UNITED STATES DISTRICT COURT
WESTERN DISTRICT OF WISCONSIN

CODY FLACK, SARA ANN MAKENZIE, MARIE KELLY, and COURTNEY SHERWIN, Plaintiffs, v. WISCONSIN DEPARTMENT OF HEALTH SERVICES and LINDA SEEMEYER, in her official capacity as Secretary of the Wisconsin Department of Health Services, Defendants.	Case No. 3:18-cv-00309 Judge William Conley

EXPERT WITNESS REPORT OF JACLYN WHITE HUGHTO, PhD, MPH

I. PRELIMINARY STATEMENT

A. Qualifications

My name is Jaclyn White Hughto, PhD, MPH. I am a social epidemiologist and public health scholar with expertise in transgender health. I am a faculty member at Brown University and an affiliated investigator at The Fenway Institute, of Fenway Health in Boston, one of the leading LGBT health centers and research institutions in the world. I have been retained by Plaintiffs' counsel in the above-captioned case to provide an expert opinion on the impact of Wisconsin Medicaid's coverage exclusion on the health and well-being of transgender Wisconsin Medicaid beneficiaries, the impact of the exclusion on public health, and the public health benefits that would likely be realized if the exclusion were to be eliminated.

My qualifications are summarized below, and I am attaching a copy of my current C.V., which lists my qualifications, experience, and publications, as Exhibit A to this report. I received my PhD in Chronic Disease Epidemiology from Yale University with a focus on the social determinants driving health inequities for Lesbian, Gay, Bisexual, and Transgender (LGBT) populations. I also earned a Master in Public Health in Behavioral Science and Health Education from Emory University. I am a faculty investigator at the Brown University School of Public Health in the Departments of Epidemiology and Behavioral and Social Sciences and a faculty member at Brown's Center for Health Equity Research. Additionally, I am an affiliated investigator at The Fenway Institute of Fenway Health in Boston, where I have conducted epidemiological and bio-behavioral intervention research with LGBT communities since 2010. My research focuses on identifying the individual, interpersonal, structural, and geographic risk factors that place LGBT persons at disproportionate risk for poor health relative to the general

population; and developing multilevel interventions to improve the health of marginalized and at-risk populations.

For the past 10 years, I have worked directly with hundreds of adolescents and adults whose assigned sex at birth is incongruent with their gender identity (hereafter referred to as transgender or trans individuals). My work with transgender populations first began as a Project Director at The Fenway Institute, and later continued as a Principal Investigator at The Fenway Institute, Yale University, and now Brown University. In these roles, I have worked alongside transgender and non-transgender (herein referred to as cisgender) colleagues, patients, research participants, and community members to understand and improve the health of the transgender community. In addition to conducting research, I have been involved in programmatic work to improve transgender individuals' access to necessary health services including insurance coverage for transgender medical care and training of healthcare providers to increase their cultural and clinical competence to care for transgender patients. I have also utilized my research to advance policy efforts to ensure the inclusion of transgender identity in state non-discrimination laws.

I have 55 peer-reviewed journal articles, published or in press, and a book chapter, the majority of which focus on transgender populations. My publications pertaining to transgender health explore diverse topics, including the impact of structural forms of stigma such as laws and policies that restrict access to medically necessary care for transgender people and contribute to poor health outcomes; geographical variation in access to care for transgender people; and the psychological and quality of life benefits of access to medical sources of gender affirmation for transgender people, including cross-sex hormones and gender affirmation surgery (also known as gender confirmation surgery or transition-related surgery).

I have presented my work via 63 scientific/academic presentations internationally, nationally, and locally. The majority of these presentations have focused on the health of transgender people.

I have conducted and analyzed research with over 20,000 transgender individuals, and have been an investigator in several transgender health studies. First, I am currently the Principal Investigator of a study of 1,000 transgender individuals that looks to examine facilitators and barriers to engagement in care for HIV-infected and at-risk transgender patients, with a focus on identifying the influence of state-level policies on the health of transgender patients. Second, I am the Principal Investigator of a Center for Medicare and Medicaid (CMS) grant-funded study that explores HIV prevalence and engagement in HIV prevention and treatment services for transgender and cisgender Medicare and Medicaid beneficiaries using claims data. Third, I am a Co-Investigator on a study that examines the healthcare utilization of more than 18,000 transgender patients using insurance claims data from a representative sample of commercially insured people in the U.S. This study also aims to begin the process of developing performance measures for the delivery of quality care for transgender patients. Fourth, I am Co-Investigator on a longitudinal study that examines the long-term health outcomes of medical gender affirmation among transgender patients at two clinical care sites in the U.S. Finally, I was previously a Principal Investigator of a pilot intervention study that aimed to improve incarcerated transgender people's access to gender-affirming medical care through the delivery of an interactive training to increase correctional healthcare providers' cultural and clinical competence to care for transgender patients.

I am a member of the Lesbian, Gay, Bisexual, and Transgender (LGBT) Caucus of Health Professionals within the American Public Health Association (APHA) (of which I am

also a member). The LGBT Caucus is charged with ensuring that the most relevant and up-to-date research regarding LGBT individuals is disseminated to the full membership of APHA. The Caucus is an advocate for equal justice and rights for all individuals, regardless of their ethnicity, race, creed, sex, sexual orientation, or gender identity, and is committed to combating discriminatory practices in health organizations and systems. The Caucus provides programming at the annual APHA convention to disseminate cutting-edge epidemiological and intervention research as well as innovations in public health programming and practice with LGBT individuals.

I have been nominated and received several awards for my expertise and research with transgender individuals. I was recently nominated for the 2018 National Institutes of Health Early Career Award for work with Sexual and Gender Minority (SGM) populations. I was also awarded a Doctoral Student Research Award at the 2015 APHA conference for my research involving the mental health effects of stigma for transgender adults and well as the Excellence in Abstract Submission Award at the 2014 APHA conference for my research identifying geographical risk factors for HIV infection for transgender adults. My dissertation research, which examined barriers to care and developed an intervention to overcome barriers to care for criminal-justice-involved transgender persons, was awarded distinction from Yale University.

B. Prior Expert Witness Experience

I have not testified at deposition or trial in any case in the last four years.

C. Compensation

I am being compensated at an hourly rate of $150/hour for actual time devoted for my expert services and testimony in this case, as well as expenses and costs. My compensation does not depend on the outcome of this litigation, the opinions I express, or the testimony I provide.

II. BASIS FOR OPINIONS

In this report, I provide an overview and discussion of the harms—to individuals living with gender dysphoria and to the broader public health—related to the categorical exclusion of Medicaid coverage for medically necessary treatments for gender dysphoria.

My opinions contained in this report are based on the following sources: (1) my own research with more than 20,000 transgender participants exploring social determinants of health for this population, including the physical and mental health consequences of transgender stigma; (2) a thorough review of the peer-reviewed research on the etiology and treatment of gender dysphoria, including the medical necessity of gender-affirming surgery for transgender people as cited in the list of references to this report (listed in the bibliography attached as Exhibit B to this report); (3) my review of and familiarity with the governing standards of care within the field of transgender medicine from the World Professional Association of Transgender Health, the Endocrine Society, the American Psychiatric Association, and the American Medical Association, all of which issue guidelines outlining the medical treatment of gender dysphoria; and (4) my first-hand experience observing the challenges faced by transgender patients and research participants in accessing gender-affirming healthcare, including insurance coverage for gender-affirming surgeries. Further, in order to familiarize myself with the facts of the case, I have reviewed the Amended Complaint in this case and Wisconsin's categorical exclusion of transition-related surgeries and medical treatments contained in Wis. Adm. Code § DHS 107.03(23)-(24).

Based on the above, I render the opinions contained in this report with a reasonable degree of professional certainty in my field of social epidemiology/public health.

III. GENDER IDENTITY, SEX, AND GENDER DYSPHORIA

"Gender identity" is a psychological and medical term used to define a person's internal sense of being male, female, or another sex. Gender identity is innate and possessed by all human beings. For most human beings, awareness of one's gender identity develops around age 3, although for transgender individuals, this may occur later in life.

"Sex" is a term used to categorize individuals as male or female. Sex is assigned to individuals at birth by a medical provider, typically based on the presence of specific physical characteristics and/or chromosomes. Infants are typically assigned a female sex at birth if they are born with external genitalia that includes a vagina, clitoris, and vulva; internal reproductive organs that include ovaries and a uterus; and XX chromosomes. Similarly, the majority of infants born with a penis, testes, and XY chromosomes are assigned a male sex at birth. Infants born with the anatomy of both sexes are considered to be intersex. For intersex infants, healthcare providers generally conduct a series of hormonal, genetic, and radiological tests, and together with parents, assign these infants a preliminary sex based on which gender they anticipate the child will identify with later in life (ISNA, 2018). Intersex individuals not only represent the variability in human sexuality and development but also provide evidence that sex is a category assigned to an individual based on a collection of traits that do not always fit within the typical sex/gender binary of male/man or female/woman.

The majority of individuals assigned a female sex at birth will experience themselves as female and identify as women, whereas the majority of individuals assigned a male sex at birth will experience themselves as male and identify as men. While there is considerable variability in who falls under the transgender umbrella, it is estimated that approximately 1.4 million U.S.

adults, or 0.06% of the U.S. adult population, are transgender (Flores, Herman, Gates, & Brown, 2016)

"Gender dysphoria" describes the psychological distress associated with having an incongruent gender identity and assigned birth sex (American Psychiatric Association, 2013). Many transgender people receive a formal diagnosis of gender dysphoria as listed in the American Psychiatric Association's Diagnostic and Statistical Manual of Mental Disorders (DSM-5) and the World Health Organization's International Classification of Diseases (ICD-10) (under the now-outdated name "gender identity disorder"). Individuals with gender dysphoria present with a variety of symptoms, including extreme emotional distress and intense desires to be seen and validated in accordance with their innate gender identity.

Under DSM-5, individuals with a gender dysphoria diagnosis experience a persistent conflict between their internal gender identity and the sex they were assigned at birth. The specific criteria for diagnosing adolescents and adults with gender dysphoria under section 302.85 of the DSM-5 are:

> A. A marked incongruence between one's experienced/expressed gender and assigned gender, of at least 6 months duration, as manifested by at least 2 of the following:
>
> 1. A marked incongruence between one's experienced/expressed gender and primary and or/secondary sex characteristics (or in young adolescents, the anticipated secondary sex characteristics).
> 2. A strong desire to be rid of one's primary and/or secondary sex characteristics because of a marked incongruence with one's experienced/expressed gender (or in young adolescents, a desire to prevent the development of the anticipated secondary sex characteristics).
> 3. A strong desire for the primary and/or secondary sex characteristics of the other gender;[1]

[1] In my professional opinion, the phrase "other gender" used in the DSM-5 is imprecise. The phrase "one's identified gender" more precisely speaks to the gender being referenced.

4. A strong desire to be of the other gender (or some alternative gender different from one's assigned gender);
5. A strong desire to be treated as the other gender (or some alternative gender different from one's assigned gender); and
6. A strong conviction that one has the typical feelings and reactions of the other gender (or some alternative gender different from one's assigned gender).

B. The condition is associated with clinically significant distress or impairment in social, occupational, or other important areas of functioning.

IV. STANDARDS OF CARE FOR THE TREATMENT OF GENDER DYSPHORIA

The treatment for gender dysphoria is outlined in the Standards of Care (SOC) for the Health of Transsexual, Transgender, and Gender Nonconforming People—the authoritative clinical guidelines for transgender care in the U.S. and internationally. The SOC is published by the World Professional Association of Transgender Health (WPATH), an international, interdisciplinary professional and educational organization devoted to disseminating evidence-based care, education, research, advocacy, and public policy to promote the highest standards of healthcare for transgender individuals. Since 1979, the SOC has outlined clinical guidelines for the care of transgender individuals. The treatments outlined in the SOC are endorsed and recommended by the leading medical and mental health organizations in the U.S., including the American Medical Association, the Endocrine Society, the American Psychiatric Association, and the American Psychological Association.

The SOC is based on the best available science and expert professional consensus (Coleman et al., 2012). The overall goal of the SOC is to provide clinical guidance for health professionals to assist transgender people with safe and effective pathways to alleviate gender dysphoria and maximize their physical and psychological health and well-being. The SOC recommends several treatments to alleviate gender dysphoria. While the specific treatments transgender individuals may desire and ultimately access often vary based on the psychological,

physiological, and situational needs of each individual, gender-affirming treatments generally consist of one or more social, psychological, and/or medical components that allows the individual to be authentically seen as and live in accordance with their innate gender identity.

Under the SOC, the process of socially affirming one's identified gender, also called social transition, involves changing one's social identity and presentation to align with one's gender identity. Social gender affirmation can include disclosing one's gender identity to others (e.g., "coming out") as well as changing one's mannerisms, dress, name, and/or pronoun to align with one's gender identity. Medical gender affirmation, also known as medical transition or gender confirmation, involves the use of cross-sex hormone therapy and/or surgery (e.g., chest surgery, genital surgery) to masculinize or feminize the body. According to the SOC, these social and medical processes serve to alleviate gender dysphoria by aligning one's social and physical gender expression with one's gender identity thereby eliminating gender incongruence and associated distress (Coleman et al., 2012).

Social and medical gender affirmation have been used for more than 60 years to alleviate gender dysphoria and are considered safe and effective (Coleman et al., 2012; Spade, 2010). Further, two systematic reviews, based on more than 32 research studies from across the world establish the benefit of these social and medical processes on the mental health of transgender people (Murad et al., 2010; White Hughto & Reisner, 2016). Specifically, these reviews overwhelmingly find a positive relationship between hormone therapy and surgery and improvements in gender dysphoria, psychological symptoms (e.g., depression and anxiety), and overall quality of life for transgender individuals who had socially affirmed their gender and were able to access gender-affirming medical therapies (Murad et al., 2010; White Hughto & Reisner, 2016). Conversely, several studies have found that the inability to access hormones and

surgery is associated with poor mental health, suicidality, and non-suicidal self-injury for transgender individuals (e.g., Brown, 2010; Cole, O'Boyle, Emory, & Meyer III, 1997; Rotondi et al., 2013). Thus, across clinical care guidelines, hormone therapy and surgery are considered medically necessary for transgender people with gender dysphoria.

V. STIGMA ASSOCIATED WITH BEING UNABLE TO OBTAIN MEDICALLY NECESSARY, GENDER-AFFIRMING HEALTHCARE

The following section defines stigma toward transgender people and elucidates the ways in which multiple sources of stigma shape transgender people's ability to access gender-affirming healthcare (e.g., hormones, surgery).

A. Multilevel Sources of Transgender Stigma

Stigma is the social process of labeling, stereotyping, and rejecting human difference as a form of social control (Link & Phelan, 2001; Phelan, Link, & Dovidio, 2008). Central to stigma is power, which is used by the stigmatizing majority to exclude and marginalize those who are different.

In the U.S., transgender individuals are often considered deviant for having a gender identity that is discordant with the gender typically associated with their assigned birth sex and experience widespread stigma as a result (Bockting, Miner, Romine, Hamilton, & Coleman, 2013; Grant et al., 2011; James et al., 2016; Lombardi, Wilchins, Priesing, & Malouf, 2002; White Hughto, Reisner, & Pachankis, 2015).

Transgender individuals often experience stigma through diverse and multi-level mechanisms (White Hughto et al., 2015). *Interpersonal* stigma refers to direct or enacted forms of stigma including verbal harassment, discriminatory practices such as refusal of medical care by a healthcare provider, physical violence, and sexual assault due to one's gender identity. *Individual* stigma includes the negative feelings transgender people hold about themselves or the

beliefs they perceive others to hold about them that may shape future behavior such as the avoidance of health-promoting resources as a means of minimizing distress. Finally, s*tructural* stigma refers to the societal norms, governmental laws, and institutional policies that constrain access to health-promoting resources such as employment, housing, and healthcare. Here I describe the primary pathways through which each form of stigma contributes to poor health for transgender people.

B. The Effects of Interpersonal Stigma on the Health of Transgender People

Societal norms and beliefs often translate into enacted stigma at the interpersonal level, which can produce negative consequences for transgender people. Goffman (1963), an early and influential theorist in the field of stigma, described those with visible stigmas as the "discredited," as their stigmatized condition is readily apparent and therefore more susceptible to mistreatment. Conversely, the "discreditable" are those whose stigma is invisible but who would experience stigma should their stigma become known to others. To that end, transgender people with low visual gender conformity, such that other people can tell they are transgender, are "discredited" and experience more discrimination and worse health outcomes than those with high visual gender conformity (Grant et al., 2011; Reisner, Hughto, et al., 2015; Reisner et al., 2016). Transgender individuals with higher visual gender conformity, such that people cannot initially tell they are transgender, are the "discreditable." While the "discreditable" may experience less everyday discrimination than transgender individuals with visibly nonconforming physical features, they could potentially face stigma-based harassment or even violence should their gender discordant anatomy become known to others. Transgender individuals who are unable to access gender-affirming medical procedures due to cost and lack of insurance coverage are, therefore, at risk of experiencing enacted forms of stigma as their

gender nonconforming appearance is (or may become) visible to others (White Hughto et al., 2015).

In the 2015 U.S. Transgender Survey, a national study of more than 27,000 transgender people, 46% of the sample were verbally harassed and 9% were physically attacked for being transgender in the past year alone (James et al., 2016). A review of violence against U.S. transgender people found that the prevalence of lifetime physical assault due to gender identity ranged from 33–53% (Stotzer, 2009). Sexual assault has also been shown to be common among transgender people. In the U.S. Transgender Survey, 47% of the sample had been sexually assaulted at some point in their lifetime and 1 in 10 were sexually assaulted in the past year (James et al., 2016). Violence at the hands of intimate partners was also particularly common, with 54% of the sample experiencing some form of coercive control and physical harm and nearly a quarter (24%) experiencing severe physical violence by an intimate partner in their lifetime.

It is theorized that gender nonconformity causes perpetrators of violence to become anxious and angry, ultimately enacting violence against transgender people as a means of rejecting and diminishing that which they fear (Westbrook & Schilt, 2013). In the case of sexualized interactions between cisgender men and transgender women, it has been argued that cisgender men feel threatened when they learn a woman is transgender, and react violently in an effort to prove their heterosexuality and reclaim their masculinity and power (Schilt & Westbrook, 2009). Studies also show high levels of reported violence among young and low-income transgender people (Stotzer, 2009), suggesting that violence on the basis of transgender identity often affects the most marginalized transgender subpopulations.

Research finds that individuals with physical appearances that do not align with their gender identity (for example, the presence of breasts in a transgender man or the absence of breasts in a transgender woman) are at heightened risk for interpersonal forms of mistreatment (Reisner, Hughto, et al., 2015; White Hughto, Rose, Pachankis, & Reisner, 2017). Interpersonal stigma related to a transgender person's physical characteristics can carry direct costs via physical violence as well as through the emotional distress that results from identity-based mistreatment.

Additionally, experimental studies among diverse transgender and cisgender populations show that stigma-related stress has an immediate effect on the body including diastolic blood pressure reactivity, increased cortisol output, and elevated cardiometabolic risk (DuBois, Powers, Everett, & Juster, 2017; Guyll, Matthews, & Bromberger, 2001; Hatzenbuehler, Slopen, & McLaughlin, 2014; Townsend, Major, Gangi, & Mendes, 2011). Chronic activation of the body's stress response system can compromise health over time, a phenomenon termed "allostatic load" (McEwen & Stellar, 1993). Research with diverse samples finds that chronic stress is associated with adverse physical health outcomes, such as hypertension, diabetes, gastrointestinal illness, and even death (Anderson, 1989; Hatzenbuehler, Bellatorre, et al., 2014; Taylor et al., 2006; White Hughto & Reisner, 2018). In transgender populations, persistent stress has also been linked to anxiety, depression, post-traumatic stress disorder, suicidality, and substance use as a coping mechanism (Clements-Nolle, Marx, & Katz, 2006; Hatzenbuehler, Nolen-Hoeksema, & Erickson, 2008; Mustanski, Andrews, & Puckett, 2016; Reisner, Greytak, Parsons, & Ybarra, 2014).

To date, there is limited research specifically assessing the long-term physical health effects of stigma-related stress in transgender people. However, studies of other stigmatized

groups reveal that stigma can affect health over the life-course, the findings of which are likely applicable to the transgender population. For example, in one study, middle-aged Black women experienced accelerated biological aging of approximately 7.5 years compared with White women of the same chronological age—a finding that is attributed to the chronic stress Black women experience relative to White women (Geronimus et al., 2010). Given that transgender people experience stigma in numerous contexts throughout their lives, it is likely that these experiences take a similarly additive toll on their health. Further, adults with multiple disadvantaged statuses (e.g., physical and mental health disabilities, low income) are more likely to experience poor physical and mental health than those with a single stigmatized identity (Grollman, 2014). Transgender individuals with multiple disadvantaged statuses may be at particularly increased risk of poor health due to the chronic stress associated with experiencing stigma through multiple pathways.

C. The Effects of Individual Stigma on the Health of Transgender People

Experiencing stigma at the interpersonal level can affect how transgender people evaluate and approach future situations at the individual level. Anxiously expecting or fearing discrimination can lead to avoidance of interpersonal situations, which can take a toll on one's mental and physical health (Reisner, Hughto, et al., 2015; Reisner et al., 2016; White Hughto, Pachankis, Willie, & Reisner, 2017). For example, many transgender people report experiencing mistreatment in healthcare settings, which is associated with postponing necessary care and the development of otherwise preventable conditions that ultimately require emergency care (Cruz, 2014; Dewey, 2008; Grant et al., 2011; Reisner, Hughto, et al., 2015; Xavier et al., 2013). Transgender individuals' avoidance of social interactions due to past and anticipated mistreatment supports the stigma-based rejection sensitivity model (Mendoza-Denton, Downey,

Purdie, Davis, & Pietrzak, 2002) in which stigmatized individuals nervously anticipate (hypervigilance), routinely observe (perceived stigma), and anxiously react to rejection with important health costs (e.g., the onset of otherwise preventable health conditions) (Hughto, Pachankis, & Reisner, 2018).

The internalization of stigma can also impact an individual's ability to cope with external stressors, erode self-efficacy for enacting health-promoting behaviors, and eventually diminish an individual's ability to remain resilient in the face of negative events (Hendricks & Testa, 2012; Mizock & Mueser, 2014). In fact, high levels of internalized transgender stigma are associated with the increased probability of lifetime suicide attempts (Perez-Brumer, Hatzenbuehler, Oldenburg, & Bockting, 2015). Additionally, internalized stigma has been shown to reduce self-care and help-seeking behaviors for mental health problems resulting in a failure to access mental health services when needed (Hellman & Klein, 2004).

In my professional opinion, providing access to gender-affirming therapies that allow transgender individuals to align their physical gender expression with their internal gender identity can, therefore, reduce gender dysphoria, prevent mistreatment from others, and ultimately allow individuals to benefit from health-promoting social interactions and resources.

D. The Effects of Structural Stigma on the Health of Transgender People

Distal forms of structural stigma codified in governmental laws and organizational policies can carry dire health consequence for transgender people.

Structural transgender stigma is perhaps best evidenced by the limited availability of insurance coverage for transgender care. Research finds that many transgender people lack insurance, which may be due in part to employment discrimination and resulting high levels of unemployment for transgender people relative to cisgender people (Conron, Scott, Stowell, &

Landers, 2012; Grant et al., 2011; James et al., 2016). Even when transgender people are insured, barriers to accessing medically necessary hormones and surgery persist as some insurance policies, including state-level Medicaid laws like the Wisconsin policy at issue in this case, exclude coverage for gender-affirming medical interventions (often by claiming these procedures are "cosmetic" or "medically unnecessary") (MAP, 2018). These exclusionary insurance policies are considered a form of structural stigma as they serve to restrict transgender people's access to medically necessary health resources that are otherwise routinely provided to cisgender people (Spade, 2010). This inequitable access to needed medical care is common among transgender individuals and ultimately serves to harm the health of this population.

In the 2015 U.S. Transgender Survey, 55% of those who sought coverage for medical gender affirmation surgery in the past year were denied (James et al., 2016). Transgender people who do not have access to insurance for transgender-specific care are forced to pay out of pocket for medical gender affirmation procedures, which can be cost-prohibitive for many people, particularly those living in poverty or who are unable to work due to disability (Gonzales & Henning-Smith, 2017; James et al., 2016; Khan, 2013; White Hughto et al., 2015). For low-income people, including Medicaid recipients, this often means that gender-affirming care is wholly unattainable. Faced with an inability to access this needed medical care, low-income transgender people are at particularly high risk of experiencing poor physical and mental health as a result of categorical insurance exclusions like the one under Wisconsin Medicaid.

In a study of transgender individuals in Massachusetts conducted before the implementation of the State's comprehensive gender-identity-related protections, 65% of the sample reported being discriminated against in healthcare settings in the past year and nearly a quarter (23.6%) of those who sought medical gender affirmation reported being unable to access

this care (Reisner, Hughto, et al., 2015; White Hughto, Rose, et al., 2017). Further, individuals who were unable to access gender-affirming healthcare were more likely to experience poor physical and mental health, including a gastrointestinal-related diagnosis and depression than those who were able to access such care in the past year (White Hughto & Reisner, 2018).

Unable to access needed medical gender affirmation procedures, some transgender people have been found to self-perform needed surgeries (e.g., mastectomy, auto-castration) (Brown, 2010; Cole, O'boyle, Emory, & Meyer III, 1997; Rotondi et al., 2013). Reports also document suicide attempts by transgender individuals who desire surgery but are unable to access medically-necessary care (Cole et al., 1997; Haas, Rodgers, & Herman, 2014). Indeed, a national study of transgender adults found a high prevalence of suicide attempts among respondents who said that they wanted chest or genital surgery, suggesting that desiring these procedures but not yet having them may exacerbate transgender individuals' distress related to the incongruence between their gender identity and physical appearance (Haas et al., 2014). These life-threatening behaviors highlight the overwhelming desperation of many transgender individuals to alleviate their gender dysphoria.

VI. THE PUBLIC HEALTH BENEFITS OF ELIMINATING WISCONSIN MEDICAID'S CATEGORICAL EXCLUSION ON GENDER-AFFIRMING TREATMENTS

There are significant public health harms associated with categorical coverage exclusions on gender-affirming medical treatments like the Wisconsin Medicaid exclusion. Conversely, there are significant public health benefits that stem from covering gender-affirming medical treatments. Accordingly, it is my professional opinion that coverage of these services under Wisconsin Medicaid would provide significant benefits for transgender beneficiaries, including reductions in gender dysphoria, depression, anxiety, suicidality, substance use, HIV transmission

and acquisition, and physical and sexual assault, as well as improvements in socioeconomic status. These public health improvements would also likely result in long-term cost savings to the State from an associated reduction in healthcare expenditures in these areas.

A. Affected Population

I estimate that approximately 5,000 transgender adults are currently affected by the Medicaid exclusions that deny transgender people access to medically-necessary, gender-affirming care. Below is an explanation of how I arrived at this estimate and what this estimate represents.

In Wisconsin, 0.43% of the state's 4.5 million adult population, or approximately 19,363 people, were estimated to be transgender as of the end of 2017 (Flores et al., 2016). In a nationally representative study of transgender people receiving inpatient care, 27.6% of transgender patients were insured through Medicaid, compared to approximately 18% of the general population (Canner et al., 2018). This data suggests that transgender people are disproportionately represented among Medicaid beneficiaries. With just under 1.2 million children and adults on Medicaid in Wisconsin ("Healthcare Enrollment (Wisconsin Medicaid)," 2018), and extrapolating the data referenced above, it is estimated that approximately 5,160 transgender adults in the state are on Medicaid. Given that approximately 97% of transgender adults in a nation-wide study indicated a desire for some form of gender-affirming surgery in their lifetime (Grant et al., 2011), for which a gender dysphoria diagnosis is typically a prerequisite, I estimate that at least 5,000 current Wisconsin Medicaid recipients are transgender

adults who may be affected by the surgical exclusion at some point in their lives (i.e., over the course of decades).[2]

B. Public Health Outcomes Associated with Gender-Affirming Healthcare

1. Mental Health

Denying access to medically-necessary, gender-affirming medical therapies (i.e., hormones and/or surgery) has the potential to exacerbate gender dysphoria and lead to intense emotional suffering, anxiety, depression, self-harm, and suicidality (Bauer, Scheim, Pyne, Travers, & Hammond, 2015; Cole et al., 1997; Haas et al., 2014; Rotondi et al., 2013; White Hughto & Reisner, 2018). Conversely, utilization of gender-affirming medical therapies is associated with improvements in psychological functioning and quality of life among transgender individuals (Murad et al., 2010; White Hughto & Reisner, 2016), with longitudinal research documenting a 24% reduction in suicide attempts among transgender patients who received gender-affirming surgery (De Cuypere et al., 2006).

It is my professional opinion that providing access to gender-affirming surgical care under Medicaid would likely lead to reductions in Wisconsin Medicaid expenditures associated with suicidality. The Centers for Disease Control and Prevention (CDC) reports that suicide and suicide attempts cost society about $70 billion annually in medical and work loss costs (Centers for Disease Control, 2018). The CDC also estimates that the average medical cost of a single suicide completion was $2,596, and the average medical cost of a single suicide attempt was

[2] Existing estimates regarding the prevalence of gender dysphoria in the U.S. (American Psychiatric Association, 2013; Zucker, 2017) likely underestimate the size of the population. These estimates capture the number of transgender people who have been diagnosed with gender dysphoria *and* received hormone treatment and surgery at specialty clinics, resulting in a likely sizable underestimate of the size of the transgender population with a diagnosis of gender dysphoria since many people with the diagnosis have not or cannot obtain these treatments.

$7,234 in 2010 (Centers for Disease Control, 2012). Notably, these values represent the low end of estimated costs as they only include acute care and hospitalization costs and are not inclusive of medical costs following a suicide attempt, such as mental health treatment. Consistent with this data, it is my opinion that reductions in suicide and suicide attempts among transgender individuals would likely also lead to reduced costs to the Wisconsin Medicaid program as well as reduced overall economic and social costs to the general public (e.g., financial and emotional costs to family members, financial costs to taxpayers for publicly-provided healthcare and other services, financial costs to employers for lost work productivity).

2. Substance Use

Research documents a disproportionately high prevalence of substance use among transgender individuals relative to the general population (James et al., 2016). Research also shows that transgender individuals frequently engage in substance use as a means of coping with gender dysphoria and the mental health harms of stigma (Reisner, Pardo, et al., 2015; White Hughto et al., 2015). Notably, several studies have demonstrated lower levels of substance use among transgender individuals who have received gender-affirming medical treatments (i.e., hormones and/or surgery) relative to those who have not obtained such care (Cole et al., 1997; Rehman, Lazar, Benet, Schaefer, & Melman, 1999; Wilson, Chen, Arayasirikul, Wenzel, & Raymond, 2015).

Providing access to gender-affirming surgical care under Medicaid would likely lead to reductions in Wisconsin Medicaid expenditures associated with substance use. Tobacco, alcohol, and illicit drug use in the U.S. cost an estimated $230 billion in annual healthcare-related costs (e.g., substance use-related injuries and deaths, prevention, and treatment) alone—a value that increases to $740 billion when other social and economic costs associated with substance use

(e.g., lost work productivity, costs and taxes associated with substance abuse treatment services) are included (National Institute of Drug Abuse, 2017). Thus, covering gender-affirming surgeries under Medicaid would likely result in the Wisconsin Medicaid program spending less on costs related to substance use (see National Institute on Drug Abuse, 2017). The general public is also likely to benefit from reduced substance use among transgender individuals given the anticipated reduction in the social and economic costs of substance use.

3. Physical and Sexual Assault

Transgender individuals experience high levels of physical and sexual assault due to the stigma of having a gender non-conforming expression or identity (James et al., 2016; Stotzer, 2009; White Hughto et al., 2015). Individuals who have accessed gender-affirming surgeries have been shown to be more visually gender conforming (Spiegel, 2011; Transgender Law Center, 2016), and visual gender conformity is associated with a lower prevalence of physical and sexual assault (Jauk, 2013; Sperber, Landers, & Lawrence, 2005).

While greater gender conformity would not necessarily prevent a transgender individual from being abused by an intimate partner, the use of gender-affirming medical treatments (i.e., hormones and surgery) have been linked to reduced gender dysphoria, improved body image, and greater self-esteem in transgender populations (Murad et al., 2010; Nelson, Whallett, & McGregor, 2009; Sineath et al., 2016). Further, individuals with greater self-worth may be less vulnerable to entering into and staying in abusive relationships (Kim & Gray, 2008).

With greater visual gender conformity as a result of access to gender-affirming surgery, the physical and mental health costs of violent harassment, hate crimes, and related health systems costs are likely to decrease for both the individual and society as a whole (Jauk, 2013). Examining intimate partner violence alone, the National Center for Injury Prevention and

Control estimated that the mean cost of medical care for those who sought treatment after a physical assault by an intimate partner was $2,665 per incident in 1996 (McLean & Bocinski, 2017). For individuals seeking mental health services related to a single act of partner violence, the mean cost was $1,017 per incident in 1996 (National Center for Injury Prevention and Control, 2003). Moreover, the increased annual costs for victims may continue for up to 15 years after the cessation of abuse (Rivara et al., 2007). Thus, it is my professional opinion that increased access to gender-affirming surgeries for transgender Wisconsin Medicaid beneficiaries, would lead to increased gender conformity, in turn reducing the costs associated with stigma-related violence to the Wisconsin Medicaid program and the general public overall.

4. HIV/AIDS

Transgender people have significantly higher rates of HIV than the general population. Much of the burden of HIV in the transgender community is carried by transgender women who have an estimated 21.6% laboratory-confirmed HIV prevalence (meta-analysis) and a 34.2-fold increased odds of HIV relative to the U.S. population (Baral et al., 2013). The prevalence of HIV is particularly high for low-income transgender individuals and those of color (Herbst et al., 2008). Biomedical advances such as daily medications to prevent and treat HIV (e.g., Pre-Exposure Prophylaxis ("PrEP") and antiretroviral therapies ("ART"), respectively) can prevent HIV acquisition and transmission (Cohen et al., 2011; Grant et al., 2010). However, these medications require optimal adherence in order for them to be effective in curbing the spread of HIV (Bartlett, 2002; Deutsch, Glidden, et al., 2015; Grant et al., 2010; Paterson et al., 2000; Singh et al., 1999).

Notably, research shows that obtaining gender-affirming medical care (e.g., hormones and/or surgery) is linked to greater engagement in HIV prevention and treatment services, as

well as better adherence to medications (Deutsch, Chakravarty, et al., 2015; Radix, Sevelius, & Deutsch, 2016; Reisner et al., 2017; Sevelius, Patouhas, Keatley, & Johnson, 2013). Thus, consistent with this research, it is my professional opinion that providing coverage for gender-affirming care to transgender individuals is likely to reduce the spread of HIV and improve HIV-related morbidity and mortality for HIV-infected transgender people.

In the Medicaid context, preventing and properly treating HIV in the transgender Wisconsin Medicaid population may yield significant public health benefits and related cost savings. The Wisconsin Medicaid program spent $45,228,025 in 2013 on 1,900 enrollees with HIV/AIDS, which equated to $23,804 per enrollee (Kaiser Family Foundation, 2014). Given the enormous costs associated with the HIV epidemic, preventing new infections and reducing HIV-related morbidity and mortality through increased engagement in gender-affirming surgery and HIV-related medical care would likely lead to cost savings for the Wisconsin Medicaid program.

5. Socioeconomic Status

Many transgender individuals face employment discrimination as a result of their gender non-conforming identity or expression (James et al., 2016; White Hughto et al., 2015), which can lead to unemployment, low income, and Medicaid eligibility (Herman, 2011). Further, lack of employment and financial resources may lead transgender individuals to engage in activities such as sex work in order to meet basic needs, as well as to obtain the money to undergo gender-affirming treatments (Garofalo, Deleon, Osmer, Doll, & Harper, 2006; James et al., 2016).

Research finds that transgender patients who received hormonal and surgical treatment have higher socioeconomic status and are more likely to be employed following treatments than individuals without such care (Beckwith, Reisner, Zaslow, Mayer, & Keuroghlian, 2017). Moreover, a 5-year longitudinal study demonstrated improvements in socioeconomic status and employment following gender-affirming treatments (Bodlund & Kullgren, 1996). Improvements

in socioeconomic status may be explained by reduced employment discrimination on account of better visual gender conformity (Begun & Kattari, 2016; James et al., 2016). Transgender individuals who feel more affirmed in their gender identity following surgery may also be more likely to pursue employment opportunities due to lessened fears of stigma-based rejection (Gagné & Tewksbury, 1998; James et al., 2016).

Unemployment and underemployment among transgender individuals not only negatively impact the individual, but also carry costs for the general public as well. In fact, a 2017 report estimated that the costs of job loss due to discrimination among transgender individuals in Massachusetts was $3 million dollars annually for Medicaid and Commonwealth Care, a state-funded program that provides subsidized premiums for low-income Massachusetts residents to purchase private health insurance coverage (Herman, 2011). Further, when transgender individuals are forced to engage in sex work for economic survival, such activities carry numerous health risks (e.g., HIV infection, violence) (James et al., 2016; Nemoto, Bodeker, & Iwamoto, 2011) as well as social and economic costs associated with arrest and incarceration (Grant et al., 2011; Henrichson, 2015; Henrichson & Delaney, 2012; James et al., 2016; Pettus-Davis, Brown, Veeh, & Renn, 2016).

Based on the scientific evidence, it is my professional opinion that access to gender-affirming surgery for Wisconsin Medicaid beneficiaries is likely to lead to social and economic benefits for transgender beneficiaries, the Wisconsin Medicaid program, and the broader public, given anticipated reductions in unemployment and costs related to increased exposure to the criminal justice and healthcare systems. Improved socioeconomic status could also lead to fewer transgender individuals needing Wisconsin Medicaid coverage following the receipt of appropriate gender-affirming medical treatments for gender dysphoria.

C. Anticipated Cost-Effectiveness of Covering Gender-Affirming Healthcare Under Wisconsin Medicaid

Research finds that providing gender-affirming medical treatments to transgender individuals is cost effective. A recent national study analyzed the cost-effectiveness of insurance coverage for medically necessary, gender-affirming treatments and services for gender dysphoria, including surgery (Padula, Heru, & Campbell, 2016). In addition to calculating the direct financial costs of gender-affirming medical care, the study accounted for cost savings associated with reductions in negative health outcomes, including HIV, depression, suicidality, drug abuse, and mortality. The study found that while insurance coverage for medically-necessary services came at a greater cost than no health benefits, there was also greater effectiveness. Specifically, providing insurance coverage for gender-affirming medical care was deemed cost effective, relative to no health benefit for gender-affirming care, over a 5- and 10-year period.

Given the associated public health benefits and the overall cost-effectiveness of providing gender-affirming care outlined above, it is my professional opinion that the elimination of the Medicaid exclusion for gender-affirming surgeries would likely result in long-term cost savings for the State (both in general and for the Wisconsin Medicaid program specifically). Any assessment of the cost impact of ending the Wisconsin Medicaid exclusions related to gender-affirming care should, therefore, take the aforementioned benefits into account.

VII. CONCLUSION

In sum, it is my professional opinion, consistent with relevant peer-reviewed scientific research, clinical care standards for the treatment of gender dysphoria, and my own research, that Wisconsin Medicaid's exclusion on gender-affirming surgeries and related medical care conflicts with prevailing standards of care; likely harms and will likely continue to harm the mental and

physical health of transgender people who are denied access to this care; and likely contributes to adverse social, economic, and public health outcomes in Wisconsin.

Specifically, this form of structural stigma creates inequitable access to care and prevents transgender people from being able to obtain health-promoting and medically necessary resources. The denied access to gender-affirming care not only increases transgender people's risk for anxiety, depression, and suicidality but also places this vulnerable community at risk for experiencing mistreatment, including verbal harassment, physical and sexual assault, and other discrimination due to their visual gender non-conformity. Enabling coverage for gender-affirming surgeries under Medicaid will provide significant benefits for transgender people via anticipated reductions in gender dysphoria, depression, anxiety, suicidality, substance use, HIV transmission and acquisition, HIV morbidity and mortality, and physical and sexual assault, as well as improvements in socioeconomic status for many transgender individuals. Further, the direct benefits of improved access to gender-affirming care for transgender individuals who receive such care is likely to extend to the general public in the form of reduced social, economic, and health-related costs.

Accordingly, it is my professional opinion that eliminating Wisconsin Medicaid's categorical coverage exclusion would be consistent with sound public health practices and would likely contribute to lower discrimination, harassment, violence, and other forms of transgender stigma, as well as reduced morbidity and mortality for transgender Medicaid beneficiaries who are able to obtain gender-affirming medical care. Further, eliminating the Wisconsin Medicaid exclusion and providing equitable access to gender-affirming treatments for transgender Wisconsin Medicaid beneficiaries would likely yield significant public health benefits to transgender Medicaid enrollees in the state. Based on these anticipated public health benefits,

Wisconsin Medicaid and the State of Wisconsin overall are likely to experience long-term cost savings due to a reduction in the costs associated with comorbid conditions (e.g., substance use, HIV, suicidality) and related social, economic, and public health outcomes.

Furthermore, it is my professional opinion that ending the elimination of Wisconsin's categorical exclusion on Medicaid coverage for gender-affirming care and providing access to medically-necessary care would likely diminish enacted forms of stigma towards transgender people by establishing transgender people as equal under the law and deserving of the same rights, privileges, and resources afforded to cisgender people; and, in turn, has the potential to improve societal attitudes toward transgender people. Eliminating the exclusion would be a structural-level intervention that, in my professional opinion, would help dismantle the stigma currently codified in Wisconsin's Medicaid policies by providing equitable access to care for all people, regardless of gender identity.

Respectfully submitted,

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DATE: January 14, 2019

EXHIBIT A

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EDUCATION

2014-2017 **Yale School of Public Health, Yale University**, New Haven, CT
PhD *Chronic Disease Epidemiology*

2008-2010 **Rollins School of Public Health, Emory University**, Atlanta, GA
MPH *Behavioral Science & Health Education*

2002-2006 **Boston University**, Boston, MA
BA *Psychology*

FACULTY APPOINTMENT

2018-Present **Investigator (Research Faculty)**
Department of Epidemiology
Department of Behavioral and Social Sciences
Brown University School of Public Health, Providence, RI

RESEARCH APPOINTMENTS (NON-FACULTY)

2018-Present **Adjunct Investigator**
Health Policy Department
RAND Corporation, Boston, MA

2014-Present **Research Analyst**
Epidemiology Department
The Fenway Institute, Fenway Health, Boston, MA

2014-2018 **Pre-Doctoral Research Fellow**
Department of Chronic Disease Epidemiology
Yale School of Public Health, New Haven, CT

2011-2014 **Director of Epidemiology Projects**
Epidemiology Department
The Fenway Institute, Fenway Health, Boston, MA

2010-2011 **Research Associate**
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The Fenway Institute, Fenway Health, Boston, MA

2009-2010 **Graduate Research Assistant**
Epidemiology Department
Rollins School of Public Health, Emory University, Atlanta, GA

Fall, 2009 **Program Evaluator**
Da CRIBB
National AIDS Education & Services for Minorities, Atlanta, GA

Fall, 2009 **Community Needs Evaluator**
Southern REACH Grant Program
National AIDS Fund, Atlanta, GA

Summer, 2009 **Risk Assessment Intern**
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National AIDS Education & Services for Minorities, Atlanta, GA

TEACHING EXPERIENCE

Spring 2019 **Co-Instructor**, **Designing Education for Better Prisoner and Community Health** *Lead Instructor: Brad Brockmann, JD, MDiv*
Brown School of Public Health, Providence, RI

Spring 2017 **Teaching Fellow**, **Questionnaire Development**
Professor: Marney White, PhD, MPH
Yale School of Public Health, New Haven, CT

2015 & 2016 **Teaching Fellow, Stigma and Health**
Professor: John Pachankis, PhD
Yale School of Public Health, New Haven, CT

Spring, 2016 **Teaching Fellow, Qualitative Methods**
Professor: Danya Keene, PhD
Yale School of Public Health, New Haven, CT

Fall, 2013 **Teaching Fellow, Introduction to Epidemiology**
Professors: Lisa Fredman, PhD, MSPH and Katie Biello, PhD, MPH
Boston University School of Public Health, New Haven, CT

OTHER PROFESSIONAL & VOLUNTEER EXPERIENCE

2006-2008 **Associate Account Executive**
Public Affairs Practice
Ketchum, Washington DC and Atlanta, GA

Summer 2006 **Harold Burson Summer Intern**
Corporate Practice
Burson-Marsteller, New York, NY

Spring 2005 **Legal Assistant**
Boston University Internship Program
Okoshken Law Offices, Paris, France

2001-2002 **Campaign Intern**
District Attorney Campaign
2002 Worcester County Elections, Worcester, MA

2015-2016 **Transgender Health Educator**
Connecticut Department of Corrections
UConn Correctional Managed Health Care, State of Connecticut

2012-2015 **Research Consultant**
Massachusetts Transgender Political Coalition, Boston, MA

2011-2013 **Fundraising Volunteer**
Crystal Ball Planning Committee
Stepping Stones Foundation, Boston, MA

2009-2010 **Volunteer HIV Tester and Counselor**
AID Atlanta, Atlanta, GA

2002-2006 **Website Developer and Events Coordinator**
F.O.R. Special Friends, Shrewsbury, MA

2003-2005 **Events Volunteer**
Service for Sight, Boston, MA

HONORS & AWARDS

2018-2019 **Extramural Health Disparities Loan Repayment Program**
National Institute of Minority Health & Health Disparities
National Institutes of Mental Health

2017 **Completion of PhD Dissertation with Distinction**
Documenting and Disrupting the Health-Risk Trajectories of Criminal-Justice-Involved Transgender Women Before, During, and After Incarceration
Yale School of Public Health, New Haven, CT

2015 **Doctoral Student Research Award**
Retirement Research Foundation
143rd American Public Health Association Conference, Chicago, IL

2014 **Excellence in Abstract Submission among All Presenters**
HIV/AIDS Section
142nd American Public Health Association Conference, New Orleans, LA

REVIEWER (SELECTED JOURNALS)

2018-Present *Journal of General Internal Medicine*
2018-Present *Social Science and Medicine*
2017-Present *Health Equity*
2017-Present *Journal of Applied Gerontology*
2017-Present *Sexual Health*
2017-Present *Transgender Health*
2016-Present *Journal of Affective Disorders*
2016-Present *Stigma and Health*
2015-Present *Behavioral Medicine*
2014-Present *BMC Infectious Disease*
2014-Present *JAIDS*
2014-Present *Sex Roles*
2014-Present *AIDS Care*
2014-Present *Global Public Health*
2014-Present *LGBT Health*
2013-Present *AIDS and Behavior*

PROFESSIONAL MEMBERSHIP

2015-Present **American Society of Criminology**

2013-Present **American Public Health Association**
HIV/AIDS Caucus, LGBT Caucus, & Aging Caucus

CLINICAL CERTIFICATIONS

2013 **Narcan Administration, State Certification**
AIDS Action Committee, Boston, MA

2012 **Mini International Neuropsychiatric Interview 6.0, Interviewer Certification**
Massachusetts General Hospital, Boston, MA

2011 **OraQuick Rapid HIV Testing, Massachusetts State Certification**
JRI Health, Boston, MA

2010 **Fundamentals of HIV, Hepatitis and STIs, Massachusetts State Certification**
JRI Health, Boston, MA

2010 **Behavioral Risk Assessment and Reduction, Massachusetts State Certification**
JRI Health, Boston, MA

2010 **HIV Counseling & Testing, Massachusetts State Certification**
JRI Health, Boston, MA

2010 **Mental Health Certificate, Rollins School of Public Health**
Emory University, Atlanta, GA

2009 **OraQuick Rapid Testing, Georgia State Certification**
Emory University, Atlanta, GA

RESEARCH INTERESTS

- Sexuality, Gender, and Human Rights Research and Advocacy
- Health Disparity Research and Prevention in Sexual, Gender, and Racial Minority Populations
- Epidemiology and Prevention of HIV/AIDS, STIs, Mental Illness, and Substance Abuse
- Quantitative and Qualitative Research Methodology, Measurement, and Analysis

PEER-REVIEWED PUBLICATIONS

Published/In-Press:

1. Peitzmeier, S., **Hughto, J.M.W.**, Potter, J., & Reisner, S.L. (In Press). Development of a novel tool to assess intimate partner violence against transgender individuals. *Journal of Interpersonal Violence.*

2. McDowell, M.**, Hughto, J.M.W.**, & Reisner, S.L. (In Press). Protective and risk factors for mental illness in gender minority patients: A biobehavioral-based study. *BMC Psychiatry.*

3. Mimiaga, M.J., **Hughto, J.M.W.** & Reisner, S. (In Press) A pilot randomized controlled trial of a group-delivered HIV risk reduction intervention for at-risk urban MSM who regularly attend private sex events. *Archives of Sexual Behavior*.

4. Fu, E., White, M., **Hughto, J.M.W.**, Kotlyar, B., & Willis, E. (In Press) Development and reliability of the physical activity tracking preference questionnaire. *International Journal of Exercise Science.*

5. **Hughto, J.M.W.** & Clark, K.A. (In Press) Designing a transgender health training for correctional healthcare providers: A feasibility study. *The Prison Journal.*

6. **Hughto, J.M.W.**, Pachankis, J.E., & Reisner, S.L. (2018) Healthcare mistreatment and avoidance in trans masculine adults: The mediating role of rejection sensitivity. *Psychology of Sexual Orientation and Gender Identity*. Ahead of print.

7. **White Hughto, J.M**., Clark, K.A., Reisner, S.L., Kershaw, T.S., Altice, F.L., & Pachankis, J.E. (2018) Creating, reinforcing, and resisting the gender binary: A qualitative study of transgender women's healthcare experiences in sex-segregated jails and prisons. *International Journal of Prisoner Health,* 14(2), 1-20.

8. **White Hughto, J.M**., Reisner, S.L., Kershaw, T.S., Altice, F.L., Biello, K., Mimiaga, M.J., Garofalo, R., Kuhns, L.M., & Pachankis, J.E. (2018) A multisite, longitudinal study of risk factors for incarceration and impact on mental health and substance use among young transgender women in the USA. *Journal of Public Health,* Ahead of print, 1-10.

9. Cai, X., **Hughto, J.M.W.**, Reisner, S.L., Pachankis, J.E., & Levy, B. (2018) Later life alignment of mind and body: Benefit of medical gender-affirmation treatments for older transgender persons. *LGBT Health,* Ahead of print, 1-6.

10. Agenor, M., **White Hughto, J.M.,** Peitzmeier, S.M., Potter, J., Deutsch, M., Pardee, D.J. & Reisner, S.L. (2018) Gender identity disparities in Pap test use in a sample of binary and non-binary transmasculine adults. *Journal of General Internal Medicine*. Ahead of print, 1-3.

11. Diemer, E., **White Hughto, J.M**. Gordon, A., Guss, C., Austin, S.B., & Reisner, S.L. (2018) Beyond the binary: Differences in eating disorder prevalence by gender identity in a transgender sample. *Transgender Health, 3*(1), 17-24.

12. Reisner, S.L., Deutsch, M.B., Peitzmeier, S., **White Hughto, J.M.**, Cavanaugh, T., Pardee, D.J., McLean, S., Panther, L.A., Gelman, M., Mimiaga, M.J., & Potter, J., (2018) Test performance and acceptability of self- versus provider-collected swabs for high-risk HPV DNA testing in female-to-male trans masculine patients. *PloS One.* 13(3): e0190172.

13. Mimiaga, M.J., Kuhns, L.M., Biello, K.B., Olson, J., Hoehnle, S., Santostefano, C.M., **Hughto, J.M.W.**, **&** Garofalo, R. (2018) Positive STEPS – a randomized controlled efficacy trial of an adaptive intervention for strengthening adherence to antiretroviral HIV treatment among youth: study protocol. *BMC Public Health*. *18*(1), 867-896.

14. Mimiaga, M.J., Pantalone, D.W., Biello, K.B., Glynn, T.R., Santostefano, C.M., Olson, J., Pardee, D.J., **Hughto, J.M.W**., Valles, J.G., Carrico, A.W., Mayer, K.H., & Safren, S.A. (2018) A randomized controlled efficacy trial of behavioral activation for concurrent stimulant use and sexual risk for HIV acquisition among MSM: Project IMPACT study protocol. *BMC Public Health*. *18*(1) 914-925.

15. **White Hughto, J.M**., Clark, K.A., Altice, F.L., Reisner, S.L., Kershaw, T.S., & Pachankis, J.E. (2017) Improving correctional healthcare providers' ability to care for transgender patients: Evaluation of a theory-driven cultural and clinical competence intervention. *Social Science & Medicine*, 195, 159-169.

16. **White Hughto, J.M**., Pachankis, J.E., Willie, T.C., & Reisner, S.L. (2017) Victimization and depressive symptomology in transgender adults: The mediating role of avoidant coping. *Journal of Counseling Psychology*, *64*(1), 41-51.

17. **White Hughto, J.M.**, Rose, A.J., Pachankis, J.E., & Reisner, S.L. (2017). Barriers to gender transition-related healthcare: Identifying underserved transgender adults in Massachusetts. *Transgender Health*, *2*(1), 107-118.

18. Clark, K.A., **White Hughto, J.M**., & Pachankis, J.E. (2017) "What's the right thing to do?": Correctional healthcare providers' knowledge, attitudes, and experiences caring for transgender inmates. *Social Science & Medicine, 193*(Supplement C), 80-89.

19. Wang, K., **White Hughto, J.M**., Biello, K., O'Cleirigh, C., Mayer, K., Rosenberg, J., Novak, D., & Mimiaga, M.J. (2017) The role of distress intolerance in the relationship between childhood sexual abuse and problematic alcohol use among Latin American MSM. Submitting to *Drug & Alcohol Dependence, 175,* 151-156.

20. Reisner, S.L., Jadwin-Cakmak, L., **White Hughto, J.M.**, Martinez, M., Salomon, L., & Harper, G.W. (2017) Characterizing the HIV prevention and care continua in a sample of transgender youth in the U.S. *AIDS & Behavior*, Ahead of print.

21. Reisner, S.L., Randazzo, R. **White Hughto, J.M.** Peitzmeizer, S., DuBois, Z., Pardee, D., Marrow, E., & Potter, J. (2017) Sensitive health topics with underserved patient populations: Methodological considerations for online focus group discussions. *Qualitative Health Research,* Ahead of print.

22. Willie, T.C., Chakrapani, V., **White Hughto, J.M.**, & Kershaw, T.S. (2017) Victimization and human immunodeficiency virus-related risk among transgender women in India: A latent profile analysis. *Violence & Gender,* Ahead of print.

23. Reisner, S.L., Deutsch, M., Peitzmeizer, S., **White Hughto, J.M.**, Cavanaugh, T., Pardee, D., McClean S., Marrow, E., Mimiaga, M.J., Panther, L., Gelman, M., Green, J., & Potter, J. (2017) Comparing self- and provider-collected swabbing for HPV DNA testing in female-to-male transgender adult patients: A mixed-methods biobehavioral study protocol. *BMC Infectious Diseases*, 17(1), 444-454.

24. Vijay, A., Wickersham, J.A., Earnshaw, V.A., Tee, Y.C., Pillai, V., **White Hughto, J.M**., Clark, K.A., Kamarulzaman, A., & Altice, F.L. (2017) Factors associated with medical doctors' intention to discriminate against transgender patients in Kuala Lumpur, Malaysia. *LGBT Health,* Ahead of print.

25. **White Hughto, J.M**., Murchison, G., Clark, K.A., Pachankis, J.E., & Reisner, S.L. (2016) Geographic and individual differences in healthcare access for U.S. transgender adults: A multilevel analysis. *LGBT Health*, *3*(6), 424-433.

26. **White Hughto, J.M.**, Pachankis, J.E., Edlahan, A.I., & Keene, D.E. (2016) "You can't just walk down the street and meet someone:" The intersection of social-sexual networking technology, stigma, and health among gay and bisexual men in the small city. *American Journal of Men's Health*, Ahead of print.

27. **White Hughto, J.M.**, Robertson, A.M., Hilalgo, A., Reisner, S.L., Rowley, B.R., & Mimiaga, M.J. (2016) Indicators of HIV-risk resilience among men who have sex with men: A content analysis of online profiles. *Sexual Health,* Ahead of print.

28. **White Hughto, J.M.** & Reisner, S.L. (2016) Social context of depressive distress in aging transgender adults. *Journal of Applied Gerontology*, Ahead of print.

29. **White Hughto, J.M.** & Reisner, S.L. (2016) A systematic review of the effects of hormone therapy on psychological functioning and quality of life in transgender individuals. *Transgender Health, 1*(1), 21-31.

30. **White Hughto, J.M.**, Biello, K.B., Reisner, S.L., Perez-Brumer, A., Heflin, K.J., & Mimiaga, M.J. (2016) Health risk behaviors in a representative sample of bisexual and heterosexual female high school students in Massachusetts. *Journal of School Health, 86*(1), 61-71.

31. Reisner, S.L., **White Hughto, J.M.**, Gamarel, K.E., Mizock, L., Keuroghlian, A.S., & Pachankis, J.E. (2016) Discriminatory experiences associated with posttraumatic stress disorder symptoms among transgender adults. *Journal of Counseling Psychology, 63*(5), 509-519.

32. Reisner S.L., **White Hughto, J.M.**, Pardee, D.J., Kuhns, L., Garofalo, R., & Mimiaga, M.J. (2016). LifeSkills for Men (LS4M): Pilot evaluation of a gender-affirmative HIV and STI prevention intervention for young adult transgender men who have sex with men. *Journal of Urban Health*. *93*(1), 189-205.

33. Reisner, S.L., Biello, K.B., **White Hughto, J.M.**, Kuhns, L., Mayer, K.H., Garofalo, R., & Mimiaga, M.J. (2016) Psychiatric diagnoses and comorbidities in a diverse, multicity cohort of young transgender women: Baseline findings from Project LifeSkills. *JAMA Pediatrics*, 170(5), 481-486.

34. Gordon, A., Austin, B., Krieger, N., **White Hughto, J.M.**, & Reisner, S. (2016). "I have to constantly prove to myself, to people, that I fit the bill": Perspectives on weight and shape control behaviors among low-income, ethnically diverse young transgender women. *Social Science & Medicine,* 165, 141-149.

35. Katz-Wise, S.L., Reisner, S.L., **White Hughto, J.M.**, & Budge, S. (2016) Self-reported changes in attractions and social determinants of mental health in transgender adults. *Archives of Sexual Behavior,* 1-15.

36. Keene, D.E., Eldahan, A.I., **White Hughto, J.M**., & Pachankis, J.E. (2016). 'The big ole gay express': sexual minority stigma, mobility and health in the small city. *Culture, Health & Sexuality*, 1-14.

37. **White Hughto, J.M.**, Reisner, S.L., & Mimiaga, M.J. (2015) Characteristics of transgender residents of Massachusetts' cities with high HIV prevalence. *American Journal of Public Health*, *105*(12), e14–e18.

38. **White Hughto, J.M.,** Reisner, S.L., & Pachankis, J.E. (2015) Transgender stigma and health: A critical review of stigma determinants, mechanisms, and interventions. *Social, Science & Medicine,* 147, 222–231.

39. **White, J.M.**, Dunham, E., Rowley, B.R., Reisner, S.L., & Mimiaga, M.J. (2015) Sexually explicit racialised media targeting men who have sex with men online: A content analysis of high-risk behaviour depicted in online advertisements. *Culture, Health & Sexuality, 17*(8), 1-14.

40. Reisner, S.L., **White Hughto, J.M.**, Dunham, E., Heflin, K.H., Begenyi, J.B.G., Coffey-Esquivel, J., & Cahill, S. (2015) Legal protections in public accommodations settings: A critical public health issue for gender minority people. *Milbank Quarterly*. *93*(3), 1–32.

41. Reisner, S.L., **White Hughto, J.M.**, Pardee, D., & Sevelius, J. (2015) Syndemics and gender affirmation: HIV sexual risk in female-to-male trans masculine adults reporting sexual contact with cisgender males. *International Journal of STD & AIDS*, *27*(11), 955–966.

42. Katz-Wise, S.L., Reisner, S.L., **White Hughto, J.M.**, & Keo-Meier, S.C. (2015) Differences in sexual orientation diversity and sexual fluidity in attractions among gender minority adults. *Journal of Sex Research*, *53*(1), 74-84.

43. Keuroghlian, A.S., Reisner, S.L., **White, J.M.**, & Weiss, R. (2015) Substance use and treatment of substance use disorders in a community sample of transgender adults. *Drug & Alcohol Dependence, 1*52, 139-146.

44. Reisner, S.L., Vetters, R., **White, J.M.**, Cohen, E.L., LeClerc, M., Zaslow, S. Wolfrum, S., & Mimiaga, M.J. (2015) Laboratory-confirmed HIV and sexually transmitted infection seropositivity and risk behavior among sexually active transgender patients at an adolescent and young adult urban community health center. *AIDS Care*, *27*(8), 1031-1036.

45. Reisner, S.L., Pardo, S.T., Gamarel, K.E., **White Hughto, J.M.**, Pardee, D.J., & Keo-Meier, C.L. (2015). Substance use to cope with stigma in healthcare among US female-to-male trans masculine adults. *LGBT Health*, *1*(3), 177-184.

46. **White, J.M.**, Gordon, J., & Mimiaga, M.J. (2014) The role of substance use and mental health problems in medication adherence among HIV-infected MSM. *LGBT Health, 1*(4), 319-322.

47. **White, J.M.**, Reisner, S.L., Dunham, E., & Mimiaga, M.J. (2014). Race-based sexual preferences in a sample of online profiles of urban men seeking sex with men. *Journal of Urban Health*, *91*(4), 768-775.

48. Reisner, S.L., **White, J.M.,** Bradford, J.B., & Mimiaga, M.J. (2014) Transgender health disparities: Comparing full cohort and nested matched-pair study designs in a community health center. *LGBT Health*, *1*(3): 177-184.

49. Mimiaga, M.J., **White, J.M.**, Krakower, D.S., Biello, K.B., & Mayer, K.H. (2014) Suboptimal awareness and comprehension of published pre-exposure prophylaxis efficacy results among Massachusetts physicians. *AIDS Care, 26*(6), 684-693.

50. Reisner, S.L., **White, J.M.,** Mayer, K.H., & Mimiaga, M.J. (2014) Sexual risk behaviors and psychosocial health concerns of female-to-male transgender men screening for STDs at an urban community health center. *AIDS Care, 26*(7), 857-864.

51. **White, J.M.**, Mimiaga, M.J., Reisner, S.L., & Mayer, K. H. (2013). HIV sexual risk behavior among black men who meet other men on the internet for sex. *Journal of Urban Health*, *90*(3), 464-481.

52. **White, J.M.**, Mimiaga, M.J., Krakower, D.S., & Mayer, K.H. (2012). Evolution of Massachusetts physician attitudes, knowledge and experience regarding the use of antiretrovirals for HIV prevention. *AIDS Patient Care & STDs*, *26*(7), 395-405.

53. Krakower, D., Mimiaga, M.J., Rosenberger, J., Novak, D., Mitty, J., **White, J.M.**, & Mayer, K.H. (2012). Limited awareness and low immediate uptake of pre-exposure prophylaxis among men who have sex with men using an internet social networking site. *PloS One*, *7*(3), e33119.

54. Bland, S.E., Bland, S. E., Mimiaga, M.J., Reisner, S.L., **White, J.M.**, Driscoll, M.A., Isenberg, D., Cranston, K., & Mayer, K.H. (2012). Sentencing risk: History of incarceration and HIV/STD transmission risk behaviours among black men who have sex with men in Massachusetts. *Culture, Health & Sexuality*, *14*(3), 329-345.

55. Rajasingham, R., Mimiaga, M.J., **White, J.M.**, Pinkston, M.M., Baden, R.P., & Mitty, J.A. (2012). A systematic review of behavioral and treatment outcome studies among HIV-infected men who have sex with men who abuse crystal methamphetamine. *AIDS Patient Care & STDs*, *26*(1), 36-52.

Under Review:

56. **Hughto, J.M.W.,** Rood, B.A., Gunn, H., & Pantalone, D.W. (R & R) Gender affirmation and mental health: Findings from a U.S. national sample of transgender adults. *Archives of Sexual Behavior*.

57. Clark, K.A. & **Hughto, J.M.W.** (R & R) Development and psychometric evaluation of the Transgender Knowledge, Attitudes, and Beliefs (T-KAB) scale. *Sexuality Research & Social Policy*.

58. Jadwin-Cakmak, L., Reisner, S.L., **Hughto, J.M.W.,** Salomon, L., Martinex, M., Popoff, E., Campbell, B.A., & Harper, G. (R & R) HIV prevention and HIV care among transgender and gender diverse youth: Design and implementation of a multisite mixed-methods study protocol in the U.S. *BMC Public Health.*

59. Pachankis, J.E., Clark, K.A., Burton, C.M., **Hughto, J.M.W**., & Keene, D. (R& R) Sex, status, competition, and exclusion: Intra-minority stress from within the gay community and sexual minority men's mental-health. *Journal of Personality and Social Psychology.*

60. Reisner, S. & **Hughto, J.M.W.** (Under Review) Transgender health beyond the binary: Characterizing the health of non-binary adults. *Journal of Epidemiology & Community Health.*

61. Clark, B., **Hughto, J.M.W.**, Charlton, B.M., & Reisner, S.L. (Under Review) The contraceptive and reproductive history and planning goals of trans masculine adults: A mixed methods study. *Contraception.*

62. Mimiaga, M.J. **Hughto, J.M.W.**, Biello, K.B., Santostefano, C., Kuhns, K., Reisner, S.L., Garofalo, R. (Under Review) Longitudinal analysis of syndemic psychosocial problems predicting HIV risk behavior among a multicity prospective cohort of sexually active young transgender women in the United States. *Lancet HIV*.

63. Mimiaga, M.J., Pantalone, D., Biello, K., **Hughto, J.M.W.,** Frank, J., O'Cleirigh, C., Reisner, S.L., Mayer, K., & Safren, S. (Under Review) Behavioral activation integrated with sexual risk reduction counseling for high-risk MSM with crystal methamphetamine dependence: An initial randomized controlled trial. *Archives of Sexual Behavior*.

BOOK CHAPTERS AND OTHER PUBLICATIONS

1. **White, J.M.**, Gordon, J., & Mimiaga, M.J. (2017) HIV-infected gay men and adherence to HIV antiretroviral therapies. In Leo Wilton (Ed.), *Understanding Prevention for HIV Positive Gay Men* (pp. 151-192). New York, NY: Springer.

2. Reisner, S.L., **White, J.M.**, Dunham, E., Helfin, K.H., Bengini, J., & Cahill, S. (2014) Project VOICE policy report. Fenway Health. Boston, MA. http://fenwayfocus.org/wp-content/uploads/2014/07/The-Fenway-Institute-MTPC-Project-VOICE-Report-July-2014.pdf

3. **White, J.M.** & Mimiaga, M.J. (2011) Intervention development for HIV sexual risk reduction among high-risk men who have sex with men. *Acção & Tratamentos*, (26).

CONFERENCE AND SYMPOSIA PRESENTATIONS

1. **Hughto, J.M.W.,** Rood, B.A., & Pantalone, D.W. Gender affirmation and mental health: Findings from a U.S. national sample of transgender adults. Poster to be presented at the Society of Behavioral Medicine Conference, Washington, DC.

2. **Hughto, J.M.W.,** Deutsch, M., Peitzmeier, S., Potter, J., Mimiaga, M., & Reisner, S.L. High awareness but low uptake of Pre-Exposure Prophylaxis (PrEP) in a community sample of trans masculine adults. Poster presented at the 146th American Public Health Association Conference, San Diego, CA.

3. **White Hughto, J.M.**, Clark, K.A., Pachankis, J.E. (2017, November) Correlates of transgender cultural and clinical competency among healthcare providers in Massachusetts. Oral presentation at the 145th American Public Health Association Conference, Atlanta, GA.

4. Peitzmeier, S.M., **White Hughto, J.M.**, Potter, J., Deutsch, M. Reisner, S.L. (2017, September) Development of a novel tool to assess intimate partner violence against transgender individuals. Oral presentation at the Gay and Lesbian Medical Association 35th Annual *Conference* on LGBT Health, Philadelphia, PA.

5. Clark, K.A. & **White Hughto, J.M.** (2017, February) Development and psychometric evaluation of the Transgender Knowledge, Attitudes, and Beliefs (T-KAB) scale. Oral presentation at the World Professional Association of Transgender Health Conference. Los Angeles, CA.

6. Clark, K.A. & **White Hughto, J.M.*** (2016, October) "We are Guests in Their House": A qualitative analysis of correctional healthcare providers' knowledge, attitudes, and experiences caring for transgender inmates. Oral presentation at the 2016 American Society of Criminology Conference. New Orleans, LA. * Co-Presenter

7. **White Hughto, J.M.** & Clark, K.A. (2016, October) Development and pilot testing of transgender knowledge intervention for correctional healthcare providers. Oral presentation at the 144th American Public Health Association Conference, Denver, CO.

8. Hereth, J., Kuhns, L.M., Reisner, S.L., **White Hughto, J.M.**, Mimiaga, M.J., Garofalo, R., and the Project Lifeskills Team. (2016, October) Social and structural marginalization are highly associated with a history of arrest among young transgender women. Oral presentation at the 144th American Public Health Association Conference, Denver, CO.

9. **White Hughto, J.M.,** Clark, K.A., Michelson, L., Reisner, S.L., & Pachankis, J.E. (2016, October). "They're Not Addressing Trans Needs": A qualitative analysis of transgender women's healthcare access and experiences while incarcerated. Poster presented at the 144th American Public Health Association Conference, Denver, CO.

10. **White Hughto, J.M.,** Reisner, S.L., & Pachankis, J.E. (2016, July) Understanding the consequences of the U.S. Prison Rape Elimination Act (PREA) for transgender women's sexual assault and HIV transmission. Poster presented at the 2016 International AIDS Society Conference, Durban, South Africa.

11. Reisner, S.L., Deutsch, M., Cavanaugh, T., **White Hughto, J.M.**, Peitzmeier, S., Pardee, D.J., McLean, S., Mimiaga, M.J., Panther, L., & Potter, J. (2016, June) Assessing the non-inferiority, acceptability, and feasibility of a frontal/vaginal self-swab for HPV DNA compared to provider-collected cervical cytology and HPV DNA/mRNA among female-to-male (FTM) trans masculine patients. Oral presentation at the World Professional Association of Transgender Health Bi-Annual Conference, Amsterdam, Netherlands.

12. Reisner, S.L., Deutsch, M., Cavanaugh, T., Pardee, D.J., **White Hughto, J.M.**, Peitzmeier, S., McLean, S., Mimiaga, M.J., Panther, L., & Potter, J. (2016, June) Best practices for obtaining a sexual health history with trans masculine individuals: Lessons learned from self-administered surveys and provider-collected clinical interview data. Oral presentation at the World Professional Association of Transgender Health Bi-Annual Conference, Amsterdam, Netherlands.

13. **White Hughto, J.M.** & Reisner, S.L. (2015, November) Aging transgender adults in Massachusetts: Social stress, mental health, and physical health indicators. Oral presentation at the 143rd American Public Health Association Conference, Chicago, IL.

14. **White Hughto, J.M.**, Reisner, S.L., Dunham, E., & Pachankis, J.E. (2015, November) Barriers to transition-related healthcare among transgender adults in Massachusetts. Oral presentation at the 143rd American Public Health Association Conference, Chicago, IL.

15. Dunham, E., **White, J.M.**, & Reisner, S.L. (2015, November) Transgender students attending public and private schools in Massachusetts: Implications of policy and health differences. Poster presented at the 143rd American Public Health Association Conference, Chicago, IL.

16. Gordon, A.R., Austin, S.B., Okechukwu, C., Krieger, N., **White, J.M.**, & Reisner, S.L. (2015, November) Weight and shape control behaviors among young transgender women: Findings from Project Body Talk. Poster presented at the 143rd American Public Health Association Conference, Chicago, IL.

17. Smoyer, A. & **White Hughto, J.M.*** (2015, November) Separate but equal? Contesting transgender prison spaces. Oral presentation at the 2015 American Society of Criminology Conference. Washington, DC. * Co-Presenter

18. Gordon, A.R., **White, J.M.**, Austin, S.B., Reisner, S.L. (2015, June) "Not only do you deal with the bullshit from society, but also having to accept yourself and be happy with yourself can be really hard": Body image and weight and shape control among young trans women. Oral presentation at the 11th Annual Philadelphia Trans Health Conference, Philadelphia, PA.

19. **White, J.M**., Murchison, G. & Reisner, S.L. (2015, April) Access to care barriers among transgender people in the US: Findings from the U.S. National Transgender Discrimination Survey. Oral presentation at the 2015 National Transgender Health Summit, Oakland, CA.

20. **White, J.M.**, Reisner, S.L., & Mimiaga, M.J. (2014, October) Location matters: Correlates of HIV risk behaviors and HIV "hot spots" among transgender residents of Massachusetts. Oral presentation at the 142nd American Public Health Association Conference, New Orleans, LA.

21. Reisner, S.L., **White, J.M.**, Dunham, E., Begenyi, J., Heflin, K., & Cahill, S. (2014, October) Legal protections in public accommodations settings: A critical public health issue for transgender adults in Massachusetts. Oral presentation at the 142nd American Public Health Association Conference, New Orleans, LA.

22. Reisner, S.L., Pardo, S., Gamarel, K., **White, J.M.**, Pardee, D., & Meier, C. (2014, October) Experiences of stigma in healthcare among U.S. trans masculine adults: A gender minority stress model of substance use to cope with mistreatment. Oral presentation at the 142nd American Public Health Association Conference, New Orleans, LA.

23. Reisner, S.L. & **White, J.M.*** (2014, February) U.S. National Transgender Discrimination Study (NTDS) stress and health among FTMs: A gender minority stress model of health disparities. Oral presentation at the 2014 World Professional Association of Transgender Health Conference, Bangkok, Thailand. *Presenter

24. Perez-Brumer, A., **White, J. M.**, Pantalone, D., Garber, M., Safren, S. A., & Mimiaga, M. J. (2013, November). High rates of co-occurring mental health and substance use problems in men who have sex with men (MSM) screening for a behavioral intervention to reduce crystal methamphetamine use and HIV risk behaviors. Poster presented at the 141st American Public Health Association Conference, Boston, MA.

25. Dunham, E., & **White, J.M.** (2013, May) Project LifeSkills: Engaging young transgender women in HIV prevention research and public health practice. Oral presentation at the 2013 National Transgender Health Summit, Oakland, CA.

26. Dunham, E., Love, V. & **White, J.M.** (2013, April) Engaging youth in transgender projects and programs: A presentation by LifeSkills project staff at Fenway Health. Oral presentation at the 7th Annual Transgender Lives Conference, Farmington, CT. *Co-Presenter

27. **White, J.M.**, Taller, A., Love, V., Rash, N., & Hidalgo, A. (2013, March) From knowledge to action: Your voice in LGBTQ research. Oral presentation at the 2013 Gay Lesbian and Straight Education Network Conference, Boston, MA.

28. **White, J.M.**, Reisner, S.L., & Mimiaga, M.J. (2012, October) A population-based study of sexual risk behaviors among sexually active adolescent females: A comparison of behaviorally bisexual to behaviorally heterosexual high school students in Massachusetts. Oral presentation at the 140th American Public Health Association Conference, San Francisco, CA.

29. **White, J.M.**, Reisner, S.L., Pantalone, D., & Mimiaga, M.J. (2012, October) Association between race-based preferences and desired sexual practices among men seeking men for sex on the Internet: Implications for sexual health. Oral presentation at the 140th American Public Health Association Conference, San Francisco, CA.

30. **White, J.M.**, Reisner, S.L., Mimiaga, M.J. (2012, October) Racial preferences and sexual partnering: A content analysis of the online profiles of men seeking sex with men on the Internet. Poster presented at the 140th American Public Health Association Conference, San Francisco, CA.

31. Krakower, D., Mimiaga, M., Rosenberger, J., Novak, D., Mitty, J., **White, J.**, & Mayer, K. (2012, July) Anticipated risk compensation with pre-exposure prophylaxis use among North American men who have sex with men using an internet social network. Oral presentation at the XIX International AIDS Society Conference, Washington, DC.

32. **White, J.M.**, Reisner, S.L., & LifeSkills Study Team. (2012, May) Group-delivered HIV prevention with young trans women: Strategies for community engagement, delivery and dissemination. Oral presentation at the 11th Annual Philadelphia Trans Health Conference, Philadelphia, PA.

33. **White. J.M.** (presented on behalf of M. Mimiaga) Mimiaga, M., Crane, H., Wilson, J., Grasso, C., & Safren, S. (2012, April) Negative affect moderates the association between at-risk sexual behaviors and substance use during sex: Findings from a large cohort study of HIV-infected males engaged in primary care in the US. Oral presentation at the 2012 Society of Behavioral Medicine Conference, New Orleans, LA.

34. **White, J.M.**, Mimiaga, M.J., Reisner, S.L., & Mayer, K.H. (2012, April) Pilot RCT of a group-based HIV risk reduction intervention for HIV-uninfected urban MSM attending sex parties. Poster presented at the 33rd Meeting & Scientific Sessions of the Society of Behavioral Medicine. New Orleans, LA.

35. Mayer, K. H., Krakower, D. S., Rosenberger, J.G., Novak, D.S., **White, J. M.**, & Mimiaga, M. J. (2012, April) Pill or gel: Preferences of at risk Canadian and American men who have sex with men recruited via a social network site regarding oral or topical chemoprophylaxis. Oral presentation at the 2012 International Microbicides Conference, Sydney, Australia.

36. Mayer, K.H., **White, J.M.**, Krakower, D.S., & Mimiaga, M.J (2011, October) The evolution of Massachusetts physician attitudes, knowledge and experience with antiretroviral chemoprophylaxis before and after the release of the iPrEx data. Poster presented at the 49th Meeting of the Infectious Diseases Society of America, Boston, MA.

37. **White, J.M.**, Mimiaga, M.J., & Mayer, K.H. (2011, August) Engagement of Massachusetts physicians in HIV prevention: Results of an online survey. Oral presentation at the 2011 National HIV Prevention Conference. Atlanta, GA.

38. Mimiaga, M.J., **White, J.M.**, Reisner, S.L., & Mayer, K.H. (2011, August). High prevalence of depression and loneliness exacerbate HIV risk among urban MSM attending sex parties. Oral presentation at the 2011 National HIV Prevention Conference. Atlanta, GA.

39. Rowley, B., Mimiaga, M.J., **White, J.M.**, Reisner, S.L., & Mayer, K.H. (2011, August). Sex party attendance and HIV risk among MSM in Massachusetts: Results from Project PARTY screening. Oral presentation at the 2011 National HIV Prevention Conference. Atlanta, GA.

40. **White, J.M.**, Mimiaga, M.J., Reisner, S.L., & Mayer, K.H. (2011, August) Self-perception of HIV risk and sexual risk behavior among MSM who attend sex parties. Poster presented at the 2011 National HIV Prevention Conference, Atlanta, GA.

41. Mayer, K.H., **White, J.M.,** Krakower, D.S., & Mimiaga, M.J. (2012, April) Pills or gel: Massachusetts physicians' recent antiretroviral chemoprophylactic preferences. Poster presented at the 2012 International Microbicides Conference, Sydney, Australia.

42. Mayer, K.H., **White, J.M.**, Krakower, D.S., Mimiaga, M.J. (2011, February) Preparing for "PrEP": What Massachusetts physicians know and believe about oral and topical chemoprophylaxis: Circa September, 2010. Poster presented at the 18th Conference on Retroviruses and Opportunistic Infections, Boston, MA.

43. **White, J.M.**, Mimiaga, M.J., Perkins, B.D., Reisner S.L., Driscoll, M., & Cranston, K. (2010, November) Motivations for using the internet to meet sexual partners and HIV risk behavior among black men who have sex with men (MSM) in Massachusetts. Poster presented at the Harvard Center for AIDS Research: The Forgotten Epidemic, Boston, MA.

GUEST LECTURES & TRAININGS

1. **Hughto, J.M.W,** Dulin, A., & McGarvey, S. (2018, December 6). Evaluating Public Health Research, Unpacking Ethics and Approaches that Advance Rigor and Engage Communities. *Guest Lecturer, Brown School of Public Health* (Invited by Caroline Kuo, DPhil, MPhil).

2. **White Hughto, J.M.,** Winston, R., & Pachankis, J.E. (2018, March 27). Advances in the Science of LGBTQ Mental Health. *Presenter, The Yale Club of San Francisco* (Invited by Sten Vermund, MD, PhD).

3. **White Hughto, J.M.** (2018, January 24). Designing and Evaluating Public Health Interventions. *Guest Lecturer, Brown University School of Public Health* (Invited by Matthew Mimiaga, ScD, MPH).

4. **White Hughto, J.M.,** Hatzenbuehler, M., & Pachankis, J.E. (2017, June 14). Advances in the Science of LGBTQ Mental Health: From Policy Impact to Clinical Practice. *Presenter, The Yale Club of New York* (Invited by Sten Vermund, MD, PhD).

5. **White Hughto, J.M.** (2016, November 8). Intervention to Overcome Mental Health Disparities in Criminally Justice Involved Transgender Women: Formative Research and Next Steps. *Presenter, Yale Clinical & Community Research* (Invited by Frederick Altice, MD).

6. **White Hughto, J.M.** (2016, November 1). Is Leaning in Enough? The Role of Intersectionality, Gender and Public Health Leadership. *Panelist, Women in Global Health, American Public Health Association, Global Health Council.* (Invited by Kelly Thompson).

7. **White Hughto, J.M.** (2016, September 21). Transgender Stigma and Health: A Review of Stigma Determinants, Mechanisms and Interventions across Settings. *Guest Lecturer, Yale School of Public Health, Stigma and Health* (Invited by John Pachankis, PhD).

8. **White Hughto, J.M.** (2016, September 14). Transgender Cultural and Clinical Competency for Mental Health Providers. *Trainer, Yale University, Department of Psychology, Clinical Psychology Program Training* (Invited by Mary O'Brien, PhD).

9. **White Hughto, J.M.** & Clark, K.A. (2016, August 3). Transgender Cultural and Clinical Competency for Correctional Healthcare Providers. *Trainer, UConn Correctional Managed Healthcare, Medical Prescriber Training* (Invited by Johnny Wu, MD, FACP, CCHP).

10. **White Hughto, J.M.** (2016, July 7). Transgender Cultural and Clinical Competency for Correctional Staff. *Trainer, Suffolk County Department of Corrections, Healthcare and Custody Staff Training* (Invited by Melanie Robfindlay, MSW).

11. **White Hughto, J.M.** (2016, June 13). Transgender Cultural and Clinical Competency for Correctional Healthcare Providers. *Trainer, UConn Correctional Managed Healthcare, Nurse Supervisor Training* (Invited by Connie Weiskopf, PhD, APRN).

12. **White Hughto, J.M.** (2016, April 15). Qualitative Methods in Practice: Findings from T-TIME -Transgender women Talking about Incarceration Memories and Experiences. *Guest Lecturer, Yale School of Public Health, Qualitative Methods* (Invited by Danya Keene, PhD).

13. **White Hughto, J.M.** & Clark, K.A. (2016, April 6). Healthcare Access, Quality, and Experiences among Incarcerated Transgender People. *Presenter, Yale School of Public Health, Queer Queries* (Invited by John Pachankis, PhD).

14. **White Hughto, J.M.** (2016, March 3). Transgender Stigma and Health: A Review of Stigma Determinants, Mechanisms, and Interventions. *Presenter, Yale University: Center for Interdisciplinary Research on AIDS, Pecha Kutcha Series* (Invited by Jim Pettinelli).

15. **White Hughto, J.M.,** Clark, K.A., & Ruff, N., (2016, January 27). Transgender 101 & Beyond. *Trainer, York Correctional Institution Training, Second Shift Mental Health Providers* (Invited by Julie Wright, PsyD).

16. **White Hughto, J.M.** (2015, December 8). Transgender Stigma and Health: Social Determinants, Mechanisms, and Implications for Intervention. *Guest Lecturer, Brown University School of Public Health, Institute for Community Health Promotion* (Invited by Matthew Mimiaga, ScD, MPH).

17. **White Hughto, J.M.** Clark, K.A., & Ruff, N. (2016, December 7). Transgender 101 & Beyond. *Trainer, York Correctional Institution Training, First Shift Mental Health Providers* (Invited by Amy Smoyer, PhD).

18. **White Hughto, J.M.** (2015, November 18). Stigma in Correctional Settings: Results from T-TIME - Transgender women Talking about Incarceration Memories and Experiences. *Guest Lecturer, Yale School of Public Health, Stigma and Health* (Invited by John Pachankis, PhD).

19. Keene, D., **White Hughto, J.M.,** Eldahan, A., & Pachankis, J. (2015, October 26). Small City Gay and Bisexual Life: Stigma, Technology, and Movement. *Presenter, Center for Interdisciplinary Research on AIDS, Community Research and Implementation Core* (Invited by David Fiellin, MD).

20. **White Hughto, J.M.,** Reisner, S.R., Dunham, E., Pardee, D., & Makadon, H. (2014, May 22). Advancing Transgender Health Education and Research. *Presenter, The Fenway Institute, Fenway Health* (Invited by Rodney Vanderwarker, MPH).

21. **White Hughto, J.M.** & Reisner, S.R. (2013, July 11). HIV Prevention with Transgender Women. *Presenter, Harbor Health, Mental Health Staff* (Invited by Ryan Ribeiro, MA).

RESEARCH GRANTS

Principal Investigator:

VRDC Award **Hughto (PI)** **2018-2021**
Centers for Medicaid & Medicare Services: *Characterizing Disparities in the HIV Prevention and Care Continuum among Transgender and Cisgender Medicaid and Medicare Beneficiaries.* Role: PI.

CFAR Award **Hughto (PI)** **2018-2019**
Providence/Boston Center for AIDS Research: *Examining Multilevel Factors Associated with Entry into and Engagement in the HIV Prevention and Care Continuum for Transgender Adults in Massachusetts and Rhode Island.* Role: PI.

F31MD011203-01 **Hughto (PI)** **2016-2018**
National Institutes of Minority Health and Health Disparities: *Intervention to Overcome Mental Health Disparities in Criminally-Justice Involved Transgender Women.* Role: PI.

Clara Mayo Award **Clark & Hughto (MPI)** **2016-2017**
Clara Mayo / American Psychological Society: *Understanding Correctional and Community Healthcare Providers Experience Working with Transgender Patients.* Role: Co-PI.

FLAG Award **Hughto (PI)** **2015-2016**
Fund for Lesbian and Gay Studies at Yale University: *Understanding the Prison Experience of Formerly Incarcerated Transgender Women ("Project T-TIME").* Role: PI.

Fenway Award **Mimiaga & Hughto (MPI)** **2010-2012**
The Fenway Institute: *Impact of Web Content on the Experience, Perceptions and HIV Sexual Risk Behavior of Black MSM ("Project WEB").* Role: Co-I.

Co-Investigator:

AD-2017C1-6569 **Reisner (PI)** **2018-2021**
Patient Centered-Outcomes Research Institute: *Transgender Cohort Study of Gender Affirmation and HIV-Related Health.* Role: Co-I.

Grant Number N/A **Green (PI)** **2018-2019**
Massachusetts Department of Public Health. *Rapid Assessment of Consumer Knowledge on Cocaine and Opioid-related Overdose in Massachusetts (RACK 2.0).* Role: Co-I.

1R21MD012371-01 **Jasuja & Rose (MPI)** **2017-2019**
National Institutes of Minority Health and Health Disparities*: Exploring Quality Measures for the Care of Transgender Persons.* Role: Co-I.

Miller Award **Reisner (PI)** **2013-2015**
Miller Foundation: *Stress and Health: A Needs Assessment of Transgender and Gender Nonconforming Adults in Massachusetts.* Role: Co-I.

Other Roles:

R01DA042805-01A1 **Mimiaga & Safren (MPIs)** **2017-2022**
National Institute of Drug Abuse: *Integrated Behavioral Activation and HIV Risk Reduction Counseling for MSM with Stimulant Abuse*. Role: Site Director

R01NR017098-01 **Mimiaga & Garofalo (MPIs)** **2018-2019**
National Institute of Nursing Research: *Adaptive Intervention Strategies Trial for Strengthening Adherence to ARV HIV Treatment among Youth*. Role: Data Manager.

R34MH110369-01 **Mimiaga, Biello, & Chan (MPIs)** **2018-2019**
National Institute of Mental Health: *Optimizing PrEP Uptake & Adherence among MSWs using a 2-Stage Randomization Design.* Role: Data Manager.

Yale Award **Pachankis (PI)** **2015-2017**
Yale School of Public Health: *Gay Community Stressors Among Gay, Bisexual, and Queer Men.* Role: Pre-Doctoral Fellow.

CER-1403-12625 **Reisner (PI)** **2014-2017**
Patient Centered-Outcomes Research Institute: *Preventive Sexual Health Screening among FTM Transgender Adults.* Role: Research Analyst.

T32MH020031 **Kershaw (PI)** **2014-2016**
National Institute of Mental Health: *Interdisciplinary HIV Training Grant.* Role: Pre-Doctoral Fellow.

CIRA **Pachankis & Keene (MPIs)** **2014-2016**
Center for Interdisciplinary Research on AIDS at Yale University: *HIV Prevention Needs among MSM in Small Urban Areas.* Role: Pre-Doctoral Fellow.

R01MH094323-03S1 **Mimiaga & Garofalo (MPIs)** **2013-2014**
National Institutes of Mental Health: *HIV Prevention Intervention for Young Transgender Men ("LifeSkills for Men").* Role: Project Director.

R01HD075655-05 **Mimiaga, Stephensen, & Garofalo (MPIs)** **2013-2014**
National Institute of Child Health & Human Development: *CVCTPlus: A Couples-Based Approach to Linkage to Care and ARV Adherence.* Role: Project Director.

R01MH094323-01A **Mimiaga & Garofalo (MPIs)** **2012-2014**
National Institutes of Mental Health: *HIV Prevention Intervention for Young Transgender Women ("LifeSkills").* Role: Project Director.

R34 DA031028-01 **Mimiaga (PI)** **2011-2014**
National Institutes of Mental Health: *Behavioral Activation and HIV Risk Reduction for MSM with Crystal Meth Abuse ("Project IMPACT").* Role: Project Director.

MDPH Award **Mimiaga (PI)** **2011-2012**
Massachusetts Department of Public Health: *Acceptability and Feasibility of a Behavioral Intervention to Reduce HIV Sexual Risk Behavior among MSM who Attend Sex Parties in Massachusetts ("Project PARTY").* Role: Project Manager.

IN-US-164-0417 **Mimiaga & Mayer (MPIs)** **2010-2012**
Gilead: *Assessing Provider Knowledge, Attitudes, and Beliefs about HIV Prevention Modalities*
Role: Study Coordinator

5R01MH085600-03 **Sullivan (PI)** **2009-2010**
National Institutes of Mental Health: *Explaining Differences in HIV Prevalence and Incidence in Black and White MSM.* Role: Graduate Research Assistant

ADVANCED COMPUTER SKILLS

Data Analysis
SAS, SPSS, AMOS, MPlus, ArcGIS, NVivo, Atlas.ti, Dedoose

Survey Design and Administration and Data Management
REDCap, Qualtrics, Survey Gizmo, Lime Survey, Survey Monkey

Research and Media Databases and Tools
IRBNet, Endnote, RevMan, Lexis-Nexis, Factiva, Cision Media Source Premium, Critical Mention

EXHIBIT B

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