD + 42 days. NOTE: Not applicable if Airman's FA remains current for 43 days post RNLTD.

5.2.5.2.1. Airmen who are due to PCS following the completion of the post-TDY acclimatization period must complete an FA if their FA is already expired or expires any time prior to RNLTD + 42 days. (T-1).

5.2.5.3. Airmen may volunteer to test during either the post-deployment/extended TDY or RNLTD acclimatization period but cannot be directed to do so.

5.2.6. Accessions. FAs administered at commissioning sources are considered official, provided they are administered IAW Chapter 3, and will be recorded into AFFMS II upon arrival at the first duty station. If the officer reports to the duty location without a FA AF Form 4446 the officer will be given 42-days from their DAS to acclimatize, but will test NLT 6 months following DAS. DAS may include tech school or their first duty location.

5.2.7. Airmen who are TDY for greater than 30 consecutive days will be given a 42-day acclimatization period prior to being required to complete their FA.

5.2.7.1. DELETED

5.2.8. All Airmen will complete AC assessment unless there is a composite exemption or, under rare medical circumstances (e.g., abdominal surgery), an AC component exemption is recommended by a medical provider/FPM/MLO and approved by the DAWG. (T-1).

5.2.8.1. The DAWG reviews all non-pregnancy related AC exemption requests. AC component exemptions will not be granted for non-medical reasons (e.g., physique that nonetheless has AC that exceeds AF standards). The presence of a rare medical issue is the only consideration required/allowed to grant an AC exemption; no other methods such as alternative body composition measurements shall be used to determine whether to grant an AC exemption.

5.2.9. ARC medical unit providers will advise Airmen to consult their PCP to recommend specific PT appropriate for medical condition or may refer the Airman to the FIP if available. (T-1). MTFs can provide space available evaluation as required for eligible ARC Airmen. To obtain an exemption based on evaluation and recommendation of PCP, the Airman must provide the ARC medical unit with medical documentation to include diagnosis, treatment, prognosis, and period and type of physical limitations or restrictions. (T-1). Individual Reservists (IR) may be referred by the MTF to their PCP or ARC EP where applicable.

5.3. Exemption Categories.

5.3.1. Component Exemption. Member is exempt from one or more components of theFA, but will be assessed on remaining components.

5.3.2. Composite Exemptions. Airman is exempt from all components of the FA.

5.3.2.1. Composite Deployment Exemption. Airmen deployed for less than one year on Contingency Exercise Deployment (CED) or Military Personnel Appropriation (MPA) orders in direct support of a contingency will receive a composite deployment exemption following the expiration of their current FA in the deployed location. All Airmen with a composite deployment exemption may complete FAs on a voluntary basis only.

5.3.2.1.1. DELETED

5.3.2.2. Permanent party personnel and 365-day deployers will test when their current FA expires in the deployed location, unless the location is not resourced, equipped, or otherwise capable of administering FAs. If testing for the permanent party personnel and 365-day deployers is not feasible, the Air Component Commander must grant a composite deployment exemption to all individuals deployed.

5.3.2.2.1. RegAF and AGR Airmen deployed/TDY for greater than 30 consecutive days will be given a 42-day acclimatization period starting the date they arrive back at home station prior to taking their FA, unless the Airman requests to be assessed earlier. All non-AGR and Traditional ARC personnel will be given a 90-day acclimatization period starting the date they arrive back at home station prior to taking their FA, unless the Airman requests to be assessed earlier.

Table 5.1. Exemptions.

Type	Definition	Assessment/Reassessment Requirements
Composite (Medical)	Airman is prohibited from completing all components of the FA due to medical conditions, other than pregnancy (e.g.,	The Airman is allowed 42 days for reconditioning following the expiration of the medical exemption. (Exception: Pregnancy-related exemptions)
Composite (Commander)	Airman is unable to complete an assessment for a time-limited, unforeseen catastrophic event that precludes training and assessment for greater than 30 days (e.g., personal catastrophe, etc.). Commanders will exempt Airmen who are incarcerated or on appellate/excess leave pending separation. NOTE: This exemption category is not authorized for medical or	If the exemption exceeds 30 days, the Airman is given 42 days following the expiration of the exemption for training. (See NOTE 1)
Composite (Pregnancy)	Airman is prohibited from completing FA due to pregnancy. Pregnant Airmen who were in the Unsatisfactory fitness category prior to becoming pregnant will continue to participate in the FIP. (T-1).	The Airman must test by the last day of the 12th month. On the 1st day of the 13 month after discharge from the hospital after pregnancies lasting 20 weeks or more the Airman becomes non-current. For pregnancies that end prior to 20 weeks, see paragraph 5.2.4.2.

Composite (Deployment)	Airmen due to deploy must have a current FA score on file prior to departure. (T-1). Airmen deployed for less than one year on Contingency Exercise Deployment (CED) or Military Personnel Appropriation (MPA) orders in direct support of a contingency will receive a composite deployment exemption following the expiration of their current FA in the deployed location.	RegAF and AGR Airmen deployed for greater than 30 consecutive days will be given a 42-day acclimatization period starting the date they arrive back at home station prior to taking their FA. Non-AGR and Traditional ARC personnel will be given a 90-day acclimatization period starting the date they arrive back at home station prior to taking their FA.
Component (Medical)	Airman is prohibited from performing one or more components of the FA. The medical provider/FPM/MLO, may grant exemption from aerobic and muscle fitness components of PT or FA based on medical evaluation IAW para 5.2 for a time-limited period. Other components of the FA will	Upon expiration of the exemption, or when the medical provider/FPM/MLO clears the exempted component of assessment, the Airman will meet their next scheduled FA. If the exemption exceeded 30 days, the Airman is allowed 42 days for training following the expiration of the component exemption. If an Airman's next required FA is due during the 469 effective dates or 42

Composite (Extended TDY) *use Composite (Deployment) exemption for AFFMS II input	Granted only to Airmen TDY more than 30 consecutive days whose current FA expires at the extended TDY location. Airmen returning from an extended TDY (> 30 consecutive days) who PCS before the end of their post-TDY 42-day acclimatization period may be granted a "deployment exemption" by losing home station. This	RegAF and AGR personnel TDY for greater than 30 consecutive days will be given a 42-day acclimatization period starting the date they arrive back at home station prior to taking their FA. Non-AGR and Traditional ARC personnel will be given a 90-day acclimatization period starting the date they arrive back at home station prior to taking their FA. Airman who PCS following an extended TDY but cannot complete the 42-day acclimatization period at losing home station will be assessed 43 days following their RNTLD.
Not Participating ARC Only	ARC only: Non-participating ARC Airmen listed on unit roster, but unable or unavailable to participate for pay or points (examples are new accessions awaiting OTS/COT/BMT, etc.) may be classified under Commander exemption in AFFMS II.	Exempt until resolved. If the exemption exceeds 30 days, the Airman is given 42 days following the expiration of the exemption for training.

*NOTES:
1. Commanders will document all non-medical commander exemptions by e-mail or memorandum and forward to the FAC for action. (T-1). Composite exemptions due to medical reasons can only be granted under the Composite (Medical) exemption type as documented by an AF Form 469.
2. Airmen on consecutive profiles will be given 42 days following the expiration of the most recent AF Form 469.

Chapter 6

PHYSICAL FITNESS AND NUTRITION EDUCATION/INTERVENTION

6.1. Physical Fitness and Nutrition Education. Physical fitness and nutrition education will be incorporated into training programs and unit PT. Ongoing commander emphasis and a supportive environment are essential to maintain health and fitness of the force.

6.2. Fitness Improvement Program (FIP). This program targets nutritional and exercise behavior changes necessary to improve one's health and fitness utilizing three intervention options. Airmen and their commanders select an option appropriate to their fitness improvement requirements. Available options include: BE WELL online, a Healthy Weight program, and Military OneSource Health Coaching. FIP is mandatory for all AF Airmen with an Unsatisfactory FA score and is available for any member who wish to improve their overall health and fitness.

6.2.1. RegAF, Title 10 Statutory Tour and ARC AGR members must start FIP within 10 duty days of their Unsatisfactory FA. (T-1). If members are unable to start within 10 duty days, they must obtain written authorization from their Unit Commander. (T-3). Traditional ARC personnel (except AGRs) are required to accomplish FIP within 60 days of the Unsatisfactory FA. (T-1).

6.2.2. DELETED

6.2.3. Airmen who receive consecutive Unsatisfactory FAs are required to re-enroll in the FIP. Additionally, Airmen who receive nonconsecutive Unsatisfactory FAs must start FIP within 10 days of their latest Unsatisfactory FA and 60 days for ARC Airmen. (T-1).

6.2.4. UFPM will inform Airmen of FIP requirements per AFMOA guidance and document FIP start date in AFFMS II. (T-1).

6.2.5. Airmen who retest within 10 duty days of their Unsatisfactory FA and achieve an Excellent/Satisfactory score are not required to complete FIP.

6.2.6. Members are ultimately responsible for improving their fitness level to achieve a minimum Satisfactory FA score, and if appropriate, provide documentation of compliance with FIP to their leadership.

Chapter 7

SPECIAL POPULATIONS

7.1. Students/Accessions: Commanders, Superintendents, or Commandants of units such as the USAFA, BMT, Advanced Technical Training Centers, Undergraduate Pilot and Navigator Training Centers, ROTC, Graduate Medical Education, and Air Force Institute of Technology (AFIT) education programs will align minimum FA standards with AFI 36-2905. A current FA composite score of ≥ 75 and meeting all component minimums are required for all students to graduate from or obtain a commission/enlistment through USAFA, ROTC, OTS, Academy of Military Science, or BMT. Due to short duration of training, this does not include students graduating Commissioning Officer Training (COT).

7.1.1. Officer accessions will be given at least 42-days from their Date Arrive Station (DAS) to acclimatize, but will test NLT 6 months from DAS. DAS may include tech school or their first duty location.

7.1.1.1. FAs administered at commissioning sources are considered official, provided they are administered IAW Chapter 3, and will be recorded into AFFMS II upon arrival at the first duty station.

7.1.1.2. Upon graduation, officers will hand carry the AF Form 4446 for input into AFFMS II by the FAC at their first duty station or technical training (UFPM or training instructor), whichever location they report to first. NOTE: The next test date will be based on guidance in paragraph 3.11.1. If the officer reports to the duty location without an AF Form 4446, the officer must test within 42 days as stated in para 5.2.5.

7.1.2. Developmental Education Students (i.e. AFIT, EWI, Joint PME and students in other civilian institutions) will participate in FAs conducted by local ROTC detachments where available, or base of servicing FAC or other arrangements as determined by the assigned commander. (T-1). Results of FAs will be entered into AFFMS II. (T-1). Where a FAC does not exist, UFPMs and PTLs will fulfill the role of the FAC.

7.1.3. BMT Airmen and Technical Training students will complete official FAs via training cadre PTLs/MTLs. (T-1). The last FA administered at BMT will count as an Enlisted Airman's first official FA for AFFMS II input. Graduated BMT Airmen will hand carry FA AF Form 4446 for input into AFFMS II by the FAC at their first duty station or technical training (MTL/UFPM), whichever location they report to first. Technical Training students attending follow-on training that may result in an FA cycle testing requirement (six months) will be tested by a PTL/MTL. (T-1). Airmen/UFPMs must be aware of the 42-day acclimatization period and leave en route duration to determine which base will conduct the FA to ensure Airmen remain current.

7.1.3.1. Enlistees will be given two assessment opportunities on baseline minimum aerobic and body composition standards upon arrival at BMT. (T-1). The failure to meet either: 1) aerobic fitness standards of: 1.5 mile run time of 18:30 male, 21:35 female, or 2) body composition standards of: maximum abdominal circumference of 39.0 inches male, 35.5 inches female or maximum body fat of 20% male, 28% female, upon arrival at BMT deems them physically unable to safely rehabilitate to a passing FA score within the standard 42-day rehabilitation period. Two-time failures under the standards in this

paragraph may be immediately processed for entry level separation pursuant to AFI 36-3208, Administrative Separation of Airmen, para 5.22. Note: ARC Airmen who are awaiting entry into BMT but are participating at their Unit will be exempted from the FA until such a time they are entered into BMT.

7.1.4. Technical training school students will complete official FAs via unit PTLs/MTLs as required to maintain currency IAW Chapter 3. (T-1). Results from FAs conducted at technical training schools (not BMT) will be input by training squadron UFPMs into AFFMS II. (T-1). All permanent party training unit personnel (i.e. cadre, instructors, etc.) will complete FAs via the FAC. (T-1).

7.2. Geographically Separated Units (GSUs)/Individuals.

7.2.1. Members will complete all components of the FA.

7.2.1.1. Where no FAC exists, UFPM and/or PTL fulfill the roles of the FAC, but must adhere to 'same unit/PAS code' policy IAW para 2.28.1. (T-2). Prior to performing official FAs via unit PTLs, GSU commanders will ensure all PTLs have obtained a minimum PTL-B certification from the servicing FSS. (T-1). Procedures to ensure this directions is adhered to will be determined by local leadership. Alternatively, members will work with their unit CC to accomplish the FA at an alternate location where a FAC is available. Unit TDY funds may be used if necessary.

7.2.1.2. The host base will provide fitness program support.

7.2.1.3. For AFRC GSUs, the AFRC FPM and supporting FSS units will provide support to UFPMs and commanders. HQ AFRC FPM will support UFPMs at DRUs that report directly to AFRC or a Numbered Air Force.

7.2.1.4. ANG GSUs. Commanders will provide UFPMs/PTLs to conduct FAs.

7.2.1.5. In unique circumstances (e.g., only one AF member at a location), the unit CC may authorize a non-AF person to conduct FAs. This individual must be PTL-B certified to conduct the FA. (T-1). A commander may coordinate with the nearest AF base FSS to train and certify non-AF personnel to become PTL-B certified. Results of the FA will be entered in the AFFMS II by FAC personnel at the parent organization.

7.2.1.5.1. When circumstances prohibit personnel from receiving PTL training from a nearby AF installation, then PTL FA training is accomplished via official slide video. The video can be found at **http://www.afpc.af.mil/affitnessprogram/videos.asp**.

7.3. Individual Reservists (IR).

7.3.1. The attached/assigned RegAF unit is responsible for management of the FP for IRs.

7.3.2. Program managers and Base Individual Mobilization Augmentee Administrator (BIMAA) will monitor the timely completion of FP requirements with the attached/assigned RegAF unit and the IR, and will provide FA expiration dates if not accessible by the attached/assigned RegAF unit.

7.3.3. Members will be assessed by the attached/assigned RegAF unit during the member's AT, if possible, or during an Inactive Duty Training (IDT) period. Members will contact the RegAF UFPM to schedule the FA.

7.3.3.1. IRs who perform duty at a location outside their commuting area may perform their FA with an AF unit at or near their home, with RegAF commander's approval. The Airman's RegAF UFPM will coordinate a test date/time with the FAC at the AF unit that will be conducting the FA. (T-1). The FAC conducting the FA will forward or input the test results into AFFMS II and forward a copy to the owning FAC and UFPM. (T-1).

7.3.4. Members must be in a military duty status during assessment IAW paragraph 2.31.8.

7.3.5. ARC members may not apply personal physical fitness activities for the purpose of obtaining participation credit for AT, UTA, IDT, or additional training periods.

7.3.6. All Participating Individual Ready Reserve (PIRR) members in the Civil Air Patrol United States Air Force (CAP-USAF) and Air Liaison Officer (ALO) programs are authorized to perform the FA only once per year.

7.4. Air Reserve Component (ARC) Tenant Support at Active Duty Installations.

7.4.1. ARC tenants will utilize host FAC to support official FAs at collocated installations. FACs must coordinate and provide full operational support for ARC tenant units to conduct FAs on UTA weekends, as well as support other ARC members who are available for testing during the week.

7.4.1.1. If host FAC cannot provide the appropriate number of FAC augmentees to fully support weekend ARC testing requirements, FAC may request ARC tenant unit provide PTLs to augment FAC and conduct weekend FAs. If augmentation is required, a ratio of 1 host FAC member to 4 ARC augmentees must be maintained during FAs. Tenant ARC units should provide testing schedule/requirements to host FAC a minimum of 60 days prior to UTA weekends. FAC must request augmentation support a minimum of 45 days prior to the UTA. **NOTE:** When augmenting the FAC, ARC PTLs will not test members from their own unit/PAS code.

7.4.1.2. ARC tenant wings at RegAF bases may conduct their own fitness assessments on UTA weekends contingent upon agreement between Host Installation Commander and ARC Wing Commander. If approved, testing will be overseen by the Wing Fitness Program Manager (FPM). Additionally, FPM will ensure the ARC PTLs do not test Airmen from their own unit/PAS code and do not update FA scores in AFFMS II for Airmen from their own unit/PAS code.

7.4.1.3. All FAC augmentees must have a minimum PTL-B certification and receive refresher FA procedures training prior to administering any FAs.

Chapter 8

PROGRAM MANAGEMENT

8.1. Fitness Program Software Application.

8.1.1. The AFFMS II software application is accessible through the AFPC Secure website.

8.1.2. Specific privileges to enter data, view, retrieve and print reports, conduct audits, and correct data entries are granted by FAC personnel according to roles and responsibilities for FP data management.

8.1.3. All requests for specific user privileges must be in writing and sent to the designated office of assignment authority as written in the AFFMS II User Guide, and applied using the appropriate user role/privilege descriptions.

8.1.3.1. AFFMS II User Role Descriptions. See AFFMS II User Guide available on AFFMS II homepage.

8.2. Fitness Program (FP) Case Files.

8.2.1. The UFPM initiates a FP case file when an Airman scores Unsatisfactory on a FA. The case file will contain AF Form 108, hard copy official AF Form 4446 with signatures, and applicable AF Form 422s, retention decision MFRs, and AF Form 469s, as required in paragraph 2.28.5. (T-1).

8.2.1.1. Upon achievement of first "Satisfactory/Excellent", UFPM moves case file from active to inactive status. UFPM maintains inactive case files until the member achieves a sustained "Satisfactory/Excellent" for 24 consecutive months or the member separates/retires, whichever comes first.

8.2.2. The UFPM responsible for monitoring attached/assigned reservists will create and maintain the FP case file.

8.3. Protected Health Information (PHI).

8.3.1. FA, including run and walk times, push-ups, sit-ups, and AC component/composite scores do not meet the definition of PHI as outlined in DoD 6025.18R, *DoD Health Information Privacy Regulation.*

8.3.2. Any occasion where an Airman interacts with a PCP or medical technician for education, intervention, assessment, or treatment related to the FP, the information generated as a result of the interaction is PHI and must be handled IAW DoDI 6025.18R and MTF local procedures.

8.3.2.1. If PHI must be shared with the Commander, an accounting of the specific information released must occur as outlined in DoDI 6025.18R and in local MTF guidance unless the member provides written authorization to disclose the information.

Chapter 9

FITNESS METRICS

9.1. Reporting Requirements.

9.1.1. DELETED

9.1.2. Fitness Assessment Statistics.

9.1.2.1. UFPM reports the following unit metrics to the Unit Commander each month:

9.1.2.1.1. FA currency status (i.e., number/percent current, not current, and exempt)

9.1.2.1.2. FA categories (i.e., number/percent Excellent, Satisfactory, Unsatisfactory, and Exempt)

9.1.2.1.3. Details on individual members failing to meet FP currency requirements, as applicable.

9.1.2.2. FSS/CC reports the following wing statistics to wing/CC each month:

9.1.2.2.1. FA currency status by unit (i.e., number/percent current, not current, and exempt).

9.1.2.2.1.1. FA categories by unit (i.e., number/percent Excellent, Satisfactory, Unsatisfactory, and Exempt).

Chapter 10

ADMINISTRATIVE AND PERSONNEL ACTIONS

10.1. Adverse Personnel Actions (for Unsatisfactory Fitness Members). Members are expected to be in compliance with Air Force fitness standards at all times. When members fail to comply with those standards (receive an Unsatisfactory FA score), they render themselves potentially subject to adverse action. Commanders should consult with their servicing Staff Judge Advocate before taking such action.

10.1.1. Prohibited Actions:

10.1.1.1. Commanders may not impose nonjudicial punishment (Article 15, UCMJ) solely for failing to achieve a Satisfactory fitness score.

10.1.1.2. Member is not subject to adverse personnel action for inability to take the FA if the member is on a 365-day FA exemption that has been validated by the MTF DAWG.

10.1.1.3. While units may perform unofficial practice tests for diagnostic purposes, the chain of command will refrain from taking adverse action based solely on the results of these tests. The ultimate goal of the fitness program is to motivate members to adopt a lifestyle of fitness through realization of positive health-benefits from regular exercise and good nutrition. Members are more likely to embrace and positively view unit practice testing when conducted in the spirit of camaraderie rather than potential penalization.

10.1.2. Unit Commanders or equivalent will consider adverse administrative action upon a member's Unsatisfactory fitness score on an official FA (see **Attachment 14**). For administrative separation criteria, see paragraph 10.1.5. below.

10.1.2.1. If adverse administrative action is not taken in response to an Unsatisfactory fitness score on an official FA, unit CCs will document in the member's fitness case file as to why no action is being taken. The lack of such CC documentation does not discount the testing failure as a basis in support of administrative discharge action pursuant to paragraph 10.1.5.

10.1.3. As appropriate, unit commanders will document and take corrective action for members' unexcused failures to participate in the FP such as failing to accomplish a scheduled FA, failing to attend a scheduled fitness appointment, or failing to complete mandatory educational intervention. (T-1). Commanders may use administrative action to document a member's failure to maintain currency.

10.1.4. For standards and requirements relating to performance report documentation of fitness, consult AFI 36-2406, *Officer and Enlisted Evaluation Systems,* and other official guidance specifically addressing performance reports.

10.1.5. Administrative Separation. (See AFI 36-3208, *Administrative Separation of Airmen,* for active duty enlisted members, AFI 36-3206, *Administrative Discharge Procedures for Commissioned Officers,* for active duty officers, AFI 36-3209, *Separation and Retirement Procedures for Air National Guard and Air Force Reserve Members,* for all ARC members.)

10.1.5.1. Unit Commanders must make a discharge or retention recommendation to the separation authority (enlisted Airmen), show cause authority (officers), or appropriate discharge authority for AFR and ANG members once an Airman receives four Unsatisfactory FA scores in a 24-month period and a military medical provider has reviewed the Airman's medical records to rule out medical conditions precluding the Airman from achieving a passing score (see **Attachment 16** as template). If the separation authority (enlisted Airmen), show cause authority (officers), or appropriate discharge authority for AFR and ANG members disagrees with the Unit Commander's retention recommendation, discharge action is initiated pursuant to applicable discharge instruction.

10.1.5.2. If an Airman is retained, any subsequent FA failure that re-establishes the basis for discharge (i.e., four failures in 24 months based on most recent failure date) requires the Unit Commander to initiate a medical records review and submit another discharge or retention recommendation. Retention does not prevent previous failures from being included in the most recent 24 month period for FA failure count.

10.1.5.2.1. Retention decision memorandums will be filed in member's fitness program case file.

10.1.5.3. The 24-month period for discharge/retention recommendation is calculated from the most recent Unsatisfactory FA and is measured in months, not days, including the month of the most recent failure. For example, if the most recent failure is 15 Jun 2012, then count the failures in the previous 23 months plus the month of the most recent failure (Jun 2012). In this example, the inclusive months in which you must count FA failures are Jul 2010 through Jun 2012. Four FA failures anytime in those 24 months meets the criteria and would require the Unit Commander to make a discharge or retention recommendation, provided the member does not have a medical condition to preclude him/her from achieving a passing score. A recommendation for discharge or retention will be made regardless of an Airman's achieving one or multiple passing FAs in between the four failures.

10.1.5.3.1. Drill status guardsmen have a limited number of duty days to complete their FA and many Airmen may not have the opportunity to test four times within a 24-month period. Unit commanders must make a discharge or retention recommendation to the appropriate discharge authority for an ANG Title 32 Airman receiving four unsatisfactory FA scores within a 36-month period. A military medical provider must have reviewed the Airman's medical record to rule out medical conditions precluding the Airman from achieving a passing score.

10.1.5.4. Unit Commanders may initiate (enlisted Airmen) or recommend (officers) administrative discharge only after the Airman has: received four Unsatisfactory FA scores in a 24-month period; failed to demonstrate significant improvement (as determined by the commander) despite the reconditioning period; and a military medical provider has reviewed the Airman's medical records to rule out medical conditions precluding the member from achieving a passing score.

10.2. Failing to Present a Professional Military Image While in Uniform.

10.2.1. Commanders must ensure members present a professional military image while in uniform. A professional military image/appearance may or may not directly relate to an individual's fitness level or weight.

10.2.2. Commanders may require individuals who do not present a professional military appearance (regardless of overall FA composite score) to enter the FIP (SFIP for ARC) and/or otherwise schedule individuals for fitness education and intervention. Commanders taking such action:

10.2.2.1. Specify in writing, using AF Form 108, the date an individual should complete the program and the requirements they must meet.

10.2.2.2. May extend the exercise program in writing beyond the initial period until the participant achieves a professional military appearance.

10.2.2.3. May take administrative and/or personnel action if the individual fails to participate or comply with the requirements established by the Commander.

10.3. Education and Training Programs.

10.3.1. This instruction does not set eligibility standards for attending PME or other training programs. For those standards consult the applicable governing regulations. Personnel selected to attend PME may be required to fitness test outside their normal cycle to meet eligibility requirements for attending PME. In those situations where members with Unsatisfactory FA scores are permitted to attend training, the following rules apply:

10.3.1.1. Airmen enrolled in the FIP must continue with this program and scheduled FAs while in training status. (T-1).

10.3.1.2. Commanders sending members enrolled in the FIP to a training TDY that exceeds 6 weeks must send the gaining commander or equivalent a memorandum explaining the required intervention, follow-up, and testing **(Attachment 8)** at least 2 weeks prior to TDY.

10.3.1.3. The gaining commander or commandant at the TDY location will assume unit CC responsibilities for FP purposes.

10.3.1.4. ARC members in all fitness categories going on active duty orders for training must be prepared to participate in PT programs and those in the SFIP must participate in the FIP during periods of active duty.

10.4. AF Form 108, Physical Fitness Education and Intervention Processing.

10.4.1. UFPMs initiate and annotate mandatory FIP option(s) and appointments on AF Form 108 to include date/time and location.

10.4.2. Member will sign the AF Form 108 acknowledging FIP enrollment, accepting responsibility for improving their fitness level, completing program requirement and if appropriate providing documentation of program compliance.

10.4.3. Unit Commander or equivalent will use the AF Form 108 as a tool to document mandatory education and intervention requirements. The failure of command or command representatives to sign, annotate, or otherwise complete the AF Form 108 in no way lessesns

the member's overarching responsibility for his/her own fitness and compliance with AF Fitness standards.

10.4.4. Respective program facilitator of the education/intervention program signs the AF Form 108 upon completion, when applicable. Program facilitator signature on AF Form 108 is not required for online FIP. Annotations can be made on the back of the AF Form 108 for programs requiring multiple attendances.

10.4.5. Members with Unsatisfactory scores, or their Commanders, may request a clinical case review to determine if there are documented medical conditions that prohibit program success (**Attachment 16**). This does not require a face to face encounter with the member unless determined by the healthcare provider to be clinically indicated. For purposes of the Fitness Program, obesity will not be used as a diagnosis prohibiting program success.

10.4.6. If a member fails to show for any assigned appointments, the FAC and/or Health Promotion/medical staff will notify the member's UFPM who, in turn, will notify the CC for appropriate action.

10.4.7. Barnes Center for Enlisted Education Senior Enlisted Leader ad NCOs assigned duty as Detachment Chief or Academy Commandant have signature authority for the AF Form 108.

10.5. Removing FA Scores from AFFMS II.

10.5.1. If an Airman believes the administration of his/her FA or his/her FA score was in error or unjust, he/she may submit an appeal to the Installation Commander, or equivalent as described in figure 10.1.

10.5.1.1. At installations with multiple wings or tenant organizations, the Installation Commander may delegate this action to the respective Wing Commander/equivalent.

Figure 10.1. Fitness Assessment Appeals Process.

Step 1: Airman notifies UFPM of potential records error

Step 2: UFPM collects a Memorandum for Record from the Airman that includes:

-Requested Action; applicant must identify what action they request to be taken

-Basis for request; it must be clear what they believe to be an injustice or error

-References or supporting documentation

-Applicant information to include name, organization/office symbol, unit address, contact phone number, email address, and signature

Step 3: UFPM route through chain of command to Installation Commander/equivalent

Step 4: If the Installation commander or equivalent approves removal, UFPM/FAC notifies FIM of approved FA removal/correction. For disapproved requests, the Installation commander or equivalent will provide the Airman with disapproval rationale.

Step 5: For approval, FIMs will update the Airman's record

Step 6: If the Airman wants to appeal the denied request, the UFPM/FAC must submit the complete package to Fitness Assessment Appeals Board (FAAB) at AFPC/DPSIM at afpc.dpsim.fitnessassessmentappeals@us.af.mil. If needed, the Air Force Board for Correction of Military Records (AFBMCR) will be the final decision authority.

10.5.2. Information pertaining to the Wing-level process and procedure and FAAB supplemental review can be found at: **http://www.afpc.af.mil/affitnessprogram/**.

10.6. Correcting administrative errors on FA Scores in AFFMS II. Administrative errors are limited to: Number of repetitions performed does not match number submitted in AFFMS II; corrections to profile dates and exemption updates; deletion of score double entry; and FAs taken while pregnant. FAC will submit requests for administrative corrections to their installation FIM. In cases where a FAC does not exist, the administering PTL, UFPM, or Airman may submit the request directly to the FIM. Requests for administrative correction must include the appropriate documentation (i.e., score sheet and/or AF Form 469) for verification purposes.

10.6.1. DELETED

DARRELL D. JONES
Lieutenant General, USAF
DCS, Manpower, Personnel and Services

Attachment 1

GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION

References

DoD Directive 1308.1, DoD Physical Fitness and Body Fat Program, 30 June 2004

DoD Instruction 1308.3, DoD Physical Fitness and Body Fat Programs Procedures, 5 November 2002

DoD 6025.18R, DoD Health Information Privacy Regulation, 24 January 2003

AFPD 36-29, Military Standards, 29 October 2009

AFPD 10-2, Readiness, 30 October 2006

AFI 10-203, Duty Limiting Conditions, 15 January 2013

AFI 34-266, Air Force Fitness and Sports Programs, 24 September 2007

AFI 36-2301, Developmental Education, 16 July 2010

AFI 36-2406, Officer and Enlisted Evaluation Systems, 15 April 2005

AFI 36-2501, Officer Promotions and Selective Continuation, 16 June 2004

AFI 36-2502, Airman Promotion/Demotion Programs, 31 December 2009

AFI 36-2603, Air Force Board for Correction of Military Records, 5 March 2012

AFI 36-2903, Dress and Personal Appearance of Air Force Personnel, 18 July 2011

AFI 36-2110, Assignments, 22 September 2009

AFI 36-2115, Assignments within the Reserve Components, 8 April 2005

AFI 36-2254V1, Reserve Personnel Participation, 26 May 2010

AFI 36-2504, Officer Promotion, Continuation and Selective Early Removal in the Reserve of the Air Force, 9 January 2003

AFI 36-2612, United States Air Force Reserve (USAFR) Reenlistment and Retention Program, 25 July 1994

AFI 36-2626, Airman Retraining Program, 1 July 1999

AFI 36-3206, Administrative Discharge Procedures for Commissioned Officers, 9 June 2004
AFI 36-3208, Administrative Separation of Airmen, 9 July 2004

AFI 36-3209, Separation and Retirement Procedures for Air National Guard and Air Force Reserve Members, 14 April 2005

AFI 40-101, Health Promotion, 17 December 2009

AFI 40-104, Health Promotion Nutrition, 4 October 2011

AFI 41-210, Patient Administration Functions, 22 March 2006

AFI 44-102, Medical Care Management, 20 January 2012

AFI 48-123, Medical Examinations and Standards, 24 September 2009

AFMAN 15-129, V1, Air and Space Weather Operations-Characterization, 6 December 2011

AFMAN 33-363, Management of Records, 1 March 2008

AFMAN 44-144, Nutritional Medicine, 14 June 2004

AFPAM 48-151, Thermal Injury, 18 November 2002

AETCI 36-2201, *Technical and Basic Military Training Evaluation,* 13 September 2010

AETCI 36-2203, *Technical and Basic Military Training Development,* 12 August 2009

AETCI 36-2205,V1, *Formal Flying Training Administration and Management,* 29 May 2009

AETCI 36-2216, *Administration of Military Standards and Discipline Training,* 6 December 2010

USAFAI 36-2002, *Cadet Weight and Fitness Programs*, 20 October 2008

Prescribed Forms

AF Form 4446, *Air Force Fitness Assessment scorecard*

Adopted Forms

AF Form 108, *Physical Fitness Education and Intervention Processing*

AF Form 418, *Selective Reenlistment Program Consideration*

AF Form 422, *Notification of Air Force Member's Qualification Status*

AF Form 469, *Duty Limiting Condition Report*

AF Form 847, *Recommendation for Change of Publication*

Abbreviations and Acronyms

AC—Abdominal Circumference

ACSM—American College of Sports Medicine

AED—Automated External Defibrillator

AFFMS II—Air Force Fitness Management System

AFPD—Air Force Policy Directive

AGR—Active Guard/Reserve

ARC—Air Reserve Components

AT—Annual Tour

BE WELL—Balanced Eating, Workout Effectively, Live Long

BIMAA—Base Individual Mobilization Augmentee Administrator

BLS—Basic Life Support

BMT—Basic Military Training

CBT—Computer Based Training
COT—Commissioned Officer Training Course
DAWG—Deployment Availability Working Group
DLC—Duty Limiting Condition
DoD—Department of Defense
ECP—Extreme Conditioning Program
FA—Fitness Assessment
FAAB—Fitness Assessment Appeals Board
FAC—Fitness Assessment Cell
FC—Fitness Center
FIM—Fitness Information Manager
FP—Fitness Program
FIP—Fitness Improvement Program
FPM—Fitness Program Manager
FSC—Fitness and Sports Center
FSM—Fitness and Sports Manager
FSS—Force Support Squadron
FSV—Sustainment Services Flight
FSQ—Fitness Screening Questionnaire
HAWC—Health and Wellness Center
HIPAA—Health Insurance Portability and Accountability
IDT—Inactive Duty Training
IMA—Individual Mobilization Augmentee
IR—Individual Reservist
LOD—Line of Duty
MEB—Medical Evaluation Board
MilPDS—Military Personnel Data System
MLO—Medical Liaison Officer
MPS—Military Personnel Section
MTF—Medical Treatment Facility
MTL—Military Training Leader
NAF—Non-Appropriated Funds

OPR—Office of Primary Responsibility

ORI—Operational Readiness Inspection

OTC—Over the Counter

OTS—Officer Training School

PCA—Permanent Change of Assignment

PCM—Primary Care Manager

PCP—Personal Care Provider

PCS—Permanent Change of Station

PDOP—Projected Date of Promotion

PHI—Protected Health Information

PIRR—Participating Individual Ready Reserve

PT—Physical Training

PTL—A – Physical Training Leader-Advanced

PTL—B – Physical Training Leader-Basic

RegAF—Regular Air Force

ROTC—Reserve Officer Training Corps

RPE—Rating of Perceived Exertion

SAV—Staff Assistance Visit

SFIP—Self-Paced Fitness Improvement Program

TDY—Temporary Duty Assignment

UCI—Unit Compliance Inspection

UFPM—Unit Fitness Program Manager

UIF—Unfavorable Information File

USAFA—United States Air Force Academy

UTA—Unit Training Assembly

WGBT—Wet Bulb Globe Temperature

Terms

Abdominal Circumference (AC)—A circumferential measure of abdominal girth at the iliac crest that is positively and highly correlated with internal fat and in turn disease risk independent of body mass.

Active Guard/Reserve (AGR)—Air Reserve Component (ARC) members on full time AGR duty to support the National Guard and Reserve, who are paid from the Reserve Personnel Appropriations of a military department in order to organize, administer, recruit, instruct and train members of the Reserve components. This includes all personnel of the National Guard

and Reserve Forces serving on active duty under Sections 10301, 10211, 12301(d), 12310, 10502, 10505 and 10506, 10305, or 12402 of 10 USC; or 32 USC 502(f).

Air Force Portal (AF Portal)—The website available to all Air Force members that serves as a single access point for AF Fitness resources; located at **https://www.my.af.mil**.

Air Reserve Component (ARC)—Component consisting of all ANG and AF Reserve personnel.

Alternate Aerobic Fitness Assessment—FA for Airmen with a medical exemption from the 1.5-mile run. Medical exemption is based on either musculoskeletal or clinical (e.g., cardiac, pulmonary, etc.) conditions that preclude running. Approved alternate aerobic fitness assessment is the 2.0 kilometer walk test for eligible members.

Basic Life Support (BLS) Training—Includes CPR and Automated External Defibrillator (AED) certification.

Fitness Assessment (FA)—The Air Force uses the 1.5-mile run and 2.0 kilometer walk to provide an estimate of an Airman's cardiorespiratory (aerobic) fitness. Push-ups and sit-ups are used to assess muscular fitness. AC measurement is used to assess the body composition. Airmen must complete an FSQ prior to the assessment. FAs are used to measure compliance with military directives to maintain consistent and regular physical-conditioning programs. Fitness standards are used to ensure a minimum level of fitness is maintained. Out-of-cycle unit-run FAs are not reported as official scores in AFFMS II, but may be used as a commander's tool to evaluate fitness/readiness, dress and appearance, etc. Commanders may refer and track members not meeting standards for FIP.

Fitness Assessment Cell (FAC)—Centralized under the FSS and augmented by installation PTLs/UFPMs. FAC members/augmentees should be role models and advocates for fitness. This team is aligned under the Sustainment Flight of the Force Support Squadron.

Fitness Assessment Cell (FAC) Augmentee—Military members trained to oversee and administer FAs. This is an additional duty and not a primary AFSC. Can be a PTL or UFPM who has completed PTL-B training and certification. These augmentees will not test Airmen from their own unit/PAS code and will not update FA scores in AFFMS II for Airmen from their own unit/PAS code.

Fitness Assessment Cell (FAC) Manager—Military members appointed to oversee installation FAC operations. This is an additional duty and not a primary AFSC. Maintains a minimum PTL-B certification and provides refresher training to FAC augmentees at the beginning of each FAC rotation. Ensures FAC augmentees do not test Airmen from their own unit/PAS code and do not update FA scores in AFFMS II for Airmen from their own unit/PAS code.

Fitness Improvement Program (FIP)—Intervention program required for all Airmen identified as Unsatisfactory fitness score. The program consists of behavior modification, fitness and nutrition education.

Fitness Program Manager (FPM)—Installation fitness expert for ARC units. The FPM is responsible for oversight of the installation AF Fitness Program. The FPM is a consultant to commanders, providers, FAC, and individuals for briefings, consultation, exercise prescriptions, guidance, and training. The FPM must meet minimum requirements described in the position description.

Geographically Separated Units (GSUs)—For the purposes of this AFI, a GSU is defined as a unit that is separated from the host or main operating base that provides support. The host or main operating base is defined as the base where the member's MPS is located.

National Guard Bureau (NGB) Statutory Tour—ARC members on Title 10 duty reassigned from Air National Guard unit to NGB to support the Air National Guard. For the purpose of this instruction, the term NGB Statutory Tour refers solely to members permanently assigned to full- time National Guard Duty under Title 10 USC and is not applicable to members serving on ADOS orders.

Medical Liaison Officer (MLO)—For the ARC member, the individual's military health care provider. For ANG, the MLO is normally located at the Wing Medical Group. In most cases, a civilian practitioner, but in cases where the member is a military family member or is in active duty status, a military provider.

Military Training Leader (MTL)— Counsels Airmen attending basic military training or technical school training on personal problems, military bearing, standards, and behavior; and schedules and conducts military training functions for students. This is a special duty assignment and individuals in this position hold the 8B100 AFSC.

Personal Care Provider (PCP)—For RegAF, the individuals' primary care manager. In most cases, a military practitioner.

Physical Training (PT)—Development and care of the body using a wide variety of strength building, cardio training, endurance, and flexibility activities.

Physical Training Leader—Advanced (PTL-A)—A military member trained to both lead unit PT exercises and administer FAs. This is an additional duty and not a primary AFSC. Certified PTL-As may be appointed as FAC augmentees. PTL-A certification cannot be obtained without first having PTL-B certification. To become PTL-A certified, an individual must complete the following: BLS, FA procedures training, and online PTL-A training course located on ADLS. At locations where a FAC exists, PTL-As will only administer FAs when appointed a FAC augmentee. NOTE: An individual can only receive PTL-A certification if their unit is identified, in writing, as one that has a Commander-directed mandatory PT programs.

Self—paced Fitness Improvement Program (SFIP)—A remedial intervention program recommended for non-AGR ARC Airmen identified with a composite Unsatisfactory fitness score. Airmen are highly encouraged to take part on a voluntary basis in all available FIP offerings to include an individualized fitness exercise prescription, heart-rate monitored exercise, supervised unit/fitness center PT, and documented exercise participation. AGRs in the Unsatisfactory fitness category will participate in the FIP.

Title 10 (Federal Status)—Includes RegAF members, ANG Statutory Tour, AFR AGRs, AFR ARTs, IMAs, Traditional Reservists, and members of the Individual Ready Reserve. Title 32 (State Status)—Includes ANG Technicians, ANG Drill Status Guardsmen, and ANG permanent AGRs serving at the state level. Includes members performing active or inactive duty outside of the National Guard Bureau's statutory tour program (i.e. ADOS, AGR, Annual Tour, Inactive Duty Training, Military Personnel Appropriation, etc.).

Unit Fitness Program Manager (UFPM)—A unit member responsible to the commander for the unit fitness program. Acts as a liaison between the Unit CC, the FAC, and the EP/FPM for

matters related to the fitness program. This is an additional duty and not a primary AFSC. All UFPMs must be PTL-B certified to support FA administration. May be appointed as a FAC augmentee.

VO2 Max—The maximum volume of oxygen taken in, transported and used by the pulmonary, cardiovascular, and muscular systems measured in milliliters of oxygen per kilogram of body weight per min (ml/kg/min). VO2 max is the measure of cardiorespiratory endurance or aerobic fitness and refers to the ability to perform large muscle, dynamic, moderate-to-high intensity exercise for prolonged periods. It is important to measure cardiorespiratory endurance for: exercise prescription, progress, feedback, and motivation in an exercise program, as well as prediction of medical conditions and further diagnoses of health problems.

Wet Bulb Globe Temperature—A composite temperature used to estimate the effect of temperature, humidity, wind speed and solar radiation on humans. It is used by industrial hygienists, athletes, and the military to determine appropriate exposure levels to high temperatures.

Attachment 2

PHYSICAL FITNESS GUIDANCE

A2.1. Physical Fitness. Physical Fitness is the health and care of the body through physical activity. The health-related components of fitness are: cardiorespiratory endurance, body composition, muscular strength, muscular endurance, and flexibility-mobility-stability. Each component is a movement-related trait or capacity that is generally independent of the others. An underlying concept here is better status in each of the constituent components is associated with lower risk for development of disease or functional disability. The skill-related components of fitness are: agility, balance, coordination, power, reaction time, and speed. These components are more genetically dependent than the health-related components and play a role in some AF specialties (occupation-specific).

A2.2. Goal. The fundamental goal of a physical fitness program is to bring about a change in personal health and fitness behavior, which includes, at a minimum, habitual physical activity. This regular physical activity should result in long-term exercise compliance and attainment of individual fitness goals and objectives.

A2.3. Objective. The basic objectives of an exercise program are: 1) to gain health benefits and prevent hypokinetic (inactivity) disorders, or 2) seek to attain greater health benefits and higher levels of fitness beyond basic health by engaging in physical activity of more vigorous intensity or of greater volume (longer duration and greater frequency). Daily physical activity is essential to improve health and quality of life, and maintain functional capacity. Health benefits are proportional to both the volume and intensity of activity--thus, every increase adds some benefit. To meet either of the above objectives one must execute a balanced exercise program. Recommendations from the American College of Sports Medicine (ACSM), the American Heart Association (AHA), and the U.S. Centers for Disease Control and Prevention (CDC) are included in the exercise guidance below.

A2.4. Aerobic Fitness. Synonymous with cardiorespiratory endurance, it is the ability to perform large muscle, dynamic, moderate-to-high intensity exercise for prolonged periods. Performance of such exercise depends on the functional state of the respiratory, cardiovascular, and skeletal muscle systems. More simply defined as the ability to produce energy. Your level of aerobic fitness determines how long and how hard you can exercise.

A2.4.1. Mode or Type of Activity. Improvements in aerobic fitness occur when the activity, at the proper frequency, duration and intensity, involves a large proportion of total muscle mass, maximizes use of large muscles, (e.g., muscles around the thigh and hip), involves dynamic, rhythmic muscle contractions, and minimizes static (no movement) contraction and use of small muscles. Many modes of activity meet these requirements, to include cross-country (Nordic) skiing, running, cycling, swimming, skating, rowing, walking, aerobic dance, indoor aerobic exercise machines, and some sports if they are continuous in nature (soccer, basketball, court sports).

A2.4.2. Frequency, Duration, and Intensity. Accomplish moderately intense aerobic activity 30 minutes a day, five days a week *or* vigorously intense aerobic activity 20 minutes to 25 minutes a day, 3 days a week *and* muscle fitness exercise (see below), or an equivalent combination of moderately and vigorously intense aerobic activity. For additional and more extensive health and fitness benefits, accomplish moderately intense aerobic activity 300

minutes (5 hours) a week, or accomplish vigorously intense aerobic activity 150 minutes a week, or an equivalent combination of moderately and vigorously intense aerobic activity. Generally, the minimal levels of exercise volume and intensity above are necessary to maintain health and fitness, while the higher levels are necessary to improve health and fitness.

A2.4.3. Intensity Determination. Moderately intense aerobic activity equates to continuous exercise that raises heart and respiratory rates, initiates sweating (varies with climate), and permits conversation; vigorously intense aerobic activity elicits higher physiological responses and permits light or broken conversation.

A2.4.3.1. Heart Rate (HR) Calculations. Exercise intensity may be measured objectively via HR formulas.

A2.4.3.1.1. Maximal HR Formula. Aerobic activity corresponding to HRs in the range of 60% - 90% of age specific estimated maximal HR.

A2.4.3.1.2. HR Range or HR Reserve Formula – steps are:

A2.4.3.1.2.1. Calculate Maximal HR. For ages < 40 years subtract age in years from 220; max HR = 220 – age. For ages ≥ 40 years multiply age in years by 0.7, then subtract product from 208. Max HR = 208 – 0.7age for members age 40 years and above.

A2.4.3.1.2.2. Measure Resting HR for three to four days shortly after waking for a 60 second period, while in the same body position each day. Take an average of the measures.

A2.4.3.1.2.3. Calculate HR Range. HR Range = Maximal HR – Resting HR.

A2.4.3.1.2.4. Calculate minimum, optimal (target), and do-not-exceed (safety) exercise HRs:

A2.4.3.1.2.4.1. Minimum exercise HR + (50% HR Range) + Resting HR.

A2.4.3.1.2.4.2. Optimal exercise HR=(75% HR Range) + Resting HR.

A2.4.3.1.2.4.3. Do-not-exceed exercise HR = (85% HR Range) + Resting HR.

A2.4.3.1.2.5. For example, a 30 year old AF member with a Resting HR of 70 beats/min calculates Maximal HR as 220 – 30 = 190 beats/min and HR Range as 190 – 70 = 120. Applying the equations:

A2.4.3.1.2.5.1. Minimum exercise HR = 50% (120) + 70 = 60 + 70 = 130 beats/min

A2.4.3.1.2.5.2. Optimal exercise HR = 75% (120) + 70 = 90 + 70 = 160 beats/min

A2.4.3.1.2.5.3. Do-not-exceed exercise HR = 85% (120) + 70 = 102 + 70 =172 beats/min

A2.4.3.1.2.5.4. Therefore, this individual should keep exercise HR above 130 beats/min, but below 172 beats/min, targeting 160 beats/min for at least 20

minutes to 25 minutes 3 days/week. Unfit individuals should start at the lower end of the HR Range. As fitness level increases, the resting HR will decrease, therefore increase the intensity percentage from low (50%) towards optimal (75%). Also, base fitness personnel can help fine tune these calculations taking into account medications, risk of injury, and individual preferences and objectives.

A2.4.4. Rate of Progression. A physiological conditioning or training effect will occur at the onset of an exercise program, especially for individuals with low initial fitness levels. Adjustments in mode, frequency, duration and intensity may be necessary to reach higher levels of health and fitness. Patience and perseverance are critical to maintain an active lifestyle and effective exercise program because many will start a physical activity program, but within the first two or three weeks of starting, quit and return to an inactive lifestyle. One *must* maintain regular activity for at least three or four weeks before tangible and lasting health improvements, including body fat loss, will occur. To help ensure that increases in frequency, duration, and especially intensity of activity occur in a *gradual* fashion, the following stages of progression are helpful to avoid injury, illness, and potential discouragement.

A2.4.4.1. Initial Stage. Include low-level aerobic activities and light muscular endurance exercises for minimal muscle soreness or discomfort. Do not be aggressive in this stage. Set individual goals which are achievable and realistic; include a system of personal rewards. Majority of failures occur in this stage – persevere to experience benefits.

A2.4.4.2. Improvement Stage. Progress more rapidly here at a higher intensity, steadily increase duration to 45 minutes of continuous exercise. Increase frequency as adaptation **to exercise permits.**

A2.4.4.3. Maintenance Stage. After six months of regular activity, focus on maintenance. Review goals ensuring that long-term focus is on a lifestyle approach to activity, remembering that considerable health benefits come from regular participation in moderate exercise.

Table A2.1. Stages of Progression Table for Healthy Individuals – General Guidance.

Program Phase	Week	Frequency (sessions/w	Duratio n	Intensity (%HR
Initial Stage	1	3	12	40-50
	2	3	14	50
	3	3	16	60
	4	3	18	60-70
	5	3	20	60-70
Improvement Stage	6-9	3-4	21	70-80
	10-13	3-4	24	70-80
	14-16	3-4	24	70-80
	17-19	4-5	28	70-80
	20-23	4-5	30	70-80
	24-27	4-5	30	70-85
Maintenance Stage	28+	3	30-45	70-85

A2.5. Muscular Fitness. A linked term for muscular strength, the maximum force generated by a specific muscle or muscle group, and muscular endurance, the ability of a muscle group to execute repeated contractions over a period of sufficient time duration to cause muscular fatigue. A balanced physical activity program should address the five health-related components of physical fitness, with primary emphasis on aerobic fitness, but muscular fitness is also important as inclusion of muscular fitness exercise, and provides several benefits (See Table A2.5).

Table A2.2. Benefits of Muscular Fitness Exercise – General Guidance.

1. Develops muscular strength and endurance to enhance the ability to live a physically independent lifestyle, *i.e.*, improves daily functional living
2. Increases and maintains fat-free (lean) mass, helping to maintain resting metabolic rate, which is beneficial for preventing fat gain
3. Increases the strength and integrity of connective tissue
4. Increases bone mineral density, preventing age-related bone deterioration
5. Combats chronic low back problems
6. Improves the ability of the muscles to recover from physical activity
7. Provides injury protection during deployment, daily work, and sports and recreational activities
8. Alleviates some common musculoskeletal complaints which result in lost duty time and medical treatment costs
9. May provide modest gains in cardiorespiratory fitness
10. May improve mood and self-image

A2.6. Flexibility. The maximum ability to move a joint freely, without pain, through a range of motion. Flexibility tends to decrease with age, primarily due to the decrease in activity associated with age. Although flexibility is not assessed during the AF Fitness Assessment, no single test can be generalized to evaluate total body flexibility, it is important to health and functional living and should be part of a well-balanced physical activity routine.

A2.6.1. Timing and Guidance. Despite the popular perception that stretching prior to exercise enhances performance and prevents injury, little scientific evidence exists to support

such long-held beliefs. Rather, engage in a gradual, activity-specific warm-up that includes the movement patterns of planned activity, e.g., if running for the workout then warm-up with brisk walking, jogging, and dynamic movements or drills such as leg swings and knee raises. To help maintain flexibility one should stretch after a workout when muscles, tendons, ligaments and connective tissue are warmer (above normal body temperature). Static stretch according to the following ACSM guidance:

A2.6.1.1. Type: static stretch, with a major emphasis on the major muscle groups to include the low back, hips, quadriceps and hamstrings (front and back of thigh), lower leg. Do not ballistic (bounce) stretch.

A2.6.1.2. Frequency: two to three days per week.

A2.6.1.3. Duration: 10 to 30 seconds for each stretch.

A2.6.1.4. Intensity: to a position of mild discomfort, not to point of pain.

A2.6.1.5. Repetitions: three to four for each stretch (NOTE: First increase body temperature, do not "cold" stretch. Finally, avoid comparing one's level of flexibility to others as it varies widely across individuals due to several factors that include gender, age, activity level, temperature, and extensibility of the muscles and tendons surrounding the joints)

A2.6.2. Warm-up and Cool-down. Although frequently ignored, these activities before and after an exercise session are important. Warm-up should be conducted as above (activity specific movements and dynamic drills) and always precede physical activity to increase body temperature and blood flow and to guard against muscle, tendon and ligament strains and tears. Cool-down, as important as the warm-up, is a gradual reduction in activity to prevent blood pooling, hasten recovery and avoid injury.

A2.6.3. Stability and Mobility. These are terms recently combined with flexibility in this final health-related component to designate a broader term that encompasses the role of stability and mobility in posture, occupational functional movement, and daily functional living. Stability deals with maintaining non-movement functional positions, including postural stability. Stability ranges from shoulder to ankle with shoulder, core and hip stability as primary. Mobility, similar to stability, is stable, controlled, functional movement through an active range of motion in the various planes of motion.

A2.7. General Workout Session. The salient phases of a recommended general workout session address the above components in the following order:

A2.7.1. Movement Preparatory Phase (Warm-Up). Body temperature increases via activity specific warm-up such as dynamic activity drills.

A2.7.2. Cardiorespiratory Endurance (Aerobic) Phase. Aerobic activity such as cross-country skiing, running, cycling, swimming, skating, rowing, walking, aerobic dance, indoor aerobic exercise machines (e.g., cycle ergometer, elliptical, rower, versa climber, stair), and some sports if they are continuous in nature.

A2.7.3. Muscle Fitness Phase. Resistance training such as calisthenics, weight/object training (e.g., machines, free weights, medicine balls, kettle bells, bands, cables, ropes), plyometrics, and field exercises. Movement Patterns – run, bend, twist, squat, pull, push.

Body Regions – core, lower, whole body, upper. Stability and Mobility/Functional Movement.

A2.7.4. Combined Activity Phase. Combined aerobic and muscular fitness actions, e.g., rotations, or running between muscle fitness stations.

A2.7.5. Skill Phase. Occupational or sport specific skill development/practice as desired.

A2.7.6. Movement Transition/Cessation Phase (Cool-Down). Activity specific cool-down. Flexibility - static stretching.

A2.8. Body Composition. Relative portion of the body comprised of fat and fat-free tissue. Body weight and body fat are related to health status, but misconceptions exist regarding body measurements and application of results. In the prevention of fat gain and associated diseases the focus must go beyond body weight measures to relative body fat, and body fat distribution.

A2.8.1. Weight and Height. Measurements of weight and weight relative to height (scale readings, height-weight tables, BMI) do not differentiate between fat and fat-free tissue, and do not account for fat distribution pattern.

A2.8.2. Relative Body Fat and Body Fat Distribution. The amount of total body tissue that is fat and where fat is deposited or carried on the body is necessary to complete a body composition assessment. This is done via "non-scale" measurements.

A2.8.2.1. Percent Body Fat. Total body fat relative to body mass is known as percent body fat. Average and at risk levels are 15% and 25% for males, 23% and 32% for females, respectively.

A2.8.2.2. Abdominal Circumference. Increased health risks associated with overfat are not only related to total body fat, but also and more closely to fat distribution. Upper body or trunk fat, specifically abdominal fat, presents the greatest health risk; it is highly linked to cardiovascular diseases and metabolic disorders such as type diabetes. Reducing abdominal girth or circumference is more important than normalizing body weight since exercise induced increases in muscle mass can mask reductions in girth, i.e., with proper exercise body weight may stay the same or even increase, but "belt size" will reduce. Therefore, as abdominal fat is an independent risk factor for disease, the evaluation of AC is used. A high risk of current and future disease exists for males with an AC > 39 inches and for females with an AC > 35.5 inches regardless of age or height. The health risk is moderate for males with an AC > 35 inches and for females with an AC > 31.5 inches. NOTE:The above guidance are recommendations for a member to increase or maintain fitness. EP/FPMs will determine whether adjustments in mode, intensity, duration, frequency or repetitions are required based on the member's exercise regimen, characteristics, and FA scores to improve fitness. Members who are over age 35 years and are sedentary and members who are initiating a fitness program should contact their fitness center or Health Promotion staff/HAWC for assistance in developing an exercise routine. Members who are over age 35 years and are sedentary should also consider contacting their medical care provider prior to initiating physical activity. ARC members can consult Health Promotion staff/HAWCs and fitness center trainers where available. Members are highly encouraged to seek professional advice from personal fitness trainers, FCs, or Health Promotion staff/HAWCs for assistance in establishing or adjusting their personal fitness program.

Attachment 3

SAMPLE UNIT PHYSICAL FITNESS PROGRAMS

A3.1. Ability-based training/fitness screening.

A3.1.1. Commanders will use trained PTL-As to establish unit programs that allow members to participate at their current fitness level and progress gradually. A safe conditioning program encourages and supports members training at their own pace.

A3.1.1.1. PTL-As consult the FPM to assist with development of ability-based training programs.

A3.1.2. Commanders opting to implement maximal exertion activities (e.g. practice timed assessments), should require personnel to complete a FSQ (Attachment 4).

A3.2. Considerations to be made prior to beginning the unit physical fitness event:

A3.2.1. Safety/environmental conditions.

A3.2.2. Acclimatization: Airmen who have recently PCS'd require a 42-day period of acclimatization to local environmental conditions.

A3.2.3. Fluids/hydration: must be available during the exercise event/activity.

A3.2.4. Emergencies/injuries: establish emergency procedures to include availability of a cell phone, emergency responder contact information, BLS-trained members, and first aid kit.

A3.2.5. Safety: reflective vests, appointment of safety monitors/cross guards, and cones/signs on course as appropriate.

A3.2.6. Unit Physical Fitness Programs must follow guidance as specified in Attachment 2.

A3.2.6.1. Individual abilities should be considered so that all members are provided a workout that is within their current fitness status.

A3.2.7. Warm-up and cool-down periods should be accomplished with each unit physical fitness event.

A3.3. PTL-developed, ability-based Unit Physical Training Programs.

A3.3.1. Ability runs. Prior to the unit exercise session, divide the unit into groups based upon the members' running paces.

A3.3.1.1. A leader capable of maintaining the assigned pace for the group should be assigned to each group to monitor for safety/injuries of group members.

A3.3.1.2. For safety purposes, prior to the exercise session, determine the distance/course to be covered and/or the time in which to run and mark the course to alert others of group PT.

A3.3.1.3. As a variation, the unit may run together for a specified short duration (at a pace that can be achieved by all participants) and then divide into the assigned ability groups for the remainder of the event.

A3.3.1.4. As members' fitness levels increase, they should be placed in faster running groups.

A3.3.1.5. Discourage formation running and cadence calls while running. Doing so may place member at risk for injury for the shortest and tallest individuals since cadence calling forces all to move at the speed and stride length of the caller. Running is more efficient when each member can run at his/her own stride frequency and stride length. If desired, cadence calls should be used for short-distance foot marches only.

A3.3.2. Multi-station training courses (e.g., obstacle courses, par courses, and circuit training).

A3.3.2.1. Prior to using course, discuss safety and fitness concepts of course with the EP/FPM.

A3.3.2.2. Consider individual abilities by permitting members to progress through course at their own speed. Those members who complete course in faster times should be encouraged to complete additional components of course a second time until all members are through the course at least once.

A3.3.2.3. Multi-station training can be accomplished at base fitness facilities using exercise/fitness equipment or at a designated outdoor area performing activities of both cardiovascular and muscular fitness.

A3.3.2.3.1. Coordinate with fitness facilities in order to conduct multi-station training sessions at times conducive to unit, as well as, fitness facility.

A3.3.2.3.2. Coordinate with EP/FPM to obtain multi-station training programs appropriate to the fitness site.

A3.3.3. Fitness facilities/existing fitness programs/classes.

A3.3.3.1. Coordinate with fitness facilities for group PT exercise sessions and fitness classes.

A3.3.3.2. Individual members should complete continuous aerobic exercise of their choice (e.g., treadmill, rower, stair-climber, cross trainers, bicycles, swimming and spinning classes). Recommend 25-45 minutes in duration.

A3.4. Prevention of Injury and Illness.

A3.4.1. Safety must be an overarching concern throughout all physical training. Consider individual safety issues such as medical or physical limitations and level of ability.

A3.4.2. Ensure a safe environment for training IAW local guidance (e.g., assessing traffic patterns, use of headphones or other personal equipment, temperature, availability of water/first aid, and awareness of emergency procedures).

A3.4.2.1. Physical conditioning conducted in PT uniform (shorts and t-shirt) may be performed continuously up to 1 hour in all but "black flag" heat condition (90 degrees Fahrenheit and above). Recommend limiting fitness activities during "black flag" heat conditions to indoor activities.

A3.4.3. For cold weather limitations consult tables A.4.1 and A4.2 in AFPAM 48-151, *Thermal Injury*. Note: ARC unit PT programs are at the discretion of the unit CC based on mission needs and duty time available for training.

Attachment 4

FITNESS SCREENING QUESTIONNAIRE

Figure A4.1. Fitness Screening Questionnaire.

FITNESS SCREENING QUESTIONNAIRE

You are being asked these questions for your safety and health. The AF Fitness Assessment (FA) is a maximum-effort test. Airmen who have not been exercising regularly and/or have other risk factors for a heart attack (increasing age, smoking, diabetes, high blood pressure, etc.) are at increased risk of injury or death during the test. Answering these questions honestly is in your best interest.

1. Have you experienced any of the symptoms/problems listed below and not been medically evaluated and cleared for unrestricted participation in a physical training program?
   a. Unexplained chest discomfort with or without exertion
   b. Unusual or unexplained shortness of breath
   c. Dizziness, fainting, or blackouts associated with exertion
   d. Other medical problems that have not been evaluated, optimally treated, or not already addressed in an AF Form 469, that may prevent you from safely participating in this test (e.g. heart disease, sickle cell trait, asthma, etc.).
   e. Family history of sudden death before the age of 50 years

   ☐ Yes: Stop. Notify your UFPM and contact your PCP/MLO for evaluation/recommendations (or for ARC, contact the MLO for Duty Limiting Conditions (DLC) documentation and referral to PCP). Hand carry this form to medical evaluation.
   ☐ No: Proceed to next question.

2. Are you 35 years of age or older?

   ☐ Yes: Proceed to next question.
   ☐ No: Stop. Sign form and return to your UFPM. Member may take the FA.

3. Have you engaged in vigorous physical activity (i.e., activity causing sweating and moderate to marked increases in breathing and heart rate) averaging at least 30 minutes per session, 3 days per week, over the last 2 months?

   ☐ Yes: Stop. Sign form and return to your UFPM. Member may take the fitness assessment.
   ☐ No: Proceed to the next question.

4. Do one (1) or more of the following risk factors apply to you?
   - Smoked tobacco products in the last 30 days
   - Diabetes
   - High blood pressure that is not controlled
   - High cholesterol that is not controlled
   - Family history of heart disease (developed in father/brother before age 55 or mother/sister before age 65)
   - Age > 45 years for males; > 55 years for females

   ☐ Yes: Stop and notify UFPM.

NOTE: RegAF and ANG (Title 10 status): If member was cleared for entry into a fitness program at his/her last physical health assessment (PHA) and his/her PHA is current, the member will take the FA. If not cleared, refer member to PCM for evaluation, and, if medically cleared for unrestricted fitness program, the member will take the FA.

AFR: If member was cleared for participation into a fitness program at a PHA within the last 12 months, the member will take the FA. If not previously cleared, member will be referred to PCP for evaluation and, if medically cleared for unrestricted fitness program, the member will take the FA. Refer member to MLO if there is any combination of smoking, diabetes, uncontrolled high blood pressure, and/or uncontrolled high cholesterol. MLO will update medical records and/or initiate DLC documentation.

ANG (Title 32 status): Refer member to MLO if there is any combination of smoking, diabetes, uncontrolled high blood pressure, and/or uncontrolled high cholesterol. MLO will update medical records and/or initiate DLC documentation.

☐ No: Stop. Sign form and return to your UFPM. Member will take the FA.

If member experiences any of the symptoms listed in Question #1 during the fitness assessment, he/she should stop the test immediately and seek medical attention immediately.

Signature: _____ Date: _____
Printed Name: _____ Rank: _____
Duty Phone: _____ Office Symbol: _____

Authority: 10 USC 8013. Routine Use: This information is not disclosed outside DoD. Disclosure is Mandatory. Failure to provide this information may result in either administrative discharge or punishment under the UCMJ.

Medical Evaluation (Only applicable if member marked Yes on Question 1; provider answers all 4 statements)

If medical evaluation is required IAW this FSQ, the provider will complete the following.

_____

I medically evaluated _____ on _____. Medical recommendations are:
(rank, name) (date)

Member (is/is not) medically cleared for the maximal effort 1.5-mile run.

Member (is/is not) medically cleared for the maximal effort 2.0-kilometer walk.

Member (is/is not) medically cleared for push-ups.

Member (is/is not) medically cleared for sit-ups.

NOTE: An AF Form 469 has been initiated, if appropriate. Airmen with fitness limitations for greater than 30 days must be referred to the EP/FPM for fitness prescription IAW AFI 36-2905.

_____
(Signature/Stamp of Provider)

FITNESS SCREENING QUESTIONNAIRE

You are being asked these questions for your safety and health. The AF Fitness Assessment (FA) is a maximum-effort test. Airmen who have not been exercising regularly and/or have other risk factors for a heart attack (increasing age, smoking, diabetes, high blood pressure, etc.) are at increased risk of injury or death during the test. Answering these questions honestly is in your best interest.

1. Have you experienced any of the symptoms/problems listed below and not been medically evaluated and cleared for unrestricted participation in a physical training program?
   a. Unexplained chest discomfort with or without exertion
   b. Unusual or unexplained shortness of breath
   c. Dizziness, fainting, or blackouts associated with exertion
   d. Other medical problems that have not been evaluated, optimally treated, or not already addressed in an AF Form 469, that may prevent you from safely participating in this test (e.g. heart disease, sickle cell trait, asthma, etc.).
   e. Family history of sudden death before the age of 50 years

   ☐ **Yes:** Stop. Notify your UFPM and contact your PCP/MLO for evaluation/recommendations (or for ARC, contact the MLO for Duty Limiting Conditions (DLC) documentation and referral to PCP). Hand carry this form to medical evaluation.
   ☐ **No:** Proceed to next question.

2. Are you 35 years of age or older?

   ☐ **Yes:** Proceed to next question.
   ☐ **No:** Stop. Sign form and return to your UFPM. Member may take the FA.

3. Have you engaged in vigorous physical activity (i.e., activity causing sweating and moderate to marked increases in breathing and heart rate) averaging at least 30 minutes per session, 3 days per week, over the last 2 months?

   ☐ **Yes:** Stop. Sign form and return to your UFPM. Member may take the fitness assessment.
   ☐ **No:** Proceed to the next question.

4. Do one (1) or more of the following risk factors apply to you?
   Smoked tobacco products in the last 30 days
   Diabetes
   High blood pressure that is not controlled
   High cholesterol that is not controlled
   Family history of heart disease (developed in father/brother before age 55 or mother/sister before age 65)
   Age > 45 years for males; > 55 years for females

   ☐ **Yes:** Stop and notify UFPM.

NOTE: RegAF and ANG (Title 10 status): If member was cleared for entry into a fitness program at his/her last physical health assessment (PHA) and his/her PHA is current, the member will take the FA. If not cleared, refer member to PCM for evaluation, and, if medically cleared for unrestricted fitness program, the member will take the FA.

AFR: If member was cleared for participation into a fitness program at a PHA within the last 12 months, the member will take the FA. If not previously cleared, member will be referred to PCP for evaluation and, if medically cleared for unrestricted fitness program, the member will take the FA. Refer member to MLO if there is any combination of smoking, diabetes, uncontrolled high blood pressure, and/or uncontrolled high cholesterol. MLO will update medical records and/or initiate DLC documentation.

ANG (Title 32 status): Refer member to MLO if there is any combination of smoking, diabetes, uncontrolled high blood pressure, and/or uncontrolled high cholesterol. MLO will update medical records and/or initiate DLC documentation.

❒ **No:** Stop. Sign form and return to your UFPM. Member will take the FA.

If member experiences any of the symptoms listed in Question #1 during the fitness assessment, he/she should stop the test immediately and seek medical attention immediately.

Signature: _____ Date: _____
Printed Name: _____ Rank: _____
Duty Phone: _____ Office Symbol: _____

Authority: 10 USC 8013. Routine Use: This information is not disclosed outside DoD. Disclosure is Mandatory. Failure to provide this information may result in either administrative discharge or punishment under the UCMJ.

Medical Evaluation (Only applicable if member marked Yes on Question 1; provider answers all 4 statements)

If medical evaluation is required IAW this FSQ, the provider will complete the following.

_____

I medically evaluated _____ on _____. Medical recommendations are:
(rank, name) (date)

Member (is/is not) medically cleared for the maximal effort 1.5-mile run.

Member (is/is not) medically cleared for the maximal effort 2.0-kilometer walk.

Member (is/is not) medically cleared for push-ups.

Member (is/is not) medically cleared for sit-ups.

NOTE: An AF Form 469 has been initiated, if appropriate. Airmen with fitness limitations for greater than 30 days must be referred to the EP/FPM for fitness prescription IAW AFI 36-2905.

_____
(Signature/Stamp of Provider)

Attachment 5

FITNESS ASSESSMENT VERBAL INSTRUCTIONS

A5.1. Verbal Air Force Fitness Assessment Instructions. Test Administrator will read/state: You are about to complete the Air Force Fitness Assessment. You are presumed fit to participate based on your completion of the FSQ. You may re-accomplish the FSQ if medical concerns have developed since completion, but must do so prior to beginning the FA. If you experience injury or illness during the FA, you will have the option of being evaluated at the MTF, but your test may still count. If the medical evaluation validates your illness/injury your Commander may invalidate the test results. If the test is invalidated, you will be required to retest within 5 days. At no time will a back-dated AF 469 (fitness exemption) be accepted. Each component requires minimum performance. If for any reason you do not meet the minimum requirements you are expected to complete the remaining components. Scores for all components are final.

A5.2. Verbal Body Composition Instructions. The Test Administrator must read the following instructions to all Airmen and demonstrate the proper technique, or show the Air Force instructional video. If the instructional video is shown, instructions reading and demonstration is not required.

A5.2.1. The abdominal circumference is the assessment for body composition. Please stand facing forward with your arms to your side similar to attention position. I will take the measurement from your right hand side on bare skin only. Before the measurement you will adjust your clothing so it does not fall over your waist during the measurement. I will set the end of the tape directly above your hip-bone (iliac crest) and ask you to hold it in place. I will walk around you to confirm parallel placement of the tape and then I will kneel down to measure the AC at the end of your normal breath exhalation. Make sure you do not hold your breath.

A5.2.2. I will take your measurement 3 times. If there is more than 1 inch difference I will take a 4th measurement. I will average the closest 3 measurements and round the result down to the nearest ½ inch and that will be your recorded score.

A5.3. Push-Up Verbal Instructions. The Test Administrator must read the following instructions to all Airmen and demonstrate the proper technique, or show the Air Force instructional video. If the instructional video is shown, instructions reading and demonstration is not required.

A5.3.1. The push-up is one assessment of muscular fitness. Place your palms or fists on the floor, hands will be slightly wider than shoulder width apart with your elbows fully extended. Your feet may be no more than 12 inches apart and should not be supported, braced or crossed. Your body should maintain a rigid head to heel form. This is the up/starting position.

A5.3.2. Begin by lowering your body to the ground until your upper arms are at least parallel to the floor (elbows bent at 90 degrees) then return to the up position (arms fully extended but not locked). This is one repetition.

A5.3.3. Your chest may touch, but not rest or bounce on the floor. If you do not come down parallel to the floor, the push-up will not count. Resting can only be done in the up position. You may remove your hands or feet from the floor or bridge or bow your back, but only in

the up/rest position, resting any other body part on the floor is not allowed. If resting occurs in the down position, the push-up portion of test will be terminated and your score will be based on the correct number of push-ups performed up to that point.

A5.3.4. Your breathing should be as normal as possible. Make sure you do not hold your breath. You have one minute to perform as many correct push-ups as you are able. Your counter will count the correct number of push-ups aloud. Your counter will not count incorrect push-ups. Your counter will tell you what you are doing wrong and will repeat the last number of correct push-ups until you correct the error. The total number of correct push-ups in one minute is recorded as your score.

A5.4. Sit-up Verbal Instructions. The Test Administrator must read the following instructions to all Airmen and demonstrate the proper technique, or show the Air Force instructional video. If the instructional video is shown, instructions reading and demonstration is not required.

A5.4.1. Begin by laying face up on the floor or mat. Your feet may extend off the floor or mat, but your buttocks, shoulders, and head must not extend beyond the mat. Bend your knees at 90 degrees, with your feet or heels in contact with the floor at all times. Cross your arms over your chest with your open hands or fingers at your shoulders or resting on your upper chest. This is the starting position. When conducting sit-ups, any part of the hands/fingers remain in contact with the shoulders or upper chest at all times.

A5.4.2. If a bolted non-portable toe hold bar is used: Anchor your feet to the ground by hooking your feet/toes under the bar. Your heels must remain in contact with the ground at all times and the bar cannot move while you perform the assessment. If a toe hold bar is NOT used: Members may request the assessor to hold feet with his/her hands or by putting his/her knees on the feet. The assessor may not anchor member by holding behind the calves or by standing on the feet during the assessment as he/she could lose balance and step off. The member may request a member of the same gender to hold the feet and that request must be granted. Let your monitor know if you need your feet held differently prior to beginning the assessment. (e.g., "You are holding my ankles/feet too tight or not enough.").

A5.4.3. From the starting position, raise your upper torso until your elbows touch your knees or thighs. Then, lower your upper torso until your shoulder blades contact the floor. This is one repetition. Your elbows must touch your knees or thighs at the top of the sit-up, and your shoulder blades must contact the floor or mat at the bottom of the sit-up (keeping any part of your hands/fingers in contact with your shoulder/upper chest at all times).

A5.4.4. The repetition will not count if your hands/fingers come completely away from the chest/shoulder or if your buttocks or heels leave the ground. Additionally, you may not grab onto your shirt as it makes it difficult to determine if you are maintaining proper contact. Any resting must be done in the up position. While resting you may not use knees or any object to support yourself. If there is any resting other than in the up position, the sit-up portion of the test is terminated and your score will be based on the correct number of sit-ups performed up to that point.

A5.4.5. You have one minute to perform as many correct sit-ups as you are able. Your counter will count the correct number of sit-ups aloud. Your counter will not count incorrect sit-ups. Your counter will tell you what you are doing wrong and will repeat the last number

of correct sit-ups until you correct the error. The total number of correct sit-ups in one minute is recorded as your score.

A5.5. 1.5 mile timed run Verbal Instructions: The Test Administrator must read the following instructions to all Airmen and demonstrate the proper technique, or show the Air Force instructional video. If the instructional video is shown, instructions reading and demonstration is not required.

A5.5.1. This 1.5 mile timed run is used to measure cardio-respiratory fitness. Prior to beginning the 1.5 mile run, you may complete up to a 3 minute warm up. You will line up behind the starting line and will be instructed to begin running as I start the stopwatch. No physical assistance from anyone or anything is permitted. Pacing is permitted if there is no physical contact and is not a hindrance to other runners. You are required to stay on and complete the entire marked course. Leaving the course is disqualifying and terminates the test. Your completion time will be recorded when you cross the finish line and you are required to complete a cool down for approximately 5 minutes. If at any time you are feeling in poor health, you are to stop running immediately and you will be given assistance.

A5.6. 2.0 kilometer walk Verbal Instructions: The Test Administrator must read the following instructions to all Airmen and demonstrate the proper technique, or show the Air Force instructional video. If the instructional video is shown, instructions reading and demonstration is not required.

A5.6.1. The Test Administrator must read the following instructions to all Airmen and demonstrate the proper technique, or show the Air Force instructional video. If the instructional video is shown, instructions reading and demonstration is not required. This test measures cardio-respiratory fitness. Prior to beginning the 2.0 km walk, you may complete up to a 3 minute warm up. You will be directed to line up behind the starting line and instructed to begin walking as I start the stopwatch.. You are to walk the 2.0 km course as quickly as you can. You must not run, keeping at least one foot in contact with the ground at all times. No physical assistance from anyone or anything is permitted. Pacing is permitted if there is no physical contact and is not a hindrance to others. You are required to stay on and complete the entire marked course. Leaving the course is disqualifying and terminates the test. Your completion time will be recorded when you cross the finish line and you are required to complete a cool down for approximately 5 minutes. If at any time you are feeling in poor health, you are to stop immediately and you will be given assistance.

Attachment 6

1.5-MILE RUN AND 2.0-KILOMETER WALK COURSE REQUIREMENTS

A6.1. Course Requirements for 1.5-mile timed run (2640 yards/2414 meters) and 2.0-kilometer timed walk (2187 yards/2000 meters).

A6.1.1. Establish a standard course of accurate distance that is as level and even as possible.

A6.1.1.1. If a typical 6-lap track is used:

A6.1.1.1.1. For a 1.5-mile timed run, it should be 440 yards per lap; or 6 laps on a 400-meter track plus an additional 46 feet for 1.5-miles.

A6.1.1.1.2. For a 2.0-kilometer timed walk, it should be 5 laps on a 400-meter track or 4 laps on a 440 yard track plus an additional 427 yards.

A6.1.1.2. Course should have limited exposure to traffic, should not have a continuous incline/decline or rolling hills; avoid slopes exceeding two degrees. If using a road course, where possible, start and finish should be at the same location.

A6.1.1.3. Clearly mark the start and finish lines (and half-way point for road courses).

A6.1.2. Trained personnel will monitor participants, ensuring all members complete entire course and are continuously observed for course completion, safety, counting laps if required and recording run times.

A6.1.3. Indoor track may be used at the discretion of installation leadership however the track must be certified.

A6.2. Evaluate course safety/environmental conditions to determine if assessment can be properly conducted.

A6.2.1. Snow: no snow accumulation on the running surface.

A6.2.2. Ice: no ice on the running surface that cannot be easily observed and avoided.

A6.2.3. Water: no standing water that a large group cannot easily avoid on the running surface.

A6.2.4. Mud: no mud on the running surface that cannot be easily avoided.

A6.2.5. Lightning: no lightning within 5 nautical miles (~6 miles) and wait at least 30 minutes after the last observed lightning.

A6.2.6. Rain: No significant rain. If assessing on a wet day (rain, mist or heavy dew), the temperature must be > 34 degrees F, including wind chill.

A6.2.7. Hail: no hail forecasted or reported within 25 miles.

A6.2.8. Shelter: establish a safe shelter procedure if there is any storm threat.

A6.2.9. Visibility: must be greater than ¾ mile if crossing or running beside vehicular traffic.

A6.2.10. Light: reflective belts/vests are required if running near traffic from 1 hour before sunset to 1 hour after sunrise.

A6.2.11. Intersections: crossing guards with reflective safety vests/lights must be positioned at all active intersections.

A6.2.12. Medical: establish a method of communication/access for emergency medical services (e.g., cell phone, hand-held radio, etc. to call 911). If AEDs are available, they must be on-site during all portions of FA.

A6.2.12.1. Safety is the number one concern. If during or after the test, the member experiences unusual shortness of breath, chest pain, dizziness or lightheadedness, or any other unusual symptoms, please notify FAC or FA administrator immediately.

A6.2.13. Wind Speed: max wind allowed ≤ 15 mph sustained, ≤ 20 mph gusting.

A6.2.14. Cold Stress: air temperatures must be ≥ 20 degrees F with wind ≤ 15 mph sustained, ≤ 20 mph gusting.

A6.2.15. Heat Stress: Wet Bulb Globe Temperature (WBGT) must be ≤ 86 degrees F at the start of the walk/run (**NOTE:** Consult with base environmental engineering, base weather, or civilian agencies to determine environmental conditions)

Attachment 7

DOD WAIVER FROM BODY FAT METHODOLOGY

Figure A7.1. Copy of DOD Waiver From Body Fat Methodology.

OFFICE OF THE UNDER SECRETARY OF DEFENSE
4000 DEFENSE PENTAGON
WASHINGTON, D.C. 20301-4000

APR 6 2009

PERSONNEL AND READINESS

MEMORANDUM FOR THE ASSISTANT SECRETARY OF THE AIR FORCE
(MANPOWER AND RESERVE AFFAIRS)

SUBJECT: Permanent Waiver of Body Fat Measurement Methodology in Department of Defense Instruction 1308.3, "Department of Defense Physical Fitness and Body Fat Procedures"

This responds to the request received from the office of Deputy Chief of Staff, Manpower, Personnel and Services regarding a permanent waiver of body fat measurement methodology. DoDI 1308.3 is currently being updated and the abdominal circumference methodology is being reviewed by DoD and the Joint Services Physical Fitness and Body Fat Working Group for inclusion in this instruction. If approved, this will be the DoD policy or the Department may allow for both types of measurements, allowing for Service discretion.

Your request for a permanent waiver of body fat measurement methodology in Department of Defense Instruction 1308.3, "Department of Defense Physical Fitness and Body Fat Procedures" is approved.

T. F. Hall

T. F. HALL
Performing the Duties of
the Under Secretary of Defense
(Personnel and Readiness)

Attachment 8

SAMPLE MEMO FOR TDY/PME

Figure A8.1. Sample Memo for TDY/PME.

(Appropriate Letterhead)

Date

MEMORANDUM FOR COMMANDANT/TDY COMMANDER

FROM: UNIT COMMANDER

SUBJECT: Fitness Intervention, Follow-up, and Assessment Requirements

1. (Rank, Name) received an Unsatisfactory fitness score on (date). He/she is enrolled in the Fitness Improvement Program (FIP):

2. This member must continue on the FIP while TDY. Please ensure enrollment in local programs.

3. The member must be reevaluated NLT (date).

(Signature, Unit Commander)

Attachment:
Individual Fitness Assessment Report
1st Ind, COMMANDANT/COMMANDER

MEMORANDUM FOR UNIT COMMANDER

1. (Rank, Name) did/did not enroll and participate in the required improvement programs.

2. An FA was accomplished on (assessment date) with a score of (composite fitness score).

(Commandant)

Attachment:
Individual FA Report

Attachment 9

MEDICATIONS AFFECTING AF FITNESS PROGRAM PARTICIPATION

A9.1. This attachment lists medications that may preclude aerobic components in the FA. Before considering medications for a medical exemption, the underlying condition should be addressed as a potential reason for exemption. Chronic conditions that result in medical exemption from any aerobic components should be reviewed for possible MEB IAW AFI 48-123 and AFI 10-203.

A9.2. Any medication that affects the heart rate or the heart's response to exercise may invalidate aerobic components of the FA. Chronic medications should not be discontinued simply to allow the fitness assessment if this would adversely impact the member's health or safety. Over-the-counter (OTC) medications or "supplements" of any kind should not be a cause for exemption unless the OTC medications/supplements are specifically recommended by a provider and this recommendation is documented in the medical record. Members using acute, short-term medications that result in component exemptions should be given a temporary duty/fitness restriction until the medication is no longer needed.

A9.3. Table A9.1 is not an all-inclusive list of all medications that could potentially affect FA participation. Furthermore, individual patient situations may require exemptions beyond what is detailed here. The member's provider shall not be constrained by this Table in making fitness participation restriction recommendations. The MTF provider will review the medical documentation and provider restriction recommendations when making fitness testing exemption recommendations.

Table A9.1. Medications Affecting FA Participation.

Class or Specific Drug	Examples (generic names)	Effected Components	Comments
β-blockers: include ophthalmic preparations	Atenolol Metroprolol Timolol	Walk: Exempt. Decreases heart rate	Consider stopping if used for prophylaxis (e.g., migraines). Does not necessarily preclude taking 1.5 mile run component
α- and β-adrenergic blocking agents	Carvedilol Labetalol	Walk: Exempt. Decreases heart rate	Does not necessarily preclude taking 1.5 mile run component
α_1- adrenergic blocking agents	Doxazosin, Terazosin Prazosin	Walk: Exempt. Decreases heart rate	Does not necessarily preclude taking 1.5 mile run component
Central α_2-agonists	Clonidine Guanfacine	Walk: Exempt. May decrease heart rate	Does not necessarily preclude taking 1.5 mile run component

Nitrates	Isosorbide Dinitrate	Run/Walk: exempt until cleared by a cardiologist	
Calcium channel blockers (non-dihydropyridine)	Verapamil Diltiazem	Walk: Exempt. Decreases heart rate	Does not necessarily preclude taking 1.5 mile run component
Calcium channel blockers (dihydropyridine)	Amlodipine Felodipine Nifedipine	No exemptions unless underlying condition warrants	minimal impact on heart rate
Digoxin		Run/Walk: exempt unless cleared by a cardiologist	Heart rate not significantly altered in patients with normal sinus rhythm
Direct Peripheral Vasodilators	Hydralazine Minoxidil	Walk: exempt Run: exempt until cleared by PCM	Should discontinue minoxidil one week before testing if used topically for hair growth
Antiarrhythmic agents (see above for β-blockers, non-dihydropyridine calcium channel blocker)	Procanamide Phenytoin Amioderone Sotalol Propafenone	Walk: exempt Run: exempt unless cleared by a cardiologist	
Sympathomimetic bronchodilators	Albuterol Salmeterol	Walk: May raise pulse. Exempt	Does not necessarily preclude taking 1.5 mile run component
Amphetamines and derivatives	Methylphenidate	Walk: May raise pulse. Exempt	Consider "drug holiday" for adult ADD patients the week prior to assessment
Thyroid replacement therapy		Walk/Run: exempt until cleared by PCM	Should be able to perform all FA components as soon as underlying condition is controlled/medication is at therapeutic level
Phosphodiesterase inhibitors— All	Viagra, Cialis, Levitra	No exemption	Warn patient not to use within 72 hours of FA.

Attachment 10

FITNESS ASSESSMENT CHARTS

A10.1. Fitness Assessment Chart – Male: Age: < 30.

Cardiorespiratory Endurance			Body Composition			Muscle Fitness			
Run Time (mins:secs)	Health Risk Category	Points	AC (inches)	Health Risk Category	Points	Push-ups (reps/min)	Points	Sit-ups (reps/min)	Points
≤ 9:12	Low-Risk	60.0	≤ 32.5	Low-Risk	20.0	≥ 67	10.0	≥ 58	10.0
9:13 - 9:34	Low-Risk	59.7	33.0	Low-Risk	20.0	62	9.5	55	9.5
9:35 - 9:45	Low-Risk	59.3	33.5	Low-Risk	20.0	61	9.4	54	9.4
9:46 - 9:58	Low-Risk	58.9	34.0	Low-Risk	20.0	60	9.3	53	9.2
9:59 - 10:10	Low-Risk	58.5	34.5	Low-Risk	20.0	59	9.2	52	9.0
10:11 - 10:23	Low-Risk	57.9	35.0	Low-Risk	20.0	58	9.1	51	8.8
10:24 - 10:37	Low-Risk	57.3	35.5	Moderate Risk	17.6	57	9.0	50	8.7
10:38 - 10:51	Low-Risk	56.6	36.0	Moderate Risk	17.0	56	8.9	49	8.5
10:52 - 11:06	Low-Risk	55.7	36.5	Moderate Risk	16.4	55	8.8	48	8.3
11:07 - 11:22	Low-Risk	54.8	37.0	Moderate Risk	15.8	54	8.8	47	8.0
11:23 - 11:38	Low-Risk	53.7	37.5 #	Moderate Risk	15.1	53	8.7	46 #	7.5
11:39 - 11:56	Low-Risk	52.4	38.0	Moderate Risk	14.4	52	8.6	45	7.0
11:57 - 12:14	Low-Risk	50.9	38.5	Moderate Risk	13.5	51	8.5	44	6.5
12:15 - 12:33	Low-Risk	49.2	39.0 *	Moderate Risk	12.6	50	8.4	43	6.3
12:34 - 12:53	Moderate Risk	47.2	39.5	High Risk	0	49	8.3	42 *	6.0
12:54 - 13:14 #	Moderate Risk	44.9	40.0	High Risk	0	48	8.1	41	0
13:15 - 13:36 *	Moderate Risk	42.3	40.5	High Risk	0	47	8.0	40	0
13:37 - 14:00	High Risk	0	41.0	High Risk	0	46	7.8	39	0
14:01 - 14:25	High Risk	0	41.5	High Risk	0	45	7.7	38	0
14:26 - 14:52	High Risk	0	42.0	High Risk	0	44 #	7.5	37	0
14:53 - 15:20	High Risk	0	42.5	High Risk	0	43	7.3	36	0
15:21 - 15:50	High Risk	0	43.0	High Risk	0	42	7.2	35	0
15:51 - 16:22	High Risk	0	≥ 43.5	High Risk	0	41	7.0	34	0
16:23 - 16:57	High Risk	0				40	6.8	33	0
≥ 16:58	High Risk	0				39	6.5	32	0
						38	6.3	31	0
						37	6.0	30	0
						36	5.8	≤ 29	0
						35	5.5		
						34	5.3		
						33 *	5.0		
						32	0		
						31	0		
						30	0		
						29	0		
						28	0		
						27	0		
						26	0		
						25	0		
						24	0		
						23	0		
						22	0		
						21	0		
						20	0		
						19	0		
						18	0		
						≤ 17	0		

NOTES:

Health Risk Category = low, moderate or high risk for current and future cardiovascular disease, diabetes, certain cancers, and other health problems

Passing Requirements - member *must*: 1) meet minimum value in each of the four components, *and* 2) achieve a composite point total ≥ 75 points

* Minimum Component Values

Run time ≤ 13:36 mins:secs / Abd Circ ≤ 39.0 inches

Push-ups ≥ 33 repetitions 'one minute / Sit-ups ≥ 42 repetitions 'one minute

Target Component Values

Member should attain or surpass these to achieve ≥ 75.0 composite score

Composite Score Categories

Excellent ≥ 90.0 pts / Satisfactory = 75.0 - 89.9 / Unsatisfactory < 75.0

A10.2. Fitness Assessment Chart – Male: Age: 30 – 39.

Cardiorespiratory Endurance			Body Composition			Muscle Fitness			
Run Time (mins:secs)	Health Risk Category	Points	AC (inches)	Health Risk Category	Points	Push-ups (reps/min)	Points	Sit-ups (reps/min)	Points
≤ 9:34	Low-Risk	60.0	≤ 32.5	Low-Risk	20.0	≥ 57	10.0	≥ 54	10.0
9:35 - 9:58	Low-Risk	59.3	33.0	Low-Risk	20.0	52	9.5	51	9.5
9:59 - 10:10	Low-Risk	58.6	33.5	Low-Risk	20.0	51	9.4	50	9.4
10:11 - 10:23	Low-Risk	57.9	34.0	Low-Risk	20.0	50	9.3	49	9.2
10:24 - 10:37	Low-Risk	57.3	34.5	Low-Risk	20.0	49	9.2	48	9.0
10:38 - 10:51	Low-Risk	56.6	35.0	Low-Risk	20.0	48	9.2	47	8.8
10:52 - 11:06	Low-Risk	55.7	35.5	Moderate Risk	17.6	47	9.1	46	8.7
11:07 - 11:22	Low-Risk	54.8	36.0	Moderate Risk	17.0	46	9.0	45	8.5
11:23 - 11:38	Low-Risk	53.7	36.5	Moderate Risk	16.4	45	8.9	44	8.3
11:39 - 11:56	Low-Risk	52.4	37.0	Moderate Risk	15.8	44	8.8	43	8.0
11:57 - 12:14	Low-Risk	50.9	37.5 #	Moderate Risk	15.1	43	8.7	42 #	7.5
12:15 - 12:33	Low-Risk	49.2	38.0	Moderate Risk	14.4	42	8.6	41	7.0
12:34 - 12:53	Low-Risk	47.2	38.5	Moderate Risk	13.5	41	8.5	40	6.5
12:54 - 13:14 #	Moderate Risk	44.9	39.0 *	Moderate Risk	12.6	40	8.3	39 *	6.0
13:15 - 13:36	Moderate Risk	42.3	39.5	High Risk	0	39	8.0	38	0
13:37 - 14:00 *	Moderate Risk	39.3	40.0	High Risk	0	38	7.8	37	0
14:01 - 14:25	High Risk	0	40.5	High Risk	0	37	7.7	36	0
14:26 - 14:52	High Risk	0	41.0	High Risk	0	36 #	7.5	35	0
14:53 - 15:20	High Risk	0	41.5	High Risk	0	35	7.3	34	0
15:21 - 15:50	High Risk	0	42.0	High Risk	0	34	7.0	33	0
15:51 - 16:22	High Risk	0	42.5	High Risk	0	33	6.8	32	0
16:23 - 16:57	High Risk	0	43.0	High Risk	0	32	6.7	31	0
≥ 16:58	High Risk	0	≥ 43.5	High Risk	0	31	6.5	30	0
						30	6.0	29	0
						29	5.5	28	0
						28	5.3	27	0
						27 *	5.0	26	0
						26	0	≤ 25	0
						25	0		
						24	0		
						23	0		
						22	0		
						21	0		
						20	0		
						19	0		
						18	0		
						17	0		
						16	0		
						15	0		
						14	0		
						13	0		
						≤ 12	0		

NOTES:

Health Risk Category = low, moderate or high risk for current and future cardiovascular disease, diabetes, certain cancers, and other health problems

Passing Requirements - member *must*: 1) meet minimum value in each of the four components, *and* 2) achieve a composite point total ≥ 75 points

* Minimum Component Values

Run time ≤ 14:00 mins:secs / Abd Circ ≤ 39.0 inches

Push-ups ≥ 27 repetitions/one minute / Sit-ups ≥ 39 repetitions/one minute

Target Component Values

Member should attain or surpass these to achieve ≥ 75.0 composite score

Composite Score Categories

Excellent ≥ 90.0 pts / Satisfactory = 75.0 - 89.9 / Unsatisfactory < 75.0

A10.3. Fitness Assessment Chart – Male: Age: 40 - 49

Cardiorespiratory Endurance			Body Composition			Muscle Fitness			
Run Time (mins:secs)	Health Risk Category	Points	AC (inches)	Health Risk Category	Points	Push-ups (reps/min)	Points	Sit-ups (reps/min)	Points
≤ 9:45	Low-Risk	60.0	≤ 32.5	Low-Risk	20.0	≥ 44	10.0	≥ 50	10.0
9:46 - 10:10	Low-Risk	59.8	33.0	Low-Risk	20.0	40	9.5	47	9.5
10:11 - 10:23	Low-Risk	59.5	33.5	Low-Risk	20.0	39	9.4	46	9.4
10:24 - 10:37	Low-Risk	59.1	34.0	Low-Risk	20.0	38	9.2	45	9.2
10:38 - 10:51	Low-Risk	58.7	34.5	Low-Risk	20.0	37	9.1	44	9.1
10:52 - 11:06	Low-Risk	58.3	35.0	Low-Risk	20.0	36	9.0	43	9.0
11:07 - 11:22	Low-Risk	57.7	35.5	Moderate Risk	17.6	35	8.8	42	8.8
11:23 - 11:38	Low-Risk	57.1	36.0	Moderate Risk	17.0	34	8.5	41	8.7
11:39 - 11:56	Low-Risk	56.3	36.5	Moderate Risk	16.4	33	8.4	40	8.5
11:57 - 12:14	Low-Risk	55.4	37.0	Moderate Risk	15.8	32	8.3	39	8.0
12:15 - 12:33	Low-Risk	54.3	37.5 #	Moderate Risk	15.1	31	8.1	38	7.8
12:34 - 12:53	Low-Risk	53.1	38.0	Moderate Risk	14.4	30	8.0	37 #	7.5
12:54 - 13:14	Low-Risk	51.5	38.5	Moderate Risk	13.5	29 #	7.5	36	7.0
13:15 - 13:36	Low-Risk	49.8	39.0 *	Moderate Risk	12.6	28	7.3	35	6.5
13:37 - 14:00	Moderate Risk	47.7	39.5	High Risk	0	27	7.2	34 *	6.0
14:01 - 14:25 #	Moderate Risk	45.2	40.0	High Risk	0	26	7.0	33	0
14:26 - 14:52 *	Moderate Risk	42.3	40.5	High Risk	0	25	6.5	32	0
14:53 - 15:20	High Risk	0	41.0	High Risk	0	24	6.0	31	0
15:21 - 15:50	High Risk	0	41.5	High Risk	0	23	5.8	30	0
15:51 - 16:22	High Risk	0	42.0	High Risk	0	22	5.5	29	0
16:23 - 16:57	High Risk	0	42.5	High Risk	0	21 *	5.0	28	0
16:58 - 17:34	High Risk	0	43.0	High Risk	0	20	0	27	0
17:35 - 18:14	High Risk	0	≥ 43.5	High Risk	0	19	0	26	0
≥ 18:15	High Risk	0				18	0	25	0
						17	0	24	0
						16	0	23	0
						15	0	22	0
						14	0	≤ 21	0
						13	0		
						12	0		
						11	0		
						10	0		
						9	0		
						≤ 8	0		

NOTES:

Health Risk Category = low, moderate or high risk for current and future cardiovascular disease, diabetes, certain cancers, and other health problems

Passing Requirements - member ***must***: 1) meet minimum value in each of the four components, ***and*** 2) achieve a composite point total ≥ 75 points

* Minimum Component Values

Run time ≤ 14:52 mins:secs / Abd Circ ≤ 39.0 inches

Push-ups ≥ 21 repetitions/one minute / Sit-ups ≥ 34 repetitions/one minute

= Target Component Values

Member should attain or surpass these to achieve ≥ 75.0 composite score

Composite Score Categories

Excellent ≥ 90.0 pts / Satisfactory = 75.0 - 89.9 / Unsatisfactory < 75.0

A10.4. Fitness Assesment Chart – Male: Age: 50 – 59.

Cardiorespiratory Endurance			Body Composition			Muscle Fitness			
Run Time (mins:secs)	Health Risk Category	Points	AC (inches)	Health Risk Category	Points	Push-ups (reps/min)	Points	Sit-ups (reps/min)	Points
≤ 10:37	Low-Risk	60.0	≤ 32.5	Low-Risk	20.0	≥ 44	10.0	≥ 46	10.0
10:38 - 11:06	Low-Risk	59.7	33.0	Low-Risk	20.0	39	9.5	43	9.5
11:07 - 11:22	Low-Risk	59.4	33.5	Low-Risk	20.0	38	9.4	42	9.4
11:23 - 11:38	Low-Risk	59.0	34.0	Low-Risk	20.0	37	9.4	41	9.2
11:39 - 11:56	Low-Risk	58.5	34.5	Low-Risk	20.0	36	9.3	40	9.1
11:57 - 12:14	Low-Risk	58.0	35.0	Low-Risk	20.0	35	9.3	39	9.0
12:15 - 12:33	Low-Risk	57.3	35.5	Moderate Risk	17.6	34	9.2	38	8.8
12:34 - 12:53	Low-Risk	56.5	36.0	Moderate Risk	17.0	33	9.2	37	8.7
12:54 - 13:14	Low-Risk	55.6	36.5	Moderate Risk	16.4	32	9.1	36	8.5
13:15 - 13:36	Low-Risk	54.5	37.0	Moderate Risk	15.8	31	9.1	35	8.0
13:37 - 14:00	Low-Risk	53.3	37.5 #	Moderate Risk	15.1	30	9.0	34	7.8
14:01 - 14:25	Low-Risk	51.8	38.0	Moderate Risk	14.4	29	8.8	33 #	7.5
14:26 - 14:52	Low-Risk	50.0	38.5	Moderate Risk	13.5	28	8.5	32	7.3
14:53 - 15:20	Moderate Risk	47.9	39.0 *	Moderate Risk	12.6	27	8.3	31	7.0
15:21 - 15:50 #	Moderate Risk	45.4	39.5	High Risk	0	26	8.2	30	6.5
15:51 - 16:22 *	Moderate Risk	42.4	40.0	High Risk	0	25	8.0	29	6.3
16:23 - 16:57	High Risk	0	40.5	High Risk	0	24 #	7.5	28 *	6.0
16:58 - 17:34	High Risk	0	41.0	High Risk	0	23	7.3	27	0
17:35 - 18:14	High Risk	0	41.5	High Risk	0	22	7.2	26	0
18:15 - 18:56	High Risk	0	42.0	High Risk	0	21	7.0	25	0
18:57 - 19:43	High Risk	0	42.5	High Risk	0	20	6.5	24	0
19:44 - 20:33	High Risk	0	43.0	High Risk	0	19	6.0	23	0
≥ 20:34	High Risk	0	≥ 43.5	High Risk	0	18	5.8	22	0
						17	5.5	21	0
NOTES:						16	5.3	20	0
Health Risk Category = low, moderate or high risk for current and future						15 *	5.0	19	0
cardiovascular disease, diabetes, certain cancers, and other health problems						14	0	18	0
						13	0	17	0
Passing Requirements - member *must*: 1) meet minimum value in each of						12	0	16	0
the four components, *and* 2) achieve a composite point total ≥ 75 points						11	0	15	0
						10	0	≤ 14	0
* Minimum Component Values						9	0		
Run time ≤ 16:22 mins:secs / Abd Circ ≤ 39.0 inches						8	0		
Push-ups ≥ 15 repetitions/one minute / Sit-ups ≥ 28 repetitions/one minute						7	0		
						6	0		
# Target Component Values						≤ 5	0		
Member should attain or surpass these to achieve ≥ 75.0 composite score									
Composite Score Categories									
Excellent ≥ 90.0 pts / Satisfactory = 75.0 - 89.9 / Unsatisfactory < 75.0									

A10.5. Fitness Assessment Chart – Male: AGE: 60+.

Cardiorespiratory Endurance			Body Composition			Muscle Fitness			
Run Time (mins:secs)	Health Risk Category	Points	AC (inches)	Health Risk Category	Points	Push-ups (reps/min)	Points	Sit-ups (reps/min)	Points
≤ 11:22	Low-Risk	60.0	≤ 32.5	Low-Risk	20.0	≥ 30	10.0	≥ 42	10.0
11:23 - 11:56	Low-Risk	59.7	33.0	Low-Risk	20.0	28	9.5	39	9.5
11:57 - 12:14	Low-Risk	59.4	33.5	Low-Risk	20.0	27	9.3	38	9.4
12:15 - 12:33	Low-Risk	59.0	34.0	Low-Risk	20.0	26	9.0	37	9.2
12:34 - 12:53	Low-Risk	58.5	34.5	Low-Risk	20.0	25	8.8	36	9.1
12:54 - 13:14	Low-Risk	58.0	35.0	Low-Risk	20.0	24	8.5	35	9.0
13:15 - 13:36	Low-Risk	57.3	35.5	Moderate Risk	17.6	23	8.0	34	8.9
13:37 - 14:00	Low-Risk	56.5	36.0	Moderate Risk	17.0	22 #	7.5	33	8.8
14:01 - 14:25	Low-Risk	55.6	36.5	Moderate Risk	16.4	21	7.0	32	8.6
14:26 - 14:52	Low-Risk	54.5	37.0	Moderate Risk	15.8	20	6.5	31	8.5
14:53 - 15:20	Low-Risk	53.3	37.5 #	Moderate Risk	15.1	19	6.3	30	8.0
15:21 - 15:50	Low-Risk	51.8	38.0	Moderate Risk	14.4	18	6.0	29	7.8
15:51 - 16:22	Low-Risk	50.0	38.5	Moderate Risk	13.5	17	5.8	28 #	7.5
16:23 - 16:57	Moderate Risk	47.9	39.0 *	Moderate Risk	12.6	16	5.5	27	7.3
16:58 - 17:34 #	Moderate Risk	45.4	39.5	High Risk	0	15	5.3	26	7.0
17:35 - 18:14 *	Moderate Risk	42.4	40.0	High Risk	0	14 *	5.0	25	6.8
18:15 - 18:56	High Risk	0	40.5	High Risk	0	13	0	24	6.5
18:57 - 19:43	High Risk	0	41.0	High Risk	0	12	0	23	6.3
19:44 - 20:33	High Risk	0	41.5	High Risk	0	11	0	22 *	6.0
20:34 - 21:28	High Risk	0	42.0	High Risk	0	10	0	21	0
21:29 - 22:28	High Risk	0	42.5	High Risk	0	9	0	20	0
22:29 - 23:34	High Risk	0	43.0	High Risk	0	8	0	19	0
≥ 23:35	High Risk	0	≥ 43.5	High Risk	0	7	0	18	0
						6	0	17	0
NOTES:						5	0	16	0
Health Risk Category = low, moderate or high risk for current and future						4	0	15	0
cardiovascular disease, diabetes, certain cancers, and other health problems						≤ 3	0	14	0
								13	0
Passing Requirements - member *must*: 1) meet minimum value in each of								12	0
the four components, *and* 2) achieve a composite point total ≥ 75 points								11	0
								10	0
* Minimum Component Values								≤ 9	0
Run time ≤ 18:14 mins:secs / Abd Circ ≤ 39.0 inches									
Push-ups ≥ 14 repetitions/one minute / Sit-ups ≥ 22 repetitions/one minute									
# Target Component Values									
Member should attain or surpass these to achieve ≥ 75.0 composite score									
Composite Score Categories									
Excellent ≥ 90.0 pts / Satisfactory = 75.0 - 89.9 / Unsatisfactory < 75.0									

A10.6. Fitness Assessment Chart – Female: Age: < 30.

Cardiorespiratory Endurance			Body Composition			Muscle Fitness			
Run Time (mins:secs)	Health Risk Category	Points	AC (inches)	Health Risk Category	Points	Push-ups (reps/min)	Points	Sit-ups (reps min)	Points
≤ 10:23	Low-Risk	60.0	≤ 29.0	Low Risk	20.0	≥ 47	10.0	≥ 54	10.0
10:24 - 10:51	Low-Risk	59.9	29.5	Low Risk	20.0	42	9.5	51	9.5
10:52 - 11:06	Low-Risk	59.5	30.0	Low Risk	20.0	41	9.4	50	9.4
11:07 - 11:22	Low-Risk	59.2	30.5	Low Risk	20.0	40	9.3	49	9.0
11:23 - 11:38	Low-Risk	58.9	31.0	Low Risk	20.0	39	9.2	48	8.9
11:39 - 11:56	Low-Risk	58.6	31.5	Low Risk	20.0	38	9.1	47	8.8
11:57 - 12:14	Low-Risk	58.1	32.0	Moderate Risk	17.6	37	9.0	46	8.6
12:15 - 12:33	Low-Risk	57.6	32.5	Moderate Risk	17.1	36	8.9	45	8.5
12:34 - 12:53	Low-Risk	57.0	33.0	Moderate Risk	16.5	35	8.8	44	8.0
12:54 - 13:14	Low-Risk	56.2	33.5	Moderate Risk	15.9	34	8.6	43	7.8
13:15 - 13:36	Low-Risk	55.3	34.0 #	Moderate Risk	15.2	33	8.5	42 #	7.5
13:37 - 14:00	Low-Risk	54.2	34.5	Moderate Risk	14.5	32	8.4	41	7.0
14:01 - 14:25	Low-Risk	52.8	35.0	Moderate Risk	13.7	31	8.3	40	6.8
14:26 - 14:52	Low-Risk	51.2	35.5 *	Moderate Risk	12.8	30	8.2	39	6.5
14:53 - 15:20	Moderate Risk	49.3	36.0	High Risk	0	29	8.1	38 *	6.0
15:21 - 15:50 #	Moderate Risk	46.9	36.5	High Risk	0	28	8.0	37	0
15:51 - 16:22 *	Moderate Risk	44.1	37.0	High Risk	0	27 #	7.5	36	0
16:23 - 16:57	High Risk	0	37.5	High Risk	0	26	7.3	35	0
16:58 - 17:34	High Risk	0	38.0	High Risk	0	25	7.2	34	0
17:35 - 18:14	High Risk	0	38.5	High Risk	0	24	7.0	33	0
18:15 - 18:56	High Risk	0	39.0	High Risk	0	23	6.5	32	0
18:57 - 19:43	High Risk	0	39.5	High Risk	0	22	6.3	31	0
19:44 - 20:33	High Risk	0	≥ 40.0	High Risk	0	21	6.0	30	0
≥ 20:34	High Risk	0				20	5.8	29	0
						19	5.5	28	0
						18 *	5.0	27	0
						17	0	26	0
						16	0	25	0
						15	0	24	0
						14	0	23	0
						13	0	≤ 22	0
						12	0		
						11	0		
						10	0		
						9	0		
						8	0		
						≤ 7	0		

NOTES:

Health Risk Category = low, moderate or high risk for current and future cardiovascular disease, diabetes, certain cancers, and other health problems

Passing Requirements - member *must*: 1) meet minimum value in each of the four components, *and* 2) achieve a composite point total ≥ 75 points

* Minimum Component Values

Run time ≤ 16:22 mins:secs / Abd Circ ≤ 35.5 inches

Push-ups ≥ 18 repetitions/one minute / Sit-ups ≥ 38 repetitions/one minute

Target Component Values

Member should attain or surpass these to achieve ≥ 75.0 composite score

Composite Score Categories

Excellent ≥ 90.0 pts / Satisfactory = 75.0 - 89.9 / Unsatisfactory < 75.0

A10.7. Fitness Assessment Chart – Female: Age: 30 – 39.

Cardiorespiratory Endurance			Body Composition			Muscle Fitness			
Run Time (mins:secs)	Health Risk Category	Points	AC (inches)	Health Risk Category	Points	Push-ups (reps/min)	Points	Sit-ups (reps/min)	Points
≤ 10:51	Low-Risk	60.0	≤ 29.0	Low Risk	20.0	≥ 46	10.0	≥ 45	10.0
10:52 - 11:22	Low-Risk	59.5	29.5	Low Risk	20.0	40	9.5	42	9.5
11:23 - 11:38	Low-Risk	59.0	30.0	Low Risk	20.0	39	9.4	41	9.4
11:39 - 11:56	Low-Risk	58.6	30.5	Low Risk	20.0	38	9.3	40	9.0
11:57 - 12:14	Low-Risk	58.1	31.0	Low Risk	20.0	37	9.3	39	8.8
12:15 - 12:33	Low-Risk	57.6	31.5	Low Risk	20.0	36	9.2	38	8.5
12:34 - 12:53	Low-Risk	57.0	32.0	Moderate Risk	17.6	35	9.1	37	8.3
12:54 - 13:14	Low-Risk	56.2	32.5	Moderate Risk	17.1	34	9.1	36	8.2
13:15 - 13:36	Low-Risk	55.3	33.0	Moderate Risk	16.5	33	9.0	35	8.0
13:37 - 14:00	Low-Risk	54.2	33.5	Moderate Risk	15.9	32	8.9	34	7.8
14:01 - 14:25	Low-Risk	52.8	34.0 #	Moderate Risk	15.2	31	8.9	33 #	7.5
14:26 - 14:52	Low-Risk	51.2	34.5	Moderate Risk	14.5	30	8.8	32	7.0
14:53 - 15:20	Low-Risk	49.3	35.0	Moderate Risk	13.7	29	8.7	31	6.8
15:21 - 15:50 #	Moderate Risk	46.9	35.5 *	Moderate Risk	12.8	28	8.6	30	6.5
15:51 - 16:22	Moderate Risk	44.1	36.0	High Risk	0	27	8.6	29 *	6.0
16:23 - 16:57 *	Moderate Risk	40.8	36.5	High Risk	0	26	8.5	28	0
16:58 - 17:34	High Risk	0	37.0	High Risk	0	25	8.3	27	0
17:35 - 18:14	High Risk	0	37.5	High Risk	0	24	8.2	26	0
18:15 - 18:56	High Risk	0	38.0	High Risk	0	23	8.0	25	0
18:57 - 19:43	High Risk	0	38.5	High Risk	0	22	7.9	24	0
19:44 - 20:33	High Risk	0	39.0	High Risk	0	21	7.8	23	0
≥ 20:34	High Risk	0	39.5	High Risk	0	20	7.6	22	0
			≥ 40.0	High Risk	0	19 #	7.5	21	0
						18	7.0	20	0
						17	6.8	19	0
						16	6.5	18	0
						15	6.0	17	0
						14 *	5.0	16	0
						13	0	15	0
						12	0	≤ 14	0
						11	0		
						10	0		
						9	0		
						8	0		
						7	0		
						6	0		
						≤ 5	0		

NOTES:

Health Risk Category = low, moderate or high risk for current and future cardiovascular disease, diabetes, certain cancers, and other health problems

Passing Requirements - member *must*: 1) meet minimum value in each of the four components, *and* 2) achieve a composite point total ≥ 75 points

* Minimum Component Values

Run time ≤ 16:57 mins:secs / Abd Circ ≤ 35.5 inches

Push-ups ≥ 14 repetitions/one minute / Sit-ups ≥ 29 repetitions/one minute

Target Component Values

Member should attain or surpass these to achieve ≥ 75.0 composite score

Composite Score Categories

Excellent ≥ 90.0 pts / Satisfactory = 75.0 - 89.9 / Unsatisfactory < 75.0

A10.8. Fitness Assessment Chart – Female: Age: 40 – 49.

Cardiorespiratory Endurance			Body Composition			Muscle Fitness			
Run Time (mins:secs)	Health Risk Category	Points	AC (inches)	Health Risk Category	Points	Push-ups (reps/min)	Points	Sit-ups (reps/min)	Points
≤ 11:22	Low-Risk	60.0	≤ 29.0	Low Risk	20.0	≥ 38	10.0	≥ 41	10.0
11:23 - 11:56	Low-Risk	59.9	29.5	Low Risk	20.0	33	9.5	38	9.5
11:57 - 12:14	Low-Risk	59.8	30.0	Low Risk	20.0	32	9.4	37	9.4
12:15 - 12:33	Low-Risk	59.6	30.5	Low Risk	20.0	31	9.2	36	9.2
12:34 - 12:53	Low-Risk	59.4	31.0	Low Risk	20.0	30	9.1	35	9.1
12:54 - 13:14	Low-Risk	59.1	31.5	Low Risk	20.0	29	9.0	34	9.0
13:15 - 13:36	Low-Risk	58.7	32.0	Moderate Risk	17.6	28	8.9	33	8.8
13:37 - 14:00	Low-Risk	58.2	32.5	Moderate Risk	17.1	27	8.8	32	8.5
14:01 - 14:25	Low-Risk	57.7	33.0	Moderate Risk	16.5	26	8.7	31	8.3
14:26 - 14:52	Low-Risk	56.9	33.5	Moderate Risk	15.9	25	8.6	30	8.2
14:53 - 15:20	Low-Risk	56.0	34.0 #	Moderate Risk	15.2	24	8.6	29	8.0
15:21 - 15:50	Low-Risk	54.8	34.5	Moderate Risk	14.5	23	8.5	28 #	7.5
15:51 - 16:22	Low-Risk	53.3	35.0	Moderate Risk	13.7	22	8.4	27	7.0
16:23 - 16:57	Moderate Risk	51.4	35.5 *	Moderate Risk	12.8	21	8.3	26	6.8
16:58 - 17:34	Moderate Risk	49.0	36.0	High Risk	0	20	8.2	25	6.4
17:35 - 18:14 *#	Moderate Risk	45.9	36.5	High Risk	0	19	8.1	24 *	6.0
18:15 - 18:56	High Risk	0	37.0	High Risk	0	18	8.0	23	0
18:57 - 19:43	High Risk	0	37.5	High Risk	0	17	7.8	22	0
19:44 - 20:33	High Risk	0	38.0	High Risk	0	16 #	7.5	21	0
20:34 - 21:28	High Risk	0	38.5	High Risk	0	15	7.0	20	0
21:29 - 22:28	High Risk	0	39.0	High Risk	0	14	6.5	19	0
≥ 22:29	High Risk	0	39.5	High Risk	0	13	6.0	18	0
			≥ 40.0	High Risk	0	12	5.5	17	0
						11 *	5.0	16	0
						10	0	15	0
						9	0	14	0
						8	0	13	0
						7	0	12	0
						6	0	11	0
						5	0	10	0
						4	0	≤ 9	0
						≤ 3	0		

NOTES:

Health Risk Category = low, moderate or high risk for current and future cardiovascular disease, diabetes, certain cancers, and other health problems

Passing Requirements - member *must*: 1) meet minimum value in each of the four components, *and* 2) achieve a composite point total ≥ 75 points

* Minimum Component Values

Run time ≤ 18:14 mins:secs / Abd Circ ≤ 35.5 inches

Push-ups ≥ 11 repetitions/one minute / Sit-ups ≥ 24 repetitions/one minute

Target Component Values

Member should attain or surpass these to achieve ≥ 75.0 composite score

Composite Score Categories

Excellent ≥ 90.0 pts / Satisfactory = 75.0 - 89.9 / Unsatisfactory < 75.0

A10.9. Fitness Assessment Chart – Female: Age: 50 – 59.

Cardiorespiratory Endurance			Body Composition			Muscle Fitness			
Run Time (mins:secs)	Health Risk Category	Points	AC (inches)	Health Risk Category	Points	Push-ups (reps/min)	Points	Sit-ups (reps/min)	Points
≤ 12:53	Low-Risk	60.0	≤ 29.0	Low Risk	20.0	≥ 35	10.0	≥ 32	10.0
12:54 - 13:36	Low-Risk	59.8	29.5	Low Risk	20.0	30	9.5	30	9.5
13:37 - 14:00	Low-Risk	59.6	30.0	Low Risk	20.0	29	9.4	29	9.0
14:01 - 14:25	Low-Risk	59.3	30.5	Low Risk	20.0	28	9.3	28	8.9
14:26 - 14:52	Low-Risk	58.9	31.0	Low Risk	20.0	27	9.2	27	8.8
14:53 - 15:20	Low-Risk	58.4	31.5	Low Risk	20.0	26	9.1	26	8.6
15:21 - 15:50	Low-Risk	57.7	32.0	Moderate Risk	17.6	25	9.0	25	8.5
15:51 - 16:22	Low-Risk	56.8	32.5	Moderate Risk	17.1	24	8.8	24	8.0
16:23 - 16:57	Low-Risk	55.6	33.0	Moderate Risk	16.5	23	8.7	23 #	7.5
16:58 - 17:34	Low-Risk	54.0	33.5	Moderate Risk	15.9	22	8.6	22	7.0
17:35 - 18:14	Low-Risk	51.9	34.0 #	Moderate Risk	15.2	21	8.6	21	6.5
18:15 - 18:56	Moderate Risk	49.2	34.5	Moderate Risk	14.5	20	8.5	20 *	6.0
18:57 - 19:43 *#	Moderate Risk	45.5	35.0	Moderate Risk	13.7	19	8.4	19	0
19:44 - 20:33	High Risk	0	35.5 *	Moderate Risk	12.8	18	8.3	18	0
20:34 - 21:28	High Risk	0	36.0	High Risk	0	17	8.2	17	0
21:29 - 22:28	High Risk	0	36.5	High Risk	0	16	8.1	16	0
22:29 - 23:34	High Risk	0	37.0	High Risk	0	15	8.0	15	0
≥ 23:35	High Risk	0	37.5	High Risk	0	14 #	7.5	14	0
			38.0	High Risk	0	13	7.0	13	0
			38.5	High Risk	0	12	6.5	12	0
			39.0	High Risk	0	11	6.0	11	0
			39.5	High Risk	0	10	5.5	10	0
			≥ 40.0	High Risk	0	9 *	5.0	9	0
						8	0	8	0
						7	0	7	0
						6	0	6	0
						5	0	≤ 5	0
						4	0		
						3	0		
						≤2	0		

NOTES:

Health Risk Category = low, moderate or high risk for current and future cardiovascular disease, diabetes, certain cancers, and other health problems

Passing Requirements - member *must*: 1) meet minimum value in each of the four components, *and* 2) achieve a composite point total ≥ 75 points

* Minimum Component Values

Run time ≤ 19:43 mins:secs / Abd Circ ≤ 35.5 inches

Push-ups ≥ 9 repetitions/one minute / Sit-ups ≥ 20 repetitions/one minute

Target Component Values

Member should attain or surpass these to achieve ≥ 75.0 composite score

Composite Score Categories

Excellent ≥ 90.0 pts / Satisfactory = 75.0 - 89.9 / Unsatisfactory < 75.0

A10.10. Fitness Assessment Chart – Female: Age: 60+.

Cardiorespiratory Endurance			Body Composition			Muscle Fitness			
Run Time (mins:secs)	Health Risk Category	Points	AC (inches)	Health Risk Category	Points	Push-ups (reps/min)	Points	Sit-ups (reps/min)	Points
≤ 14:00	Low-Risk	60.0	≤ 29.0	Low Risk	20.0	≥ 21	10.0	≥ 31	10.0
14:01 - 14:52	Low-Risk	59.8	29.5	Low Risk	20.0	19	9.5	28	9.5
14:53 - 15:20	Low-Risk	59.5	30.0	Low Risk	20.0	18	9.4	27	9.4
15:21 - 15:50	Low-Risk	59.1	30.5	Low Risk	20.0	17	9.0	26	9.0
15:51 - 16:22	Low-Risk	58.6	31.0	Low Risk	20.0	16	8.8	25	8.9
16:23 - 16:57	Low-Risk	57.9	31.5	Low Risk	20.0	15	8.5	24	8.8
16:58 - 17:34	Low-Risk	57.0	32.0	Moderate Risk	17.6	14	8.0	23	8.7
17:35 - 18:14	Low-Risk	55.8	32.5	Moderate Risk	17.1	13 #	7.5	22	8.6
18:15 - 18:56	Low-Risk	54.2	33.0	Moderate Risk	16.5	12	7.0	21	8.5
18:57 - 19:43	Low-Risk	52.1	33.5	Moderate Risk	15.9	11	6.5	20	8.4
19:44 - 20:33	Moderate Risk	49.3	34.0 #	Moderate Risk	15.2	10	6.0	19	8.3
20:34 - 21:28 #	Moderate Risk	45.6	34.5	Moderate Risk	14.5	9	5.7	18	8.2
21:29 - 22:28 *	Moderate Risk	40.8	35.0	Moderate Risk	13.7	8	5.3	17	8.0
22:29 - 23:34	High Risk	0	35.5 *	Moderate Risk	12.8	7 *	5.0	16	7.8
23:35 - 24:46	High Risk	0	36.0	High Risk	0	6	0	15 #	7.5
24:47 - 26:06	High Risk	0	36.5	High Risk	0	5	0	14	7.3
≥ 26:07	High Risk	0	37.0	High Risk	0	4	0	13	7.0
			37.5	High Risk	0	3	0	12	6.5
			38.0	High Risk	0	2	0	11 *	6.0
			38.5	High Risk	0	≤1	0	10	0
			39.0	High Risk	0			9	0
			39.5	High Risk	0			8	0
			≥ 40.0	High Risk	0			7	0
								6	0
								5	0
								4	0
								3	0
								2	0
								≤1	0

NOTES:

Health Risk Category = low, moderate or high risk for current and future cardiovascular disease, diabetes, certain cancers, and other health problems

Passing Requirements - member ***must***: 1) meet minimum value in each of the four components, ***and*** 2) achieve a composite point total ≥ 75 points

* Minimum Component Values:

Run time ≤ 22:28 mins:secs / Abd Circ ≤ 35.5 inches

Push-ups ≥ 7 repetitions/one minute / Sit-ups ≥ 11 repetitions/one minute

Target Component Values

Member should attain or surpass these to achieve ≥ 75.0 composite score

Composite Score Categories

Excellent ≥ 90.0 pts / Satisfactory = 75.0 - 89.9 / Unsatisfactory < 75.0

Attachment 11

2.0-KILOMETER TIMED WALK INSTRUCTIONS

A11.1. Criteria. The following criteria must be considered prior to the 2.0-kilometer timed walk assessment.

A11.1.1. Members completing the assessment must wear the Air Force physical training uniform.

A11.1.2. Members must warm-up prior to beginning the assessment.

A11.1.3. Members must complete the FSQ.

A11.1.4. Course safety/environmental conditions as described in **Attachment 6** (paragraph A6.2).

A11.2. Requirements.

A11.2.1. A measured 2.0-kilometer, uninterrupted course approved by the Wing CC. The course will meet requirements of paragraph A6.1., with the exception of the number of laps.

A11.2.2. Sufficient trained personnel must be present to be able to monitor members at all times, to record laps if necessary, and to record walk completion times.

A11.2.3. Additional equipment requirements include timers, notepads, scorecards, and pens/pencils.

A11.3. Administering the 2.0-kilometer walk assessment.

A11.3.1. Airmen performing the 2.0-kilometer (2,000 meters) walk are required to walk as quickly as possible. Airmen must walk but not run, keeping at least one foot in contact with the ground at all times.

A11.4. Scoring results of the 2.0-kilometer walk assessment.

A11.4.1. The walk test is a pass or fail assessment. No points are awarded for successful completion. If an Airman passes the 2.0 km walk test, the Airman will have a composite score calculated on the assessed components in the same way the score would be calculated if the Airman were exempt from the aerobic component. Use test standards in **Attachment 12.**

Attachment 12

ALTERNATE AEROBIC TEST STANDARDS

A12.1. The 2.0-Kilometer Walk Test Standards.

Male Standards		Female Standards	
Age (yrs)	Maximum Time (mins:secs)	Age (yrs)	Maximum Time (mins:secs)
< 30	16:16	<30	17:22
30-39	16:18	30-39	17:28
40-49	16:23	40-49	17:49
50-59	16:40	50-59	18:11
60+	16:58	60+	18:53

Attachment 13

TABLE A13.1. MAXIMUM BODY MASS INDEX (BMI) STANDARDS:

Represents Maximum Allowable Weights for BMI of 25 kg/m^2 (regardless of age and gender)																							
Height (inches)	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
Weight (pounds)	119	124	128	132	136	141	145	150	155	159	164	169	174	179	184	189	194	200	205	210	216	221	227

Attachment 14

ADMINISTRATIVE AND PERSONNEL ACTIONS FOR FAILING TO ATTAIN PHYSICAL FITNESS STANDARDS

***Table A14.1. M A N D A T O R Y Administrative and Personnel Actions for Failing to Attain Physical Fitness Standards (within a 24-month period IAW para 10.1.5.3. and 36-month period IAW para 10.1.5.3.1.).**

Unsatisfactory Fitness Score by PECD/SCOD (Enlisted)				
Defer or Withhold Promotion or Not Recommend (Enlisted)	X	X	X	X

***Table A14.2. OPTIONAL Administrative and Personnel Actions for Failing to Attain Physical Fitness Standards (within a 24-month period IAW para 10.1.5.3. and 36-month period IAW para 10.1.5.3.1.).**

Unsatisfactory Fitness Score	1st Fail	2nd Fail	3rd Fail	4th+ Fail
Options				
Verbal Counseling	Use anytime and as often as needed and in conjunction with other options below			
Letter of Counseling	X	X		
Letter of Admonition	X	X		
Limit Supervisory Responsibilities	X	X	X	X
Letter of Reprimand	X	X	X	X
Referral Evaluation	X	X	X	X
Delay Promotion (Officer), see AFI 36-250,1 Chapter 5	X	X	X	X
Establish Unfavorable Information File (UIF)		X	X	X
Reenlistment Ineligibility (see NOTE 1)		X	X	X
Remove Supervisory Responsibilities			X	X
Deny Voluntary Retraining			X	X
Deny Formal Training			X	X
Placement on Control Roster			X	X
Reenlistment Non-selection (see NOTE 1 - 2)			X	X
Remove Promotion (Officer)			X	X
Administrative Demotion (Enlisted)			X	X
Administrative Separation				X
(ARC only) Transfer to Obligated Reserve Section or Non-obligated, Non-participating Ready Personnel Section				X

***NOTES: This illustrative and not binding.** Unit commanders exercise discretion when selecting OPTIONAL command action(s) keeping in consideration the need for progressive discipline and the requirement for a separation package to be processed after the 4th failure in 24 months (or 36 months, when applicable IAW 10.1.5.3.1.). Commanders may use more than one action per failure. Recommend commanders consult with their local Staff Judge Advocate (SJA). Refer to the governing instructions to determine the correct form and procedures for each action. **NOTES:**1. Commanders may render an Airman ineligible for reenlistment rather than denying reenlistment by specifying ineligibility versus non-selection on the AF Form 418, *Selective Reenlistment Program Consideration.* This allows the flexibility of authorizing Airmen to extend their reenlistment for either 4 or 7 months (7 or 12 for ARC) to improve their fitness level. Airmen non-selected for reenlistment are not allowed to extend for any reason and will separate on the date of separation (DOS). Commanders may complete a second AF Form 418 changing the Airman's ineligibility or non-selection status at any time.

2. For ARC, the use of this option should be weighed against use of administrative separation and is applicable where recall of this member would not jeopardize mission readiness.

3. If an Airman has a history of FA failures, then passes, only to fail again – commanders should consider a more aggressive approach for OPTIONAL actions.

Attachment 15

SAMPLE MEMORANDUM FOR MEDICAL VALIDATION OF FITNESS ASSESSMENT ILLNESS/INJURY

A15.1. Sample Memorandum.

(Appropriate Letterhead)

MEMORANDUM FOR UNIT COMMANDER (date)

FROM: (Medical Provider)

SUBJECT: Medical Validation of Fitness Assessment Illness/Injury

I evaluated (rank, name) on (date) for a reported injury or illness that occurred during the fitness assessment on (date) IAW AFI 36-2905, Fitness Program.

I (validate / do not validate) the reported injury or illness adversely impacted the fitness assessment score.

(Signature/Rank/Phone Number of Provider)

Attachment 16

SAMPLE MEMORANDUM FOR MEDICAL EVALUATION FOLLOWING MULTIPLE UNSATISFACTORY FITNESS ASSESSMENTS

MEMORANDUM FOR MEDICAL PROVIDER

FROM: _____/CC(F)
(Unit)

SUBJECT: Medical Condition Determination for Fitness Assessment (FA) Test Failures

Please determine whether there was a medical condition that precluded _____ _____ from achieving a passing score
(Rank/Name)

on the FA tests identified in the table below. Please contact me at DSN _____ with any questions.

_____, _____, USAF
(Name) (Rank)

Commander/First Sergeant

1st Ind, MEDICAL PROVIDER

TO: UNIT/CC(F)

1. I have reviewed the member's medical record for each of the following FA tests as indicated by my initials below. I may be reached at DSN

Filled in by Unit (CC, CCF, or UFPM)						**Completed by Medical Provider**	
Member took FA tests on:	For this test, member was:					For this test, member:	
(Fill in FA failures for which a medical determination is required. If there is already a medical opinion on past failure, do NOT request another medical determination for that test.)	**not** exempt from any portion of the FA test.	exempt from run/ walk.	exempt from sit-ups.	exempt from push-ups.	exempt from abdominal circumference measurement.	**had** a documented medical condition that precluded him/her from achieving a passing score in a non-exempt portion of the FA test.	**did not have** a documented medical condition that precluded him/her from achieving a passing score in a non-exempt portion of the FA test.
___/___/___	☐	☐	☐	☐	☐	☐	☐
___/___/___	☐	☐	☐	☐	☐	☐	☐
___/___/___	☐	☐	☐	☐	☐	☐	☐
___/___/___	☐	☐	☐	☐	☐	☐	☐

_____
Signature & Stamp of Medical Provider and Date

_____
Signature & Stamp of Senior Profiling Officer and Date

This document/attachment may contain information which must be protected IAW AFI 33-332 and DoD Reg 5400.11; Privacy Act of 1974 as amended 5 U.S.C. 552a applies, and is For Official Use Only (FOUO). RECIPIENT IS RESPONSIBLE FOR SAFEGUARDING AND MAINTAINING THIS PRODUCT IAW THE PRIVACY ACT OF 1974, PL 93-579.

Attachment 17

ALTITUDE TIME CORRECTION FOR 1.5 MILE RUN

A17.1. Altitude Time Correction For 1.5 Mile Run.

	Group 1	Group 2	Group 3	Group 4
	Test altitude between	Test altitude between	Test altitude between	Test altitude at or greater than
	5250 ft - 5499 ft	5500 ft - 5999 ft	6000 ft - 6599 ft	6600 ft
1.5 Mile Run Time (min:sec)	Altitude correction (sec)	Altitude correction (sec)	Altitude correction (sec)	Altitude correction (sec)
≤ 9:12	0:02	0:06	0:11	0:18
9:13 - 9:22	0:02	0:06	0:11	0:18
9:23 - 9:34	0:02	0:06	0:11	0:19
9:35 - 9:45	0:02	0:07	0:12	0:20
9:46 - 9:58	0:02	0:07	0:12	0:20
9:59 - 10:10	0:02	0:07	0:12	0:20
10:11 - 10:23	0:02	0:07	0:12	0:21
10:24 - 10:37	0:02	0:07	0:12	0:21
10:38 - 10:51	0:02	0:08	0:13	0:22
10:52 - 11:06	0:02	0:08	0:13	0:22
11:07 - 11:22	0:02	0:08	0:13	0:22
11:23 - 11:38	0:03	0:08	0:14	0:23
11:39 - 11:56	0:03	0:09	0:15	0:24
11:57 - 12:14	0:03	0:09	0:15	0:25
12:15 - 12:33	0:03	0:09	0:15	0:26
12:34 - 12:53	0:03	0:09	0:16	0:26
12:54 - 13:14	0:03	0:09	0:16	0:27
13:15 - 13:36	0:03	0:10	0:16	0:28
13:37 - 14:00	0:03	0:10	0:17	0:28
14:01 - 14:25	0:03	0:10	0:17	0:29
14:26 - 14:52	0:03	0:11	0:18	0:31
14:53 - 15:20	0:03	0:11	0:18	0:31
15:21 - 15:50	0:04	0:11	0:19	0:32
15:51 - 16:22	0:04	0:12	0:20	0:34
16:23 - 16:57	0:05	0:13	0:21	0:36
16:58 - 17:34	0:05	0:13	0:22	0:37
17:35 - 18:14	0:05	0:14	0:23	0:38
18:15 - 18:56	0:05	0:14	0:24	0:40
18:57 - 19:43	0:05	0:15	0:25	0:42
19:44 - 20:33	0:05	0:15	0:26	0:43
20:34 - 21:28	0:06	0:17	0:28	0:46
21:29 - 22:28	0:06	0:18	0:29	0:49
22:29 - 23:34	0:06	0:18	0:31	0:51
23:35 - 24:46	0:06	0:19	0:32	0:54
24:47 - 26:06	0:07	0:20	0:34	0:57
≥ 26:07	0:08	0:22	0:37	1:02

A17.2. Altitude Time Correction For 2.0 Kilometer Walk (Male).

				Group 1		Group 2		Group 3		Group 4
				5250 ft – 5500 ft		5500 ft – 6000 ft		6000 ft – 6600 ft		> 6600 ft
Age (yrs)		2.0 km Maximum Walk Time		2.0 km Maximum Walk Time		2.0 km Maximum Walk Time		2.0 km Maximum Walk Time		2.0 km Maximum Walk Time
		(min:secs)		(min:secs)		(min:secs)		(min:secs)		(min:secs)
< 30		16:16		16:18		16:22		16:25		16:31
30 - 39		16:18		16:20		16:24		16:27		16:33
40 - 49		16:23		16:25		16:28		16:31		16:37
50 - 59		16:40		16:42		16:45		16:48		16:53
60 +		16:58		16:59		17:02		17:05		17:10

A17.3. Altitude Time Correction For 2.0 Kilometer Walk (Female).

				Group 1		Group 2		Group 3		Group 4
		(min:secs)		5250 ft – 5500 ft		5500 ft – 6000 ft		6000 ft – 6600 ft		> 6600 ft
Age (yrs)		2.0 km Maximum Walk Time		2.0 km Maximum Walk Time		2.0 km Maximum Walk Time		2.0 km Maximum Walk Time		2.0 km Maximum Walk Time
		(min:secs)		(min:secs)		(min:secs)		(min:secs)		(min:secs)
< 30		17:22		17:25		17:30		17:34		17:42
30 - 39		17:28		17:30		17:35		17:40		17:47
40 - 49		17:49		17:52		17:56		18:00		18:07
50 - 59		18:11		18:13		18:17		18:21		18:28
60 +		18:53		18:54		18:58		19:02		19:08

Attachment 18

WRITTEN ORDER FOR FAC AUGMENTEES

A18.1. Sample Order.

Date:

MEMORANDUM FOR FAC REPRESENTATIVES, UFPMs, AND FAC AUGMENTEES

FROM: (Installation Commander - highly recommended)

SUBJECT: Written Order – Duties Associated with Air Force Fitness Program

1. Part of your duties in the Air Force Fitness Program will require you to have access to sensitive and protected Privacy Act information regarding Air Force members. That information includes, but is not limited to, fitness test scores, social security numbers (SSN), and medical information.

2. You are hereby ordered to correctly record all fitness test results as required as part of your duties. You will not alter or change an Air Force member's fitness test results. You are also ordered not to release, reveal, or disclose any Air Force member's fitness scores, SSNs, medical information or other information received as part of your duties associated with the Air Force Fitness Program.

3. Violations of this order may subject you to administrative and/or disciplinary action under the Uniform Code of Military Justice (UCMJ).

_____

(Commander's Signature)

Date:

1st Ind, (Member's name and office symbol)

MEMORANDUM FOR

I hereby acknowledge understanding and receipt of this order.

_____

(AF Member's Signature)

Attachment 19

BODY FAT ASSESSMENT (BFA) INSTRUCTIONS

Table A19.1. Instructions (Male).

NECK:	With the member looking straight ahead and shoulders down (not hunched), measure the neck circumference at a point just below the larynx (Adams Apple). Because of the shape of the neck, the tape will usually be angled down slightly toward the front similar to the shirt collar line. This angle will vary depending on where the larynx is located. **Round the neck measurement up to the nearest quarter inch.**
ABDOMEN:	With the member standing with arms at his sides and at the end of a normal relaxed exhalation, measure the abdominal circumference at the navel while keeping the tape level (horizontal) to the floor. Ensure the tape measure is horizontal all the way around the abdomen. **Round the abdomen measurement down to the nearest quarter inch.**
BODY FAT PERCENTAGE DETERMINATION:	Determine the individual's body fat percentage by: Subtracting the neck measurement from the abdominal measurement to determine the circumference value. Use the Body Fat Percent Tables for Men at **Attachment 20** and compare this value to the individual's height measurement.

Figure A19.1. Male Neck Measurement (Front View).

Figure A19.2. Male Neck Measurement (Side View).

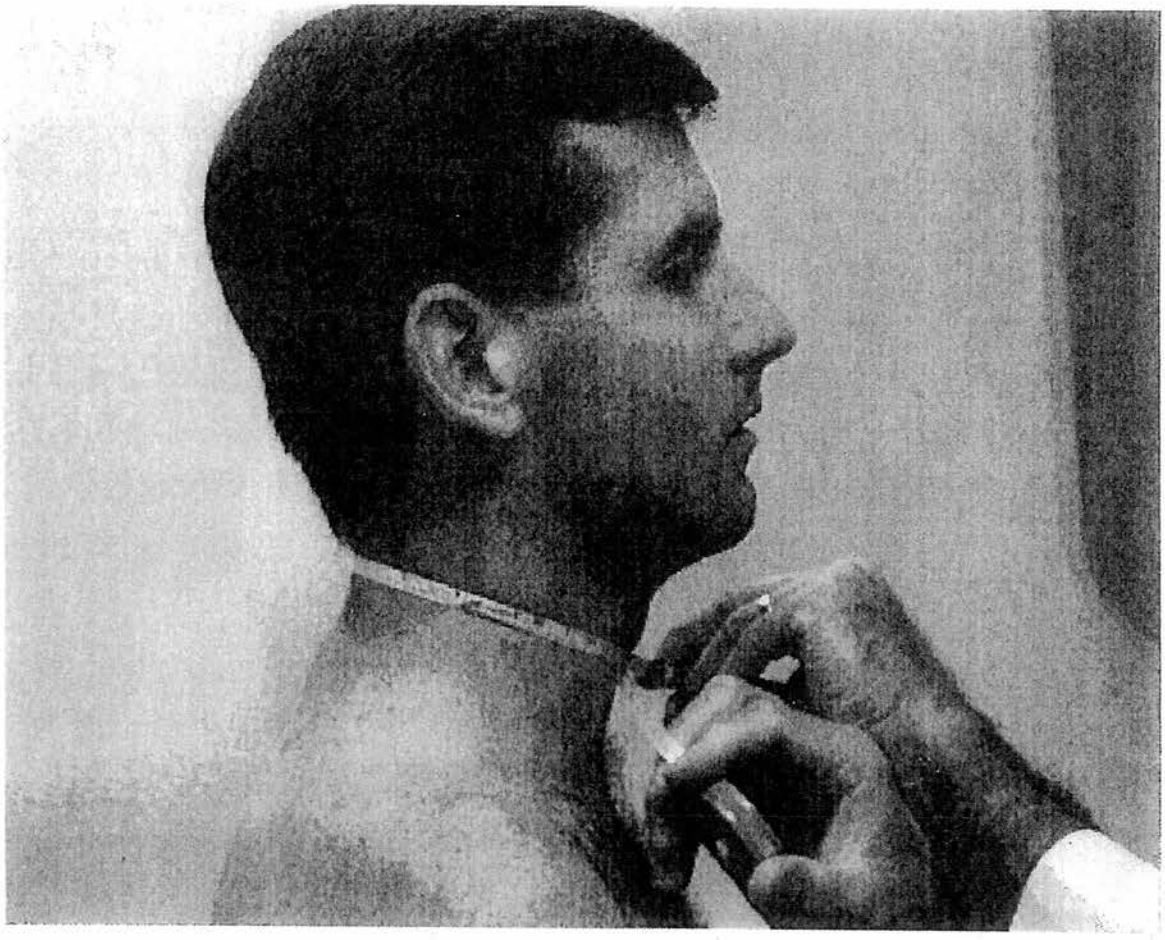


Figure A19.3. Male Waist Measurement (Frontal View).

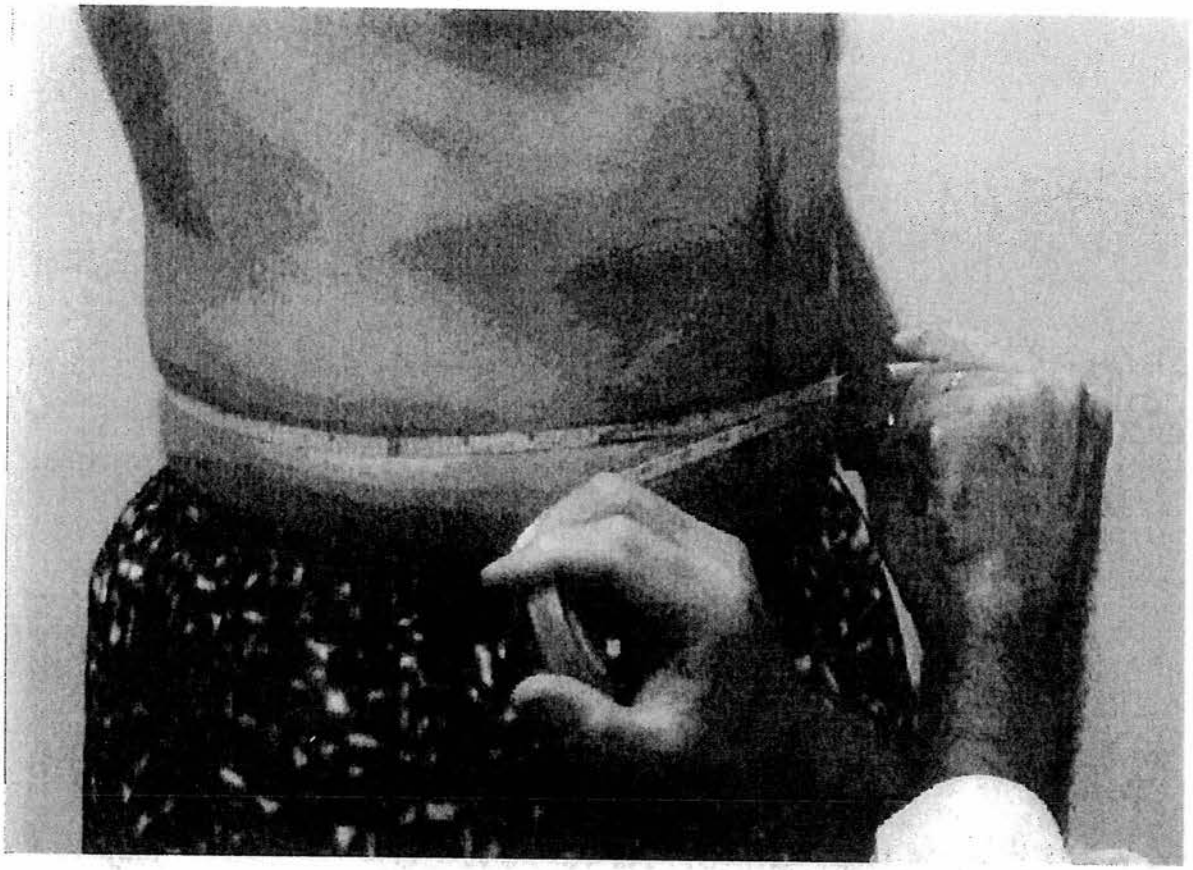


Figure A19.4. Male Waist Measurement (Side View).

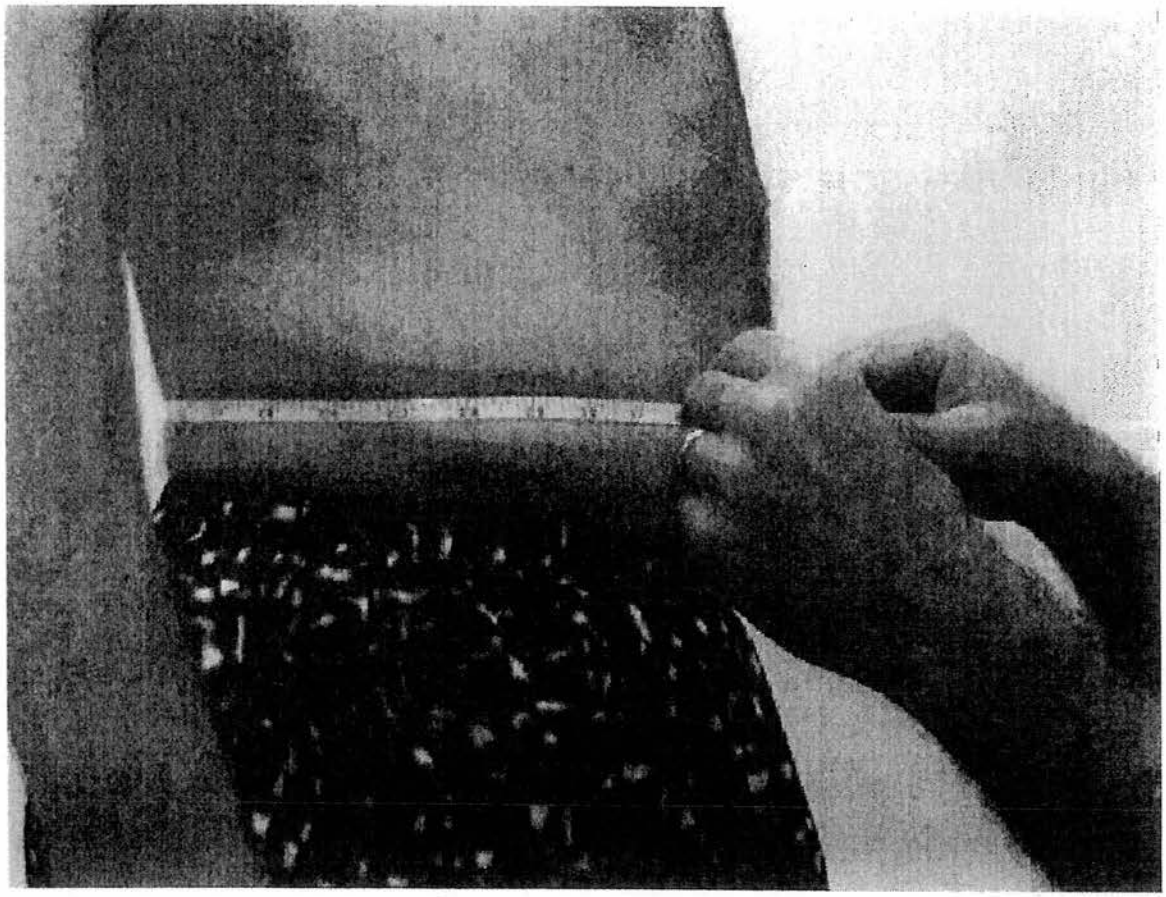


Figure A19.5. Male Waist Measurement (Back View).

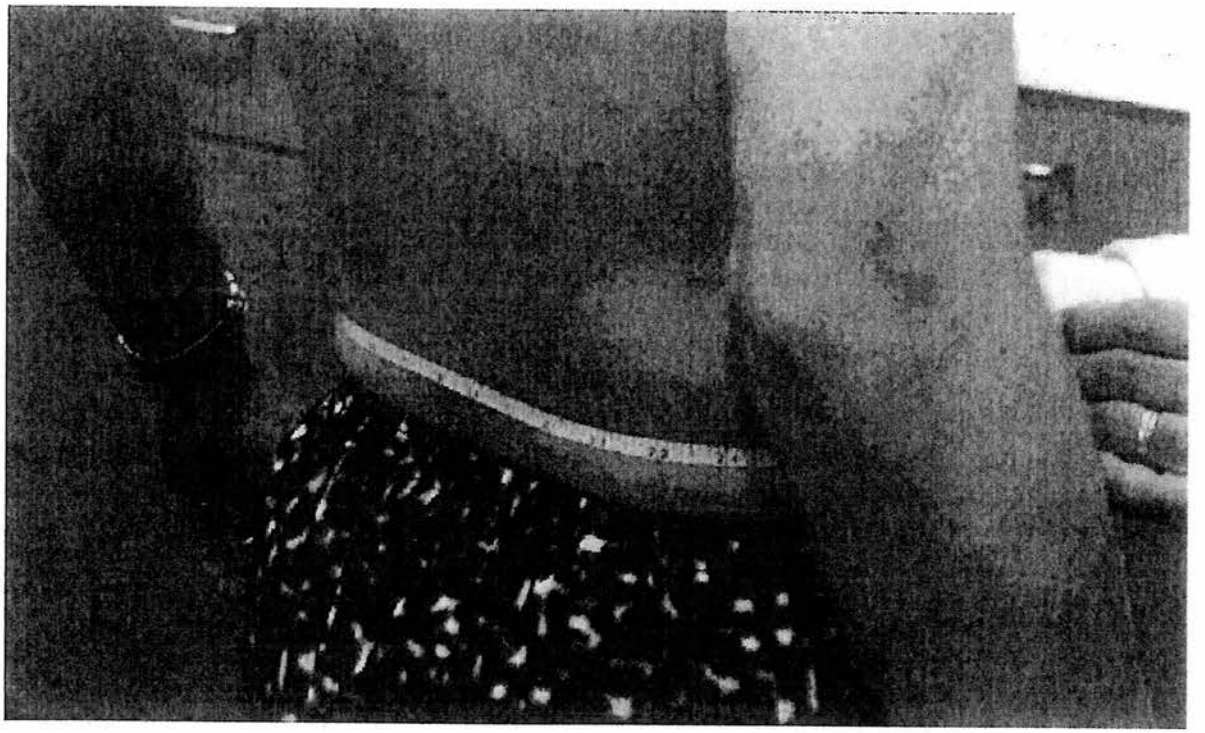


Table A19.2. Instructions (Female).

NECK:	With the member looking straight ahead and shoulders down (not hunched), measure the neck circumference at a point just below the larynx. Because of the shape of the neck, the tape will usually be angled down slightly toward the front similar to the shirt collar line. This angle will vary depending on where the larynx is located. **Round the neck measurement up to the nearest quarter inch.**
WAIST:	With the member standing with arms at her sides and at the end of a normal relaxed exhalation, measure the natural waist circumference. The natural waist circumference is the narrowest point, usually located about half way between the navel and the lower end of the sternum (breastbone). Ensure the tape measure is horizontal all the way around the waist. When it is not easy to distinguish the narrowest point, take several measurements and use the smallest measurement. **Round the waist measurement down to the nearest quarter inch.**
BUTTOCKS:	While facing the member's right side, and with the tape measure level (horizontal) to the floor, measure the buttocks circumference by placing the tape (ensure the tape measure is horizontal all the way around) so it passes over the buttocks at the point that protrudes the farthest. **EXCEPTION:** Ensure no part of the leg or thigh is a part of the measurement. If so, raise the tape measure up (still keeping it horizontal) to the point in which no part of the leg or thigh is a part of the measurement. **Round the buttock measurement down to the nearest quarter inch.**
BODY FAT PERCENTAGE DETERMINATION:	Determine the individual's body fat percentage by: Adding the waist and buttocks measurements then subtracting the neck measurement from the sum to determine the circumference value. Use the Body Fat Percent Tables for Women and compare this value to the individual's height measurement. Refer to **Attachment 20.**

Figure A19.6. Female Neck Measurement (Frontal View).

Figure A19.7. Female Neck Measurement (Back View).

Figure A19.8. Female Neck Measurement (Side View).

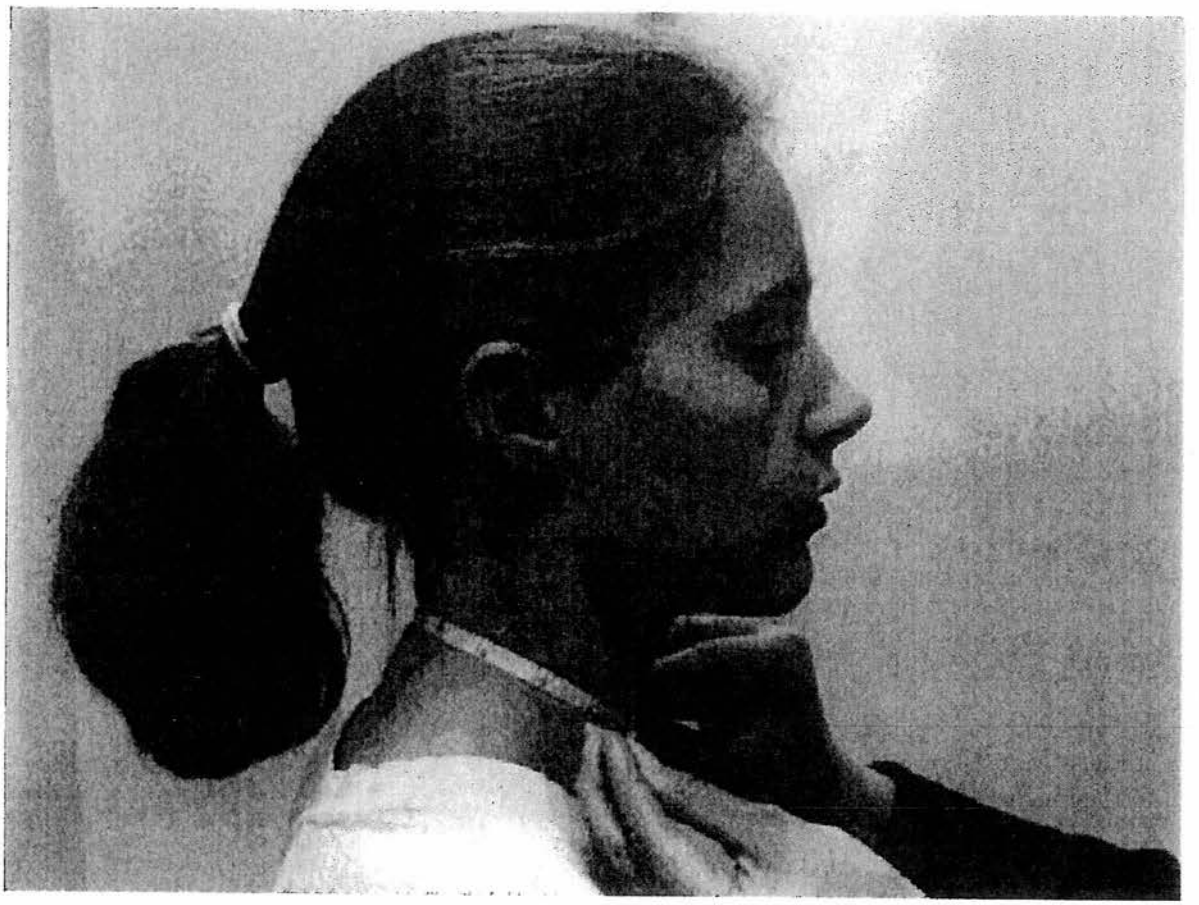
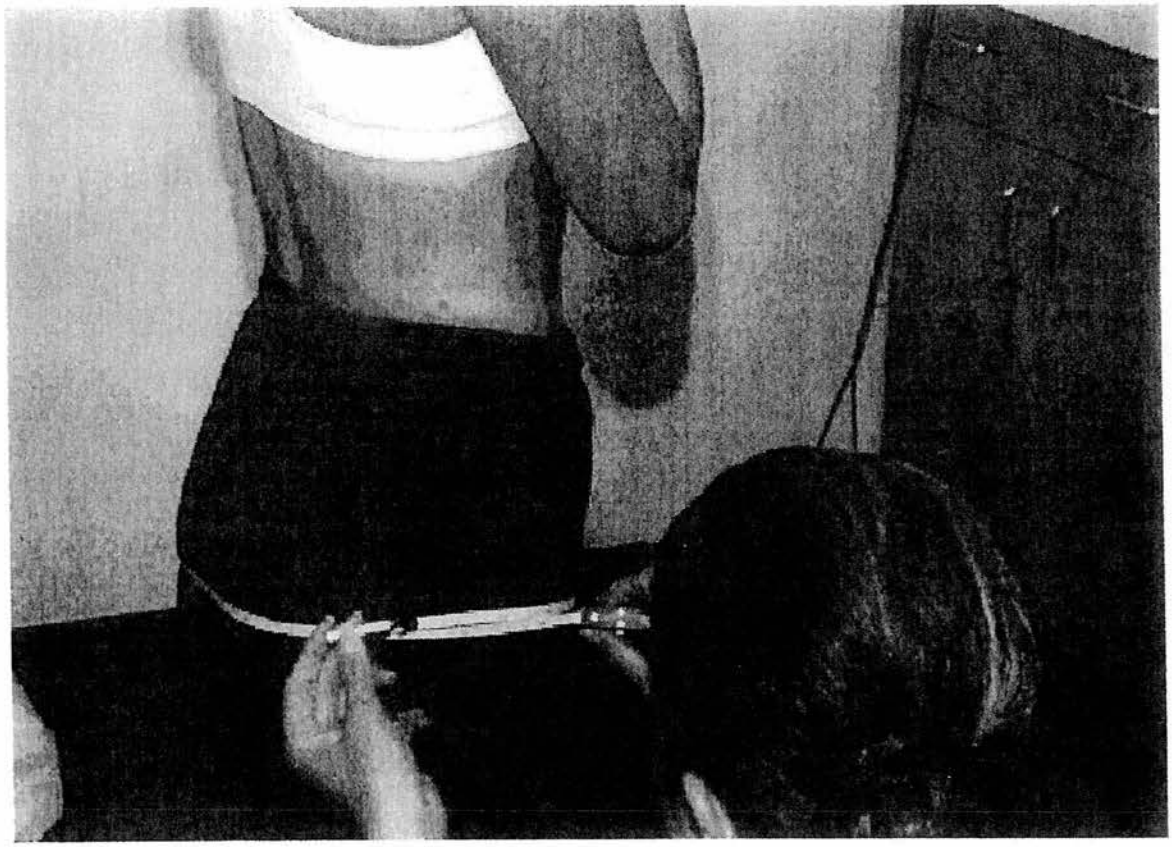


Figure A19.9. Female Waist Measurement (Frontal View).

Figure A19.10. Female Waist Measurement (Side View).

Figure A19.11. Female Buttock Measurement (Side View).



Attachment 20

BODY FAT PERCENT TABLES

Table A20.1. Body Fat Percent Tables (Male).

CIRCUM	HEIGHT (INCHES)									
VALUE	60	60.5	61	61.5	62	62.5	63	63.5	64	64.5
11.00	3	2	2	2	2	1	1	0	0	0
11.25	3	3	3	3	2	2	2	2	1	1
11.50	4	4	4	3	3	3	3	2	2	2
11.75	5	5	4	4	4	4	3	3	3	3
12.00	6	5	5	5	5	4	4	4	4	3
12.25	6	6	6	6	5	5	5	5	4	4
12.50	7	7	6	6	6	6	6	5	5	5
12.75	8	7	7	7	7	6	6	6	6	6
13.00	8	8	8	8	7	7	7	7	6	6
13.25	9	9	9	8	8	8	8	7	7	7
13.50	10	9	9	9	9	8	8	8	8	8
13.75	10	10	10	10	9	9	9	9	8	8
14.00	11	11	10	10	10	10	10	9	9	9
14.25	12	11	11	11	11	10	10	10	10	9
14.50	12	12	12	11	11	11	11	11	10	10
14.75	13	13	12	12	12	12	11	11	11	11
15.00	13	13	13	13	12	12	12	12	12	11
15.25	14	14	14	13	13	13	13	12	12	12
15.50	15	14	14	14	14	13	13	13	13	12
15.75	15	15	15	14	14	14	14	13	13	13
16.00	16	15	15	15	15	15	14	14	14	14
16.25	16	16	16	16	15	15	15	15	14	14
16.50	17	17	16	16	16	16	15	15	15	15
16.75	17	17	17	17	16	16	16	16	15	15
17.00	18	18	17	17	17	17	16	16	16	16
17.25	18	18	18	18	17	17	17	17	17	16
17.50	19	19	19	18	18	18	18	17	17	17
17.75	20	19	19	19	19	18	18	18	18	17
18.00	20	20	20	19	19	19	19	18	18	18
18.25	21	20	20	20	20	19	19	19	19	18
18.50	21	21	21	20	20	20	20	19	19	19
18.75	22	21	21	21	21	20	20	20	20	19
19.00	22	22	22	21	21	21	21	20	20	20

19.25	23	22	22	22	22	21	21	21	21	20
19.50	23	23	23	22	22	22	22	21	21	21
19.75	23	23	23	23	22	22	22	22	22	21
20.00	24	24	23	23	23	23	22	22	22	22
20.25	24	24	24	24	23	23	23	23	22	22
20.50	25	25	24	24	24	24	23	23	23	23
20.75	25	25	25	25	24	24	24	24	23	23
21.00	26	26	25	25	25	25	24	24	24	24
21.25	26	26	26	25	25	25	25	25	24	24
21.50	27	26	26	26	26	25	25	25	25	24
21.75	27	27	27	26	26	26	26	25	25	25
22.00	28	27	27	27	27	26	26	26	26	25
22.25	28	28	27	27	27	27	27	26	26	26
22.50	28	28	28	28	27	27	27	27	26	26
22.75	29	29	28	28	28	28	27	27	27	27
23.00	29	29	29	29	28	28	28	28	27	27
23.25	30	29	29	29	29	28	28	28	28	27
23.50	30	30	30	29	29	29	29	28	28	28
23.75	31	30	30	30	29	29	29	29	29	28
24.00	31	31	30	30	30	30	29	29	29	29
24.25	31	31	31	31	30	30	30	30	29	29
24.50	32	31	31	31	31	30	30	30	30	29
24.75	32	32	32	31	31	31	31	30	30	30
25.00	33	32	32	32	31	31	31	31	30	30
25.25	33	33	32	32	32	32	31	31	31	31
25.50	33	33	33	33	32	32	32	31	31	31
25.75	34	33	33	33	33	32	32	32	32	31
26.00	35	34	34	33	33	33	32	3	32	32
26.25	34	34	34	34	33	33	33	33	32	32
26.50	35	35	34	34	34	33	33	33	33	32
26.75	35	35	35	34	34	34	34	33	33	33
27.00	36	35	35	35	34	34	34	34	33	33
27.25	36	36	35	35	35	35	34	34	34	34
27.50	36	36	36	35	35	35	35	34	34	34
27.75	37	36	36	36	36	35	35	35	35	34
28.00	37	37	36	36	36	36	35	35	35	35
28.25	37	37	37	37	36	36	36	35	35	35
28.50	38	37	37	37	37	36	36	36	36	35
28.75	38	38	37	37	37	37	36	36	36	36
29.00	38	38	38	38	37	37	37	37	36	36