HONORABLE JUDGE ROBERT J. BRYAN

IN THE UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF WASHINGTON
AT TACOMA

C. P., by and through his parents, Patricia Pritchard and Nolle Pritchard; and PATRICIA PRITCHARD, Plaintiff, vs. BLUE CROSS BLUE SHIELD OF ILLINOIS, Defendants.	Case No. 3:20-cv-06145-RJB **DECLARATION OF GWENDOLYN C. PAYTON IN SUPPORT OF BLUE CROSS BLUE SHIELD OF ILLINOIS'S RESPONSE TO PLAINTIFFS' CONSOLIDATED MOTION TO EXCLUDE EXPERT TESTIMONY OF MICHAEL LAIDLAW, M.D., LAWTON R. BURNS, Ph.D., and SCOTT CARR, Ph.D.** **NOTE ON MOTION CALENDAR: NOVEMBER 18, 2022**

Pursuant to 28 U.S.C. § 1746, I, Gwendolyn C. Payton, hereby declare as follows:

1. I am an attorney with Kilpatrick Townsend & Stockton LLP in Seattle, Washington. I am counsel of record for Defendant Blue Cross Blue Shield of Illinois ("BCBSIL"). I have personal knowledge of the facts set forth in this declaration.

2. This declaration is filed in support of BCBSIL's Response to Plaintiffs' Consolidated Motion to Exclude Expert Testimony of Michael Laidlaw, M.D., Lawton R. Burns, Ph.D., and Scott Carr, Ph.D., filed herewith.

3. Attached as **Exhibit A** is a true and correct copy of the rebuttal expert report of Dr. Michael K. Laidlaw, dated August 3, 2022.

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4. Attached as **Exhibit B** is a true and correct copy of the expert report of Lawton R. Burns, served June 24, 2022.

5. Attached as **Exhibit C** is a true and correct copy of the rebuttal expert report of Scott Carr, Ph.D., dated October 21, 2022.

6. Attached as **Exhibit D** is a true and correct copy of the bibliography submitted by Michael K. Laidlaw, M.D. in conjunction with his expert report in this litigation.

7. Attached as **Exhibit E** is a true and correct copy of an excerpt of the Zoom Video Deposition Upon Oral Examination of Michael K. Laidlaw, M.D.

8. Attached as **Exhibit F** is a true and correct copy of an excerpt of the Zoom Video Deposition Upon Oral Examination of Michael K. Laidlaw, M.D.

9. Attached as **Exhibit G** is a true and correct copy of an excerpt of the Zoom Video Deposition Upon Oral Examination of Michael K. Laidlaw, M.D.

10. Attached as **Exhibit H** is a true and correct copy of an excerpt of the Zoom Video Deposition Upon Oral Examination of Michael K. Laidlaw, M.D.

11. Attached as **Exhibit I** is a true and correct copy of an email sent from counsel for BCBSIL to counsel to Plaintiffs on August 23, 2022 referencing the documents reviewed by Lawton R. Burns in the course of preparing his expert report, including BCBSIL data demonstrating that many of the employers for whom BCBSIL administers self-funded plans with exclusions also offer plan designs to employees with coverage for transgender-related services, so that employees can choose a plan best suited for their circumstances.

12. I declare, under penalty of perjury under the laws of the United States of America, that the foregoing is true and correct.

DATED this 10th day of November 2022, at Seattle, Washington.

/s/ Gwendolyn C. Payton
Gwendolyn C. Payton

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CERTIFICATE OF SERVICE

I certify that on the date indicated below I electronically filed the foregoing, DECLARATION OF GWENDOLYN C. PAYTON IN SUPPORT OF BLUE CROSS BLUE SHIELD OF ILLINOIS'S RESPONSE TO PLAINTIFFS' CONSOLIDATED MOTION TO EXCLUDE EXPERT TESTIMONY OF MICHAEL LAIDLAW, M.D., LAWTON R. BURNS, Ph.D., and SCOTT CARR, Ph.D. with the Clerk of the Court using the CM/ECF system which sent notification of such filing to the following:

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DATED this November 10, 2022.

Kilpatrick, Townsend & Stockton LLP

By: */s/ Gwendolyn C. Payton*
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EXHIBIT A

HONORABLE JUDGE ROBERT J. BRYAN

IN THE UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF WASHINGTON
AT TACOMA

C. P., by and through his parents, Patricia Pritchard and Nolle Pritchard; and PATRICIA PRITCHARD, Plaintiff, vs. BLUE CROSS BLUE SHIELD OF ILLINOIS, Defendants.	Case No. 3:20-cv-06145-RJB **EXPERT DECLARATION OF MICHAEL K. LAIDLAW, M.D.**

I, Michael K. Laidlaw, M.D., hereby declare as follows:

I. Expert Witness Background & Qualifications

1. My name is Michael K. Laidlaw. I am over the age of eighteen and submit this expert declaration based on my personal knowledge and experience.

2. I am a board-certified endocrinologist. I received my medical degree from the University of Southern California in 2001. I completed my residency in internal medicine at Los Angeles County/University of Southern California Medical Center in 2004. I also completed a fellowship in endocrinology, diabetes, and metabolism at Los Angeles County/University of Southern California Medical Center in 2006.

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3. I have been board certified by (1) the National Board of Physicians and Surgeons for Endocrinology, Diabetes & Metabolism, (2) the National Board of Physicians and Surgeons for Internal Medicine, and (3) the American Board of Internal Medicine for Endocrinology, Diabetes and Metabolism.

4. The information provided regarding my professional background are detailed in my curriculum vitae. A true and correct copy of my curriculum vitae is attached as Exhibit A.

5. In my clinical practice as an endocrinologist, I evaluate and treat patients with hormonal and/or gland issues. Hormone and gland disorders can cause or be associated with psychiatric symptoms, such as depression, anxiety, and other psychiatric symptoms. Therefore, I frequently assess and treat patients demonstrating psychiatric symptoms and determine whether their psychiatric symptoms are being caused by a hormonal issue, gland issue, or a different cause. The reason that endocrinologists become involved in treatment of gender dysphoria is that gender dysphoria, a psychiatric issue, may be interrelated with hormone and gland disorders. Indeed, the expert witnesses retained by Plaintiffs in this case treat gender dysphoria as presumptively a hormone and gland disorder. The Endocrine Society has issued guidelines for the diagnosis and treatment of gender dysphoria.

II. Summary of Work Performed

6. I have been retained by Blue Cross Blue Shield of Illinois ("BCBSIL") to provide a rebuttal expert opinion in response to the declarations of the expert declarations of Dr. Randi C. Ettner, Ph.D.; Dr. Dan H. Karasic, M.D.; and Dr. Loren S. Schechter, M.D.

7. If called to testify in this matter, I would testify truthfully and based on my expert opinion. The opinions and conclusions I express herein are based on a reasonable degree of scientific certainty.

8. I am being compensated at an hourly rate of $450 per hour plus expenses for my time spent preparing this declaration and $650 per hour for providing testimony in this matter. My compensation does not depend on the outcome of this litigation, the opinions I express, or the testimony I may provide.

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9. My opinions contained in this report are based on: (1) my clinical experience as an endocrinologist; (2) my clinical experience evaluating individuals who have or have had gender incongruence and/or gender dysphoria; (3) my knowledge of research and studies regarding the treatment of gender dysphoria, including for minors; and (4) my review of the various declarations submitted by Plaintiffs in the present lawsuit, *C.P. et al. v. Blue Cross Blue Shield of Illinois*, Case No. 3:20-cv-06145-RJB (W.D. Wash).

10. I was provided with and reviewed the following case-specific materials: (1) C.P.'s medical records from the Polyclinic; (2) the deposition of Plaintiff Patricia Pritchard; (3) the depositions of C.P.'s treating providers, Kevin Hatfield, M.D.; Jeffrey Kyllo, M.D.; and Sharon Booker, MA, LHMC; and (4) the expert declarations of Dr. Randi C. Ettner, Ph.D.; Dr. Dan H. Karasic, M.D.; and Dr. Loren S. Schechter, M.D., and (5) the deposition of Blue Cross Blue Shield of Illinois Medical Director, Kim Reed, M.D..

III. Summary of Opinions

11. In my professional opinion, treatment interventions on behalf of individuals diagnosed with gender dysphoria must be held to the same scientific standards as other medical treatments. These interventions must be optimal, efficacious, and safe. Any treatment which alters biological development in children should be used with extreme caution and regarded as a last resort.

12. The Plaintiffs' experts' opinions are substantively the same. They each opine that for patients with gender dysphoria, the only acceptable path forward that meets the standard of care is the approach endorsed by the World Professional Association for Transgender Health ("WPATH").

13. The implication is that if an employer excludes gender affirmative care from coverage, it must be because the employer is prejudiced against transgender individuals. This is demonstrably false.

14. In my opinion, these opinions are too absolute and the product of political advocacy. There is ongoing debate and study in the medical community regarding gender

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affirmative treatment. The medical community is divided on many issues related to the appropriate medical care for gender identity and the necessity or value of gender affirmative care. This is especially true for minors.

15. For example, Plaintiffs' experts opine that gender dysphoria is an immutable, permanent condition. That is not the consensus in the relevant community and there is much debate and disagreement about whether gender dysphoria is always permanent.

16. A recurring problem is the quality of medical care received by minors who undergo irreversible gender-affirming treatments. This appears to result at least in part because gender dysphoria treatments are so entangled with advocacy. WPATH itself recognizes that it is not only a scientific organization but also as an advocacy organization, and these two objectives are not compatible.

17. Based on the materials I have reviewed and in my professional opinion, the treatment of C.P. is indicative of these quality-of-care problems that I have observed.

IV. Analysis.

A. Background

1. The WPATH and The Endocrine Society

18. I have read the reports of expert witnesses retained by Plaintiffs in this case, Randi C. Ettner, Ph.D., Dan H. Karasic, M.D., and Loren S. Schechter, M.D. Drs. Ettner, Karasic, and Schechter all rely almost exclusively on the WPATH *Standards of Care for the Health of Transsexual, Transgender and Gender-nonconforming People* (7th version) (WPATH *Standards of Care*). *See* Ettner Report, ¶¶ 33-34; Karasic Report, ¶¶ 25-34, 43-44; Schechter Report, ¶¶ 24-27. These experts also briefly cite the Endocrine Society guidelines for support. *See* Ettner Report, ¶ 54; Karasic Report, ¶¶ 35-36; Schechter Report, ¶ 26.

19. Dr. Ettner is the immediate past Secretary of the World Professional Association for WPATH and has been a member of the Board of Directors for 12 years. Dr. Ettner is an author of the WPATH *Standards of Care*.

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20. Dr. Karasic previously sat on the Board of Directors of WPATH. Dr. Karasic Ettner is also an author of the WPATH *Standards of Care*. Dr. Karasic is also a member of the WPATH Global Education Initiative.

21. Dr. Schechter is also a contributing author to the WPATH *Standards of Care*. Dr. Schechter has taught a number of courses through WPATH's Gender Education Institute.

22. The WPATH *Standards of Care* were produced over a decade ago, in 2011. They were prepared within their advocacy organization and are purported to be a "professional consensus about the psychiatric, psychological, medical, and surgical management of gender dysphoria" (WPATH, 2022). However, there is no "professional consensus" on these issues in the medical community at this time. Furthermore, WPATH's "Standards of Care," unlike the Endocrine Society's guidelines, do not have a grading system for either the strength of their recommendations or the quality of the evidence presented.

23. There is widespread agreement among relevant health care providers that WPATH is not merely a scientific organization but also as an advocacy organization that supports gender affirmative surgery. WPATH explicitly regards itself as such. WPATH has advocated positions on issues that have drawn varying opinions and views in the relevant medical community.

24. WPATH's *Standards of Care*, in contrast to, for example, the Endocrine Society's guidelines, do not follow recognized procedures for establishing the guidelines as the fruit of genuine scientific method. For example, the *Standards of Care* lack a grading system for the strength of its recommendations or the quality of the evidence presented to support its recommendations. WPATH claims to be a scientific organization while explicitly acting as an advocacy group. These are incompatible goals.

25. WPATH no longer considers preoperative psychotherapy to be a requirement before gender affirmative surgery. This follows many years in which the role of WPATH downgraded the role of psychotherapy. Many facilities that follow WPATH standards permit

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patients to receive counseling from individuals with masters rather than medical or PhD degrees or clinical psychology qualifications.

26. While the Endocrine Society has issued "Endocrine Treatment of Gender-Dysphoric / Gender-Incongruent Persons: An Endocrine Society Clinical Practice Guideline," these are only "guidelines." The Endocrine Society's guidelines specifically state that their "guidelines cannot guarantee any specific outcome, nor do they establish a standard of care" (Hombre *at al.,* 2017, p. 3895).

27. In the Endocrine Society's guidelines, the quality of evidence for the treatment of adolescents is rated "very low-quality evidence" and "low quality evidence." "The quality of evidence for [puberty blocking agents] is noted to be low. In fact, all of the evidence in the guidelines with regard to treating children/adolescents by [gender affirmative therapy] is low to very low because of the absence of proper studies" (Laidlaw et al., 2019).

28. Unlike some other recommendations for adolescent Gender Affirmative Therapy ("GAT"), the Endocrine Society's guidelines do not include any grading of the quality of evidence specifically for their justification of laboratory ranges of testosterone or estrogen or for adolescent mastectomy or other surgeries.

29. Endocrinologists W. Malone and P. Hruz and colleagues have written discussing the limitations of the Endocrine Society's guidelines as well: "Unlike standards of care, which should be authoritative, unbiased consensus positions designed to produce optimal outcomes, practice guidelines are suggestions or recommendations to improve care that, depending on their sponsor, may be biased. In addition, the ES claim of effectiveness of GAT interventions is at odds with several systematic reviews, including a recent Cochrane review of evidence and a now corrected population-based study that found no evidence that hormones or surgery improve long-term psychological well-being. Lastly, the claim of relative safety of these interventions ignores the growing body of evidence of adverse effects on bone growth, cardiovascular health, and fertility, as well as transition regret" (Malone et al., 2021).

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2. Gender Dysphoria as a Subjective, Psychological Condition with Unknown Causes

30. ***According to Dr. Ettner, "A growing assemblage of research documents that gender identity is immutable and biologically based."*** Ettner Report, ¶ 25.

31. This assertion lacks scientific support and therefore impairs the credibility of Dr. Ettner's opinions. There is no objective physical measure to identify either gender identity or gender dysphoria. One cannot do imaging of the human brain to find the gender identity. Likewise, there is no other imaging, laboratory tests, biopsy of tissue, autopsy of the brain, or genetic testing that can identify the gender identity. There is no known gene that maps to gender identity or to gender dysphoria.

32. Gender dysphoria is a psychological diagnosis. It is diagnosed purely by psychological methods of behavioral observation and questioning.

33. Likewise, what is termed gender identity is a psychological concept. It has no correlate in the human body. "There are no laboratory, imaging, or other objective tests to diagnose a 'true transgender' child" (Laidlaw et al., 2019).

34. This is in contrast to all other endocrine disorders which have a measurable physical change in either hormone levels or gland structure which can be confirmed by physical testing. Endocrinology is the study of glands and hormones. Endocrine disorders can be divided into three main types: those that involve hormone excess, those that involve hormone deficiency, and those that involve structural abnormalities of the glands such as cancers.

35. Notably, Noteworthy in these three types is that all three disease conditions are diagnosed by physical observations. In other words, a laboratory test of a hormone, an imaging test of an organ, an examination of cells under a microscope, or all three may be employed in the diagnosis of endocrine disease.

3. There is Evidence of Substantial Desistance Among Those Who Have Received Gender Affirming Care.

36. ***According to dr. Ettner, "[e]fforts to change an individual's gender identity are therefore both futile and unethical" because [t]he evidence demonstrating that gender identity***

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cannot be altered, either for transgender or for non-transgender individuals," and is therefore "innate and immutable." Ettner Report, ¶ 25. ***According to Dr. Karasic, "[r]egret among those who are treated with gender-affirming medical care is rare."*** Karasic Report, ¶ 51.

37. There is substantial evidence to the contrary.

38. These assertions are not supported by the scientific evidence. Gender dysphoria is a persistent state of distress that stems from the feeling that one's gender identity does not align with their physical sex (American Psychiatric Association, 2013).

39. Desistance is a term indicating that the child, adolescent, or adult who initially presented with gender incongruence has come to experience a realignment of their internal sense of gender and their physical body.

40. "There is currently no way to predict who will desist and who will remain dysphoric." "Children with [gender dysphoria] will outgrow this condition in 61% to 98% of cases by adulthood. (Laidlaw et al., 2019).

41. Because the rate of desistance is so high, gender affirmative therapy will necessarily cause serious and irreversible harm to many children and adolescents who would naturally outgrow the condition if not affirmed.

42. With respect to minors, because there is no physical marker to diagnose gender identity, and because it is not possible to predict which child or adolescent will desist, it is not possible to know which young person will still identify as transgender as an adult.

43. Concern for desistance has increased as, in recent years, there have been very significant increases in referrals for this condition noted around the globe. For example, in the UK, "[t]he number of referrals to GIDS [Gender Identity Development Service] has increased very significantly in recent years. In 2009, 97 children and young people were referred. In 2018 that number was 2519" (Bell v. Tavistock Judgment, 2020). (Littman, 2018).

44. The likelihood of desistance may be greater if there are social causes of gender dysphoria, because those are transient. The French National Academy of Medicine, the premier such academy in the country and founded in 1820 by Louis XVIII, wrote recently: "Parents

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addressing their children's questions about transgender identity or associated distress should remain vigilant regarding the addictive role of excessive engagement with social media" (SEGM, 2022).

45. The large percentage of individuals suffering from diagnosed mental illnesses also is reason for concern about dissidence. In "a study of the Finnish gender identity service, '75% of adolescents [assessed] had been or were currently undergoing child and adolescent psychiatric treatment for reasons other than gender dysphoria' (Kaltiala-Heino, 2015). In fact, '68% had their first contact with psychiatric services due to other reasons than gender identity issues.' The same study also showed that 26% percent had an autistic spectrum disorder and that a disproportionate number of females (87%) were presenting to the gender clinics compared to the past" (Laidlaw in gdworkinggroup.org, 2018).

4. Biological Sex in Contrast to Gender Identity

46. ***According to Dr. Ettner, "a number of factors go into the determination of a person's sex." Dr. Ettner then lists a number of physical factors and then adds "gender identity."*** Ettner, ¶ 21.

a. Human Sexual Development

(1) Embryologic development

47. Another confirmation that there are only two biological sexes comes from what is known about embryologic development and fertilization. The biologic development of the human person begins with a gamete from a female termed an ovum or egg and a gamete from a biological male which is termed sperm. The fertilization of the egg by the sperm begins the process of human biological development. The cells of the fertilized ovum then multiply and the person undergoes the incredible changes of embryologic development.

48. It is noteworthy that the male sperm comes from the biological male and the female egg comes from the biological female. There is no other third or fourth or fifth type of gamete that exists to begin the development of the human person. This is consistent with the binary nature of human sex (Alberts et al., 2002).

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49. The sex binary of the human embryo is further developed between roughly weeks 8 to 12 of human development. There are two primitive structures present within the developing embryo called the Wolffian duct and Mullerian ducts (Larsen et al., 2003). The Wolffian ducts develop into substructures of the genitalia including the vas deferens and epididymis which belong exclusively to the male sex. For the female, the Mullerian ducts go on to form the uterus, fallopian tubes, cervix and upper one third of the vagina which belong exclusively to the female sex (*Id.*)

50. Significantly, once the male structures are developed from Wolffian ducts, the Mullerian ducts are obliterated. This means that throughout the rest of embryological development the Mullerian ducts will not form into biological female structures. Likewise, in the female, the Wolffian ducts are destroyed by week 12 and will not form male structures at any point in the future (*Id.*).

51. Thus, we can see in very early development that the sex binary is imprinted physically not only in the chromosomes, but also on the very organs that the body produces. Additionally, the potential to develop organs of the opposite sex is eliminated. Thus, in the human being there are only two physical tracts that one may progress along, the one being male and the other being female (Wilson and Bruno, 2022).

(2) Pubertal Development

52. At the time of birth, an infant's sex is easily identified through observation of the genitalia. Corresponding internal structures could also be confirmed through imaging if needed.

53. In early childhood, some low level of sex hormones are produced by the sex glands. The male testes produce testosterone. The female ovaries produce primarily the hormone estrogen. These sex glands remain quiescent for the most part, producing low levels of sex hormones until the time of pubertal development.

54. Puberty is a time of development of the sex organs, body, brain, and mind. There are well known changes in physical characteristics of the male such as growth of facial hair, deepening of the voice, and increasing size of the testicles and penis. Importantly, the testicles

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will develop sperm under the influence of testosterone and become capable of ejaculation. Because of these changes, the male will become capable of fertilizing an egg. The inability to produce sperm sufficient to fertilize an egg is termed infertility.

55. For the female, pubertal development includes changes such as breast development, widening of the pelvis, and menstruation. The female will also begin the process of ovulation which is a part of the menstrual cycle and involves the release of an egg or eggs from the ovary. Once the eggs are released in a manner in which they can become fertilized by human sperm, then the female is termed fertile. The inability to release ovum that can be fertilized is termed infertility (Kuohong and Hornstein, 2021).

(3) Tanner stages of development

56. From a medical perspective it is important to know the stage of pubertal development of the developing adolescent. This can be determined through a physical examination of the body. The female will have changes in breast characteristics and pubic hair development. Similarly, the male will have changes in testicular size and pubic hair development. These findings can be compared to the Tanner staging system which will allow the stage of puberty to be known.

57. Tanner stages are divided into five stages. Stage 1 is the pre-pubertal state before pubertal development of the child begins. Stage 5 is full adult sexual maturity. Stages 2 through 4 are various phases of pubertal development (Greenspan and Gardner, 2004).

58. Awareness of the Tanner stage of the developing adolescent is also useful to assess for maturation of sex organ development leading to fertility. For girls, the first menstruation (menarche) occurs about two years after Tanner stage 2 and will typically be at Tanner stage 4 or possibly 3 (Emmanuel and Boker, 2022). The first appearance of sperm (spermarche) will typically be Tanner stages 4 (*Id.*). If puberty is blocked or disrupted before reaching these critical stages, the sex glands will be locked in a premature state and incapable of fertility.

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(4) Biological Sex Cannot Be Changed

59. It is not possible for a person to change from one biological sex to the other, and there is no technology that allows a biological male to become a biological female or vice-versa. It is not technologically possible at this time to change sex chromosomes; these will remain in every cell throughout life. It is not technologically possible to transform sex glands from one to the other. In other words, there are no hormones or other means currently known to change an ovary into a testicle or a testicle into an ovary.

60. Furthermore, as noted earlier, several of the sex specific structures (such as the epidymis of the male or uterus of the female) are produced early in embryological development from around weeks 8 to 12. The primitive ducts which lead to these organs of the opposite sex are obliterated. There is no known way to resuscitate these ducts and continue development of opposite sex structures.

61. It is also not possible to produce gametes of the opposite sex. In other words, there is not any known way to induce the testicles to produce eggs. Nor is there any known way to induce the ovaries to produce sperm. Therefore, creating conditions for a biological female to create sperm capable of fertilizing another ovum is impossible. The induction of opposite sex fertility is impossible.

62. In fact, some gender affirming therapy actually leads to infertility and potential sterilization.

B. Effectiveness and Safety of Gender Affirmative Therapies Recommended by WPATH

63. According to Dr. Ettner, ***"[t]here is a large and growing body of evidence that demonstrates that the provision of gender affirming medical and surgical treatment to treat gender dysphoria are both safe and effective."*** Ettner, Report, ¶ 49. According to Dr. Karasic, ***"gender dysphoria is a condition that is highly amenable to treatment, and the prevailing treatment for it is highly effective. . . .Gender-affirming medical and surgical interventions in accordance with the WPATH SOC 7 and Endocrine Society Guidelines are widely recognized***

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in the medical community as safe, effective, and medically necessary for many transgender people with gender dysphoria…risks do decline when transgender individuals are supported and live according to their gender identity." Karasic Report, ¶¶ 24, 43. Dr. Schechter's testimony is the same. Schechter Report, ¶¶ 37-41.

64. The scientific evidence does not support these unequivocal assertions. Gender affirmative therapy suffers from a lack of a quality evidence base and from poorly-performed studies.

65. The approaches to gender dysphoria may be divided into three main types. (Zucker, 2020). One is psychosocial treatment that helps the young person align their internal sense of gender with their physical sex. Another would be to "watch and wait" and allow time and maturity to help the young person align sex and gender through natural desistance. The third option is referred to as gender affirmative therapy or GAT and is the approach recommended by WPATH.

66. GAT consists of psychosocial, medical, and surgical interventions that attempt to psychologically and medically alter the patient so that they come to believe they may become similar to the physical sex which aligns with their gender identity (but not their biological sex) and thereby reduce gender dysphoria. GAT consists of four main parts: 1) social transition, 2) blocking normal puberty or menstruation, 3) high dose opposite sex hormones, and 4) surgery of the genitalia and breasts.

67. I will describe each stage of GAT and then address scientific evidence regarding the efficacy of GAT to treat gender dysphoria and the safety of these treatments.

1. Gender Affirmative Therapies Recommended by WPATH

a. Social Transition

68. The first stage of gender affirmative therapy is termed social transition. Social transition is a psychological intervention. The child may be encouraged to adopt the type of clothing and mannerisms or behaviors which are stereotypical of the opposite sex within a culture. For example, in the United States a boy might wear his hair long and wear dresses in

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order to socially transition. A girl may cut her hair short and wear clothes from the boys' section of a department store.

b. Medications which Block Pubertal Development

(1) Background

69. A second stage of gender affirmative therapy may involve blocking normal pubertal development. This may be done with puberty blocking medications that act directly on the pituitary.

70. In order to understand what is occurring in this process, it is helpful to be aware of normal hormone function during pubertal development.

71. There is a small pea-sized gland in the brain called the pituitary. It is sometimes referred to as the "master gland," as it controls the function of several other glands. One key function for our purposes is the control of the sex glands. There are two specific hormones produced by the pituitary referred to as luteinizing hormone ("LH") and follicle stimulating hormone ("FSH"). These hormones are responsible for sex hormone production and fertility. The LH and FSH act as signals to tell the sex glands begin or continue their function.

72. In the adult male, the production of LH will cause adult levels of testosterone to be produced by the testicles. In the adult female, the production of LH will cause adult levels of estrogen to be produced by the ovaries.

73. In early childhood, prior to the beginning of puberty, the pituitary function with respect to the sex glands is quiescent. However, during pubertal development, for the female, the interaction of LH with the ovaries increases estrogen production and carries the girl through the stages of development into womanhood. For boys, LH will signal the testicle to increase testosterone production, which carries the boy through the stages of pubertal development into manhood. Likewise for the female, the interaction of LH with the ovaries increases estrogen production, which carries the girl through the stages of development into womanhood.

74. There are conditions diagnosed by endocrinologists which involve a disruption of this normal communication between the pituitary and the sex glands. There is a medical

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condition called hypogonadotropic hypogonadism. The meaning of this term is that the pituitary is not sending the hormonal signals (LH and FSH) to the sex glands and therefore the sex glands are unable to make their sex hormones. The result is hormonal deficiencies of LH, FSH, and either testosterone or estrogen.

75. If this condition occurs during puberty, the effect will be to stop pubertal development. This is a disease state which is diagnosed and treated by the endocrinologist.

76. Medications such as GnRH agonists act on the pituitary gland to lower the pituitary release of LH and FSH levels dramatically. The result is a blockage of the signaling of the pituitary to the ovaries or the testicles and therefore underproduction of the sex hormones. This will stop normal menstrual function for the female and halt further pubertal development. For the male this will halt further pubertal development. If the male had already reached spermarche, then production of new sperm will stop.

(2) GnRH Agonist Medication Effects

77. There are a variety of uses for GnRH agonists. The use and outcome can be very different for different applications.

78. For example, the initial development of the medication called Lupron was for the treatment of prostate cancer. The idea being that blocking pituitary hormones will block the adult male's release of testosterone from the testicles. Since testosterone will promote the growth of prostate cancer, the idea is to lower testosterone levels to a very low amount and therefore prevent the growth and spread of prostate cancer. This is a labeled use of the medication. In other words, there is FDA approval for this use.

79. Another labeled use of GnRH agonist medication is for the treatment of central precocious puberty. In the disease state of central precocious puberty, pituitary signaling is activated at an abnormally young age, say age four, to begin pubertal development. In order to halt puberty which has begun at an abnormally early time, a GnRH agonist may be used. Here the action of the medication on the pituitary will disrupt the signaling to the sex glands, stop early sex hormone production, and therefore stop abnormal pubertal development.

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80. Then, at a more normal time of pubertal development, say age 11, the medication is stopped and puberty is allowed to proceed. The end result is to restore normal sex gland function and timing of puberty. This is a labeled use for a GnRH agonist medication.

81. What about the use of puberty blockers such as Lupron in gender affirmative therapy? In these cases, we have physiologically normal children who are just beginning puberty or are somewhere in the process of pubertal development. They have healthy pituitary glands and sex organs. However, a puberty blocking medication is administered to stop normal pubertal development.

82. In this case, the condition of hypogonadotropic hypogonadism described above (a medical disease) is induced by medication and is an iatrogenic effect of treating the psychological condition of gender dysphoria. GnRH agonist medications have not been FDA approved for this use.

c. Opposite Sex Hormones

83. The third stage of gender affirmative therapy involves using hormones of the opposite sex at high doses to attempt to create secondary sex characteristics in the person's body.

(1) Testosterone

84. Testosterone is an anabolic steroid of high potency. It is classified as a Schedule 3 controlled substance by the DEA: "Substances in this schedule have a potential for abuse less than substances in Schedules I or II and abuse may lead to moderate or low physical dependence or high psychological dependence" (DEA, 2022). A licensed physician with a valid DEA registration is required to prescribe testosterone.

85. I prescribe testosterone to men for testosterone deficiency. The state of testosterone deficiency can cause various problems, including problems of mood, sexual function, libido, and bone density. Prescription testosterone is given to correct the abnormally low levels and bring them back into balance. The dose of testosterone must be carefully considered and monitored to avoid excess levels in the male as there are a number of serious concerns when prescribing testosterone.

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(2) Estrogen

86. Estrogen is the primary sex hormone of the female. Prescription estrogen may be used if a woman has low estrogen levels due to premature failure of her ovaries. Estrogen is prescribed to bring these levels back into a normal range for the patient's age. Another labeled use of estrogen is to treat menopausal symptoms.

87. For the male, estrogen is being used at supraphysiologic doses. The high doses are used in an attempt to primarily affect an increase of male breast tissue development known as gynecomastia. Gynecomastia is the abnormal growth of breast tissue in the male. The occurrence of gynecomastia in the male is sometimes corrected by medication or more commonly by surgery if needed. Other changes of secondary sex characteristics may develop such as softening of the skin and changes in fat deposition and muscle development.

d. Surgeries as Gender Affirmative Therapy

88. Surgical alterations of the body of various kinds attempt to somehow mimic features of the opposite sex.

89. Individual surgical procedures can be a complex topic. It is helpful to first step back and consider conceptually what any surgery can and cannot accomplish.

90. In its basic form surgery is subtractive. In other words, a portion of tissue, an organ or organs are removed in order to restore health. For example, a diseased gallbladder may be surgically removed to help the patient get back to wellness. An infected appendix may be surgically removed to prevent worsening infection or even death. In both of these cases, an unhealthy body part is surgically removed in order to restore health.

91. In some cases, a diseased tissue or organ is removed so that a foreign replacement part may be substituted for an unhealthy organ or tissue. For example, a diseased heart valve may be replaced with a pig valve or a prosthetic heart valve. Another example is a failed liver may be replaced by liver transplant.

92. Though modern surgical techniques and procedures are astounding, there are very noteworthy limitations. Importantly, surgery cannot *de novo* create new organs. If a person's

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kidneys fail, the surgeon has no scientific method for creating a new set of kidneys that can be implanted or grown within the patient. This conceptual background is helpful when considering various gender affirming surgeries.

93. There are a variety of gender affirming surgeries for females. These may include mastectomies, metoidioplasty, and phalloplasty.

2. The Lack of Evidence of Effectiveness of GAT

94. There is much evidence that questions the long-term benefits of opposite sex hormones and gender reassignment surgery and in fact suggests serious harms.

a. Sweden's Long-term study of 30 years of data by Dhejne

95. The most comprehensive study of its kind is from Sweden in 2011. The authors examined data over a 30-year time period (Dhejne, 2011). The Dhejne team made extensive use of numerous Swedish database registries and examined data from 324 patients in Sweden over 30 years who had taken opposite sex hormones and had undergone sex reassignment surgery. They used population controls matched by birth year, birth sex, and reassigned sex. When followed out beyond ten years, the sex-reassigned group had nineteen times the rate of completed suicides and nearly three times the rate of all-cause mortality and inpatient psychiatric care compared to the general population of Sweden.

b. The Branstrom and Panchankis Retraction

96. Other published studies of GAT have been shown to have serious errors. For example, a major correction was issued by the American Journal of Psychiatry. The authors and editors of a 2020 study, titled "Reduction in mental health treatment utilization among transgender individuals after gender-affirming surgeries: a total population study" (Bränström study, 2020) retracted their original primary conclusion. Letters to the editor by twelve authors, including myself, led to a reanalysis of the data and a corrected conclusion stating that, in fact, the data showed no improvement in mental health for transgender identified individuals after surgical treatment, nor was there improvement with opposite sex hormones ("Correction", 2020; Van Mol et al., 2020).

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97. The initial reports of this study claimed that the authors found treatment benefits with surgery, and this was shared widely in the media. For example, ABC News posted an article titled "Transgender surgery linked with better long-term mental health, study shows" (Weitzer, 2019). An NBC news/Reuters headline reads "Sex-reassignment surgery yields long-term mental health benefits, study finds" (Reuters, 2019).

98. However, after twelve authors from around the world, including our team, investigated the study in detail, a number of serious errors were exposed, leading to a retraction (Kalin, 2020; Anckarsäter et al., 2020).

99. In our letter to the editor, which I co-wrote with former Chairman of Psychiatry at Johns Hopkins Medical School, Paul McHugh, MD, we noted key missing evidence in the original Branstrom report when compared to the previous body of knowledge yielded from the Swedish Dhejne study. We wrote that "[t]he study supports only weak conclusions about psychiatric medication usage and nothing decisive about suicidality. In overlooking so much available data, this study lacks the evidence to support its pro gender-affirmation surgery conclusion" (Van Mol, Laidlaw, et al., 2020).

100. In another letter, Professor Mikael Landen writes that "the authors miss the one conclusion that can be drawn: that the perioperative transition period seems to be associated with high risk for suicide attempt. Future research should use properly designed observational studies to answer the important question as to whether gender-affirming treatment affects psychiatric outcomes" (Landen, 2020).

101. In another letter to the editor, psychiatrist David Curtis noted that "[t]he study confirms the strong association between psychiatric morbidity and the experience of incongruity between gender identity and biological sex. However, the Branstrom study does not demonstrate that either hormonal treatment or surgery has any effect on this morbidity. It seems that the main message of this article is that the incidence of mental health problems and suicide attempts is especially high in the year after the completion of gender-affirming surgery" (Curtis, 2020).

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102. In yet another critical letter, Dr. Agnes Wold states that "[w]hether these factors involve a causal relationship (*i.e.*, that surgery actually worsens the poor mental health in individuals with gender dysphoria) cannot be determined from such a study. Nevertheless, the data presented in the article do not support the conclusion that such surgery is beneficial to mental health in individuals with gender dysphoria" (Wold, 2020).

c. Flawed studies based on the problematic 2015 US Transgender Survey

103. A 2021 study by Almazan and Keurghlian attempted to address mental health outcomes in relation to surgery as a part of GAT (Almazan & Keurghlian, 2021). This was not a randomized controlled study nor a prospective observational study. Rather, the study relied upon the 2015 US Transgender Survey ("USTS"), which has been severely criticized for its serious limitations and weaknesses.

104. D'Angelo *et al.* have written about the 2015 USTS survey as part of the criticism of another flawed study in the journal Pediatrics by Jack Turban in 2020 titled "Pubertal Suppression for Transgender Youth and Risk of Suicidal Ideation" (Turban, 2020). They write in their critique of the USTS that it is "a convenience sampling, a methodology which generates low-quality, unreliable data." (Bornstein, Jager, & Putnick, 2013). Specifically, the participants were recruited through transgender advocacy organizations and subjects were asked to "pledge" to promote the survey among friends and family. This recruiting method yielded a large but highly skewed sample. Their analysis is compromised by serious methodological flaws, including the use of a biased data sample, reliance on survey questions with poor validity, and the omission of a key control variable, namely subjects' baseline mental health status." They also state that "[s]tigmatizing non-'affirmative' psychotherapy for GD [gender dysphoria] as 'conversion' will reduce access to treatment alternatives for patients seeking non-biomedical solutions to their distress" (D'Angelo et al., 2021).

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d. Centers for Medicare and Medicaid Services Findings

105. The Centers for Medicare and Medicaid Services ("CMS") has found "inconclusive" clinical evidence regarding gender reassignment surgery. Specifically, the CMS Decision Memo for Gender Dysphoria and Gender Reassignment Surgery (CAG-00446N) (June 19, 2019) states: "The Centers for Medicare & Medicaid Services (CMS) is not issuing a National Coverage Determination (NCD) at this time on gender reassignment surgery for Medicare beneficiaries with gender dysphoria because the clinical evidence is inconclusive for the Medicare population."

e. Nations and States Question and Reverse Course on GAT

106. Also noteworthy is that other nations are questioning and reversing course regarding gender affirmative therapy. For example, in the *Bell v. Tavistock* judgment in the UK, regarding puberty blockers in GAT, they concluded that "there is real uncertainty over the short and long-term consequences of the treatment with very limited evidence as to its efficacy, or indeed quite what it is seeking to achieve. This means it is, in our view, properly described as experimental treatment" (*Bell v. Tavistock* Judgment, 2020).

107. The case was appealed, and although the medical decision making was returned to clinicians (rather than the courts), it was noted that great pains should be taken to ensure that the child and parents are properly informed before embarking on such treatments. In its conclusion the appeals court stated that "[c]linicians will inevitably take great care before recommending treatment to a child and be astute to ensure that the consent obtained from both child and parents is properly informed by the advantages and disadvantages of the proposed course of treatment and in the light of evolving research and understanding of the implications and long-term consequences of such treatment. Great care is needed to ensure that the necessary consents are properly obtained" (*Bell v. Tavistock* Appeal, Judgment, 2021).

108. In the bulletin of the Royal College of Psychiatrists in 2021, in a reevaluation of the evidence, Griffin and co-authors write as follows: "As there is evidence that many psychiatric disorders persist despite positive affirmation and medical transition, it is puzzling why transition

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would come to be seen as a key goal rather than other outcomes, such as improved quality of life and reduced morbidity. When the phenomena related to identity disorders and the evidence base are uncertain, it might be wiser for the profession to admit the uncertainties. Taking a supportive, exploratory approach with gender-questioning patients should not be considered conversion therapy" (Griffin et al., 2021).

109. In 2020, Finland recognized that "[r]esearch data on the treatment of dysphoria due to gender identity conflicts in minors is limited" and recommended prioritizing psychotherapy for gender dysphoria and mental health comorbidities over medical gender affirmation (Council for Choices in Healthcare in Finland, 2020). Additionally, "[s]urgical treatments are not part of the treatment methods for dysphoria caused by gender-related conflicts in minors."

110. In 2021, Sweden's largest adolescent gender clinic announced that it would no longer prescribe puberty blockers or cross-sex hormones to youth under 18 years outside clinical trials (SEGM, 2021). "In December 2019, the SBU (Swedish Agency for Health Technology Assessment and Assessment of Social Services) published an overview of the knowledge base which showed a lack of evidence for both the long-term consequences of the treatments, and the reasons for the large influx of patients in recent years. These treatments are potentially fraught with extensive and irreversible adverse consequences such as cardiovascular disease, osteoporosis, infertility, increased cancer risk, and thrombosis. This makes it challenging to assess the risk / benefit for the individual patient, and even more challenging for the minors or their guardians to be in a position of an informed stance regarding these treatments" (Gauffen and Norgren, 2021).

111. Dr Hilary Cass "was appointed by NHS England and NHS Improvement to chair the Independent Review of Gender Identity Services for children and young people in late 2020" (The Cass Review website, 2022). In her interim report dated February 2022, it states that "[e]vidence on the appropriate management of children and young people with gender incongruence and dysphoria is inconclusive both nationally and internationally" (Cass, 2022).

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112. In April of 2022, the Florida Secretary of the Agency for Health Care Administration requested that Florida Medicaid program review "whether treatments are consistent with widely accepted professional medical standards."

113. On June 2, 2022, the report was completed and concluded: "Following a review of available literature, clinical guidelines, and coverage by other insurers and nations, Florida Medicaid has determined that the research supporting sex reassignment treatment is insufficient to demonstrate efficacy and safety. In addition, numerous studies, including the reports provided by the clinical and technical experts listed above, identify poor methods and the certainty of irreversible physical changes. Considering the weak evidence supporting the use of puberty suppression, cross-sex hormones, and surgical procedures when compared to the stronger research demonstrating the permanent effects they cause, these treatments do not conform to GAPMS and are experimental and investigational" (Florida Medicaid, 2022)

f. Mastectomy Surgery for Minors

114. Any serious look at the long-term effects at surgical treatment would follow subjects out at least ten years. For example, an article was published recently examining patients who had mild calcium disorders due to a gland called the parathyroid. They compared a group of patients who had surgical removal of the parathyroid to a control group who had not. They examined data ten years after surgery was completed and concluded that parathyroid surgery in this group "did not appear to reduce morbidity or mortality" in that patient group (Pretorius, 2022).

115. To my knowledge, there exists no comparable studies of minors with gender dysphoria comparing those who had mastectomy surgery to a control group who had not. There are also no known studies of minors followed for 10 years or more to determine the long-term risks and benefits of mastectomy for gender dysphoria.

116. Good quality studies specifically showing that mastectomy surgery is safe, effective, and optimal for treating minors with gender dysphoria do not exist. For example, there is a study titled "Chest Reconstruction and Chest Dysphoria in Transmasculine Minors and

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Young Adults Comparisons of Nonsurgical and Postsurgical Cohorts" (Olson-Kennedy, 2018). The study authors conclude that "[c]hest dysphoria was high among presurgical transmasculine youth, and surgical intervention positively affected both minors and young adults." However, there are a number of problems with this study. First, the term "chest dysphoria" is not found as a diagnosis or even referenced in the DSM-5. Second the "chest dysphoria scale" is a measuring tool created by the authors, but which the authors state "is not yet validated." (*Id.*, p. 435) Third, the mastectomies were performed on girls as young as 13 and 14 years old and who thereby lacked the maturity and capacity of good judgment for truly informed consent for this life altering procedure. For this reason, in my professional opinion, the research and surgeries performed were flawed and unethical.

117. There exists another poorly designed study which suffers from similar methodological and ethical problems as the Olson-Kennedy study. A 2021 study published in Pediatrics examined females aged 13-21 recruited from a gender clinic. Thirty young females had mastectomy procedures and sixteen had not. The average age at surgery was 16.4 years (Mehringer, 2021). The follow up time after surgery was only 19 months and no data is provided or analyzed about key psychiatric information such as comorbid psychological illnesses, self-harming behaviors, psychiatric hospitalizations, psychiatric medication use, or suicide attempts.

118. Information returned from the study surveys were all qualitative and included responses such as "[My chest dysphoria] made me feel like shit, honestly. It made me suicidal. I would have breakdowns." Another respondent stated, "I've been suicidal quite a few times over just looking at myself in the mirror and seeing [my chest]. That's not something that I should have been born with" (Mehringer, 2021). The omission of psychiatric data is a major flaw in the study and also irresponsible given the obviously dangerous psychological states that some of these young people were in.

119. Since such a high proportion of subjects were using testosterone (83%), some of the responses could be attributed to adverse effects of testosterone. For example, as related earlier, high dose testosterone can manifest in irritability and aggressiveness. One study subject

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responded, “I get tingly and stuff and it kind of makes me want to punch something" (Mehringer, 2022).

120. The testosterone labeling also indicates nausea and depression as adverse reactions which are described by another study subject “There’s a feeling of hopelessness, of desperation, of—almost makes me feel physically sick” (Actavis Pharma, Inc., 2018; Mehringer, 2022).

121. The study appears to have been designed, at least in part, to justify insurance companies paying for mastectomy procedure for minors with gender dysphoria, even though they have provided no long-term statistical evidence of benefit: “These findings...underscore the importance of insurance coverage not being restricted by age” (Mehrniger, 2021). This also appears to be part of the aim of the flawed Olson-Kennedy study, which stated, “changes in clinical practice and in insurance plans’ requirements for youth with gender dysphoria who are seeking surgery seem essential” (Olson-Kennedy, 2018). So these two studies, rather than being a thorough examination of the psychological and physical risks and benefits of mastectomy surgery over the long-term, appear instead to exist, at least in part, to validate the need for insurance companies to insure the costs of these dubious procedures for minors.

3. Iatrogenic Harms of GAT

122. The term iatrogenic is used in medicine to describe harms or newly created medical conditions that are the result of medications, surgeries, or even psychological treatments. Each of the four interventions for gender affirmative surgery (social transition, blocking normal puberty, opposite sex hormones, and surgery) lead to iatrogenic harms to the patient. These harms will be described in detail below. GAT interrupts the natural desistence process and instead places the patient on a lifetime regimen of hormonal and surgical care. A good understanding of these harms is also critical to my practice as an endocrinologist, because if I did not understand these harms, I could not advise patients of the risks associated with GAT.

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a. Adverse Health Consequences of Blocking Normal Puberty

123. There are a number of serious health consequences that occur as the result of blocking normal puberty. The first problem is infertility. The Endocrine Society Guidelines recommend beginning puberty blockers as early as Tanner stage 2. As discussed earlier, this is the very beginning of puberty. Fertility development happens later generally in Tanner stage 4. One can see that if the developing person is blocked at Tanner stage 2 or 3 as advocated by the guidelines, this is prior to becoming fertile. The gonads will remain in an immature, undeveloped state.

124. Although procedures to preserve fertility are available, studies show that less than 5% of adolescents receiving GAT even attempt fertility preservation (FP) (Nahata, 2017). Moreover, "ovarian tissue cryopreservation is still considered experimental in most centers and testicular tissue cryopreservation remains entirely experimental. These experimental forms of FP would be the only options in children [with puberty] blocked prior to spermarche and menarche and are high in cost and limited to specialized centers. Even with FP there is no guarantee of having a child" (Laidlaw, Cretella, et al., 2019).

125. Naturally, these children are at a developmental age where they are not thinking about adult related concepts such as having children as they are children themselves. This is only natural and to be expected. The medical problem imposed on them is that if they remain blocked in an early pubertal stage then even the addition of opposite sex hormones will not allow for the development of fertility. In fact, high dose opposite sex hormones may permanently damage the immature sex organs leading to sterilization. Certainly the removal of the gonads, which will be discussed later, will ensure sterilization.

126. Another problem with blocking puberty at an early stage is sexual dysfunction. The child will continue their chronological age progression toward adulthood and yet remain with undeveloped genitalia. This will lead to sexual dysfunction including potential erectile dysfunction and inability to ejaculate and orgasm for of the male. For the female with

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undeveloped genitalia potential sexual dysfunction may include painful intercourse and impairment of orgasm.

127. In addition to direct effects on the developing genitalia and fertility, there are other important aspects of puberty that are negatively affected. For example, puberty is a time of rapid bone development. This time of development is critical in attaining what we call peak bone density or the maximum bone density that one will acquire in their lifetime (Elhakeem, 2019).

128. Any abnormal lowering of sex hormones occurring during this critical time will stop the rapid accumulation of bone and therefore lower ultimate adult bone density. If a person does not achieve peak bone density, they would be expected to be at future risk for osteoporosis and the potential for debilitating spine and hip fractures as adults. Hip fractures for the older patient very significantly increase the risk of major morbidity and death (Bentler, 2009). Allowing a "pause" in puberty for any period of time leads to an inability to attain peak bone density.

129. Another consideration is maturation of the human brain. Much of what happens is actually unknown. However, "sex hormones including estrogen, progesterone, and testosterone can influence the development and maturation of the adolescent brain" (Arain, 2013). Therefore there are unknown, but likely negative consequences to blocking normal puberty with respect to brain development.

130. A third potential problem with blocking normal puberty involves psychosocial development. Adolescence is a critical time of physical, mental, and emotional changes for the adolescent. It is important that they develop socially in conjunction with their peers. This is well recognized in the psychological literature: "For decades, scholars have pointed to peer relationships as one of the most important features of adolescence." (Brown, 2009). If one is left behind for several years under the impression that they are awaiting opposite sex puberty, they will miss important opportunities for socialization and psychological development. Psychosocial development will be necessarily stunted as they are not developing with their peers. This is a permanent harm as the time cannot be regained.

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131. Aside from the multiple serious problems that are iatrogenically acquired by blocking normal puberty, there appear to be independent risks of the puberty blocking medication themselves. For example, one can read the labeling of a common puberty blocking medication called Lupron Depot-Ped and find under psychiatric disorders: "emotional lability, such as crying, irritability, impatience, anger, and aggression. Depression, including rare reports of suicidal ideation and attempt. Many, but not all, of these patients had a history of psychiatric illness or other comorbidities with an increased risk of depression" (Lupron, 2022). This is particularly concerning given the high rate of psychiatric comorbidity with gender dysphoria discussed previously.

b. The Effect of Puberty Blockers on Desistance

132. As stated earlier, a very high proportion of minors diagnosed with gender dysphoria will eventually desist or come to accept their physical sex. Puberty blockers have been shown to dramatically alter natural desistance.

133. In a Dutch study that included seventy adolescents who took puberty blockers, all seventy decided to go on to hormones of the opposite sex (de Vries, et al. 2011). In a follow-up study, the overwhelming majority went on to have sex reassignment surgery by either vaginoplasty for males or hysterectomy with ovariectomy for females (de Vries, et al. 2014). These surgeries resulted in sterilization. This is why puberty blockers, rather than being a "pause" to consider aspects of mental health, are instead a pathway towards future sterilizing surgeries.

c. Infertility as a result of Puberty Blockers in GAT

134. Giving puberty blockers to a four-year-old with central precocious puberty will obviously not impair fertility, as the four-year-old has not yet become fertile. The child will at a later time have the puberty blocker discontinued and then normal pubertal development can proceed. Therefore, when they are no longer taking the medication, they will gain natural fertility.

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135. In contrast, puberty blocking medication given in GAT occurs at precisely the time that the child will gain reproductive function. This will stop sperm production in the male and ovulation in the female (if these have already occurred, otherwise the functions will not even begin) which produces the infertile condition. Importantly, so long as the minor continues puberty blockers they will remain infertile. Should they continue on to opposite sex hormones as part of GAT then they will remain infertile. There is the additional possibility that cytotoxic effects of high dose opposite sex hormones will damage the immature gonads leading to permanent sterility. This is yet to be discovered.

d. Adverse Health Effects of Supraphysiologic Doses of Testosterone for Females in GAT

136. Regarding the potential for abuse, the labeling reads "Testosterone has been subject to abuse, typically at doses higher than recommended for the approved indication . . . Anabolic androgenic steroid abuse can lead to serious cardiovascular and psychiatric adverse reactions . . . Abuse and misuse of testosterone are seen in male and female adults and adolescents . . . There have been reports of misuse by men taking higher doses of legally obtained testosterone than prescribed and continuing testosterone despite adverse events or against medical advice." (Actavis Pharma, 2018)

137. Adverse events with respect to the nervous system include: "Increased or decreased libido, headache, anxiety, depression, and generalized paresthesia." (Actavis Pharm, 2018)

138. With regard to ultimate height, "[t]he following adverse reactions have been reported in male and female adolescents: premature closure of bony epiphyses with termination of growth" (Actavis Pharma, Inc., 2018). What this means is that testosterone applied to the adolescent will cause premature closure of the growth plates, stopping further gains in height in the growing individual and ultimately making the person shorter than they otherwise would have been.

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139. With respect to the cardiovascular system of men using ordinary doses, "Long-term clinical safety trials have not been conducted to assess the cardiovascular outcomes of testosterone replacement therapy in men" (Actavis Pharma, 2018). No clinical safety trials have been performed for women or adolescent girls to my knowledge.

140. "There have been postmarketing reports of venous thromboembolic events [blood clots], including deep vein thrombosis (DVT) [blood clot of the extremity such as the leg] and pulmonary embolism (PE) [blood clot of the lung which may be deadly], in patients using testosterone products, such as testosterone cypionate" (Actavis Pharma, 2018).

141. A recently published study of adverse drug reactions (ADRs) as part of gender affirming hormone therapies in France states that "[o]ur data show a previously unreported, non-negligible proportion of cases indicating cardiovascular ADRs in transgender men younger than 40 years… In transgender men taking testosterone enanthate, all reported ADRs were cardiovascular events, with pulmonary embolism in 50% of cases" (Yelehe et al., 2022).

142. There are also serious concerns regarding liver dysfunction: "Prolonged use of high doses of androgens ... has been associated with development of hepatic adenomas [benign tumors], hepatocellular carcinoma [cancer], and peliosis hepatis [generation of blood-filled cavities in the liver that may rupture] —all potentially life-threatening complications" (Actavis Pharma, 2018).

143. In GAT, what is termed "cross sex hormones" is the use of hormones of the opposite sex to attempt to create secondary sex characteristics. To do so, very high doses of these hormones are administered. When hormone levels climb above normal levels they are termed supraphysiologic.

144. The female person does produce some smaller amount of testosterone relative to the male. The normal reference range for adult females depending on the lab is about 10 to 50 ng/dL. However, in female disease conditions these levels can be much higher. For example, in polycystic ovarian syndrome levels may range from 50 to 150 ng/dL. PCOS has been associated

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with insulin resistance (Dunaif, 1989), metabolic syndrome (Apridonidze, 2005) and diabetes (Joham, 2014).

145. In certain endocrine tumors such as adrenal carcinoma these levels may be substantially higher in the 300 to 1000 ng/dl range. Adrenal carcinoma is a serious medical condition and may be treated by surgery and potent endocrine medications.

146. Recommendations from the Endocrine Society's clinical guidelines related to GAT are to ultimately raise female levels of testosterone to 320 to 1000 ng/dL2, which is on the same order as dangerous endocrine tumors for women as described above (Hembree, 2017). A simple calculation shows this level for the adult may be anywhere from 6 to 100 times higher than native female testosterone levels. In doing so they are creating a hormone imbalance known as hyperandrogenism. These extraordinarily high levels of testosterone are associated with multiple risks to the physical and mental health of the patient.

147. "Studies of transgender males taking testosterone have shown up to a nearly 5-fold increased risk of myocardial infarction relative to females not receiving testosterone" (Laidlaw et al., 2021; Alzahrani et al., 2019). A female can also develop unhealthy, high levels of red blood cells referred to as erythrocytosis. These high red blood cell counts in young women have been shown to be an independent risk factor for cardiovascular disease, coronary heart disease and death due to both (Gagnon, 1994).

148. Other permanent effects of testosterone therapy involve irreversible changes to the vocal cords. Abnormal amounts of hair growth which may occur on the face, chest, abdomen, back and other areas is known as hirsutism. Should the female eventually change her decision to take testosterone, this body hair can be very difficult to remove. Male pattern balding of the scalp may also occur.

149. Changes to the genitourinary system include polycystic ovaries and atrophy of the lining of the uterus. The breasts have been shown to have an increase in fibrous breast tissue and a decrease in normal glandular tissue (Grynberg et al., 2010). Potential cancer risks from high dose testosterone include ovarian and breast cancer (Hembree, 2017).

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150. According to research regarding testosterone abuse, high doses of testosterone have been shown to predispose individuals towards mood disorders, psychosis, and psychiatric disorders. The "most prominent psychiatric features associated with AAS [anabolic androgenic steroids, *i.e.* testosterone] abuse are manic-like presentations defined by irritability, aggressiveness, euphoria, grandiose beliefs, hyperactivity, and reckless or dangerous behavior.

151. Other psychiatric presentations include the development of acute psychoses, exacerbation of tics and depression, and the development of acute confusional/delirious states (Hall, 2005). Moreover, "[s]tudies... of medium steroid use (between 300 and 1000 mg/week of any AAS) and high use (more than 1000 mg/week of any AAS) have demonstrated that 23% of subjects using these doses of steroids met the DSM-III-R criteria for a major mood syndrome (mania, hypomania, and major depression) and that 3.4% — 12% developed psychotic symptoms" (Hall, 2005).

e. Adverse Health Effects of Supraphysiologic Estrogen for Males in GAT

152. The doses of estrogen given to males for GAT are high and may vary from two to eight or more times higher than normal adult male levels. This produces the endocrine condition called hyperestrogenemia. Long-term consequences include increased risk of myocardial infarction and death due to cardiovascular disease (Irwig, 2018). Also "[t]here is strong evidence that estrogen therapy for trans women increases their risk for venous thromboembolism[1] over 5 fold" (Irwig, 2018).

153. Breast cancer is a relatively uncommon problem of the male. However, the risk of a male developing breast cancer has been shown to be 46 times higher with high dose estrogen (Christel *et al.*, 2019).

154. It is clear that supraphysiologic doses of either testosterone for the female or estrogen for the male can have detrimental health consequences. This is only now being borne out in the literature for adults. However, as more children and adolescents are put on these

[1] Venous thromboembolism is a blood clot that develops in a deep vein and "can cause serious illness, disability, and in some cases, death" (CDC, 2022).

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medications one would expect these consequences to become more frequent and to occur earlier in their lives.

f. Adverse Effects of Mastectomy GAT

155. Mastectomies are the surgical removal of the breasts. The procedure is used in GAT in an attempt to make the chest appear more masculine. The surgery results in a permanent loss of the ability to breastfeed and significant scarring of 7 to 10 inches. The scars are prone to widening and thickening due to the stresses of breathing and arm movement. Other potential complications include the loss of normal nipple sensation and difficulties with wound healing (American Cancer Society, 2022).

156. It is important to note that this operation cannot be reversed. The person will never regain healthy breasts capable of producing milk to feed a child (Mayo Clinic, Top Surgery, 2022).

157. Another important consideration is that compared to the removal of an unhealthy gallbladder or appendix, in the case of gender dysphoria the breasts are perfectly healthy and there is no organic disease process such as a cancer warranting their removal. The future person who later desists is left with regret about what happened to her at an age before she could provide true informed consent. Functioning breasts cannot be created by a surgeon and restored to a patient in case of regret. She is left with permanent injury and loss of function with respect to her breasts.

g. Adverse Effects of GAT Surgeries of the Female Pelvis and Genitalia

158. Other types of surgery for females include those of the genitalia and reproductive tract. For example, the ovaries, uterus, fallopian tubes, cervix, and vagina may be surgically removed. Removal of the ovaries results in sterilization.

159. Importantly, removing female body parts does not produce a male. Rather, the female has had sex specific organs permanently destroyed with no hope of replacement.

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160. There have also been attempts to create a pseudo-penis. This procedure is known as phalloplasty. It is not possible to de novo create a new human penis. Instead, a roll of skin and subcutaneous tissue is removed from one area of the body, say the thigh or the forearm, and transplanted to the pelvis. An attempt is made to extend the urethra or urinary tract for urination through the structure. This transplanted tissue lacks the structures inherent in the male penis which allow for erection; therefore, erectile devices such as rods or inflatable devices are placed within the tube of transplanted tissue in order to simulate erection (Hembree, 2017). The labia may also be expanded to create a simulated scrotum containing prosthetic objects to provide the appearance of testicles.

161. Complications may include urinary stricture, problems with blood supply to the transplanted roll of tissue, large scarring to the forearm or thigh, infections including peritonitis, and possible injury to the sensory nerve of the clitoris (Mayo Clinic, Masculinizing Surgery, 2022).

h. Adverse Effects of GAT Surgeries on the Male

162. GAT surgeries for the male include removal of the testicles alone to permanently lower testosterone levels. This is by nature a sterilizing procedure. Further surgeries may be done in an attempt to create a pseudo-vagina which is called vaginoplasty. In this procedure, the penis is surgically opened and the erectile tissue is removed. The skin is then closed and inverted into a newly created cavity in order to simulate a vagina. A dilator must be placed in the new cavity for some time so that it does not naturally close.

163. Potential surgical complications may include urethral strictures, infection, prolapse, fistulas, and injury to the sensory nerves with partial or complete loss of erotic sensation (Mayo Clinic, Feminizing Surgery, 2022).

C. Life Threatening Physical Medical Conditions Versus Suicidal Ideation

164. ***According to both Dr. Ettner and Dr. Karasic, the denial of gender affirmative care to transgender people results in the prolonging of their gender dysphoria, and causes***

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additional distress and other health risks, such as depression, posttraumatic stress disorder, and suicidality. Karasic Report, ¶ 57; Ettner Report, ¶ 65-66.

165. It is important to contextualize gender dysphoria and the need to balance the potential advantages and disadvantages of GAT.

166. Any child or adolescent who has suicidal ideation or has attempted suicide should receive immediate, appropriate psychiatric care. Psychologists and psychiatrists are trained in the recognition and treatment of suicidal ideation and prevention of suicide.

167. A child or adolescent with gender dysphoria who also has suicidal ideation should not be treated any differently. They require compassionate care and a full psychological evaluation of comorbidities such as depression, anxiety, and self-harming behaviors.

168. However, suicidal ideation or attempts are categorically different than other life-threatening situations, such as a rapidly expanding brain tumor or a severe infection. In these situations, a medication or a surgery is used to stop the progression of an organic physical condition. In contrast, the danger to the self with suicidal ideation relates to a condition of the mind.

169. Gender affirmative therapy does not treat any life-threatening physical condition. In fact, it creates a number of new medical conditions as described above. It is also not an appropriate treatment for suicidal ideation. Neither puberty blocking medications, nor testosterone, nor estrogen have been FDA approved for suicide prevention. Moreover, the hormone imbalances generated by the medications used in GAT may actually increase psychological conditions that lead to suicidal ideation and completed suicide.

D. Informed Consent

170. According to Dr. Karasic, ***"[a]s part of the treatment process for gender dysphoria, patients provide informed consent to their care. In addition, a treating doctor will not offer gender-affirming medical treatments unless they have concluded after weighing the risks and benefits of care that treatment is appropriate. The risks and benefits of care are discussed with the transgender patient, who must assent."*** Karasic Report, ¶ 50.

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171. Any person who is to take a medication, undergo a surgical procedure, or have a psychological intervention should understand the risks and benefits before proceeding. A discussion of these risks and benefits should be provided by medical professionals and then the person of sufficient intellectual capacity and maturity can consent to the treatment.

172. However, difficulties arise when a minor is involved in the process of medical decision-making. Their intellect, emotions, and judgment are not fully developed and they are not capable of fully appreciating permanent, life altering changes such as described above. Therefore, they cannot provide informed consent. Naturally, they may sometimes "assent" to a procedure or medication with a parent or guardian making the final decision.

173. With respect to GAT, in my opinion, it is not possible for the parent or guardian to make a true informed consent decision for the child because of the poor quality of evidence of benefit, the known risks of harm, and the many unknown long-term risks of harm which could only truly be known after years and decades of gender affirmative therapy. A parent or guardian cannot consent to dubious treatments which result in irreversible changes to their child's body, infertility, sexual dysfunction, and in many cases eventual sterilization.

174. Because this age group is still undergoing brain development and they are immature with respect to intellect, emotion, judgment, and self-control, in my professional opinion there is a significant chance a young person may later regret the irreversible bodily changes that result from hormones or from removing an organ or organs that will no longer function and cannot be replaced.

175. Adolescents are more prone to high-risk behavior and less likely to fathom the risks and consequences of these decisions (Steinberg, 2008).

E. Assessment of the Patient with Gender Dysphoria

176. According to Dr. Ettner, ***"[o]nce a diagnosis of gender dysphoria is established, individualized treatment should be initiated. Without treatment, individuals with gender dysphoria experience anxiety, depression, suicidality, and other attendant mental health issues***

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and are often unable to adequately function in occupational, social, or other areas of life." Ettner Report, ¶ 32.

177. Unfortunately, too often there is a rush to GAT before essential criteria are applied to determine a course of treatment based on a complete understanding of the patient's diagnosis and needs. In light of the very serious medical concerns and potential harms of gender affirmative therapy, there are several criteria that are important to fulfill before applying the GAT model to a patient:

- Patients should be evaluated to determine if they will follow the natural pattern of desistance which 50 to 98% of pediatric age children will follow.
- Patients, parents, and guardians should be made aware of other options for treatment of gender dysphoria including active psychosocial treatment or watching and waiting with support in order to accommodate natural desistance.
- The patient should be provided an assessment by a qualified psychologist or psychiatrist who does not follow the WPATH GAT model. If underlying psychological conditions are diagnosed then these should be adequately evaluated and treated before proceeding to hormones and surgery.
- If a medicalized approach with hormones such as testosterone or medications to stop menstruation is being considered then a clear description of the risks and benefits needs to be conveyed to the minor and the parent or guardian. It needs to be verified that they fully understand these risks.
- If surgical procedures such as mastectomy, hysterectomy, ovariectomy, orchiectomy, or vaginoplasty are being considered then clear descriptions of the risks and benefits need to be conveyed to the minor and the parent or guardian.

178. However, even if a minor and their parents or guardian are made fully aware of the risks and benefits of hormones and surgeries, in my opinion, the minor does not have adequate maturity and judgment to make permanent changes to their body that may result in

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infertility/sterility and the permanent loss of organs such as breasts whose functions will not be fully utilized (such as breastfeeding) until adulthood.

F. C.P.'s Medical Care

179. According to Dr. Ettner, ***"with the support of parents and extended family, C.P. was able obtain the medically necessary care he required, thereby avoiding the negative sequelae of female puberty and attendant menses and unwanted secondary sex characteristics."*** Ettner Report, ¶ 77. According to Dr. Karasic, ***"the 2019 BlueCross BlueShield Medical Policies Gender Reassignment Surgery and Related Services for Children and Adolescents . . . states that puberty-suppressing hormones or masculinizing hormones, as well as chest surgery for transmasculine individuals, may be considered medically necessary," and in his opinion, "[t]hese treatments were medically necessary for C.P."*** Karasic Report at ¶ 76.

180. In my professional opinion, it is not possible to make a single, categorical statement about the proper treatment of minors presenting with gender dysphoria. A provider cannot reasonably opine on the proper treatment of a particular minor presenting with gender dysphoria unless he or she has had more than one working sessions with the minor and has taken a thorough developmental history of the minor's gender-related issues before attempting to decide on a course of therapy for that individual.

181. For these reasons, in my professional opinion, an irreversible chest reconstruction surgery should not have been performed on minor C.P. Based on the studies and research cited above, in my professional opinion there is insufficient quality of evidence at this time demonstrating the benefit of bilateral mastectomy with chest wall recontouring surgery on individuals diagnosed with gender dysphoria in any age group. For those under 21, there is an additional reason to avoid irreversible procedures: there are no laboratory, imaging, or other objective tests to predict whether a young person with gender dysphoria will outgrow this condition. Because this age group is still undergoing brain development and as such, they are immature with respect to intellect, emotion, judgment, and self-control, in my professional

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opinion this means there is a significant chance that a young person may later regret removing an organ that cannot be replaced. Thus, in my professional opinion, it is never appropriate to provide bilateral mastectomy with chest wall recontouring surgery on individuals diagnosed with gender dysphoria, particularly those under the age of 21. In my opinion, a substantial percentage of physicians would agree. The following summarizes my specific concerns.

182. None of the reports offered by Plaintiffs' experts address whether any of the steps I have identified above were undertaken before a course of GAT was started. There is no mention of any psychiatric evaluation. *See* Ettner Report, ¶ 77; Karasic Report at ¶¶ 66-77.

183. Based on the declarations, depositions, and medical records I reviewed, there is insufficient evidence to establish that C.P.'s psychiatric issues have been thoroughly evaluated and adequately treated by a qualified psychiatrist or clinical psychologist.

184. Depression, if not properly treated before surgery, may result in an increase in morbidity and mortality post-surgery: "Several studies reported increased rate of postoperative infections in patients suffering from depression." With respect to depression treatment for patients before major surgery, where it is "[n]on-alleviated, it may predict increased morbidity and mortality after the operation. It may be associated with greater postoperative pain, higher incidence of postoperative infections, progression of malignant tumors, poor health-related quality of life as well as other complications." Ghoneim & O'Hara, "Depression and Postoperative complications: an overview," *BMC Surg.* 2016; 16:5 (Feb. 2, 2016).

Medical course and complications

185. All three expert reports refer to Endocrine Society's 2017 guidelines (ESG) as an exemplary model for gender affirmative therapy. **"A clinical practice guideline from the Endocrine Society (the Endocrine Society Guideline) provides similar protocols for the medically necessary treatment of gender dysphoria. (Hembree et al., 2017)."** Karasic Expert Report ¶ 27**. "The Endocrine Society—the leading professional organization devoted to research on hormones and the clinical practice of endocrinology—has also issued clinical**

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guidelines for the treatment of transgender individuals." Schechter Expert Report, ¶ 26. Dr. Ettner also references the same guidelines. Ettner Expert Report 2022, ¶ 34.

186. However, Dr. Hatfield's consult and progress notes from the medical records provided do not refer to the Endocrine Society's guidelines at all. He notes that he had been a member of WPATH and does refer to a "standard of care"—apparently WPATH's—in several places in his deposition (Hatfield Deposition, p. 20, 54, 57). However, there is no reference to the Endocrine Society's 2009 or 2017 guidelines.

187. This is very unfortunate because the 2017 ESG emphasize the critical importance of a mental health evaluation, particularly for children and adolescents: "Because of the psychological vulnerability of many individuals with GD/gender incongruence, it is important that mental health care is available before, during, and sometimes also after transitioning. For children and adolescents, a mental health provided ("MHP") who has training/experience in child and adolescent gender development (as well as child and adolescent psychopathology) should make the diagnosis, because assessing GD/gender incongruence in children and adolescents is often extremely complex." (Hembree et al., 2017)

188. Indeed, the 2009 ESG guidelines (which were available when Dr. Hatfield first started C.P. on puberty blockers) specifically state that a qualified mental health professional (MHP) should make the diagnosis of gender dysphoria (at that time referred to as gender identity disorder, or GID): "Because GID may be accompanied with psychological or psychiatric problems, it is necessary that the clinician making the GID diagnosis be able 1) to make a distinction between GID and conditions that have similar features; 2) to diagnose accurately psychiatric conditions; and 3) to undertake appropriate treatment thereof. Therefore, the SOC guidelines of the WPATH recommend that the diagnosis be made by an MHP. For children and adolescents, the MHP should also have training in child and adolescent developmental psychopathology" (Hembree et al., 2009). Note that the ESG refers directly to WPATH's guidelines recommending that "the diagnosis be made by a MHP" and also that "the MHP should also have training in child and adolescent developmental psychopathology."

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189. From the available records, there is no evidence that Dr. Hatfield consulted with a qualified psychiatrist or psychologist prior to initiating puberty blocking medications or testosterone. Although Dr. Hatfield's initial note of 9/27/16 states, "Ongoing recommendations for continued counseling strongly reinforced today," there is no evidence that C.P. was being seen by a qualified psychiatrist or psychologist.

190. With regards to future fertility, the guideline states, "We recommend that all transsexual individuals be informed and counseled regarding options for fertility prior to initiation of puberty suppression in adolescents and prior to treatment with sex hormones of the desired sex in both adolescents and adults" (*Id.*) However, in the medical records, prior to initiating puberty-blocking medication, there is only a single reference to a discussion of fertility during the patient's initial visit. It is unclear what a child of age 11 would be able to comprehend during this single first visit with respect to the complex issues of attempting to preserve fertility and had not yet undergone puberty.

191. Regarding follow up after initiating blocking of normal pubertal development, the ESG state: "[T]his protocol [of suppression of pubertal development] requires a MHP skilled in child and adolescent psychology to evaluate the response of the adolescent with GID after pubertal suppression" (*Id.*, p 3140). There is no evidence in the medical records that a qualified MHP evaluated C.P. after pubertal suppression was initiated and continued.

192. The ESG very explicitly state that puberty blocking medications should not be started before puberty has begun (Tanner stage 2): "We recommend that suppression of pubertal hormones start when girls and boys first exhibit physical changes of puberty, but no earlier than Tanner stages 2–3." *Id.* at 3133.

193. This is consistent also with WPATH's recommendation: "Adolescents may be eligible for puberty suppressing hormones as soon as pubertal changes have begun. In order for adolescents and their parents to make an informed decision about pubertal delay, it is recommended that adolescents experience the onset of puberty to at least Tanner Stage 2." (WPATH SOC, 2011, p. 18).

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194. The Tanner stage of pubertal development is assessed by physical exam of the body. A description of the physical findings would be found in the physical exam description of the clinical notes. For the female this would involve a description of the breasts and genitalia. From these findings an assessment of the Tanner stage is made. For example, a Tanner stage 2 description would describe "breast buds palpable beneath the areola" (Emmanuel and Boker, 2022).

195. However, in the initial consult visit, Dr. Hatfield did not describe the breasts at all, nor a description of the genitals. He jumped to an assessment which states: "Phenotype Tanner 2." Therefore, it is not clearly stated to what degree the C.P. had breast development, if at all, at that time, because there is no physical exam description. However, on a subsequent visit dated 05/22/17, the physical exam states "no breast budding noted," which would indicate that there had been no breast development at all up to that point. This is consistent with Tanner 1 staging, which is prepubertal. Therefore, it appears that Dr. Hatfield had begun pubertal suppression at Tanner stage 1, which was not advised by either the ESG or even the WPATH's SOC.

Testosterone

196. As for starting hormones of the opposite sex, the ESG also have a number of criteria to be fulfilled. The first is that a qualified MHP has confirmed (a) "the persistence of gender dysphoria"; (b) that "any coexisting psychological, medical, or social problems that could interfere with treatment ... have been addressed, such that the adolescent's situation and functioning are stable enough to start sex hormone treatment"; (c) "the adolescent has sufficient mental capacity (which most adolescents have by age 16 years) to estimate the consequences of this (partly) irreversible treatment, weigh the benefits and risks, and give informed consent to this (partly) irreversible treatment" (Hembree et al., 2017). The medical records do not show that C.P. had seen a qualified MHP who had ensured that any of these criteria were met prior to initiating testosterone treatment.

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197. The ESG also recommend that "a pediatric endocrinologist or other clinician experienced in pubertal induction: agrees with the indication for sex hormone treatment, has confirmed that there are no medical contraindications to sex hormone treatment" (*Id.*) This does not appear to have happened either.

Absence of a proper diagnosis of gender dysphoria

198. Gender dysphoria was not diagnosed by a MHP and was also not entered into the medical record as a diagnosis by Dr. Hatfield in his initial consult. Instead, the consult visit of 9/27/16 states "No diagnosis found" in the assessment section. The 5/22/17 visit has a diagnosis of "Hormone deficiency - Testosterone?" It is not clear on what basis he has diagnosed a testosterone deficiency. The diagnosis in the assessment of 02/28/18 is "Hormone deficiency."

199. It seems that the only time that Dr. Hatfield has used the diagnosis of gender dysphoria is in conjunction with procedures requiring approval for coverage such as the Vantas implant. In Dr. Hatfield's deposition he states: "We simply include the code of gender dysphoria on the . . . prior authorization request and that is actually what allows it to be covered" (Hatfield Depo, p. 32).

200. Therefore, the procedure note for the Vantas implant on 11/18/16 has the diagnosis of gender dysphoria, but the preceding and following progress notes do not. Also, Dr. Hatfield's letter for surgery on 05/29/29 states that there has been a "long-standing medical diagnosis of gender dysphoria/transgender identity (F64.0)"; however, the preceding date of service 02/18/19, and date of service following the letter 07/11/19, do not have gender dysphoria as a diagnosis in the assessment and plan.

Estradiol promotes breast tissue growth

201. On 6/9/18, Dr. Hatfield prescribed estradiol "to improve bone growth." But what is significant for C.P. is that estradiol will cause breast tissue growth. Testosterone can also cause breast tissue growth by conversion to estrogen. There is no further record of a breast exam by Dr. Hatfield leading up to the time of his 05/29/19 letter to the surgeon Dr. Kyllo. Given that

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the patient was receiving estrogen and testosterone, it would have been important to monitor development of the patient's chest and breast development.

202. As noted previously, Dr. Hatfield's 05/22/17 physical exam of C.P. states "no breast budding noted" indicating there had been no breast development. But by the time C.P. had seen the surgeon Dr. Kyllo for consult on 04/30/2019, Dr. Kyllo's physical exam describes: "Very small breasts with minimal development." In my opinion, Dr. Hatfield's prescription of estradiol in addition to testosterone led C.P. to progress from having no breast budding at all to small minimally, developed breasts.

Major discrepancy in breast size description

203. On 5/29/19, Dr. Hatfield wrote a letter to Dr. Kyllo regarding C.P. In the letter, Dr. Hatfield describes a "severe case of gynecomastia" and "extremely large breasts/gynecomastia." Again, in contrast to Dr. Hatfield's description, Dr. Kyllo in his initial consult note describes "[v]ery small breasts with minimal development."

204. It appears to me that Dr. Hatfield grossly exaggerated the size of the patient's breasts. Further supporting evidence for this is found in the pathology report of 12/19/19 (Pritchard POL, 56). The right breast tissue was described as "8 x 4 x 2 cm" which equates to a volume of 64 cubic cm (64 ml). The left breast tissue was described as "9.5 x 5 x 2 cm which equates to a volume of 95 cubic cm (95 ml)".

205. However, the average volume of breast tissue after mastectomy has been shown to be 623.5 ml with a range of 150-1490 ml (Kayar et al., 2011). Therefore, C.P.'s breast size has been confirmed by pathology exam to be very considerably below average and even below the lowest reference range for adult females, which contradicts Dr. Hatfield's description.

Informed Consent

206. Dr. Hatfield has been a member of WPATH and follows the WPATH model. According to WPATH, before initiating medical treatment it is important that "[t]he adolescent has given informed consent and, particularly when the adolescent has not reached the age of medical consent, the parents or other caretakers or guardians have consented to the treatment and

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are involved in supporting the adolescent throughout the treatment process." SOC WPATH p 25.

207. As to informed consent for puberty blockers, there is no signed documentation regarding benefits, adverse effects or alternatives, and so it is not clear as to exactly what C.P. and parents were informed of regarding the numerous side effects of PB. There also does not appear to be any alternative presented to C.P. such as watching and waiting with support to see if the patient desists or active psychotherapy with a non-biased, non-WPATH psychologist or psychiatrist.

208. With respect to testosterone, the ESG state that it is essential that "the adolescent has sufficient mental capacity (which most adolescents have by age 16 years) to estimate the consequences of this (partly) irreversible treatment, weigh the benefits and risks, and give informed consent to this (partly) irreversible treatment" (Hembree et al., 2017).

209. There is no indication that C.P. had been assessed by a qualified MHP to assess for sufficient mental capacity to estimate the consequences and weigh the benefits and risks of testosterone.

210. The patient's mother signed the testosterone consent form on 2/28/18, two days after the patient turned 13. Although Mrs. Pritchard initialed next to the statement "My medical provider has discussed my questions and concerns with me" and signed that day, the provider's signature is dated 18 days later, and calls into question the provider's availability to answer any questions and concerns on 2/28/18.

211. The ESG also recommends that the adolescent "has been informed of the (irreversible) effects and side effects of treatment (including potential loss of fertility and options to preserve fertility)" (Hembree et al., 2017, p. 3878).

212. The consent form for testosterone from The Polyclinic states under risks and side effects: "Possible loss of fertility; you may not be able to get pregnant after being on testosterone therapy for some time; how long this might take to be a permanent effect is unknown. Some persons choose to harvest and bank eggs before starting on testosterone therapy" (Pritchard POL,

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117). It goes to say that "[o]ther effects of testosterone on the ovaries and on developing eggs are not fully known." *Id.*

213. Infertility or permanent sterilization are drastic long-term consequences that are difficult for a person just turning 13 to comprehend. C.P. had not had enough time and maturity to grasp this complication. Thirteen-year-old girls are generally not thinking about their future family planning as they are still children themselves under the care of another. It is known that fertility preservation is very low in this age group, being less than 5%. It would also be difficult to understand the complex, physically and emotionally difficult procedure of egg preservation. Also, because C.P. appeared to have been pre-pubertal at the initiation of puberty blockers, C.P. by definition had immature eggs which would require advanced and expensive fertility techniques of uncertain outcome for ovum preservation (Laidlaw, Cretella, et al., 2019 AJOB).

214. With respect to cardiovascular disease, the consent form states: "Possible changes in cholesterol, higher blood pressure and other changes to the body that might lead to an increased risk of cardiovascular disease (heart attacks, strokes and blockages in the arteries" (Pritchard POL, 117). These risks are important as they were amplified in C.P.'s cases by combining testosterone with estrogen and by an increase in C.P.'s red blood cell count which will be discussed further below.

215. Other portions of the consent form point to the still experimental nature of using high dose testosterone on young females. For example, "all of the long-term consequences and effects of hormone therapy may not be fully understood." *Id.* "The effects of hormones on the brain are not fully understood" *Id.* "Some trans men, after being on testosterone for a number of months, may develop pelvic pain; often this will go away after some time, but it may persist; the cause of this is not known." *Id.*

216. There is no discussion of alternatives such as watching and waiting to follow a natural course of desistance or active psychotherapy to help with potential mental health issues such as ADHD or family or school issues that may be affecting C.P.'s mental health. There is a statement, "Hormone therapy is not the only way that a person may appear more masculine and

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live as a male, your medical provider and/or a mental health provide can help you think about these other options." *Id.* at 118. However, there is no discussion of what these other options are.

217. The consent form states that "[t]he effect on the risk of breast, uterine and ovarian cancer is not any higher than the background occurrence for people with these body organs." *Id.* at 117. However, the ESG state that the patient should be prepared for a potential total hysterectomy for cancer prevention: "Although there is limited evidence for increased risk of reproductive tract cancers in transgender males, health care providers should determine the medical necessity of a laparoscopic total hysterectomy as part of a gender affirming surgery to prevent reproductive tract cancer," including ovariectomy "after the completion of hormone transition" (Hembree et al., 2017, p. 3892, 3890).

218. This drastic, sterilizing procedure for a young person is not mentioned in the consent form. This is particularly concerning given the fact that Dr. Hatfield commented in his progress note that C.P.'s "mom has a strong history of ovarian cancer on her side of the family . . . His mom is wondering if there is anything [C.P.] needs to do for testing/prevention" (Pritchard POL, 15). The ESG adds that "Studies have reported cases of ovarian cancer" (Hembree, 2017). But no particular guidance from Dr. Hatfield regarding these serious issues are found in the medical record.

Mastectomy

219. In contrast to the many criteria listed prior to initiating PB or opposite sex hormones in the ESG, there is little guidance and no evidence presented as to the benefits of mastectomy specifically for the minor.

220. However, analogously, the ESG advise that before initiating testosterone for the minor, it is necessary that "a multidisciplinary team of medical and MHPs has confirmed the persistence of GD/gender incongruence and sufficient mental capacity to give informed consent." It follows that for something as permanently altering as surgical removal of organs, such as the

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breasts, a patient should be seen by a psychiatrist or psychologist to assess for "sufficient mental capacity to give informed consent."

221. This did not happen here. Instead, C.P. saw Sharon Booker who is a licensed mental health counselor for a one-hour evaluation and who produced an assessment letter dated 07/24/19 (Pritchard CFT, 3-4). There is no mention in the letter that C.P. had sufficient mental capacity to provide informed consent. There is also no discussion of the fact that C.P. was 14 and had not reached the age of majority.

222. In Dr. Schechter's declaration, he states that "[f]or individuals seeking male chest reconstruction, the criteria are: The patient has the capacity to make fully informed decisions and to consent for treatment." (Schecter depo, p. 11). Again, from the records it does not appear that C.P. had an adequate assessment by a qualified psychiatrist or psychologist prior to signing a consent form for the mastectomy procedure.

223. C.P. was only 14 years old when C.P. signed the consent form for a bilateral mastectomy surgery on 12/10/19 (Pritchard POL, 139). Nolle Pritchard signed as a witness. The surgeon, Dr. Kyllo, did not sign the form. It is not clear to what degree he was involved (if at all) in the informed consent process. As part of the consent for surgery there is a listing of "Surgical Risks and Advisories." There is no listing of the complication that the patient would be unable to breastfeed. Nor is there evidence of a discussion with the patient by the involved clinicians of this problem, nor could C.P. have had sufficient capacity at that age to fully appreciate the future ramifications of such a complication.

Difficulty in assessing C.P.'s complete hormonal and medical condition given absence of labwork provided in the record

224. Although Dr. Hatfield's medical records refer to labwork on multiple occasions, these have not been provided and therefore cannot be assessed.

225. The following are quotes from the medical record by visit date and for which corresponding labwork was not provided as part of the record:

- 09/27/16 "Baseline blood work ... have been discussed and ordered today."

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- 11/08/16 "First blood work to be repeated in 6 months. This checks the efficacy of the implant."
- 05/22/17 "Return to clinic sometime in the Fall (Oct 31-Jan l) for repeat blood work."
- 02/28/18 "Please have blood work done in 3 to 3.5 months (early June)."
- 06/09/18 "Please call the family and inform the testosterone values very good at 76.
- 08/14/18 "return around November 2018 for his next set of blood work."
- 02/18/19 "We will send you the results of your labs from today. - We may increase your dose based on these results."
- 07/11/19 "I will contact you with your lab results from today."

226. The absence of laboratory records makes assessing C.P.'s complete hormonal and medical condition difficult.

Side effects of puberty blocking medication

227. In my opinion, the patient developed side effects of puberty blocking medication as evidenced in Dr. Hatfield's medical records. "He is getting headaches almost every day and this is new since the hormone blocker was placed." DOS 02/28/18. "His mother notes he is a lot less active than he was when he was younger. She is wondering if this is related to low hormone levels." DOS 02/28/18. The Vantas implant labeling describes both headaches and fatigue as side effects (Vantas implant labeling, table 1). Rather than stopping puberty blockers because of headaches and fatigue, C.P. was given a prescription for testosterone cream.

Side effects of estrogen and the conversion of testosterone to estrogen

228. Another side effect of estrogen is vaginal spotting which is found as a diagnosis in the consult note of Dr. Kyllo on 4/30/19. This indicates development of the endometrial lining of the uterus. Typically, this would be prevented by the addition of progesterone. The administration of progesterone is also important for the long term prevention of endometrial cancer. Dr. Hatfield does not appear to have prescribed progesterone at any time.

229. Testosterone was prescribed to be taken simultaneously with the estradiol medication. As an endocrinologist I am concerned that both hormonal medications were being

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used off label and in combination. This combined use has not been studied to my knowledge and would be considered high risk. As discussed previously, warnings for both estradiol and testosterone included thrombosis (blood clots which may be deadly such as clots of the lungs).

Chronic high dose testosterone

230. The progress notes indicate the initiation of a testosterone cream, later followed by testosterone injections. Again, the Endocrine Society Guidelines provide no evidence for why any particular dose should be given to females. However, one can see from the limited labwork provided that the dose was exceedingly high.

231. The normal reference range for testosterone for adult females depending on the lab is about 10 to 50 ng/dL. For adolescents, the range is lower. On 12/16/20 C.P.'s testosterone level was 227 ng/dL. A simple calculation shows that this was 4.5 to 23 times higher than an adult female level. On 6/24/21, C.P.'s testosterone level was 443. This was approximately 9 to 44 times higher than an adult female level. This is evidence that C.P. had been receiving chronically high levels of testosterone leading to hyperandrogenism. High testosterone levels can result in erythrocytosis.

232. Erythrocytosis is a condition in which the blood contains abnormally high amounts of red blood cells. This can be detected by doing blood tests of hematocrit.

233. "Current guidelines on the management of secondary erythrocytosis in trans men on testosterone therapy refer to the guideline for testosterone-treated hypogonadal cis men and consider hematocrit levels > 0.509 [50%] L/L as potentially dangerous, as it has a very high risk of adverse outcome " (Madsen, 2021). This was written by a team in favor of transitioning and in their estimation a hematocrit level above 50% is potentially dangerous. We have written a response letter to this study in JCEM. In our letter we state that for females who identify as trans males, physicians should use the normal female range of hematocrit as levels above the female range have been shown to be an independent risk factor for heart disease and death due to heart disease (Laidlaw et al, 2021).

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234. For adult women, the normal hematocrit range is 35.5 to 44.9 percent. On 12/16/2020, the hematocrit level was elevated above the adult female reference range at 45.5 as a result of very high dose testosterone. This is consistent with the development of erythrocytosis.

235. We can see from this that over time the patient had developed erythrocytosis, meaning harmful high red blood cell levels due to chronic high dose testosterone. This exposes C.P. to increased long-term cardiovascular risk and other possible unknown harms. This serious problem does not appear to have been assessed or addressed adequately by Dr. Hatfield.

236. Erythrocytosis was not written as a diagnosis in any problem list. There is no differential diagnosis to determine if there are other causes or factors such as breathing difficulties could have contributed to this problem. There is no discussion of either stopping testosterone injections or lowering the dose to help treat the condition. There are also no follow up labs available to track this problem.

Mental Health

237. C.P. had undergone a psychological evaluation at age 16 years and 7 months by the psychologist Steve Tutty, MA, PhD. This was after having been on puberty blockers followed by high dose testosterone for nearly five years. C.P. has developed serious issues with anger as a result of chronic high dose testosterone. "'Sometimes I will be angry for no reason.'. . . This agitation typically manifests in [C.P.] yelling at his mom and dad. 'I also burst out on my friends.' [C.P.'s] mother stated they are 'walking on eggshells at home.'" (PLA, 3066).

238. C.P.'s mood was assessed using the Beck Youth Inventories. Dr. Tutty states that C.P.'s "endorsements resulted in a mildly elevated indication of anger problems." However, this is likely to be an underestimation of C.P.'s actual level of anger, because the diagnostic scales are gendered, and Dr. Tutty refers to C.P. as a male rather than a natal female.

239. C.P. also experiences significant problems with inattention "with more inattention related symptoms present than for 97 percent" of C.P.'s same aged peers (PLA, 3074). C.P. was diagnosed by Dr. Tutty with attention deficit disorder.

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240. Rather than seeing an improvement in the patient's mental health by gender affirmative therapy, it seems to be worsening. In my opinion, this is consistent with adverse psychological effects of puberty blockers followed by chronic high dose testosterone use.

Sterilization

241. C.P. started receiving puberty blockers before puberty had started. C.P.'s ovaries and eggs were by definition in an immature state. C.P. was later placed on high dose testosterone which has the effect of inhibiting the normal communication between the pituitary ovaries, thus "freezing" C.P.'s ovaries in an immature state. Additionally high dose testosterone has unknown, but likely cytotoxic effects on the immature ovaries.

242. There is a very high probability that C.P. has been or will be permanently sterilized by these treatments. The potential reasons are several. 1) The ovaries are locked in an immature state while C.P. takes testosterone; 2) the cytotoxic effects of testosterone on the ovaries; 3) the pituitary is inhibited from communicating with the ovaries from allowing for a normal menstrual cycle and release of an ovum; 4) and, as mentioned above, the ESG have a recommendation for a total abdominal hysterectomy for cancer prevention and ovariectomy after hormone transition which necessarily eliminates any chance of pregnancy (Hembree et al., 2017, p. 3890, p. 3892).

Abnormal sexual function

243. There is a high probability that C.P. will have permanent abnormal sexual function due to the fact that C.P.'s pelvic genitalia were not allowed to develop fully under the influence of the pituitary directing proper estrogenization of the genitalia. Furthermore, high dose testosterone leads to abnormal enlargement of the clitoris and also vaginal atrophy (Hembree et al., 2017).

V. Conclusion.

244. As explained above, there is ongoing debate and study in the medical community regarding gender affirmative treatment. The opinions of Plaintiffs' experts in this matter do not

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represent the medical consensus. The medical community is divided on many issues related to gender identity and the necessity or value of gender affirmative care.

245. The Plaintiffs' experts' opinions, which are substantively the same, do not represent the diversity of opinions in the medical community, nor account for the fact-based inquiry that must occur, in my opinion. Their opinions that the only acceptable path forward that meets the standard of care is the approach endorsed by the WPATH is inconsistent with scientific standards, and diverges from the standard of care for other medical treatments.

246. The implication is that if an employer excludes gender affirmative care from coverage, it must be because the employer is prejudiced against transgender individuals is therefore not correct.

247. C.P.'s case illustrates the recurring problem that quality of medical care received by minors who undergo irreversible gender-affirming treatments results at least in part because gender dysphoria treatments are so entangled with advocacy. Much of this advocacy comes from WPATH, which not only attempts to do scientific work, but is also as an advocacy organization, and these two objectives are not compatible.

248. Based on the materials I have reviewed and in my professional opinion, the treatment of C.P. is indicative of these quality-of-care problems that I have observed.

I declare under penalty of perjury under the laws of the State of Washington that the foregoing is true and correct to the best of my knowledge and belief.

August 3, 2022, at Brockway, CA.

By Michael K. Laidlaw, M.D.

Michael K. Laidlaw, M.D.

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CERTIFICATE OF SERVICE

I certify that on the date indicated below I caused a copy of the foregoing document, EXPERT DECLARATION OF MICHAEL K. LAIDLAW, M.D. to be served on the following attorneys of record:

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EXHIBIT B

HONORABLE JUDGE ROBERT J. BRYAN

IN THE UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF WASHINGTON
AT TACOMA

C. P., by and through his parents, Patricia Pritchard and Nolle Pritchard; and PATRICIA PRITCHARD,

Plaintiff,

vs.

BLUE CROSS BLUE SHIELD OF ILLINOIS,

Defendants.

Case No. 3:20-cv-06145-RJB

DECLARATION OF LAWTON R. BURNS

I. Expert Witness Background & Qualifications

1. My name is Lawton R. Burns. I am the James Joo-Jin Kim Professor at the Wharton School of the University of Pennsylvania, where I am a Professor in the Departments of Health Care Management and Management. For seven years (2007–2014), I also served as the Chair of the Health Care Management Department. Currently, I am the Co-Director of the Roy and Diana Vagelos Program in Life Sciences and Management at the University of Pennsylvania. I have taught at Wharton since 1994. Prior to Wharton, I taught in the health administration programs of two other business schools: the Graduate School of Business at the University of Chicago and the College of Business and Public Administration at the University

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of Arizona. I have also taught in the healthcare management programs at the Indian School of Business in Hyderabad and the Guanghua School of Management at Peking University.

2. At Wharton, I teach the first-year course, "Introduction to the U.S. Health Care System" to graduate students. The course covers the entire value chain of health care, including hospital/physician providers, managed care organizations and insurers who contract with and reimburse providers for their services, and employers, individuals, and governmental bodies who ultimately pay for those services. I have taught this course at Wharton in the daytime MBA program for over twenty years. I have also taught the same course to the weekend MBA program on both the East and West coast campuses for over a decade. I have taught various versions of this course at each of the Universities I have worked at since 1981.

3. Between 1998 and 2013, I also taught a graduate business elective course on "Managed Care and the Industrial Organization of Healthcare." I resumed teaching this course in 2017. The course covers (a) the horizontal integration of physicians, hospitals, and insurers; and (b) the vertical integration between physicians, hospitals, and insurers. The course also covers the contractual and bargaining relationships between physicians, hospitals, and insurers—and the strategies those three parties have undertaken to align with and/or negotiate with one another. I taught an earlier, but parallel version of this course between 1998–2002 to physicians pursuing a masters' degree in the Administrative Medicine Program at the University of Wisconsin School of Medicine.

4. I have testified on these and related topics (*e.g.*, economic and clinical integration) to the Federal Trade Commission (FTC) on several occasions and have served as an expert witness for both the FTC and the Department of Justice (DOJ) on issues concerning horizontal integration, vertical integration, and payer-provider contracting. Most of these cases involved horizontal mergers of physician practices and vertical integration of physicians with hospital systems. In all of these cases, I opined on whether there was sufficient economic and/or clinical integration benefits to potentially offset the consumer welfare loss from consolidation and

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reduced competition. A list of cases in which I have testified at trial or deposition during the past four years is attached as Appendix 1.

5. I received my Ph.D. in organizational sociology (in 1981) and my Masters in Business Administration in hospital administration (in 1984), both from the University of Chicago. During my MBA training, I interned with the Hospital Corporation of America ("HCA"), the largest for-profit chain of hospitals in the US. I also completed a one-year residency with Jackson Park Hospital in Chicago. For both institutions, I served as the Assistant to the Administrator. I have spent my career since that time seeking to use (a) the theory and research of management, corporate strategy, and industrial organization to (b) analyze healthcare delivery and (c) improve observed patterns of physician and hospital behavior that serve to decrease costs while maintaining or improving quality.

6. Throughout my career, I have focused much of my research on the hospital industry and the medical profession. Earlier research examined:

- hospital-sponsored primary care
- physicians' use of hospitals (*e.g.,* admitting patterns and loyalty)
- historical transformation of the hospital from a philanthropic to a business base
- hospital adoption of reengineering
- medical group practices
- medical staff organization
- physician-hospital relationships and conflicts
- physician-hospital alignment
- physician-hospital alliances (*e.g.*, PHOs, MSOs, IPAs, etc.)
- integrated delivery networks (IDNs)
- hospital supply of community benefits
- hospital performance (*e.g.,* operating costs, profitability)
- formation of hospital systems
- hospital mergers
- hospital bankruptcies
- hospital competition
- hospital-managed care bargaining
- capitated contracting between hospitals and health plans
- hospital ownership conversions, and
- alternative delivery systems (non-hospital based).

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In recognition of this research, the American Hospital Association awarded me the Edwin Crosby Memorial Fellowship to study physician-hospital relationships in 1992–1993. In 2015, the Academy of Management and its Health Care Administration Division awarded me the Distinguished Scholar Award.

7. In terms of management topics, I have focused much of my attention on organization structures, organization processes (*e.g.*, participation in decision-making), and employee behavior (*e.g.*, collaboration, conflict, satisfaction, loyalty and commitment to the organization, citizenship behaviors, etc.). In terms of corporate strategy and industrial organization topics, I have focused on "governance decisions" (*e.g.*, make-in-house versus buy from the market), horizontal and vertical integration, diversification, strategic alliances and networks, and value-chain alliances.

8. In terms of healthcare topics, I have focused much of my attention on organized delivery systems. These include physician group practices; physician practice management companies ("PPMCs"); ambulatory surgery centers ("ASCs"); and a variety of integrated delivery networks ("IDNs"), such as physician-hospital organizations ("PHOs"), management services organizations ("MSOs"), clinically integrated networks ("CINs"), accountable care organizations ("ACOs"); and economic and clinical integration. Many of these centered on the integration within physician organizations and the integration between physician organizations and hospitals. During this period, I have conducted mail surveys of thousands of physicians, personally interviewed hundreds of physicians and executives in IDNs, received numerous grants and research contracts to study physicians and IDNs, written or co-written five case studies of IDNs, and published multiple articles and book chapters relating to the topic of physician-hospital integration.

9. I have written extensively on healthcare related topics.[1] I have written about both professional service agreements and the different contractual arrangements among physicians

[1] Lawton R. Burns and Douglas R. Wholey. "Responding to a Consolidating Healthcare System: Options for Physician Organizations." In *Advances in Health Care Management* Volume 1 (New York: Elsevier): 273-335. 2000. Lawton R. Burns and Ralph Muller. "Hospital-Physician Collaboration: Landscape of Economic Integration

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and between physicians and other parties, such as hospitals and practice management companies.[2]

10. I have two new books. The first is an introductory textbook to the entire U.S. healthcare ecosystem. The second is an analysis of the harmful effects of consolidation among healthcare providers and the historical chronicle of consolidation efforts stretching back from the 1990s into the present. The latter covers both horizontal and vertical integration involving hospitals and physicians.[3]

11. I have published over one hundred and fifty articles and book chapters on these topics. I have also published several books in the same areas. Exhibit 1 contains my curriculum vitae.

II. Summary of Work Performed

12. I have been asked to analyze the effect of Blue Cross of Illinois ("BCBSIL")'s practice of administering self-funded health plans that contain exclusions from gender affirming care.

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and Impact on Clinical Integration." *Milbank Quarterly* 86(3):375-434. 2008. Lawton R. Burns, Jeff C. Goldsmith, and Ralph Muller. "History of Hospital/Physician Relationships: Obstacles, Opportunities, and Issues." In Jay Crosson and Laura Tollen (Eds.), *Partners in Health* (Kaiser Permanente Institute for Health Policy, Oakland, CA). 2010. Lawton R Burns and Mark V Pauly. "Accountable Care Organizations May Have Difficulty Avoiding The Failures of Integrated Delivery Networks of The 1990s." *Health Affairs* 31(11): 2407-2416. 2012. Lawton R. Burns, Jeff Goldsmith, and Aditi Sen. "Horizontal and Vertical Integration of Physicians: A Tale of Two Tails." In *Annual Review of Health Care Management: Revisiting the Evolution of Health Systems Organization. Advances in Health Care Management*, Volume 15: 39-117. (Emerald Group Publishing). 2013. Lawton R. Burns and Mark V. Pauly. "Transformation of the Healthcare Industry: Curb Your Enthusiasm?" *Milbank Quarterly*. (March 2018) 96(1): 57-109.

[2] Burns and Muller. 2008. Lawton R. Burns and Darrell P. Thorpe. "Trends and Models in Physician-Hospital Organization." *Health Care Management Review* 18(4): 7-20. 1993. Jeffrey Alexander, Thomas Vaughn, Lawton R. Burns et al. "Organizational Approaches to Integrated Healthcare Delivery: A Taxonomic Analysis of Physician Organization Arrangements." *Medical Care Research and Review* 53(1): 71-93. 1996. Lawton R. Burns. "Physician Practice Management Companies." *Health Care Management Review* 22(4):32-46. 1997. Lawton R. Burns, Jeffrey Alexander, and Ronald Andersen. "How Different Governance Models May Impact Physician-Hospital Alignment." *Health Care Management Review*. Forthcoming.

[3] Lawton R. Burns. *The U.S. Healthcare Ecosystem: Payers, Providers, Producers* (McGraw-Hill, 2021). David Dranove and Lawton R. Burns. *Big Med: Megaproviders and the High Cost of Health Care in America* (Chicago, IL: University of Chicago Press, 2021).

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13. I have also been asked to determine whether the elimination of BCBSIL's to administer plans with varying designs, including designs that exclude gender affirming care, will harm employers and consumers.

14. I have reached opinions on these matters in my report based on a combination of (a) knowledge developed over nearly forty years of conducting academic research on health care delivery networks; (b) knowledge developed over the past thirty years of conducting extramurally-funded research; (c) knowledge acquired over the past twenty years in expert witness work on related cases; (d) evidence gleaned from depositions and documents produced in this litigation; and (e) the broader literature on medical groups, professional service agreements, including prior research and rulings and advisories by the FTC. My work on this matter is continuing, and I reserve the right to amend my opinions and testimony, including in response to any of plaintiffs' experts.

15. I am compensated at the rate of $900 per hour for performing my work on this matter. I am paid this rate regardless of the opinions I reach in connection with my work.

III. Summary of Opinions

i. Plan designs that contain various iterations of exclusion for gender affirming care are common;

ii. These Plan designs allow greater economic flexibility for employers and further their ability to make health care coverage available at customized price-points;

iii. Eliminating the ability to purchase health plans with gender-affirming care exclusions would be harmful to consumers.

iv. Individuals will ultimately bear the burden of price increases.

IV. Background Regarding the Healthcare Industry.

16. Individuals not eligible for public insurance, such as Medicare or Medicaid, can obtain health insurance coverage in two ways. First, they can buy insurance on their own on the individual market (the self-employed, those working for firms that do not offer coverage, early

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retirees). Second, like the majority of the population, they can obtain coverage on the group market through their, or a family member's, employer. Group coverage can include both small group (defined as firms with less than 50–100 workers, depending on the state) as well as large group (firms with 100+ workers).

17. Employers are often referred to as ERISA plan sponsors. Employers sponsor insurance for their workers in one of two ways. Some employers purchase it. In this situation, the employer purchases insurance from a company such as BCBSIL. These employers are referred to as "fully insured" because the insurance risk rests with the insurer. Other employers, especially the majority of large employers, directly assume financial responsibility for employees' medical claims and administrative costs and use their own money to pay health care costs. These employers are known as "self-insured." Most self-insured employers hire companies such as BCBSIL to assemble a network of providers, process claims, and handle provider billing.

18. Generally, self-insured ERISA plans design their own coverages. In other words, the employer choses what it will cover for employees and then hires an administer to provide employees with a network of providers and process the claims. In order to price these products, parties need to employ actuaries and underwriters. These staff estimate the likely cost of a given plan based on the utilization of its enrollees over a future period and then derive an annual premium to cover the plan's cost, including medical and administrative costs.

A. When Health Care Costs Rise, Consumers Are Adversely Affected.

19. When the amount that employers pay for health care goes up, the end consumer ultimately feels the impact. As in other segments of the health care value chain (*e.g.*, rising drug prices), rising fees upstream (*e.g.*, the prices charged by providers) are passed along to the health plans, the employers who sponsor those plans, and ultimately to the workers who enroll in these plans.

20. Consumers generally have what are called cost-sharing obligations for their health care. These obligations span deductibles, co-pays, and co-insurance. Monies to cover these

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obligations come directly from the consumer's own pocket. Individuals who obtain insurance through their employer also pay higher premiums directly, if their employer requires them to contribute to premiums or plan costs through a payroll deduction. But even when an employer nominally pays for health coverage, the employee ultimately bears the burden of overall higher prices for health services.[4]

21. To attract more and better-qualified labor, employers offer prospective employees a combination of salary and benefits. Together, salary and benefits are considered the employee's total compensation and the employee's money. Employer payments for health insurance premiums ultimately come out of what would otherwise have been paid to workers as money wages. As of the mid-1990s, consultants estimated that 88% of premiums were offset by money wage reductions. Thus, it is the employee, and not the employer, who pays for the increased health insurance premium.[5]

22. Employees may bear the burden of higher prices in two ways. First, some employers will stop offering insurance to their employees entirely.[6] This leaves the employee either uninsured, and thus fully exposed to the financial risk of medical costs, or in the position where they need to purchase coverage on their own in the individual market at a much higher price. Second, those employers who do continue to offer insurance will offset the increased cost through higher premiums, higher cost-sharing, and lower wages.

23. The 2017 Annual Survey of Employer Health Benefits published by the Kaiser Family Foundation ("KFF") and the Health Research & Educational Trust ("HRET") highlights the ways in which rising healthcare costs are passed on to end-consumers:

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4 Carlin CS, Feldman R, Dowd B, *The Impact of Provider Consolidation on Physician Prices*, 26 HEALTH ECONOMICS 1789 (2017)

[5] Mark V. Pauly. *Health Benefits at Work* (Ann Arbor: University of Michigan Press, 1997). Lewin-VHI. *The Financial Impact of the Health Security Act* (Fairfax, VA: Lewin-VHI, 1993).

6 Fronstin P, Sources of Health Insurance Coverage: *A Look at Changes Between 2013 and 2014 from the March 2014 and 2015 Current Population Survey, 2015*, EMPLOYEE BENEFIT RESEARCH INSTITUTE ISSUE BRIEF 419, available at https://www.ebri.org/pdf/briefspdf/EBRI IB 419.0ct15.Sources.pdf, accessed October 23, 2018.

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- Increased premiums. Average annual premiums for employer-sponsored family coverage reached $18,764 in 2017, up 55% from $12,106 in 2007.[7] This is an average growth rate of 4.4% per year. The worker contribution increased 74%, from $3,281 in 2007 to $5,714 in 2017.[8]
- Increased deductibles. The percentage of covered workers enrolled in a plan with an annual deductible of $1,000 or more increased from 34% in 2012 to 51% in 2017 (for single coverage plans).[9]
- Increased percentage of premium paid by workers. For single coverage, employees in 2017 paid 18% of the total premium, up from 16% in 2007; for family coverage, the employee share of the total premium increased from 28% to 31% over the same period.[10]

24. Among firms with between 3 and 199 employees that do not offer insurance coverage, the high cost of health insurance was the most commonly cited reason for not offering coverage.[11] Professors Katherine Baicker of UCLA and Amitabh Chandra of Harvard University have studied the effects of increased health insurance premiums and have concluded that workers, as opposed to employers, bear the brunt of such increases.[12] Specifically, they estimate that, on average, the effects of a 10% economy-wide increase in insurance premiums include the following:

- A 1.2 percentage point reduction in the aggregate probability of employment;
- Among the employed population, a 1.9 percentage point reduction in the probability of working full time instead of part time;
- A 2.4% reduction in hours worked; and

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[7] *Kaiser/HRET 2017 Survey*, Figure B. Overall, this is attributable primarily to rising payments for healthcare services rather than to higher administrative costs or health plan profits. From 2007 to 2016, between 86% and 89% of all premiums collected were paid out in the form of health benefits. US Centers for Medicare & Medicaid Services, "Table 20 Private Health Insurance Premiums, Benefits and Net Cost; Levels, Annual Percent Change and Percent Distribution, Selected Calendar Years 1960–2016," http://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/NationalHealthExpendData/Downloads/Tables.zip.

[8] *Id.* Figure B.

[9] *Id*. Figure E.

[10] *Id*. Figure 6.1.

[11] *Id*. Figure 2.22.

[12] Katherine Baicker and Amitabh Chandra, *The Labor Market Effects of Rising Health Insurance Premiums*, 24 JOURNAL OF LABOR ECONOMICS 609, 629–31 (2006).

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- Among workers who have employer provided insurance coverage, a 2.3% decrease in wages.[13]

25. In self-insured plans, employers pay for claims directly, and higher prices from health care providers translate dollar-for-dollar into higher expenditures by employers. In fully-insured plans, higher prices lead to higher premiums for individuals and employers. If group expenditures are uncertain, including as a result of uncertain medical reimbursement, employers may face the cost of supplemental stop-loss insurance or may decide not to self-insure. Both fully-insured and self-insured plans would have a limited ability to make changes mid-year in response to changes to reimbursement rates demanded by physician groups. For example, fully-insured plans have regulatory limits on premium increases and medical loss ratios. Fully-insured and self-insured plans would also face limits to their ability to change plan benefits, provider networks and individual premium contributions.

26. When self-insured plans are unable to change premiums in response to unanticipated increases in medical expenditures, due either to utilization or price increases, on-going plan losses are not sustainable and can lead either to eventual increases in plan premiums or to plan exit.

F. Loss of Choice in Plan Design Harms Employers and Consumers.

27. I understand from BCBSIL that many of their self-funded ERISA groups offer plans with exclusions for some or all gender-affirming care. I also understand from BCBSIL that many of these employers also offer a plan design to employees that includes coverage for these services, so that employees can chose what plan design is right for their circumstances.

27. Employers and consumers bear the burden of higher prices several ways. First, higher health care costs translate into higher premiums. Second, members' cost share payments immediately increase. Third, as health care prices rise, some employers will stop offering

[13] *Id*. at 609. This means that increases in health insurance premiums come out of wages close to dollar for dollar. For example, if premiums for a family of four are $14,000, then a 10% increase would be $1,400. If that family has wage income of $60,000, then a 2.3% offsetting wage reduction would be $1,380.

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insurance to their employees entirely. Fourth, those employers who do continue to offer insurance will offset the increased cost through lower wages.

G. I declare under penalty of perjury under the laws of the State of Washington that the foregoing is true and correct to the best of my knowledge and belief.

at BRYN MAWR, Pennsylvania.

By
Lawton R. Burns

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APPENDIX 1

Lawton Robert Burns, PhD, MBA

The James Joo-Jin Kim Professor
Professor - Health Care Management
Professor – Management
Co-Director - Roy & Diana Vagelos Program in Life Sciences and Management
The Wharton School

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HONORS AND FELLOWSHIPS

Teaching Excellence Award. The Wharton School. 2020.

Midland Lecture, Ohio State University, March 2017

Teaching Excellence Award, Wharton Weekend MBA Program, Class of 2017.

Distinguished Scholar Award, Academy of Management – Health Care Administration Division, August 2015.

Outstanding Author Contribution Award. Emerald Literati Network. 2012.

Institute of Medicine Committee on Evaluation of the Lovell Federal Health Center Merger (2011-2012)

Outstanding Author Contribution Award. Emerald Literati Network. 2010.

Wharton Faculty Seminar: Beijing and Shanghai, August 2009

Board of Institute of Medicine (IOM) – Health Services Section. 2003-2006.

Paul A. Gross Distinguished Leadership Lecture, Virginia Commonwealth University. 2002.

Election to Life Fellow, Clare Hall, University of Cambridge. 2001.

Arthur Andersen Distinguished Visiting Professor, Judge Institute of Management Studies, University of Cambridge. 2001.

Invited Lecture Series, National University of Singapore (NUS). 2000.

James Joo-Jin Kim Professorship (Endowed Chair). 1999.

Teacher of the Year, Administrative Medicine Program, University of Wisconsin School of Medicine. 1999.

Invited Lecture Series. Catholic University of Rome, LUISS, & National Agency Health Care Services (Italy). 1997.
Edwin L. Crosby Memorial Fellowship, Hospital Research and Educational Trust, Chicago IL. 1992-1993.

Udall Fellowship in Public Policy, Udall Center for Studies in Public Policy, University of Arizona. 1990-1991.
Graduate Training Fellowship, Kaiser Family Foundation and the Graduate School of Business, University of Chicago. 1982-1984.

Post-Doctoral Research Fellowship, Graduate School of Business, University of Chicago. 1981-1982.

Doctoral Research Fellowship, Kaiser Family Foundation and the Graduate School of Business, University of Chicago. 1979-1980.

Doctoral Research Fellowship, National Health Care Management Center, University of Pennsylvania.1979-1980.

Ernest W. Burgess Fellowship, Department of Sociology, University of Chicago. 1975-1976.

EDUCATION

MBA, Graduate School of Business, University of Chicago, Chicago, Illinois, 1984
Specialization in Hospital Administration & Marketing.

Ph.D. Sociology, University of Chicago, Chicago, Illinois, 1981
- Dissertation: "The Adoption and Diffusion of Decentralized Management in Hospitals."
- Committee: James Coleman, Edward Laumann, Charles Bidwell

M.A. Sociology, University of Chicago, Chicago, Illinois, 1976

B.A. Sociology and Anthropology, cum laude, Haverford College, Haverford, Pennsylvania, 1973

MAJOR FIELDS OF INTEREST

- Health Care Management
- Integrated Health Care
- Strategic Alliances
- Organizational Change
- Health Care Systems of India & China
- Strategic Management
- Formal Organizations
- Evaluation Research
- Strategic Implementation
- Health Systems Science (School of Medicine)

ACADEMIC POSITIONS

Co-Director, Vagelos Life Sciences & Management Program (LSMP). 2013 – Present

Area Leader, Health Care Management Program, India School of Business. 2010 – 2017.

Chair, Department of Health Care Management. 2007 – 2014.

Arthur Andersen Distinguished Visiting Professor, Judge Institute of Management Studies, University of

Cambridge, 2001

James Joo-Jin Kim Professor, University of Pennsylvania, 1999-Present

Director, Wharton Center for Health Management and Economics, 1999-2020

Professor of Health Care Systems, The Wharton School, 1998-Present

Visiting Professor, Department of Preventive Medicine, University of Wisconsin Medical School, 1997-Present

Director of Research, Leonard Davis Institute of Health Economics, University of Pennsylvania, 1996-2000

Associate Professor of Health Care Systems, The Wharton School, University of Pennsylvania, Philadelphia PA (Tenured), 1994-1998

Associate Professor, College of Business and Public Administration, University of Arizona, Tucson, Arizona. Joint Appointments in Management & Policy, Public Administration & Policy, Psychology, 1992-1994

Assistant Professor, College of Business, Univ. of Arizona, 1985-1991

Administrative Practicum, Jackson Park Hospital, Chicago, Illinois, 1983-1984

Assistant to the Administrator, Medical Plaza Hospital, Ft Worth, 1983

Lecturer in Health Administration, Graduate School of Business, University of Chicago, 1981-1984

Post-Doctoral Fellow, Graduate School of Business, Univ. of Chicago, 1981-1982

GRANTS AWARDED

2017-2018	"Physician Consolidation and its Effect on Specialist Care: A Causal Analysis with Machine Learning." Robert Wood Johnson Foundation. Co-Investigator.
2014	American Hospital Association. "Purchasing Executives' Perspective on Group Purchasing Organizations," $138,000.
2011-2012	University of Pennsylvania Health System, "Accountable Care Organizations (ACOs): Stakeholder Analysis in the Philadelphia Market," $45,000.
2009-2011	Understanding the Role of Clinician Collaborators in Medical Device Innovation. InHealth. Award: $380,000.
2007-2008	Retail Medical Clinics and Their Impact on Physician-Hospital Relationships. Center For Health Management Research. Award: $97,000
2006-2007	Guanghua - Wharton Joint Research Initiative. "Informal Payments in China's Health Care Sector."
2004-2006	National Science Foundation. "Inventory and Distribution in Integrated Delivery Networks." Co-Principal Investigator. Award: $200,000
2004-2006	Robert Wood Johnson Foundation, HCFO Initiative. "Co-Evolution in HMO and Hospital Markets." (With Robert Town)
2003-2004	IBM Global Services. "Trends in the Pharmaceutical Outsourcing Market." Award: $50,000.

2000-2001	Robert Wood Johnson Investigator Award in Health Policy Research. "Implementing and Sustaining Fundamental Change in Health Care Organizations." (With Gloria Bazzoli). Award: $250,000.
1999-2001	Wharton Program on Pharmaceutical Policy, Economics, and Management." Research Grant from Merck Award: $200,000.
1998-2000	"Hospital Ownership Conversions." Robert Wood Johnson Foundation. Award: $349,000. (Co-Investigator; PI: Frank Sloan).
1998-1999	"Provision of Community Benefits among FAHS Member Hospitals." Federation of American Health Systems. Award: $120,000. (Co-Investigator; PI: Mark Pauly).
1998-2000	"Impact of Hospital Consolidation on Supplier-Provider Contracting: Value Chain Analysis." Center for Health Management Research. Award: $183,000. (Principal Investigator).
1996-1999	"Aligning Physician Groups and Health Systems." National Science Foundation and Center for Organized Delivery Systems. Award: $840,000. (Co-Investigator; PI: Steve Shortell). Analyze success factors in strategic alliances between integrated delivery systems and physician group practices.
1996-1999	"Referrals to Specialists in HMOs". Agency for Health Care Policy & Research (AHCPR). Award: $250,000. (Co-Investigator). Measure rates and types of referrals in midwestern HMO.
1996-1997	"Physician-Organization Arrangements: Impact on Integration and Managed Care." Robert Wood Johnson Foundation. Award: $232,394. (Co-Principal Investigator). Assess impact of integrated delivery systems on primary care and managed care infrastructure in hospitals.
1995-1997	"HMO Impact on Integrated Networks and Services." Grant from Agency for Health Care Policy & Research. Award: $288,157 (Principal Investigator). Assess impact of HMO prevalence and penetration on development of integrated systems in local markets.
1995-1997	"Managed Care and Hospital-Physician Integration." Grant from Agency for Health Care Policy & Research. Award: $313,482 (Co- Investigator). Assess impact of managed care on specific mechanisms used by hospitals to integrate their medical staffs.
1994-1997	"Managing Uncertainty to Promote Self-Help in Breast Cancer." Grant from National Cancer Institute. Award: $990,000. (Co-Investigator). Evaluation of efficacy of nursing intervention to promote self-care and self-help in treatment for breast cancer.
1993-1995	"A Comprehensive Evaluation of Physician-Hospital Arrangements." Grant from the Industry/University Cooperative Research Center for Health Management. Award: $200,000. (Co-Investigator). Evaluation of physician-hospital networks forming in response to managed competition and managed care contracting.
1991-1992	"Impact of State Subsidies for Liability Insurance on the Delivery of Obstetrical Care by Rural Physicians." Grant from Office for Rural Health Policy, Health Resources & Services Administration (USPHS). Award: $ 6,000. (Principal Investigator). Evaluation of impact of stipend award and stipend amount on decisions by rural physicians to continue obstetrical practice.
1990-1993	"Interdisciplinary Training for Rural Health Action." Grant from Bureau of Health Professions. Award: $891,000. Department of Family and Community Medicine, College of Medicine, University of Arizona. (Faculty Trainer).

1990-1991 "Structure and Outcomes of Joint-Venture Relationships Between Physicians and Hospitals." Grant from Health Care Management and Technology Assessment Center, University of Arizona. Award: $ 6,700. (Principal Investigator). Survey of joint ventures between Arizona physicians & hospitals and their impact on utilization of hospitals.

1989-1991 "Nursing Interventions Promoting Self-Help to Cancer." Grant from the National Cancer Institute. Award: $1.2 million. College of Nursing, University of Arizona. (Co-Investigator). Experimental Design to study the clinical- and cost-effectiveness of three nursing interventions to improve self-care knowledge and behaviors among 360 women with breast cancer.

RESEARCH CONTRACTS

2020-2021 Private Equity and Nurse Practitioners. Funded by the American Medical Association.

2006 “Determinants of Small Device Firm Survival and Growth.” Funded by C.R. Bard.

2005- 2006 "Assessment and Restructuring of the University of Pennsylvania Health System Supply Chain." Funded by UPHS.

2005 "Physician Preference Among Surgical Products." Funded by Broadlane.

2004 "Buyer-Supplier Contracting." Funded by Johnson & Johnson Health Care Systems.

2000 "Using Network Analysis to Understand Change in Local Healthcare Markets." Funded by Center for Studying Health System Change. (With Douglas Wholey)

1998-1999 "The Rise and Fall of AHERF: Lessons for Academic Medical Centers." Funded by Association of Professors of Medicine.

1995-1997 "Development of Integrated Delivery Systems in Illinois." Funded by Illinois Hospital and Health Systems Association. Statewide study of integrated system development in community and academic medical centers. With Institute of Medicine.

1997 "Impact of Physician Practice Management Companies on Hospital-Based Integrated Delivery Systems." Center for Health Management Research. With James C. Robinson.

1992-1993 "Physicians' Decisions Concerning Resource Allocation by Hospitals." Funded by Tucson Medical Center, Tucson AZ. County-wide study of physician estimates regarding the areas to which hospitals should allocate their scarce resources.

1992 "Patient Care Restructuring Project." Funded by University Medical Center, Tucson AZ. Evaluation of new personnel roles on inpatient units to relieve nurses of nonprofessional tasks and improve patient management.

1992 "Decentralization of the Veterans Administration Hospital System." Funded by the VA Medical Center, Boston, MA. Study to develop models for the decentralized operation of the VA hospital system. Reviewer.

1991-1992 "Clinical and Cost Outcomes of Nurse Case Management in a Medicare HMO Setting." Funded by Carondelet-St. Mary's Hospital/Health System, Tucson AZ.

1989-1990 "Access and Quality of Care Outcomes in Medicaid HMOs." Funded by Joint Commission on Accreditation of Healthcare Organizations. Analysis of the adherence of Medicaid HMOs to JCAHO accreditation criteria.

PUBLICATIONS

Books:

Mark Pauly, David Asch, Lawton R. Burns, et al. *Seemed Like a Good Idea: Alchemy versus Evidence-Based Approaches to Healthcare Management Innovation*. (Cambridge, UK: Cambridge University Press, 2022).

Lawton R. Burns. *The U.S. Healthcare Ecosystem: Payers, Providers, Producers* (New York: McGraw-Hill, 2021).

David Dranove and Lawton R. Burns. *Big Med: Megaproviders and the High Cost of Healthcare in America*. (Chicago, IL: University of Chicago Press, Forthcoming 2021).

Lawton Burns. *The Business of Healthcare Innovation* – 3rd Edition. (Cambridge, UK: Cambridge University Press). 2020. Prior editions in 2005 and 2012.

Lawton R. Burns, Elizabeth Bradley, and Bryan Weiner (Eds.), Shortell & Kaluzny's *Health Care Management: Organization Design and Behavior* - Seventh Edition. (Delmar). 2019. Prior edition in 2011.

Philip Rea, Mark V. Pauly, and Lawton R. Burns (Eds.). *Managing Discovery: Harnessing Creativity to Drive Biomedical Innovation* (Cambridge, UK: Cambridge University Press, 2018).

Lawton R. Burns and Gordon Liu. *China's Healthcare System and Reform* (Cambridge, UK: Cambridge University Press, 2017).

Lawton R. Burns. *India's Healthcare Industry: Innovation in Delivery, Financing, and Manufacturing* (Cambridge, UK: Cambridge University Press, 2014).

Rosemary Stevens, Charles Rosenberg, and Lawton R. Burns (Eds.), *Health Care History and Policy in the United States* (New Brunswick, NJ: Rutgers University Press). 2006.

Lawton R. Burns & Wharton School Colleagues. *The Health Care Value Chain: Producers, Purchasers, and Providers* (San Francisco: Jossey-Bass). 2002.

Articles/Book Chapters:

Lawton R. Burns, Ingrid M. Nembhard, and Stephen Shortell. "Integrating Network Theory into the Study of Integrated Healthcare." *Social Science and Medicine* (2022). https://doi.org/10.1016/j.socscimed.2021.114664

Lawton R. Burns, David Asch, and Ralph Muller. "Vertical Integration of Physicians and Hospitals: Three Decades of Futility?" in Mark V. Pauly (Ed.), *Seemed Like a Good Idea: Alchemy versus Evidence-Based Approaches to Healthcare Management Innovation* (Cambridge, UK: Cambridge University Press, 2022).

Lawton R. Burns and Rachel M. Werner. "Care Coordination," in Mark V. Pauly (Ed.), *Seemed Like a Good Idea: Alchemy versus Evidence-Based Approaches to Healthcare Management Innovation* (Cambridge, UK: Cambridge University Press, 2022).

Lawton R. Burns, Howard Forman, and Carolyn Watts. "Teaching the Introductory Course on the U.S. Healthcare System: Issues, Challenges, and Lessons." *Journal of Health Administration Education* (forthcoming 2022).

Akshat Kumar, Rohit Gupta, and Lawton R. Burns. "Strategic Analysis of India's Private Hospital Sector," in Ali Mehdi and Irudaya Rajan (Eds.), *Health of the Nation: Perspectives for a New India*. (Oxford University Press 2020): 223-239.

Gregory Kruse, Lawton R. Burns, and Ralph Muller. "Health Care Inc." in James Schaefer, Richard M. Mizelle, Jr., & Helen K. Valier (Eds.), *Oxford Handbook of American Medical History*. Chapter 16. Forthcoming 2020.

Mark V. Pauly and Lawton R. Burns. "When is Medical Care Price Transparency a Good Thing (And When Isn't It)?" in Jennifer Hefner and Mona Al-Amin (Eds.), *Advances in Health Care Management – Transforming Health: A Focus on Consumerism and Profitability*. Volume 19 (Emerald Press, 2020): 75-97.

Ann Kutney-Lee, Douglas Sloane, Kathryn Bowles, Lawton R. Burns, & Linda Aiken. (2019). "Electronic Health Record Adoption and Nurse Reports of Usability and Quality of Care: The Role of Work Environment. *Applied Clinical Informatics*. https://doi.org/10.1055/s-0039-1678551. 10(1) (2019): 129-139.

Lawton R. Burns and Allison Briggs. "Hospital Purchasing Alliances: Ten Years After." *Health Care Management Review*. Forthcoming.

Lawton R. Burns, Jeffrey Alexander, and Ronald Andersen. "How Different Governance Models May Impact Physician-Hospital Alignment." *Health Care Management Review*. Forthcoming.

Lawton R. Burns and Mark V. Pauly. "Transformation of the Healthcare Industry: Curb Your Enthusiasm?" *Milbank Quarterly*. (March 2018) 96(1): 57-109.

Edward Zajac, Thomas D'Aunno, and Lawton R. Burns. "Managing Strategic Alliances: Neither Make nor Buy but Ally," in L.R. Burns, E. Bradley, & B. Weiner (Eds.), *Health Care Management: Organization Design & Behavior*. 7th Edition. (Delmar Cengage Learning, forthcoming).

Lawton R. Burns, Elizabeth Bradley, & Bryan Weiner. "The Management Challenge of Delivering Value in Health Care: Global and U.S. Perspectives," in L.R. Burns, E. Bradley, & B. Weiner (Eds.), *Health Care Management: Organization Design & Behavior*. 7th Edition. (Delmar Cengage Learning, forthcoming).

Lawton R. Burns and Gordon G. Liu. "Health, Disease, and Medical Care," in Weiping Wu and Mark Frazier (Eds.), *The SAGE Handbook of Contemporary China* (Sage, 2018).

Lawton R. Burns, Alex Rosen, Philip Rea et al. "Regeneron: Agility, Resilience, and Balance." Forthcoming in Philip Rea, Mark V. Pauly, and Lawton R. Burns (Eds.), *Managing Discovery in the Life Sciences*. (Cambridge, UK: Cambridge University Press, 2018).

Lawton R. Burns and Philip Rea. "Organization of the Discovery Process." Forthcoming in Philip Rea, Mark V. Pauly, and Lawton R. Burns (Eds.), *Managing Discovery in the Life Sciences*. (Cambridge, UK: Cambridge University Press, 2018).

Simon Basseyn, Sourav Bose, Lawton R. Burns, and Chris Groskaufmanis. "The Development of Percutaneous Transluminal Coronary Angioplasty." Forthcoming in Philip Rea, Mark V. Pauly, and Lawton R. Burns (Eds.), *Managing Discovery in the Life Sciences*. (Cambridge, UK: Cambridge University Press, 2018).

Lawton R. Burns, Michael Housman, Robert Booth, and Aaron Koenig. "Physician Preference Items: What Factors Matter to Surgeons? Does the Vendor Matter?" *Medical Devices: Evidence and Research* 11 (2018): 39-49.

Karen B Lasater, Michael R Richards, Nikila Dandapani, Lawton R Burns, and Matthew D McHugh. "Magnet Hospital Recognition in Hospital Systems Over Time," *Health Care Management Review*. 42 (2017):

Mirko Noordegraff and Lawton R. Burns. "Paradoxes of Leading and Managing Healthcare Professionals to Integrate Healthcare Services," in Gary Young, Kathleen Sutcliffe, and Tim Hoff (Eds.), *The Healthcare Professional Work Force: New Directions in Theory and Practice* (Oxford, UK: Oxford University Press, 2016).

Lawton R. Burns, Jeffrey McCullough, Douglas Wholey, Peter Kralovec, Gregory Kruse, and Ralph Muller. "Is the System Really the Solution? Operating Costs in Hospital Systems," *Medical Care Research and Review* 72(3) (2015): 247-272.

Michael McHugh, Linda Aiken, Myra Eckenhoff, and Lawton R Burns. “Achieving Kaiser Quality,” *Health Care Management Review* (2015).

Jeff Goldsmith, Lawton R. Burns, Aditi Sen, and Trevor Goldsmith. *Integrated Delivery Networks: In Search of Benefits and Market Effects*. (Washington, D.C.: National Academy of Social Insurance, 2015).

Lawton R Burns. “Medical Tourism Opportunities and Challenges: Illustration from US-India Trade.” *International Journal of Healthcare Management* 8(1) (2015): 15-26.

Guy David, Richard Lindrooth, Lorens Helmchen. and Lawton R Burns. “Do Hospitals Cross-subsidize?” *Journal of Health Economics* 37 (September 2014): 198-218. 2014.

Lawton R. Burns. *The Performance of Group Purchasing Organizations (GPOs) in the Health Care Value Chain: A Literature Review*. (Philadelphia, PA: Wharton Center for Health Management & Economics, 2014).

Lawton R. Burns and Rada Yovovich. *Hospital Supply Chain Executives Perspectives on Group Purchasing: Results from a 2014 Survey*. (Philadelphia, PA: Wharton Center for Health Management & Economics, 2014).

R. Carter Clement, Arunavo Roy, Ravi Shah, James Calderwood, and Lawton R. Burns. "The Aravind Eye Care System," in Lawton Burns (Ed.), *India's Healthcare Industry: Innovation in Delivery, Financing, and Manufacturing*. 2014.

Jessica Pickett, Aditi Sen, and Lawton R Burns. "The Health Insurance Sector in India: History and Opportunities." In Lawton Burns (Ed.), *India's Healthcare Industry: Innovation in Delivery, Financing, and Manufacturing*. 2014.

Ajay Bakshi and Lawton Burns. “The Medical Profession in India.” In Lawton Burns (Ed.), *India's Healthcare Industry: Innovation in Delivery, Financing, and Manufacturing*. 2014.

Lawton R Burns, Prashanth Jayaram, and Richa Bansal. "Medical Tourism: Opportunities and Challenges." In Lawton Burns (Ed.), *India's Healthcare Industry: Innovation in Delivery, Financing, and Manufacturing*. 2014.

Lawton R. Burns, Bhuvan Srinivasan, and Mandar Vayda. "India’s Hospital Sector: The Journey from Public to Private Healthcare Delivery." In Lawton Burns (Ed.), *India's Healthcare Industry: Innovation in Delivery, Financing, and Manufacturing*. 2014.

Lawton R Burns. "India’s Healthcare Industry: A System Perspective." In Lawton Burns (Ed.), *India's Healthcare Industry: Innovation in Delivery, Financing, and Manufacturing*. 2014.

Lawton R Burns. "India’s Healthcare Industry: An Overview of the Value Chain." In Lawton Burns (Ed.), *India's Healthcare Industry: Innovation in Delivery, Financing, and Manufacturing*. 2014.

Lawton Burns, Tanmay Mishra, Kalyan Pamarthy, and Arunavo Roy. “The Medical Device Sector in India” In Lawton Burns (Ed.), *India's Healthcare Industry: Innovation in Delivery, Financing, and Manufacturing*. 2014.

Lawton R. Burns, Jeff Goldsmith, and Aditi Sen. “Horizontal and Vertical Integration of Physicians: A Tale of Two Tails.” In *Annual Review of Health Care Management: Revisiting the Evolution of Health Systems Organization Advances in Health Care Management*, Volume 15: 39-117. (Emerald Group Publishing). 2013.

Lawton R Burns. "Matrix Structure." *Encyclopedia of Management Theory*. 2013.

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Geisinger Medical Center (Danville, PA), May 1996
Johnson & Johnson Wharton Fellows Program, June 1996
American Society of Cataract and Refractive Surgery (Nashville), July 1996
VA/VISN 11 Task Force (An Arbor), November 1996
Health Strategy Network (Philadelphia), December 1996
American Society of Ophthalmic Administrators, January 1997
Main Line Health (Radnor, PA), February 1997
UNUM Insurance, March 1997
AHA Center for Health Care Leadership (Chicago), June 1997
Johnson & Johnson Wharton Fellows Program, June 1997
Prime Care/Merck (Staten Island), June 1997
Association of Professors of Medicine (Philadelphia), July 1997
University of Alabama Alumni of Health Administration (Fort Walton Beach), August 1997
HRET Future Focus Forum (Boston), September 1997
Illinois Hospital & Health Systems Association (Chicago), October 1997
Brazilian Social Security Cultural Institute, November 1997
Catholic University of Rome (Rome), November 1997
Italian National Agency for Health Care Services (Rome), November 1997
Memorial Health System (Springfield, IL), November 1997
Main Line Health (Radnor, PA), December 1997
American Society of Ophthalmic Administrators, January 1998
Association of Professors of Medicine (Scottsdale), February 1998
American Organization of Nurse Executives, March 1998 (San Diego)
American Society of Cataract and Refractive Surgery (Phoenix), March 1998
University of Alabama Executive Education Program for Physicians, March 1998
UNUM Insurance, March 1998
Johnson & Johnson Wharton Fellows Program, June 1998
Riverview Medical Center (Red Bank, NJ), June 1998
Smithkline Beecham, June 1998
Small & Rural Hospitals Constituency Section, IHHA (Springfield, IL), September 1998
National Association of Children's Hospitals (Houston), October 1998
Meridian Health System (NJ), October 1998
University of Alabama Executive Education Program for Physicians, October 1998
Premier Health Alliance (Chicago), November 1998
Martins Point Health Care (Portland, ME), January 1999
Association of Professors of Medicine (Scottsdale), February 1999
Children's Hospital (Columbus, OH), February 1999
Children's Memorial Hospital (Chicago, IL), February 1999
Christiana Care Physicians Organization (Wilmington, DE), February 1999
Johnson & Johnson (New Brunswick, NJ), February 1999
Martins Point Health Care (Portland, ME), February 1999
Integrated Healthcare 2000 (Vail, CO), March 1999
IBM Global Services (Palm Beach), April 1999
Interurban Clinical Club (Philadelphia), April 1999
East Coast Health Care Executive Summit (Boston), June 1999

Johnson & Johnson Wharton Fellows Program, June 1999
Premier Practice Management (Charlotte), June 1999
Annual Symposium on Governing Integrated Healthcare Systems (Aspen, CO), August 1999
University of Alabama Alumni of Health Administration (Fort Walton Beach), August 1999
Wisconsin Health & Hospital Association Convention (Lake Geneva), September 1999
Austral University (Argentina), October 1999
IBM Global Services (Palm Beach), October 1999
The Global Rx Supply Chain Conference (Philadelphia), October 1999
University of Alabama Executive Education Program for Physicians, October 1999
Symposium for Governing Healthcare Systems (Palm Springs), November 1999
Symposium on Governing/Managing Integrated Health Systems (Naples), January 2000
Annual Winter Symposium on Integrated Healthcare (Aspen), March 2000
Centocor/Johnson & Johnson (Cincinnati), April 2000
INSEAD, Seminar on Healthcare Management (Fontainebleau), May 2000
Merck Advisory Board (Chicago), May 2000
National Association of Children's Hospitals (Philadelphia), September 2000
SmithKline Beecham (Philadelphia), September 2000
University of Alabama Physician Leadership Institute (Birmingham), October 2000
Johnson & Johnson Hospital Program/National University of Singapore, November 2000
Sparrow Hospital and Health System (Lansing, MI), November 2000
Glaxo SmithKline Industry Conference, (Raleigh, NC), May 2001
J&J Wharton CEO Program in Health Care Leadership (Philadelphia), October 2001
Johnson & Johnson Hospital Program/National University of Singapore, November 2001
Johnson & Johnson Health System CEO Forum (Philadelphia, PA), December 2001
Ochsner Clinic Foundation (New Orleans, LA), December 2001
Chestnut Hill Health Care - Board Retreat (Philadelphia), February 2002
Glaxo SmithKline Pharmacy Leaders (Philadelphia), February 2002
Health Industry Distributors Association (Tucson, AZ), March 2002
College of Surgeons (Philadelphia), "Lessons from the Allegheny Bankruptcy," April 2002
Center for Health Management Research CHMR Value Chain," May 2002
Goldman Sachs Institutional Investors (NYC), "Improving the Health Care Value Chain," May 2002
Health Industry Group Purchasing Association Global Summit (Amsterdam), May 2002
Putnam Institutional Investors (Boston), "Improving the Health Care Value Chain," May 2002
Accenture Conference on Supply Chain Excellence (London, UK), June 2002
Association for Health Services Research and Policy (Washington D.C.), June 2002
Johnson & Johnson Nurse Fellows Program, "Integrated Delivery Networks," June 2002
American Society of Ophthalmic Administrators and American Society of Corrective and Refractive Surgeons (ASOA/ASCRS), August 2002
Association for Health Resource and Materials Management (San Antonio), August 2002
IDN Summit (Atlanta), "Improving the Health Care Value Chain," September 2002
UniMED (Sao Paolo), September 2002
VHA West Materials Managers Meeting, September 2002
Workshop on Antitrust in Health Care. Federal Trade Commission (Washington D.C.), "Group Purchasing Organizations and Antitrust Implications," September 2002
Health Industry Group Purchasing Association (Orlando), October 2002
Healthcare Marketing and Manufacturers Council (Chicago), November 2002
Johnson & Johnson Hospital Management Program (Singapore), November 2002
Premier 2002 Partnerships Meeting (Chicago), November 2002
Dade Behring (Fort Lauderdale), January 2003
Premier Governance Education Conference (Naples), January 2003
NCI Conference on Hospital Systems (Orlando), January 2003
International Pharmaceutical Wholesalers Conference (New York), February 2003
Aventis Pharmaceuticals (Philadelphia), April 2003
Inova Health Systems (Virginia), April 2003
VHA Leadership Conference (Boston), April 2003
Premier Leadership Conference (Las Vegas), May 2003

Humana (Philadelphia), June 2003
Association of Biotechnology Financial Officers (Scottsdale), June 2003
UniMED (Sao Paolo), July 2003
Dade Behring Executive Team (Philadelphia), July 2003
Association of Healthcare Resource and Materials Managers (San Diego), August 2003
McKesson Corporation (Atlanta), August 2003
W.L. Gore & Associates (Maryland), August 2003
UNIMED (Philadelphia), September 2003
Kettering Medical Center Network (Dayton), October 2003
DePuy, November 2003
Johnson & Johnson Hospital Management Program (Singapore), November 2003
Ethicon (Somerville, NJ), January 2004
Health Industry Distributors Association (Amelia Island Plantation), March 2004
Lehigh Valley Health System (Allentown), March 2004
Heritage Valley Health System (Beaver, PA), April 2004
New England Health Care Assembly (Worcester, MA), April 2004
Ohio State Medical Society (Cincinnati), May 2004
Inova Health System (Virginia), May 2004
American Medical Association - HMSS Section (Chicago), June 2004
Johnson & Johnson Contract Excellence (Princeton), September 2004
Chesapeake General Hospital (Williamsburg), September 2004
Biosciences Forum (Philadelphia), October 2004
Cooper Heart Institute (Voorhees, NJ), October 2004
Adventist Health Care (Nemacolin, PA), October 2004
Christiana Care (Wilmington, DE), November 2004
Christiana Care (Wilmington, DE), January 2005
Cooper University Hospital (Camden, NJ), May 2005
Cerner Corporation May 2005
HDMA (Orlando, FL), June 2005
Johnson & Johnson Wharton Nurse Fellows Program, June 2005
Maine Health (Bar Harbor, ME), October 2005
Greater New York Hospital Association (NYC), October 2005
DePuy (Puerto Rico), January 2006
Broadlane Annual Client Summit (Dallas), March 2006
Owens & Minor Board Retreat (Richmond), March 2006
Johnson & Johnson/ Wharton Executive Management Academy, April 2006
Cooper University Hospital - Heart Institute Advisory Board, May 2006
Medtronic Marketing Leader Program (Minneapolis), May 2006
Johnson & Johnson/Wharton Nurse Fellows Program, June 2006
Medtronic Directors Program, July 2006
Sisters of Charity of Leavenworth Health System (San Diego), October 2006
Health Industry Group Purchasing Association (HIGPA), 2006 Expo, October 2006
National Federation of Municipal Analysts. (Washington, D.C.), November 2006
ECRI Conference on "Confronting Dilemmas of Risk in Healthcare" (Plymouth Meeting, PA), November 2006
Greater New York Hospital Association (NYC), November 2006
Johnson and Johnson/ Wharton Hospital CEO Program, November 2006
South Jersey Healthcare, December 2006
Medtronic Director Development Program, January 2007
World Congress Summit on Healthcare Supply Chain Management, January 2007
Johnson & Johnson Health Care Systems National Meeting, February 2007
Lancaster General Hospital Leadership Conference, April 2007
Medtronic Directors Program, May 2007
United Healthcare (Minneapolis), May 2007
Cooper Health System, June 2007
Healthcare Distribution Management Association, June 2007
Johnson & Johnson/ Wharton Nurse Fellows Program, June 2007

Teva Pharmaceuticals, June 2007
Eisai Pharmaceuticals, July 2007, August 2007
Hospital & Healthcare Association of Pennsylvania, July 2007
Novartis, July 2007
United HealthCare, July 2007
Medtronic Directors Program, August 2007
University of Miami / Humana Health Services Research Center, January 2008
United Healthcare, January 2008
Kaiser Permanente Institute for Health Policy, February 2008
United HealthCare, April 2008
Cooper University Hospital, May 2008
Trinity College - Dublin, June 2008
Health Services Executive, Republic of Ireland, June 2008
Johnson & Johnson / Wharton Nurse Fellows Program, June 2008
Medtronic Directors Program, June 2008
Lehigh Valley Health System, June 2008
Health Industry Group Purchasing Association (HIGPA), October 2008
Ephrata Community Hospital. September 2008
American Health & Drug Benefits Conference, October 2008
World Health Care Information Technology Congress, December 2008
Novartis, February 2009
Astra-Zeneca, March 2009.
LeHigh Valley Health System, April 2009
West Penn Allegheny Health System, April 2009
McKesson, April 2009
West Penn Allegheny Health System, June 2009
Boston Scientific, June 2009
Cooper Heart Institute, June 2009
Johnson & Johnson / Wharton Nurse Fellows Program, July 2009
Beijing University, August 2009
Anesthesia Business Group, September 2009
American Health & Drug Benefits Conference, October 2009
Indian School of Business, Hyderabad, January 2010
World Economic Forum, Davos (Switzerland), January 2010
West Penn Allegheny Health System, March 2010
Medtronic, March 2010
Universal Health Services, March 2010
Wheaton Franciscan Health System, April 2010
Johnson & Johnson/Wharton Nurse Fellows, June 2010
Anesthesia Business Group, September 2010
Sanofi/Aventis, September 2010
Cooper Heart Institute, September 2010
Academy Health and Research Insights, December 2010 and February 2011
Methodist Health System, February 2011
Lockheed Martin, March 2011
Becton Dickinson, April 2011
Association of Health Journalists, April 2011
VHA Leadership Conference, May 2011
MacEachern Symposium/Kellogg Graduate School of Management, May 2011
West Penn Allegheny Health System, June 2011
Johnson & Johnson, June 2011
Harkness Fellows Program, September 2011
APAX Partners, October 2011
Anesthesia Business Group, January 2012
PricewaterhouseCoopers, March 2012
Morgan Stanley, May 2012

US-China Biopharma Congress 2012 & SAPA-GP 10th Annual Conference, June 2012
HealthTrust, July 2012
Rite-Aid, August 2012
Edwards Life Sciences, December 2012
Anesthesia Business Group, January 2013
Astra-Zeneca, January 2013
US Congressional Staffers & Health Industry Group Purchasing Association, January 2013
Edwards Life Sciences, April/May 2013
Rite-Aid, August 2013
Edwards Life Sciences, August 2013
Novo Nordisk, December 2013
Anesthesia Business Group, January 2014
Novo Nordisk, January 2014
Securities Industry Institute, March 2014
Novo Nordisk, April 2014
World Bank, April 2014
Wharton Global Forum – Beijing , June 2014
Novo Nordisk, October 2014
Novartis, October 2014
Edwards Life Sciences, October 2014
Vertex Pharmaceuticals, November 2014
Edwards Life Sciences, November 2014
Webinar on India's Healthcare System, November 2014
Penn Medicine - University of Pennsylvania, January 2015
Anesthesia Business Group, January 2015
McKesson, February 2015
Vertex Pharmaceuticals, February 2015
Edwards Life Sciences, March 2015
Securities Industry Institute, March 2015
Princeton Healthcare Conference, May 2015
Genentech, July 2015
Mayo Clinic, September 2015
Genentech, October 2015
Bristol-Myers Squibb, October 2015
Novartis, November 2015
The Health Industry Forum, November 2015
Anesthesia Business Group, February 2016
Securities Industry Institute, March 2016
Novo Nordisk – China, April 2016
Genentech, April 2016
Edwards Life Sciences, May 2016
Sino-American Pharmaceutical Professionals Association (SAPA), June 2016
Janssen Pharmaceuticals, August 2016
Cooper Health System, September 2016
Edwards Life Sciences, November 2016
Massachusetts Association of Health Plans, November 2016
Webinar on China, December 2016
Anesthesia Business Group, February 2017
Center for Therapeutic Effectiveness Research, April 2017
China – U.S. Business Leaders Roundtable, NYC, April 2017
Edwards Life Sciences, April 2017
Lehigh Valley Business Coalition, May 2017
Central Pennsylvania Business Group on Health, September 2017
Healthcare Executives Leadership Network, January 2018
Securities Industry Institute, March 2018
Population Health Colloquium, Jefferson Health, March 2019

Securities Industry Institute, March 2019
Physician Group Practice Strategic Transactions, NYC, April 2019
Novo Nordisk, Philadelphia, June 2019
Veterinary Trends, Philadelphia, June 2019
Association of Academic Health Centers, Boston, July 2019
Teva Pharmaceuticals, September 2019
Central Pennsylvania Business Group on Health, October 2019
Pharma & Healthcare Business Summit, University of the Sciences, February 2021
Securities Industry Institute, March 2021
Medtronic, July 2021

ACADEMIC DIRECTOR - EXECUTIVE EDUCATION PROGRAMS

American Society of Ophthalmic Administrators (ASOA), August 2002

Johnson & Johnson Health Care Systems, April 2003

Aventis Pharmaceuticals, January 2003, April 2003, October 2003, February 2004

Humana, June 2003

Eisai Pharmaceuticals, July - December 2007

Novo Nordisk, October 2014

Bristol-Myers Squibb, October 2015

American Association of Orthodontists, Spring-Summer 2021

FEDERAL/STATE GOVERNMENT: EXPERT WITNESS TESTIMONY

Federal Trade Commission: "Group Purchasing Organizations and Antitrust Implications." Workshop on Antitrust in Health Care. Federal Trade Commission. September 9, 2002.

Federal Trade Commission: "Hospital Vertical Integration and Antitrust Implications." Joint FTC/DOJ Hearings on Health Care and Competition Law and Policy. April 9, 2003.

Senate Judiciary Committee, Subcommittee on Antitrust, Hearings on Independence Blue Cross, April 12, 2004.

Expert Witness. Federal Trade Commission. *FTC v. Piedmont Health Alliance*. 2004.

Expert Witness. Federal Trade Commission. *FTC v. Evanston Northwestern Healthcare Medical Group*. 2004-2005.

Medicare Payment Advisory Commission. (MedPAC), “Perspectives on Physician Group Practices,” October 2006.

Senate Judiciary Committee, Subcommittee on Antitrust, Hearings on IBC - Highmark Merger. April 9, 2007

Pennsylvania Senate, Committee on Banking and Insurance, Hearings on IBC - Highmark Merger. June 26, 2007.

Federal Trade Commission, "Clinical Integration in Health Care: A Check-up," May 29, 2008

Expert Witness. Department of Justice. *DOJ v. Childrens' Health Associates*, 2009.

Expert Witness. Department of the Treasury. *IRS Commissioner v. Boston Scientific*, January 2013 – 2016.

Federal Trade Commission, Health Care Competition Workshop, February 2015

Expert Witness, Federal Trade Commission, United States v. St. Cloud Medical Group / CentraCare Health, 2016

Expert Witness, Department of Justice, United States and State of Michigan vs. Hillsdale Community Health Center and Allegiance Health, 2016

Expert Witness, Department of Justice, United States V. Aetna and Humana, 2016

Expert Witness, Attorney General, State of Washington, State of Washington v. Franciscan Health System, 2017-18

Expert Witness, Attorney General, State of Rhode Island, Rhode Island Attorney General v. Lifespan/Care New England

PRIVATE SECTOR: EXPERT WITNESS TESTIMONY

Cravath, Swaine, and Moore. *Unsecured Creditors of Allegheny Health, Education and Research Foundation v. PricewaterhouseCoopers*. 2004-2005.

Sidley Austin. *ConMed Corporation v. Ethicon/Ethicon Endo-Surgery*. 2005.

Boies, Schiller & Flexner. *Spartanburg Regional Healthcare System v. Hillenbrand Industries*. 2005.

Winston and Strawn. *Rochester Medical Corporation v. C.R. Bard*. 2006.

ECRI v. Guidant, 2007

Goodwin Proctor. *USA v. Richard Lane*, 2008.

Winston and Strawn. *Southeast Missouri Hospital and Saint Francis Medical Center v. C.R. Bard*, 2009.

Venable. *Retractable Technologies Inc. v. Abbott Laboratories*, 2009-2010.

Baker and McKenzie. *Medtronic Inc. v. IRS Commissioner*, 2010.

Morgan, Lewis and Bockius. *USA v. Amgen*, 2011.
Greenberg Traurig. *Freedom Medical v. Universal Hospital Services*, 2011.

Akin Gump Hauer Strauss and Feld. *Lenox MacLaren v. Medtronic*, 2012, 2015.

Lowis & Gellen. *Fabiszak v. Silver Cross Hospital*, 2013.

Bubb, Grogan, and Cocca, *AHS Hospital Corporation v. Town of Morristown*, 2013.

Buchanan Ingersoll & Rooney. *Aetna Life Insurance v. Foundation Surgical Associates*, 2015.

Dykema. *Kerrins v. Palos Community Hospital*, 2016.

Hamstead Williams & Shook, Wiles v. West Virginia University Hospitals, 2017-2018

Lowenstein Sandler, Appraisal of Team Health Holdings, 2018

Lowenstein Sandler, Brigade Capital v. Kindred Healthcare, 2018-2019

American Medical Association. CVS Health / Aetna Merger. 2018

Dorsey & Whitney, *Consolidated Class Action Lawsuit – EpiPen ERISA Litigation*, 2019-2020.

Lieff, Cabraser, Heimann & Bernstein. The Hospital Authority of Metropolitan Government of Nashville & American Federation of State, County, and Municipal Employees District Council 37 Health and Security Plan. 2019.

Kirkpatrick Townsend. Premera v. The Everett Clinic, Eastside Family Medical Clinic. 2020.

Oxley Rich Sammons. Jane Doe and West Virginia Residents v. Steven Matulis. 2021.

Wilmer Cutler Pickering Hale & Dorr, Vascular Solutions v. Medtronic 2021-2022

PROFESSIONAL ACTIVITIES

Editorial Board:

Health Care Management Review (1992-2000). Associate Editor (1994-2000)
Health Services Research (1994-Present)
AUPHA / Health Administration Press

Governmental Research Review Committees:

Agency for Health Care Policy & Research:
Health Services Research Review Subcommittee (1994-1998)

Consulting Reviewer (Journals):

Academy of Management Journal
Administrative Science Quarterly
Health Affairs
Health Care Management Review
Inquiry
Journal of American Medical Association
Journal of Health Economics
Journal of Management Studies
Medical Care
Milbank Fund Quarterly
Social Science and Medicine
Strategic Management Journal

Consulting Reviewer (Grants):

Agency for Health Care Policy and Research (Rockville, MD)
Health Care Financing Administration (Baltimore, MD)
Robert Wood Johnson Foundation
Veterans Administration (Washington, DC)

Affiliations:

Academy of Management
American Hospital Association
Association for Health Services Research

TEACHING

Integrated Delivery Systems
Analysis of Health Systems
Comparative Health Care Management
Organizational Behavior
Health Care Strategy
Organizational Change
Innovation in India's Health Care System
Life Sciences & Management
Seminar on the Professions
Health Care Policy
Evaluation Research
Issues in Rural Health Care
Managed Care & Industrial Organization of Healthcare
Strategic Implementation
China's Healthcare System & Reform
Health Systems Science

EXHIBIT C

UNITED STATES DISTRICT COURT
WESTERN DISTRICT OF WASHINGTON
AT TACOMA

Case Number: 3:20-cv-06145-RJB

C.P., by and through his parents, Patricia Pritchard and Nolle Pritchard; and PATRICIA PRITCHARD (Plaintiffs)

v.

BLUE CROSS BLUE SHIELD OF ILLINOIS (Defendant)

EXPERT REBUTTAL REPORT OF SCOTT CARR, PH.D.

October 21, 2022

EXPERT REBUTTAL REPORT OF SCOTT CARR, PH.D.

Table of Contents

EXPERT REBUTTAL REPORT OF SCOTT CARR, PH.D.

I. Introduction and Summary of Opinions

A. Overview of Credentials

I am Scott Carr, Ph.D., a Senior Managing Director and leader of the Competition and Class Actions Practice at Ankura Consulting Group ("Ankura"). I was engaged by the Defendant, Blue Cross Blue Shield of Illinois ("BCBSIL") to respond to materials prepared by Dr. Frank Fox on behalf of Plaintiffs, C.P., by and through his parents, Patricia Pritchard and Nolle Pritchard; and Patricia Pritchard. Dr. Fox submitted a report ("Fox Report") on August 19, 2022. He subsequently submitted a short addendum ("Fox Addendum") on September 29, 2022, in which he updated portions of his data and numerical results.[1] Thus, throughout this report, I primarily refer to Dr. Fox's report, but I refer to his addendum when discussing the data and results that he updated.

I hold a Ph.D. in Business Administration and in Industrial and Operations Engineering, an M.S.E. in Industrial and Operations Engineering, an M.S.E. in Construction Management and Engineering, and a B.S.E. in Mechanical Engineering. These degrees are from the University of Michigan. In my current position at Ankura, I provide consulting and expert services on a variety

[1] The Fox Addendum contains two tables. The first table, labeled "Updated Table 1," updates the data and results in Table 4 (not Table 1) of his original report. The second table, labeled "Updated Table 5," updates the data and results in Table 5 of his original report. Dr. Fox states, "These updates do not affect or change the conclusions set forth in paragraph 17 of my original report." (Fox Addendum, p. 3)

of economic and engineering topics, including in the context of litigation. To perform these services, I regularly perform complex economic analyses, often using sophisticated computer and analytical tools. Prior to joining Ankura, I was a Director at Navigant Consulting, Inc., a Senior Managing Director at ARPC, a Principal at LECG, and a professor at the UCLA Anderson School of Management in the Department of Decisions, Operations, and Technology Management. As a professor, I taught courses in the areas of Operations Management and Quantitative Analysis to M.B.A. and Ph.D. students and to business executives. I also performed and published research related to Operations Management and Industrial Economics.

I have extensive experience in the analysis and modeling of complex business, financial, and health-related circumstances and events. For example, my prior projects included forecasting the future incidence of diseases and cognitive impairments due to concussions in National Football League players; developing a machine-learning algorithm to predict outcomes of asbestos-related litigation; testimony regarding accommodations for people with physical disabilities; and forecasting of future personal injury liabilities due to environmental contamination. My areas of expertise include probability and statistics, data analytics, and predictive modeling. Exhibit 1 contains my current *curriculum vitae*.

B. Terminology Used in This Report

Dr. Fox uses the terms "transgender" and "transgender and gender diverse," abbreviated "TGD", throughout his report. However, the materials on which he relies, as well as the Amended Complaint and Plaintiff C.P.'s Motion for Class Certification ("Motion for Class

Certification"), use the term "transgender" exclusively and appear to disregard gender-diverse people that are not transgender. Thus, I use the term "transgender" exclusively in this report.

I understand that this proceeding relates to ERISA self-funded health plans administered by BCBSIL during the class period that contain some form of exclusion for transgender-related services.[2] For brevity, I refer to these plans as the "relevant plans" or "relevant Group Plans." Further, my references to "Group Members" or "enrollees" exclusively refer to people enrolled in the relevant plans.

I use the term "relevant period" to refer to the six-year period from 2016 through 2021 because that is the period covered in Dr. Fox's analysis.

Dr. Fox and the Plaintiffs are inconsistent in how they refer to the Group Members who sought transgender-related services or who would have sought such services but for exclusions in the relevant Group Plans. For example: (1) in paragraph 3 of his report, Dr. Fox states that these are "TGD persons seeking care"; (2) in paragraph 16 of his report, he refers to them as "insureds who are estimated to have sought gender-affirming care"; (3) in paragraph 17, he refers to them as persons who "would have been expected to seek gender-affirming care"; and (4) the Motion for Class Certification at page 14 refers to them as individuals "likely to seek care" (with no characterization of the type or timing of the care involved). For brevity and consistency, I refer to all such people as Group Members or enrollees who "sought transgender-related services."

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[2] Motion for Class Certification, p. 4, which defines the class period as "November 23, 2016, through the termination of the litigation."

Dr. Fox occasionally refers to "medically necessary" transgender-related services (as opposed to all transgender-related services or non-medically necessary transgender-related services). For example, he refers to enrollees "who would be expected to utilize *medically necessary* treatment for gender dysphoria."[3] (italics added) However: (1) Dr. Fox's report and analyses make no distinction between care that is medically necessary and care that is not; (2) the Quinn Study relied upon by Dr. Fox makes no characterization of whether the transgender-related services studied were medically necessary; (3) Dr. Fox did not review the relevant plans to determine whether or not the exclusions are specifically for medically necessary transgender-related services;[4] and (4) Dr. Fox is not a medical doctor and did not perform the "extensive literature review" that would be needed for him to opine on which transgender-related services are medically necessary and which are not.[5] Thus, Dr. Fox's references to medically necessary transgender-related services are baseless and gratuitous.

C. Summary of Opinions

This report sets forth the conclusions I have reached to date in this proceeding. To summarize, I have reached the following primary conclusions based on my review of Dr. Fox's report, the documents he cites, other data and documents I reviewed, and factors discussed herein:

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[3] Fox Report, ¶10. *See also* Fox Report, ¶5 and ¶11.

[4] Deposition of Dr. Frank Fox, September 12, 2022, pp. 31-35, (hereafter "Fox Deposition").

[5] Fox Deposition, pp. 22-23.

1. Dr. Fox's estimates of the number of transgender people enrolled in the relevant Group Plans is misleading and unreliable because Dr. Fox fails to account for the marked uncertainty in the published data upon which he relies, assumes that the prevalence of transgender people in the relevant Group Plans is identical to the prevalence of transgender people in the general population, assumes that all Group Members in these plans reside in Illinois, and failed to exclude duplicate data entries in the data on which he relies.
2. Dr. Fox's estimates of the number of transgender Group Members who sought transgender-related services is methodologically incorrect because Dr. Fox misinterprets, misuses, and overstates the published data upon which he relies. Thus, Dr. Fox's estimate of the number of transgender enrollees who sought transgender-related services is misleading and unreliable.

II. Dr. Fox's Estimated Number of Transgender Enrollees in the Relevant Group Plans

In Updated Table 1 of his addendum,[6] Dr. Fox estimates the number of transgender enrollees in the relevant plans using a three-step process for each year in the relevant period.[7] First, he estimates the number of enrollees in the relevant Group Plans using data produced by

[6] As discussed above, the Fox Addendum contains two tables. The first table, labeled "Updated Table 1," updates the data and results in Table 4 (not Table 1) of his original report. The second table, labeled "Updated Table 5," updates the data and results in Table 5 of his original report.

[7] Fox Report, ¶¶ 2-15; Fox Addendum, Updated Table 1.

BCBSIL.[8] Second, he estimates the percentage of individuals who identify as transgender.[9] Third, he multiplies together the estimates from the first two steps to get his final estimates of the number of transgender enrollees in the relevant plans. Dr. Fox summarizes his estimates as "about 1,740 TGD persons per year were enrolled in one of the BCBSIL affected plans."[10]

Dr. Fox does not address the assumptions and uncertainties underlying his analysis, yet these assumptions and uncertainties call into question the reliability of his estimates. I describe four significant deficiencies in Dr. Fox's estimates of transgender enrollees below.

A. Uncertainty in the Percentage of Individuals Who Identify as Transgender

Dr. Fox estimates the number of transgender enrollees from the relevant Group Plans enrollment counts by adopting "age-specific population estimates of the proportion of persons who identify as [transgender] to population by age" from a 2022 study conducted by The Williams Institute ("Williams Study").[11] Table 1 below shows the percentage of individuals who identify as transgender by age in Illinois as reported in the Williams Study. Dr. Fox assumes that

[8] Fox Report, ¶¶ 10-14, Table 3.

[9] Fox Report, ¶ 15; Fox Addendum, Updated Table 1.

[10] Fox Report, ¶ 16. In the second sentence of paragraph 16 of his report, Dr. Fox erroneously describes this number as "the number of BCBSIL insureds who *met the definition of gender-affirming care* and were included in such plans that had plan exclusions for such care." (italics added)

[11] Fox Report, ¶ 15; Fox Addendum, Updated Table 1; Jody L. Herman et. al, "How Many Adults and Youth Identify as Transgender in the United States?" The Williams Institute, UCLA School of Law, June 2022 (hereafter "Williams Study").

these percentages reflect the percentage of transgender individuals within the relevant Group Plans in each year of the relevant period.

Table 1
Percentage of Individuals who Identify as Transgender in Illinois, by Age

Age	13 to 17	18 to 24	25 to 64	65 and older
Dr. Fox's Assumption	1.66%	1.94%	0.24%	0.24%

Source: Fox Addendum, Updated Table 1, Rows 7 through 11, citing Williams Study, Table 4.

The Williams Study from which Dr. Fox took these values indicates that they are merely estimates, with substantial uncertainty remaining about the actual percentage of persons in Illinois, and elsewhere, who identify as transgender. Dr. Fox fails to even mention this uncertainty despite it being quantified within the study and despite the fact that the actual percentages of persons identifying as transgender may be very different than Dr. Fox assumes.

The Williams Study quantifies this uncertainty using "credible intervals." In particular, it uses a 95 percent credibility interval which, a previous version of the study explains, "represents the upper and lower bounds [for the reported value] where there is a 0.95 probability an estimate falls between them."[12] Table 2 below gives the Williams Study's credible intervals for the number of people identifying as transgender in Illinois (*i.e.*, the percentages

[12] Jody L. Herman et. al, "Age of Individuals Who Identify as Transgender in the United States," The Williams Institute, UCLA School of Law, January 2017., p.9 and Table A1. The study also explains, "A credible interval is a Bayesian equivalent of a confidence interval." For additional information about credible intervals, see American Association for Public Opinion Research (AAPOR), "Understanding a 'credibility interval'", October 7, 2012, https://www.aapor.org/Publications-Media/Public-Statements/Understanding-a-credibility-interval%E2%80%9D.aspx.

shown in Table 1 above and assumed by Dr. Fox). For example, the table indicates that the true percentage of individuals who identify as transgender in the 13 to 17 age bracket is between 0.46 percent and 5.85 percent (based on a 95 percent confidence threshold).

Table 2
Credible Interval For Percentage of Individuals who Identify as Transgender in Illinois, by Age

Age	13 to 17	18 to 24	25 to 64	65 and older
Lower Bound	0.46%	0.42%	0.11%	0.07%
Upper Bound	5.85%	3.46%	0.38%	0.40%
(Upper Bound) ÷ (Lower Bound)	12.72	8.24	3.45	5.71

Source: Williams Study, Table A4

These credible intervals are very wide – with the upper bounds more than 3 times as large as the lower bounds for every age bracket – and are sufficiently large to undermine the reliability of Dr. Fox's estimates. Had Dr. Fox considered the large credible intervals in his analysis, his estimate of transgender enrollees would be as low as 555 or as high as 3,885 on average across the relevant period – compared to Dr. Fox's estimate of 1,740.[13]

B. Dr. Fox's Use of General Population Proportions

As discussed above, Dr. Fox relies on the Williams Study, which uses "state-level, population-based surveys to estimate the proportion of the population that identifies as

[13] In his addendum, Dr. Fox does not update his estimate from his original report that "about 1,740 TGD persons per year were enrolled in one of the BCBSIL affected plans." When updated using the data from the 2022 version of the Williams Study, his estimate is 1,817 vs 1,740.

transgender by age group."[14] As a result of Dr. Fox's reliance on this study, his analysis inherently assumes that the prevalence of transgender persons in the relevant Group Plans is identical to the prevalence of transgender persons in the general population.

Multiple factors indicate that this is not the case. First, transgender adults are twice as likely as cisgender adults to be unemployed.[15] Second, transgender adults are more likely to be uninsured than cisgender adults.[16] Third, many of the Group Members have a choice of health insurance plans,[17] and, if given the choice between two healthcare plans, one that contains some form of exclusion for transgender-related services and one without such an exclusion,

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[14] This quotation is from a previous version of the study: Jody L. Herman et. al, "Age of Individuals Who Identify as Transgender in the United States," The Williams Institute, UCLA School of Law, January 2017, p.1.

[15] McKinsey & Company, "Being transgender at work," *McKinsey Quarterly*, November 10, 2021, https://www.mckinsey.com/featured-insights/diversity-and-inclusion/being-transgender-at-work. *See also,* Kaiser Family Foundation, "Demographics, Insurance Coverage, and Access to Care Among Transgender Adults," October 21, 2020, https://www.kff.org/health-reform/issue-brief/demographics-insurance-coverage-and-access-to-care-among-transgender-adults/. "Among adults still in the labor force, a higher share of cisgender adults report being employed compared to transgender adults (56% vs. 48% respectively). Nearly one in ten (9%) of transgender adults reports they were unemployed from 2017-2018, a share much higher than that of cisgender adults (5%)."

[16] Kaiser Family Foundation, "Demographics, Insurance Coverage, and Access to Care Among Transgender Adults," October 21, 2020, https://www.kff.org/health-reform/issue-brief/demographics-insurance-coverage-and-access-to-care-among-transgender-adults/. "A larger share of transgender than cisgender adults (19% vs. 12% respectively) report that they were uninsured over the 2017-2018 period."

[17] Third Supplemental Answer to Interrogatory No. 6. "BCBSIL further states that of the 398 ERISA self-funded group health plans for which BCBSIL administers a gender-affirming care exclusion, some employers who offer a plan containing a gender-affirming care exclusion offer one or more plans in the same year that do not contain a gender-affirming care exclusion." Additionally, married Group Members may have an option of enrolling in their spouse's healthcare plan.

transgender persons will tend to choose the option without the exclusion. These factors all indicate, contrary to Dr. Fox's assumption, that the prevalence of transgender people is smaller within the relevant Group Plans than in the general population.

The following example illustrates the importance of Dr. Fox's failure to account for disparities in employment and insurance experienced by transgender persons. A recent study using data from the U.S. Centers for Disease Control and Prevention concluded that "transgender adults are more likely to be uninsured [than cisgender adults] (19% vs. 12%)."[18] Adjusting Dr. Fox's analysis to account for this disparity in insurance rates (but not correcting any other infirmities in his analysis) causes his estimate of the number of transgender enrollees in the relevant plans to fall by 8.6 percent, or approximately 150 people.

C. Dr. Fox's Use of Population Proportions for the State of Illinois

In estimating the number of transgender persons enrolled in the relevant Group Plans, Dr. Fox uses population proportions for the state of Illinois only. He states, "I do not know

[18] Kaiser Family Foundation, "Demographics, Insurance Coverage, and Access to Care Among Transgender Adults," October 21, 2020, https://www.kff.org/health-reform/issue-brief/demographics-insurance-coverage-and-access-to-care-among-transgender-adults/. "Our analysis finds that transgender adults are more likely to be uninsured (19% vs. 12%) and report cost-related barriers to care (19% vs. 13%) than cisgender adults"; also, "A larger share of transgender than cisgender adults (19% vs. 12% respectively) report that they were uninsured over the 2017-2018 period." This study used data from the 2017 and 2018 Behavioral Risk Factor Surveillance System (BRFSS) administered by the U.S. Centers for Disease Control and Prevention.

where BSBCIL [*sic*] insureds in these plans reside so have assumed, for purposes of modeling, the majority live in the state of Illinois."[19]

Dr. Fox does not assume the *majority* of Group Members live in the state of Illinois, he assumes that *all* Group Members live in the state of Illinois. Dr. Fox is aware that his assumption is wrong, or at least baseless.[20] I understand from counsel for BCBSIL that BCBSIL administers healthcare plans for companies domiciled in Illinois. However, I further understand from counsel for BCBSIL that employees of companies domiciled in Illinois may work and reside in other states, and many do.

These facts are exemplified by the named plaintiffs in this matter. Plaintiff Patricia Pritchard receives health coverage through her employer, St. Michael Medical Center in the state of Washington.[21] Plaintiff C.P. receives health coverage as a dependent of Ms. Pritchard.[22] Ms. Pritchard's employer is part of the Catholic Health Initiatives Franciscan Health System, now known as CommonSpirit Health, whose national office is located in Chicago, Illinois.[23] Despite working and residing in the state of Washington,[24] Ms. Pritchard's healthcare plan is administered by BCBSIL because CommonSpirit Health is domiciled in Illinois. Because Dr. Fox's

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[19] Fox Report, fn. 17.

[20] Fox Report, fn. 17, quoted above.

[21] Amended Complaint, ¶ 13.

[22] Amended Complaint, ¶ 13.

[23] Amended Complaint, ¶ 13; CommonSpirit, Contact Us, https://www.commonspirit.org/contact-us.

[24] Amended Complaint, ¶ 13.

analysis assumes that all Group Members live in the state of Illinois, Ms. Pritchard, and her dependent C.P., would not be accounted for in Dr. Fox's estimates of transgender enrollees in the relevant Group Plans.

Additionally, Plaintiff C.P.'s Motion for Class Certification states that the "putative class members are geographically dispersed across the country."[25] Dr. Fox's estimates of transgender enrollees in the relevant Group Plans is unreliable because his estimates depend solely on population proportions for Illinois which do not reflect the wide geographic spread of the Group Members. The Williams Study, which Dr. Fox relies upon, includes percentages of individuals who identify as transgender by age for all 50 states and the District of Columbia, as well as regionally and nationally.[26] These percentages vary considerably on a state-by-state basis. For example, in the 13 to 17 age bracket, the percentage of individuals who identify as transgender is highest for New York (3.00 percent) and lowest for Wyoming (0.56 percent).[27] Dr. Fox did not evaluate where Group Members reside or how their geographic dispersion impacts his estimates of transgender enrollees in the relevant Group Plans. Instead, Dr. Fox assumes that all Group Members live in Illinois and provides no justification for why this

[25] Motion for Class Certification, p. 15.

[26] Williams Study, Table 4.

[27] Williams Study, Table 4. In the three remaining age brackets, the percentages of individuals who identify as transgender are highest for Arkansas (3.59 percent) for the 18 to 24 age bracket, the District of Columbia (0.77 percent) for the 25 to 64 age bracket, and New Mexico (0.73 percent) for the 65 and older age bracket. The lowest percentages are for Iowa (0.45 percent) for the 18 to 24 age bracket, Missouri (0.07 percent) for the 25 to 64 age bracket, and Nevada (0.04 percent) for the 65 and older age bracket.

demonstrably incorrect assumption should be accepted in his analysis when his assumption fails to reflect the facts in this matter.

D. Duplicate Observations in Dr. Fox's "Enrollment Counts"

As discussed above, one of the inputs into Dr. Fox's analysis is the total number of enrollees in the relevant Group Plans during each year in the relevant period; Dr. Fox refers to these values as "Enrollment Counts."[28] Dr. Fox compiled his Enrollment Counts from data provided by BCBSIL. However, when processing this data, he double- or triple-counted some entries because he failed to remove duplicate entries from the data. Specifically, he failed to remove some entries that had the same "group number" and the same number of enrollees as other entries. I note that these duplicate entries have different group names within the data (often, only slightly different), but I understand from Counsel for BCBSIL that the group number, not the group name, is the more accurate data field for identifying unique Group Plans in a given year. Thus, Dr. Fox should have removed these duplicate entries from the data before compiling his Enrollment Counts.

Table 3 below shows the effect of removing the duplicate entries. This table shows Dr. Fox's Enrollment Counts, the number of enrollees in the duplicate entries ("Duplicate Enrollments"), and the Enrollment Counts that remain after removing the duplicate entries

[28] Fox Addendum, Updated Table 1.

("Enrollment Counts with Duplicate Enrollments Removed"). As the table shows, Dr. Fox overstates his Enrollment Counts by 8,299 to 13,461 per year, or 2.0 to 3.6 percent per year.

Table 3
Dr. Fox's Duplicate Enrollment Counts

Year	2016	2017	2018	2019	2020	2021
Dr. Fox's Enrollment Counts (Table 3)	391,117	405,278	426,996	417,615	400,842	384,711
Duplicate Enrollments	8,299	8,478	8,572	8,713	9,284	13,461
Enrollment Counts With Duplicate Enrollments Removed	382,818	396,800	418,424	408,902	391,558	371,250
Overstatement % by Dr. Fox	2.2%	2.1%	2.0%	2.1%	2.4%	3.6%

III. Dr. Fox's Estimated Number of Transgender Enrollees Who Sought Transgender-Related Services

For each year of the relevant period, Dr. Fox presents an estimate of the number of transgender enrollees in the relevant Group Plans who sought transgender-related services, and he summarizes that this number is "about 300."[29] The table below shows these estimates.

[29] Fox Report, ¶¶ 16-17, cited in the Motion for Class Certification, p. 14. Dr. Fox and the Plaintiffs are inconsistent in how they refer to these estimates. For example: (1) in paragraph 3 of his report, Dr. Fox states that these are "TGD persons seeking care"; (2) in paragraph 16 of his report, he refers to them as "insureds who are estimated to have sought gender-affirming care"; (3) in paragraph 17, he refers to them as persons that "would have been expected to seek gender-affirming care"; and (4) the Motion for Class Certification at page 14 refers to them as individuals "likely to seek care" (with no characterization of the type or timing of the care involved).

Table 4
Dr. Fox's Estimated Number of Transgender Enrollees
Seeking Transgender-Related Services

	2016	2017	2018	2019	2020	2021
Fox Row 16: Enrollees That Sought Gender-Affirming Care	293	304	320	313	301	289

Source: Fox Addendum, Updated Table 5, Row 16. Dr. Fox labels the values "Numerosity, Health Care Users Only"

This section of my report discusses these estimates in more detail. Subsection A below demonstrates that Dr. Fox includes meaningless variables in his calculations of these estimates. Subsection B shows that these estimates are fatally flawed because Dr. Fox misinterprets and misuses the published data on which he relies, and Subsection C shows that these estimates are additionally flawed because they are inappropriately biased upwards for other reasons.

A. Dr. Fox's Inclusion of Meaningless Variables in Calculations

In Updated Table 1 and Updated Table 5 of his addendum, Dr. Fox sets forth his revised estimation of the number of transgender enrollees in the relevant Group Plans who sought transgender-related services. Dr. Fox describes his estimation as a "two-stage model," where the first stage "estimate[d] the prevalence of transgender persons" and the second stage estimated "which proportion of them utilized some sort of medically necessary care."[30] However, in effect, Dr. Fox's analysis is not a two-stage model. As discussed below, his

[30] Fox Deposition, p. 75.

estimation of the number of transgender enrollees who sought transgender-related services is just a simple multiplication, not a two-stage model.

In his text, tables, notes, and deposition testimony, Dr. Fox appears to indicate that his estimates mathematically depend on all the variables appearing in his Updated Tables 1 and 5 (*i.e.,* Rows 1 through 15 of his tables). For example, Dr. Fox appears to indicate that his estimates depend on "Population Proportions by Age" (Rows 2 through 6), "Proportion [of the Illinois Population that identifies as transgender] by Age" (Rows 7 through 11), "Numerosity" (*i.e.*, Dr. Fox's estimated number of transgender enrollees in Row 12), and the "Average Proportion" of transgender individuals within the relevant plans (Row 13).

However, despite the appearance of a complicated mathematical analysis, Dr. Fox's calculations do not depend on these variables at all. As a matter of basic mathematics, Dr. Fox's estimates of transgender enrollees who sought transgender-related services is a simple multiplication of just two variables:

1. Dr. Fox's Row 1, "Enrollment Counts," which is Dr. Fox's estimate of the number of enrollees in the relevant plans.
2. Dr. Fox's Row 14, "Population Proportion,"[31] which equals 0.075 percent for every year. Dr. Fox does not describe or discuss this value which, as discussed below, he takes from a published research article and misuses.

[31] Dr. Fox's full heading for Row 14 is "Population Proportion From Study of Health Care Users Only", but I truncate this heading to just "Population Proportion" for brevity.

Table 5 below, which I created from values in Dr. Fox's addendum,[32] demonstrates this observation. Rows (A) and (B) of the table are the two variables listed just above (Dr. Fox's Enrollment Counts and Population Proportions). Row (C) is these two variables multiplied together, and this row is the same as Dr. Fox's final estimates.[33] This equivalence means that Dr. Fox's estimates of the number of transgender enrollees who sought transgender-related services depend solely on his Enrollment Counts and Population Proportion variables. In other words, Dr. Fox's estimate of the number of transgender enrollees who sought transgender-related services is mathematically independent of all the other variables (Rows 2 through 13) in Updated Table 1 of his analysis, and his inclusion of those variables in his calculations is meaningless.

[32] Dr. Fox's report contains identical values.

[33] *I.e.,* the same as Row 16 in Dr. Fox's analysis and Table 4 above.

Table 5
Simplified Computation of Dr. Fox's Estimated Number of Transgender Enrollees Seeking Transgender-Related Services

		2016	2017	2018	2019	2020	2021
Fox Row 1: Enrollment Counts	**(A)**	391,117	405,278	426,996	417,615	400,842	384,711
Fox Row 14: Population Proportion	**(B)**	0.075%	0.075%	0.075%	0.075%	0.075%	0.075%
Fox Row 16: Enrollees Who Sought Gender-Affirming Care	**(C) = (A) x (B)**	293	304	320	313	301	289

Source: Fox Addendum: (A) Updated Table 1, Row 1; (B) Updated Table 5, Row 14; (C) is identical to Updated Table 5, Row 16.

B. Dr. Fox's Invalid "Population Proportion" Assumption

In Section III.A of this report (immediately above), I showed that Dr. Fox's estimates of the number of transgender enrollees in the relevant plans who sought transgender-related services[34] actually depend on just two variables, Rows (A) and (B) in the table above. In Section II, I discussed the flaws in the first of these two variables, which is Dr. Fox's estimate of the total number of enrollees in the relevant Group Plans.[35] In particular, Dr. Fox failed to delete duplicate entries in the data on which he relied. Below, I discuss the second of these variables which is Dr. Fox's assumption that 0.075 percent[36] of enrollees sought transgender-related services in each year. In this discussion, I show that this assumption is a misinterpretation and

[34] Row 16 of Dr. Fox's analysis and Row (C) in Table 5.

[35] Row 1 of Dr. Fox's analysis, and Row (A) in Table 5.

[36] Row 14 of Dr. Fox's analysis, and Row (B) in Table 5.

misuse of the published research on which Dr. Fox relies. As a result, Dr. Fox's assumption is invalid, his analysis is incorrect, and his results are unreliable.

1. The "Quinn Study" on Which Dr. Fox Relies

The source of Dr. Fox's assumption that 0.075 percent of enrollees in the relevant Group Plans sought transgender-related services annually is a research article published by Virginia P. Quinn, PhD, and other researchers that is titled "Cohort profile: Study of Transition, Outcomes and Gender (STRONG) to assess health status of transgender people" (henceforth, the "Quinn Study").[37] The objectives of the study were to develop methods for using computerized searches of electronic medical records to identify transgender people and assess their health status.[38]

The Quinn Study identified 6,456 transgender people across three different Kaiser Permanente health plans in Northern California, Southern California, and Georgia based on medical health record information from 2006 through 2014, a nine-year period. The study describes the methodology used to identify transgender people, and it reports numerous

[37] Virginia P Quinn et al., "Cohort profile: Study of Transition, Outcomes and Gender (STRONG) to assess health status of transgender people," *BMJ Open*, 2017;7:e018121. doi:10.1136/bmjopen-2017-018121, ("Quinn Study") cited in Fox Report at p. 4, note 13; p. 8, note 18; pp. 8-9, 12; and Fox Addendum, Updated Table 5 notes. I use the term "Quinn Study" to refer to both the published research article and the underlying research.

[38] Quinn Study, p. 1 ("Purpose [: the study] was initiated to assess the health status of transgender people in general and following gender-affirming treatments at Kaiser Permanente health plans in Georgia, Northern California and Southern California. The objectives of this communication are to describe methods of cohort ascertainment and data collection and to characterise the study population".)

demographic and health-related statistics. For example, the Quinn Study reports the following estimated percentages of transgender enrollees in the Kaiser Permanente health plans studied, as of 2014:[39] (1) 0.075 percent in Northern California,[40] (2) 0.044 percent in Southern California, and (3) 0.038 percent in Georgia. The Quinn Study defines these values as the "proportions of transgender enrollees" as of 2014.[41]

2. Dr. Fox's Misinterpretation and Misuse of the Quinn Study

The precise source of Dr. Fox's assumption about the annual rate at which enrollees in the relevant Group Plans sought transgender-related services is the Quinn Study's 0.075 percent estimate for the prevalence of transgender people in the Northern California Kaiser Permanente health plan.[42] In his analysis, Dr. Fox assumes that this value is the *annual rate* at which these Kaiser Permanente enrollees sought transgender-related services. It is not. The Quinn Study's 0.075 percent value is the "proportion of transgender enrollees"[43] in the Kaiser plan; *i.e.,* it is a measure of the number of transgender enrollees. It is not a measure of the

[39] Quinn Study, p. 9 and Figure 3 (where the values appear graphically). In the Quinn Study, these percentages are expressed as the number of transgender people per 100,000 enrollees.

[40] As discussed in detail below, this 0.075 percent value for the Northern California Kaiser Permanente health plan is the source of Dr. Fox's assumption.

[41] Quinn Study, p. 9. *Also*, Quinn Study, p. 6, Figure 3, showing these values graphically for 2014 with heading "Prevalence of transgender status by site and year of health plan enrolment."

[42] Fox Addendum, Updated Table 5, citing the Quinn Study and stating, "This 0.075% estimate is for Northern California Kaiser enrollees."

[43] Quinn Study, p. 9.

amount or frequency of transgender-related services that these enrollees sought, which is how Dr. Fox uses the percentage.

In fact, the Quinn Study does not present any conclusion about the rate at which Kaiser Permanente enrollees sought transgender-related services. While the study does report evidence of "gender-affirming treatment" for 63 percent of the transgender people and no evidence of "gender-affirming treatment" for the remaining 37 percent,[44] it does not indicate the year in which these treatments were provided or the number of treatments provided, and it does not provide sufficient information to derive annual treatment rates.

In sum, Dr. Fox assumes the 0.075 percent value from the Quinn Study is something that it is not, and he then misuses the 0.075 percent value in the analysis. Consequently, the analysis in Dr. Fox's Updated Table 5 is incorrect, and his conclusions, which he summarizes as "about 300 persons would have been expected to seek [transgender-related services] each year," are unreliable.

C. Dr. Fox's Estimates are Biased Upwards

As discussed above, Dr. Fox's estimates are irrecoverably flawed due to his misuse of the 0.075 percent value from the Quinn Study. Additionally, his estimates are unreliable even if we disregard that flaw, *arguendo.* Specifically, they are inappropriately biased upwards for three reasons discussed below.

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[44] Quinn Study, p. 8, Table 4.

1. No Evidence of Transgender-Related Services

Dr. Fox fails to account for the study's finding that there was no evidence of "gender-affirming treatment" for 37 percent of transgender Kaiser Permanente enrollees. That is, he incorrectly assumes that every transgender Kaiser Permanente enrollee had received transgender-related services despite the fact that the study explicitly states that the was "no evidence" of "gender-affirming treatments" for 37 percent of them.

2. Dr. Fox Disregards Results for Southern California and Georgia

Dr. Fox relies solely on Kaiser Permanente data in the Quinn Study for Northern California, and he ignores analogous data in that same study for Southern California and Georgia. In other words, he uses the higher value for the Northern California Kaiser Permanente plan (0.075 percent) while ignoring the values for the Southern California plan (0.044 percent) and the Georgia plan (0.038 percent), which are much lower.[45] Dr. Fox stated in deposition that he used the value for Northern California because "[i]t had the largest sample size," and therefore, he claims, the "highest level of confidence."[46] This rationale is both incorrect and irrelevant.

Dr. Fox's rationale is incorrect because the sample size for the Northern California data is actually smaller than for the Southern California data. While the Quinn Study does not explicitly state the sample sizes, they can be inferred as follows: for each region, the sample

[45] Quinn Study, p. 9.

[46] Fox Deposition, p. 93.

size is the number of transgender enrollees identified in the study divided by the fraction of the total sample that these enrollees represent. For Northern California, the study identified 3,842 transgender enrollees which amounts to 0.075 percent of the total sample, so the sample size is 5.12 million.[47] For Southern California, the study identified 2,440 transgender enrollees which amounts to 0.044 percent of the total sample, so the sample size is 5.54 million[48] -- which is larger than the sample size for Northern California. Moreover, the Quinn Study reports confidence intervals associated with its prevalence estimates – and the confidence interval for Northern California is wider than for Southern California.[49] Mathematically, *wider* confidence intervals indicate *lower* levels of confidence, so Northern California provides a lower level of confidence than Southern California, contrary to Dr. Fox's claim. Therefore, based on Dr. Fox's stated criteria of using the region with the "largest sample size" and "highest level of confidence," he should have used the transgender prevalence value for Southern California (0.044 percent), not Northern California (0.075 percent).

Dr. Fox's rationale for using the transgender percentage value for Northern California is not only incorrect, but also irrelevant. It is irrelevant because the appropriate criterion for selecting among the three regions discussed in the Quinn Study is the extent to which the

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[47] 3,842 ÷ 0.075% = 5.12 million. The number of transgender enrollees identified is shown in Table 3 of the study, and the percentages these enrollees represent is shown in Figure 3 and p. 9 of the study.

[48] 2,440 ÷ 0.044% = 5.54 million.

[49] Quinn Study, p. 9. The 95 percent confidence interval for the Southern California estimate is 0.042 percent to 0.046 percent. For the Northern California estimate, the 95 percent confidence interval is 0.072 to 0.078.

enrollee populations studied by Dr. Quinn and her co-authors is representative of the enrollee population within the relevant plans. Dr. Fox did not consider this criterion,[50] so his decision to use the Northern California data and exclude the Southern California and Georgia data is baseless.

3. Bias Due to Duplicate Observations

As discussed in Section II.D of this report, Dr. Fox overestimates the number of enrollees in the relevant Group Plans because he failed to account for duplicate entries in the data he processed.

4. Quantifying Dr. Fox's Bias

Table 6 below illustrates the degree to which Dr. Fox's estimates are overstated due to the three factors discussed immediately above. The first row of this table is Dr. Fox's estimated number of transgender enrollees in the relevant Group Plans who sought transgender-related services. The remaining rows indicate how these estimates change when Dr. Fox's analysis is adjusted to remove the sources of bias discussed above. First, I reduced Dr. Fox's estimates by 37 percent to account for the 37 percent of transgender patients in the Quinn Study for which there was no evidence of "gender-affirming treatments." Second, I reduced Dr. Fox's estimates by 2.0 to 3.6 percent, depending on the year, to reflect the duplicate observations in the BCBSIL data that Dr. Fox used. Third, I show how Dr. Fox's estimates change (with these other

[50] Fox Deposition, p. 93, stating that "largest sample size" and "highest level of confidence" were the only reasons he chose to use the Northern California data and exclude the Southern California and Georgia data.

adjustments also in place) depending on whether the analysis is based on the Quinn Study's conclusions for Northern California, Southern California, or Georgia. As the table indicates, these adjustments result in markedly lower estimates than Dr. Fox reports, especially for the Southern California and Georgia analyses, when the analysis is adjusted to remove Dr. Fox's bias.

Table 6
Dr. Fox's Estimated Number of Transgender Enrollees
Who Sought Transgender-Related Services:
Corrected to Remove Bias,[51] by Kaiser Permanente Plan

	Kaiser Permanente Plan	2016	2017	2018	2019	2020	2021
Dr. Fox's Estimate:	**Northern California**	293	304	320	313	301	289
Dr. Fox's Estimate, Corrected:							
	Northen California	180	186	196	192	184	174
	Southern Californa	105	109	115	113	108	102
	Georgia	91	94	99	97	93	88

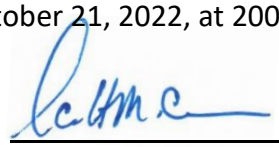
IV. Conclusions

Dr. Frank Fox, on behalf of the plaintiffs in this litigation, provides estimates of both the number of transgender people enrolled in the relevant Group Plans and the number of these enrollees who sought transgender-related services annually during the relevant period. As discussed herein, Dr. Fox's analysis is deficient in numerous ways including: (1) he failed to

[51] As discussed above, Dr. Fox's misuse of the Quinn Study cannot be corrected because the study does not provide annual treatment rates. Thus, while this table demonstrates the bias in Dr. Fox's estimates, the values show are not reliable annual estimates of the number of transgender enrollees who sought transgender-related services.

account for the marked uncertainty in the published data upon which he relies; (2) he incorrectly assumes that the prevalence of transgender people in the relevant Group Plans is identical to the prevalence of transgender people in the general population and that all Group Members in these plans reside in Illinois; (3) he failed to exclude duplicate data entries in the data on which he relies; and (4) he misinterprets, misuses, and overstates published data upon which he relies. Consequently, Dr. Fox's estimates are misleading and unreliable.

October 21, 2022, at 2000 K Street NW, Washington, DC.

By 

Scott Carr, Ph.D.

Exhibit 1

Curriculum Vitae

Scott M. Carr, Ph.D.

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Education

PhD Business Administration and Industrial & Operations Engineering, University of Michigan

MS Engineering, Industrial & Operations Engineering, University of Michigan

MS Engineering, Construction Management and Engineering (Civil and Environmental Engineering), University of Michigan

BS Engineering, Mechanical Engineering, University of Michigan

Affiliations

American Bar Association

Scott Carr, Ph.D., is a Senior Managing Director and leader of the Competition and Class Actions Practice at Ankura Consulting Group. His areas of expertise include data analytics, statistics, and predictive modeling; manufacturing, supply chain and distribution systems; energy economics; and financial modeling.

Dr. Carr has extensive experience in the analysis and modeling of complex business, financial, and health-related circumstances and events. His projects include forecasting the future incidence of diseases and cognitive impairments due to concussions in National Football League players, developing a machine-learning algorithm to predict outcomes of asbestos-related litigation, testimony regarding accommodations for people with physical disabilities, forecasting of future personal injury liabilities due to environmental contamination, expert testimony in contractual disputes within manufacturing supply chains, and economic analysis of crude oil, gasoline, and ethanol distribution systems.

Dr. Carr was formerly a professor at the UCLA Anderson School of Management in the Department of Decisions, Operations, and Technology Management. As a professor, he taught courses on operations management, supply chain management, and quantitative analysis to MBA and Ph.D. students and to executives, and he performed and published research on industrial economics and supply chain and distribution systems. Prior to joining academia, Dr. Carr traded and managed portfolios of foreign exchange and Treasury bond options as a member of both the Chicago Board of Trade and the Chicago Mercantile Exchange.

Dr. Carr has provided expert testimony to state and federal courts and regulatory bodies and to arbitration panels.

AREAS OF EXPERTISE

- Supply chain management, logistics, production and operations management
- Energy economics, competition economics, environmental economics
- Process design and analysis
- Financial modelling
- Risk modeling, analysis, and management
- Probability and statistics
- Optimization, modeling, simulation, pricing, forecasting, and data analytics

PROFESSIONAL EXPERIENCE

Faculty and Expert Services Experience

Ankura Consulting Group, August 2018 – Present

Senior Managing Director and Competition and Class Actions Practice Leader, April 2019 - Present

Managing Director, August 2018 – March 2019

Navigant Economics, Director, 2014 – August 2018

ARPC, 2011 – 2013

Senior Managing Director, 2012 – 2013

Managing Director, 2011

LECG, 2006-2010

Principal, 2009 – 2010

Senior Managing Economist, 2006 – 2009

UCLA Anderson School of Management, Faculty, 1999 – 2007

Professional Activities – representative examples

Economic modeling and analysis including:

- Testimony in a supply chain dispute on behalf of a major consumer goods packaging manufacturer
- Testimony in a supply chain dispute related to the distribution of rum in Puerto Rico

- Testimony for Saddlehorn Pipeline Company regarding competition in crude oil transportation as part of a market-based rates application for its pipeline running between Rocky Mountain crude oil production regions and Cushing, Oklahoma.
- Testimony regarding gasoline and ethanol distribution on behalf of Joint Defendants in environmental litigation
- Testimony for the New York State Department of Health regarding the availability of accessible housing for people with mobility disabilities in New York City
- Analysis of the pricing and profitability of the United States Postal Service's (USPS's) ten largest Negotiated Service Agreements on behalf of the USPS Board of Governors
- Testimony for BridgeTex Pipeline Co. involving disputed rates and capacity allocation procedures for the transportation of crude oil
- Testimony in a supply chain dispute involving the manufacture and distribution of women's shoes in Australia and New Zealand
- Engaged as Testifying Expert regarding supply chain management and manufacturing issues involved in an $800 million light rail project in Canada
- Testimony for Wells Fargo regarding the valuation of oil-producing properties
- Testimony for Scotiabank regarding financial modeling practices in the investment banking industry and damages in a failed Build-Operate-Transfer construction project in Chile
- Testimony for Rayonier Advanced Materials regarding the pricing and supply of raw materials in the chemicals industry
- Testimony for the Tennessee Fuel and Convenience Store Association to the Tennessee Regulatory Authority regarding competition in the market for compressed natural gas as a transportation fuel
- Testimony for TransCanada regarding competition in crude oil transportation as part of a market-based rates application for its Marketlink Pipeline running between Cushing, Oklahoma, and Houston, Texas
- Testimony for Buckeye Pipe Line Company to the Federal Energy Regulatory Commission regarding competition in wholesale gasoline markets as part of a market-based rates protest of a refined products pipeline running from Delaware City, Delaware, to Pittsburgh and Harrisburg, Pennsylvania
- Testimony for Tyson Foods regarding production and supply chain practices in U.S. Dept. of Agriculture litigation brought under the Packers and Stockyards act
- Testimony to Federal District Court regarding a new business valuation in a breach of contract matter
- Testimony to the Federal Energy Regulatory Commission regarding credit issues in the New England ISO on behalf of Constellation Energy and other electricity generators

- Arbitration testimony in support of a Tier-1 automotive supplier's claim that its profits were negatively impacted by a partner firm's inability to reliably supply raw materials to their joint venture manufacturing plant
- Damages analysis (submitted in arbitration) for a delayed Guatemalan hydroelectric construction project
- Preparation of market-based rate applications for
    - Saddlehorn Pipeline Company, LLC (crude oil pipeline running from Fort Laramie, Wyoming, and Denver, Colorado, to Cushing, Oklahoma)
    - Marketlink, LLC (crude oil pipeline running from Cushing, Oklahoma, to the U.S. Gulf Coast)
    - Osage Pipeline Company (crude oil pipeline running from Cushing, Oklahoma, to El Dorado, Kansas)
    - Buckeye Pipe Line Company, Long Island System (refined products pipeline running from Linden, New Jersey, to Long Island, New York)
    - Seaway Crude Pipeline Company (crude oil pipeline running from Cushing, Oklahoma, to the U.S. Gulf Coast)
    - Enterprise TEPPCO (refined products pipeline running from the U.S. Gulf Coast to Louisiana and Arkansas)
    - Magellan Pipeline Mountain System (refined products pipeline running from Kansas to Colorado)
- Testimony to the California Air Resources Board regarding the financial impact of automotive emissions control regulations for the Alliance of Automobile Manufacturers
- Forecasting of the future incidence of diseases and cognitive impairments due to concussions for the National Football League players
- Analysis of fuel costs for an electric generation firm in bankruptcy litigation
- Analysis of gasoline and ethanol supply chain economics for Tesoro Corporation in several cases involving MTBE groundwater contamination
- Creation of a machine-learning algorithm to predict outcomes of asbestos-related litigation
- Estimation of lost income and other financial damages due to the BP oil spill in the Gulf of Mexico for the $20 billion Gulf Coast Claims Facility
- Probabilistic modeling of future mass tort litigation at environmental contamination sites for Anadarko Petroleum Corporation
- Analysis of large data sets in class action litigation related to labor disputes, antitrust claims, and insurance litigation.
- Analysis of the cost-of-capital implications of subsidies provided to Persian Gulf airlines by their respective governments on behalf of several major U.S. airlines

- Financial analysis of natural gas pipeline leases for the U.S. Department of Justice and the Internal Revenue Service
- Estimation of the likelihood of injury from home electrical devices for Underwriter Laboratories
- Probabilistic modeling and simulation of private equity funds' performance
- Analysis of demand variability within the automobile supply network for Brembo Brakes
- Valuation and depreciation analysis of crude oil pipelines for Imperial Oil
- Bond, stock, and derivative analyses for bankruptcy litigation in the electricity industry
- Valuation of supply contracts for a new mining venture
- Analysis for class-certification and merits stages of antitrust litigation for Dow Chemical
- Analysis of alleged monopolization of industrial chemicals for Honeywell
- Managed, advised, or performed strategic projects for firms/organizations including:
    - Rio Tinto Energy America (coal mining)
    - TRW Aerospace (semiconductor manufacturing technology and equipment)
    - Broadcom (Bluetooth chipsets)
    - Meade Instruments (night vision technology)
    - Macy's (retail clothing)
    - Los Angeles Community Redevelopment Agency
    - Los Angeles County Metropolitan Transportation Authority
    - Pilkington (glass manufacturing)
    - Deutsch Advertising
    - Six Flags (amusement parks)

Numerous Speeches/presentations delivered at academic conferences

Principal investigator in a project and grant to improve small enterprises' access to business expansion capital

Member of editorial board for *Decision Sciences Journal* and frequent reviewer for *Management Science, Operations Research,* and other academic journals

Professional Affiliations

- American Bar Association – Infrastructure and Regulated Industries Section; Section of Litigation and its Environmental & Energy Litigation Committee
- LECG, Los Angeles (Affiliate) – Professional services for antitrust litigation and competition policy, 2005–2006

Graduate-Level Courses Taught at the UCLA Anderson School of Management

Competition and Industrial Organization [Ph.D.] – Game theoretic models of inter-firm interaction. Classic and seminal oligopoly models. Pricing theory. Advanced game theory. Models of strategic interaction within complex production networks. Antitrust. Analysis and proof techniques, 2006

Managerial Model Building [MBA] – Mathematical modeling, analysis, and optimization. Linear, non-linear, and integer programming/optimization. Monte-Carlo simulation. Forecasting methods. Project Management models and tools. Application of optimization models in business settings, 2005-2006

Simulation Theory and Applications [Ph.D.] – Monte-Carlo, discrete event, and agent-based simulation for finance, marketing, and operations. The use of simulation in empirical research. Simulation of stochastic processes. Option valuation (both financial and real) using simulation. Applications (*e.g.*, simulation of intellectual property piracy over the Internet), 2004-2006

Management in the Information Economy [MBA] – Internet and telecommunication technology. Internet business models and strategy. Economics of information products and processes, 2003

Fundamentals of Operations Management [MBA] – Analysis of business processes. Formulating and executing business strategy. Service and performance measurement and metrics. Managing risk, variability, and uncertainty. Management of supply chains and production processes. 1999-2003, 2006

Dynamic Programming and Sequential Optimization [Ph.D.] – Dynamic programming, Markov chains and decision processes, solution and proof techniques, and structural results and proofs, 2000

Other Teaching

Ph.D. Dissertation Committees (including Dissertation Advisor) – topic areas including: competition economics, operations management, information technology, international business, simulation

Executive Education at UCLA Anderson – Various topics in the following programs (1999 to 2007):

- Managing the Information Resource
- Creating and Leading the Project-Centered Organization (faculty director)
- Supply Chain Management
- Head Start – Johnson & Johnson Management Fellows Program
- UCLA Strategic Leadership Institute
- California HealthCare Foundation's Health Care Leadership Program
- Johnson & Johnson Healthcare Leadership Program

University of Michigan, Ross School of Business [BBA] – Operations Management, 1997

University of Michigan, College of Engineering [BSE] – Computer Programming, 1995

Research

Sriram Dasu, Reza Ahmadi, and Scott Carr, "Gray Markets, A Product of Demand Uncertainty and Excess Inventory," *Production and Operations Management*, vol. 21, April 2012, 1102-1113

Guillaume Roels, Uday Karmarkar, and Scott Carr, "Contracting for Collaborative Services," *Management Science*, 56:5, May 2010, 849-863.

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Ram Bala and Scott Carr, "Pricing Software Upgrades: The Role of Product Improvement and User Costs," *Production and Operations Management*, September-October 2009, 560-580

Scott Carr and Uday Karmarkar, "Competition in Multi-Echelon Assembly Supply Chains," *Management Science,* vol. 51, January 2005, 45-59

Scott Carr, "Online Auctions with Costly Bid Evaluation," *Management Science* (special issue on e-Business) vol. 49, November 2005, 1521-1528

Dissertation Advisor for Ram Bala, Ph.D. (faculty, Santa Clara University), Dissertation title: *Pricing and Contracting Strategies for Software Products and Services,* 2004

Scott Carr and William Lovejoy, "Choosing an Optimal Demand Portfolio for Capacitated Resources," *Management Science*, vol. 46, July 2000, 912-927

Scott Carr and Izak Duenyas, "Optimal Admission Control and Sequencing in a Make-to-Stock/Make-to-Order Production System," *Operations Research*, vol. 48, Sept.-Oct. 2000, 709-719

Scott Carr, *Essays on the Allocation of Scarce Capacity Among Multiple Market Segments*, Ph.D. dissertation

Other Relevant Experience

Automotive Supply Chain and Manufacturing – Libbey-Owens-Ford (1995–1998)

- Consulting and research related to contracting and demand management, information systems, data-mining, production planning and scheduling, demand forecasting, and materials management
- Analysis to determine which of the firm's products to manufacture using a joint venture manufacturing plant instead of the client firm's own fully-owned facilities

Legal – Case management and expert-witness preparation (1995–1998)

- Researched case and administrative law on employers' and owners' safety responsibilities in multi-employer construction jobsites
- Developed case theories and strategies, wrote briefing materials, and engaged in trial preparation

Finance – Traded and managed portfolios of foreign exchange and Treasury bond options (1986–1991)

- Member of Chicago Board of Trade
- Member of Chicago Mercantile Exchange

Information Technology – Computer Associates, Chicago Illinois (1991–1992)

- Mainframe software systems (datacenter management, security, database management, finance and production applications)

EXPERT TESTIMONY AND SUBMISSIONS

Arbitration testimony of Scott Carr, Ph.D. on behalf of Ball Corporation and Rexam Beverage Can Company; Arizona Beverages USA LLC v. Ball Corporation and Rexam Beverage Can Company; American Arbitration Association, Case Number 01-21-0017-2481; June 2, 2022.

Deposition Testimony of Scott Carr, Ph.D. on behalf of Brugal & CO., S.A.; Ballester Hermanos, Inc. v. Brugal & CO., S.A.; United States District Court, District of Puerto Rico, Docket No. 3:19-cv-02100; May 11, 2022.

Deposition Testimony of Scott Carr, Ph.D. on behalf of Joint Defense Group; Commonwealth of Pennsylvania, etc. v. Exxon Mobil Corporation, et al, Docket No. 1:14-cv-06228-SAS, MDL No. 1358, May 20, 2022.

Prepared Direct Testimony of Scott Carr, PhD, on behalf of Saddlehorn Pipeline Company, LLC, in support of the Application of Saddlehorn Pipeline Company, LLC for Authorization to Charge Market-Based Rates; April 12, 2022.

Expert Report of Scott Carr, Ph.D. on behalf of Brugal & CO., S.A.; Ballester Hermanos, Inc. v. Brugal & CO., S.A.; United States District Court, District of Puerto Rico, Docket No. 3:19-cv-02100; March 29, 2022.

Rebuttal Expert Report of Scott Carr, Ph.D. on behalf of Ball Corporation and Rexam Beverage Can Company; Arizona Beverages USA LLC v. Ball Corporation and Rexam Beverage Can Company; American Arbitration Association, Case Number 01-21-0017-2481; March 7, 2022.

Expert Report of Scott Carr, Ph.D. on behalf of Ball Corporation and Rexam Beverage Can Company; Arizona Beverages USA LLC v. Ball Corporation and Rexam Beverage Can Company; American Arbitration Association, Case Number 01-21-0017-2481; February 25, 2022.

Expert Report of Scott Carr, Ph.D. on behalf of Joint Defense Group; Commonwealth of Pennsylvania, etc. v. Exxon Mobil Corporation, et al, Docket No. 1:14-cv-06228-SAS, MDL No. 1358, May 24, 2021.

Deposition Testimony of Scott Carr, Ph.D.; Michelle Bagley et al. against The New York State Department of Health et al.; United States District Court, Eastern District of New York; Case No. 15-cv-4845 (FB) (CLP); February 4, 2021, and February 25, 2021.

Expert Report of Scott Carr, Ph.D.; Michelle Bagley et al. against The New York State Department of Health et al.; United States District Court, Eastern District of New York; Case No. 15-cv-4845 (FB) (CLP); December 16, 2020.

United States Postal Service, Negotiated Service Agreement Review, Solicitation 2A-20-A-0029; October 2020.

Prepared Direct Testimony of Dr. Scott M. Carr on behalf of Marketlink, LLC, in support of the Application of Marketlink, LLC, for Authorization to Charge Market Based Rates. F.E.R.C. Docket No. OR19-30; July 24, 2019.

Expert Report of Scott Carr, PhD, and Michal Malkiewicz Regarding the 2019 Roland Garros Code Violation Against Anna Tatishvili; Grand Slam Board (for tennis); June 20, 2019.

Prepared Rebuttal Testimony of Dr. Scott M. Carr on behalf of BridgeTex Pipeline Company, LLC; Occidental Energy Marketing, Inc. v. BridgeTex Pipeline Company, LLC; Railroad Commission of Texas GUD No.10675; December 21, 2018.

Prepared Rebuttal Testimony of Dr. Scott M. Carr on behalf of BridgeTex Pipeline Company, LLC; Occidental Energy Marketing, Inc. v. BridgeTex Pipeline Company, LLC; F.E.R.C. Docket Nos. IS18-102-001, IS18-147-000, and OR18-6-001; October 25, 2018.

Prepared Answering Testimony of Dr. Scott M. Carr on behalf of BridgeTex Pipeline Company, LLC; Occidental Energy Marketing, Inc. v. BridgeTex Pipeline Company, LLC; F.E.R.C. Docket Nos. IS18-102-001, IS18-147-000, and OR18-6-001; July 10, 2018.

Prepared Direct Testimony of Dr. Scott M. Carr on behalf of BridgeTex Pipeline Company, LLC; Occidental Energy Marketing, Inc. v. BridgeTex Pipeline Company, LLC; Railroad Commission of Texas GUD No.10675; June 29, 2018.

Prepared Direct Testimony of Dr. Scott M. Carr on behalf of BridgeTex Pipeline Company, LLC; Occidental Energy Marketing, Inc. v. BridgeTex Pipeline Company, LLC; F.E.R.C. Docket Nos. IS18-102-001, IS18-147-000, and OR18-6-001; May 11, 2018.

Expert Report of Scott Carr, Ph.D., on behalf of Lew Footwear Holdings Pty Ltd; Madden International, Ltd., v. Lew Footwear Holding Pty Ltd; Supreme Court of the State of New York, County of New York; Index No. 650209/2015; March 2018.

Engaged as Testifying Expert on behalf of Metrolinx; Bombardier Transportation Canada Inc. v. Metrolinx; November 2017.

Financial analysis by Scott Carr, Ph.D., and Cliff Hamal on behalf of OHL Industrial; OHL Industrial S.L. and OHL Industrial Delegacion Guatemala, Sociedad Anonima disclosed in Claimants' Rejoinder to Counterclaim; OHL Industrial S.L. and OHL Industrial Delegacion Guatemala, Sociedad Anonima, v. Energia Limpia De Guatemala, S.A.; International Chamber of Commerce International Court of Arbitration, September 19, 2017.

Expert Report of Scott Carr, Ph.D., on behalf of Wells Fargo Bank, N.A.; Extex Energy Partners, Ltd., v. Wells Fargo, N.A.; American Arbitration Association, Case No. 01-16-0003-7384; August 25, 2017.

Deposition Testimony of Scott Carr, Ph.D., on behalf of The Bank of Nova Scotia, Scotiabank Global Banking and Markets, and Scotia Capital; S.A. de Obras y Servicios, COPASA v. The Bank of Nova Scotia, and Scotiabank Global Banking and Markets f/k/a Scotia Capital Inc.; Supreme Court of the State of New York, County of New York; IAS Part 49, Index No. 651649/2013; December 20, 2016.

Expert Report of Scott Carr, Ph.D., on behalf of The Bank of Nova Scotia, Scotiabank Global Banking and Markets, and Scotia Capital; S.A. de Obras y Servicios, COPASA v. The Bank of Nova Scotia, and Scotiabank Global Banking and Markets f/k/a Scotia Capital Inc.; Supreme Court of the State of New York, County of New York; IAS Part 49, Index No. 651649/2013; September 28, 2016.

Expert Disclosure of Scott M. Carr, Ph.D., on behalf of Rayonier Advanced Materials, Inc.; Eastman Chemical Company v. Rayonier Advanced Materials Inc., Rayonier Performance Fibers, LLC, and Rayonier A.M. Sales and Technology Inc.; Chancery Court for Sullivan County, Tennessee, Case No. 15-ck-40024(C); October 22, 2015.

Live Testimony of Dr. Scott M. Carr on Behalf of Buckeye Pipe Line Company; Guttman Energy v. Buckeye Pipe Line Company, L.P. and Laurel Pipe Line Company, L.P.; F.E.R.C. Docket No. OR14-4-000 and -001; October 13, 2015.

Answering Testimony to Commission Trial Staff of Dr. Scott M. Carr on Behalf of Buckeye Pipe Line Company; Guttman Energy v. Buckeye Pipe Line Company, L.P. and Laurel Pipe Line Company, L.P.; F.E.R.C. Docket No. OR14-4-000 and -001; June 26, 2015.

Answering Testimony of Dr. Scott M. Carr on Behalf of Buckeye Pipe Line Company; Guttman Energy v. Buckeye Pipe Line Company, L.P. and Laurel Pipe Line Company, L.P.; F.E.R.C. Docket No. OR14-4-000 and -001; January 20, 2015.

Live Testimony of Scott M. Carr, Ph.D. on behalf of the Tennessee Fuel and Convenience Store Association; Petition of Piedmont Natural Gas Company, Inc. for Approval of a CNG Infrastructure Rider to its Approved Rate Schedules and Service Regulations; Tennessee Regulatory Authority, Docket No. 14-00086; January 12, 2014.

Direct Written Testimony of Scott M. Carr, Ph.D. on behalf of the Tennessee Fuel and Convenience Store Association; Petition of Piedmont Natural Gas Company, Inc. for Approval of a CNG Infrastructure Rider to its Approved Rate Schedules and Service Regulations; Tennessee Regulatory Authority, Docket No. 14-00086; December 11, 2014.

Live Testimony of Scott M. Carr, Ph.D. on behalf of Tyson Farm's Inc. before the U.S. Department of Agriculture, P&S Docket No. D-12-0123, December 10, 2012.

Written Testimony of Scott Carr, Ph.D., on behalf of Summit Point Automotive Research Center and William Scott Inter Vivos Trust. Homeland Training Center LLC v. Summit Point Automotive Research Center and William Scott Inter Vivos Trust. U.S. District Court for the Northern District of West Virginia, Case No. 3:07-cv-00160-JPB, September 15, 2010.

Affidavit of Scott Carr, Ph.D., in support of the New England Credit Policy Coalition; U.S. Federal Energy Regulatory Commission, Docket No. ER10-942-000; April 16, 2010.

Prepared Testimony of Scott M. Carr, Ph.D. on behalf of Brembo North America and Affiliated Companies; Sanluis Rassini S.A. de C.V. and Rassini Frenos S.A. de C.V. vs. Brembo North America, Brembo Participations S.A. and Brembo S.p.A., Brembo International S.A., and Brembo-Rassini, S.A. de C.V.; International Centre for Dispute Resolution, Case No. 50 154 T 00450 07; July 2008.

Comments by Scott Carr, Ph.D., to the California Air Resource Board Regarding California's Emission Warranty Information Reporting and Recall Regulations and Emission Test Procedures on behalf of the Alliance of Automobile Manufacturers, March 20, 2007.

Exhibit 2
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Defendant Blue Cross Blue Shield of Illinois Answer to Plaintiffs' First Amended Complaint. *Pritchard et. al v. Blue Cross Blue Shield of Illinois* . Case No. 3:20-cv-06145-RJB. December 9, 2021.
Fifth Supplemental Responses and Objections to Plaintiffs' Second Discovery Requests to Defendant Blue Cross and Blue Shield of Illinois. *Pritchard et. al v. Blue Cross Blue Shield of Illinois* . Case No. 3:20-cv-06145-RJB. July 29, 2022.
Plaintiff C.P.'s Motion for Class Certification. *Pritchard et. al v. Blue Cross Blue Shield of Illinois* . Case No. 3:20-cv-06145-RJB. August 25, 2022.

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Expert Report of Dr. Frank Fox with Addendum, September 29, 2022.
Deposition of Dr. Frank Fox, September 12, 2022.

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CommonSpirit, Contact Us, https://www.commonspirit.org/contact-us
Jody L. Herman et. al, "Age of Individuals Who Identify as Transgender in the United States," The Williams Institute, UCLA School of Law, January 2017.
Jody L. Herman et. al, "How Many Adults and Youth Identify as Transgender in the United States?" The Williams Institute, UCLA School of Law, June 2022.
Kaiser Family Foundation, “Demographics, Insurance Coverage, and Access to Care Among Transgender Adults,” October 21, 2020, https://www.kff.org/health-reform/issue-brief/demographics-insurance-coverage-and-access-to-care-among-transgender-adults/
McKinsey & Company, “Being transgender at work,” *McKinsey Quarterly* , November 10, 2021, https://www.mckinsey.com/featured-insights/diversity-and-inclusion/being-transgender-at-work
Virginia P Quinn et al., “Cohort profile: Study of Transition, Outcomes and Gender (STRONG) to assess health status of transgender people,” *BMJ Open* , 2017;7:e018121. doi:10.1136/bmjopen-2017-018121

Data
BCBSIL20594.xlsx
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EXHIBIT D

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EXHIBIT E

UNITED STATES DISTRICT COURT

WESTERN DISTRICT OF F WASHINGTON

AT TACOMA

C.P., by and through his parents,)
Patricia Pritchard and Nolle)
Pritchard and PATRICIA PRITCHARD,)
Plaintiffs,)
vs.) No. 3:20-cv-06145-RJB
BLUE CROSS BLUE SHIELD OF)
ILLINOIS,)
Defendant.)

ZOOM VIDEO DEPOSITION UPON ORAL EXAMINATION

OF

MICHAEL LAIDLAW

9:00 a.m.

September 2, 2022

REPORTED BY: Pat Lessard, CCR #2104

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A. At Los Angeles County University of Southern California Residency Program.
Q. And was that in internal medicine?
A. Correct.
Q. And did you do a fellowship thereafter?
A. Yes, I did.
Q. And was that at the same school of medicine?
A. Correct.
Q. And what was the fellowship?
A. Endocrinology, diabetes and metabolism.
Q. Are you currently employed?
A. Yes.
Q. Who is your employer?
A. I'm self-employed.
Q. Is that a private practice?
A. Correct.
Q. Following completion of your fellowship have you held any employment beyond your private practice?
A. No.
Q. What's the name of your private practice?
A. Michael K. Laidlaw, M.D., Incorporated.
Q. Do you have any professional affiliation?
A. Yes. I'm a member of the Endocrine Society.
Q. Any others?
A. Not currently.

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Q. Do you know what primary research is?
MS. PAYTON: Object to the form.
A. Are you referring just in general? Could you be more specific?
Q. (By Mr. Gonzalez-Pagan) Sure. There are different types of scientific research, is that right?
A. Different types of scientific research? As a general statement, yes.
Q. Okay. So would you disagree with me that primary research is usually based on raw data of which a collection and observation is done by the researcher?
MS. PAYTON: Object to the form of the question.
A. Well, I would say that -- I'm trying to think -- well, perhaps you could clarify. Primary research as opposed to secondary research or are you talking about meta analysis or literature?
Q. (By Mr. Gonzalez-Pagan) I'm just trying for us to get --
MS. PAYTON: Let him finish his answer, please, before you talk.
A. Well, I mean, you know, I may not use the same terminology as you do.
But, for example, there could be a study

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where a researcher, say a medical doctor, is a researcher, there are patients that collect data, say temperature and blood tests, and then draw up a journal article and have it published with all of their observations and those sorts of thing.
If we could call that primary research, as opposed to, say, a meta-analysis where there are a number of different studies that have already been done -- if you want to call those primary research -- and then someone comes up with a conclusion based on those other studies.
Q. (By Mr. Gonzalez-Pagan) Thank you. That's very helpful.
So what I'm trying to do is for us to have an understanding of what we're talking about so that --
A. Sure.
Q. -- so we can have some questioning about it.
A. Yes.
Q. So I'm trying to establish a distinction between original research, okay, where there's collection of data, right --
A. Yes.
Q. -- and the observations being done by the researcher, versus secondary research which is based

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on existing publications and preexisting data.
I think that's the distinction that you were drawing in your answer as well, is that correct?
A. Yes.
Q. So would you be comfortable with that understanding, that shared understanding of -- do you know what I mean by primary research?
A. Yes, I understand your meaning.
Q. Have you performed any primary research?
A. Yes.
Q. On what? On what matters?
A. There were two studies. One was a magnesium study that had to -- we're looking for an association of low magnesium leading to osteoporosis.
And the other study was regarding thyroid cancer where we were looking at thyroid globulin tumor markers and how they correlated with ultrasound findings of the neck.
Q. And when did you perform this research?
A. This was during my -- it may have begun during my -- I think it began during my residency and then I continued into fellowship.
Q. Have you performed any primary research regarding gender dysphoria?
A. No.

EXHIBIT F

UNITED STATES DISTRICT COURT

WESTERN DISTRICT OF F WASHINGTON

AT TACOMA

C.P., by and through his parents,)
Patricia Pritchard and Nolle)
Pritchard and PATRICIA PRITCHARD,)
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MICHAEL LAIDLAW

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September 2, 2022

REPORTED BY: Pat Lessard, CCR #2104

Page 146

particular position in that statement.
Q. Do you believe that adults, so people above the age of majority, should not be able to have access to gender affirming medical treatment such as hormones or surgery?
A. Would you repeat that, please.
Q. Sure. Do you believe that adults, people above the age of majority, should not be able to access medical treatment in the form of hormones or surgery as treatment for gender dysphoria?
MS. PAYTON: Object to the form.
A. I don't believe adults should be obstructed or blocked from receiving, you know, gender affirmative hormones or surgeries provided -- provided, again, they have capacity to consent. They have co-morbid psychiatric, you know, conditions examined and so forth.
Q. (By Mr. Gonzalez-Pagan) Are you aware that the exclusion at issue in this case applies regardless of age?
A. Yes, that's my understanding.
Q. Do you think it is appropriate for coverage to be denied for people -- do you think it is appropriate for coverage for medical treatment of gender dysphoria to be denied for people above the age

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of majority?
MS. PAYTON: Object to the form of the question.
A. I would say with adults, as I just said earlier, I have not actively sought to, you know, prevent adults from getting hormones and surgeries for gender dysphoria.
However, people can make a case, a medical case for adults as well that there could be a harm from this treatment. But I'm not opining on that specifically.
Q. (By Mr. Gonzalez-Pagan) So you're not providing an opinion one way or the other with regards to adults?
A. With regard to adults I'm not making a policy decision for adults.
Q. No. I understand that.
I guess -- let me just clarify because I just want to be clear on the transcript. I think you may have used the term "policy decision," and I'm not asking you to do that.
I'm just asking about whether you're providing an opinion about whether that care should be provided or not with regards to adults?
A. I'm not providing an opinion on that.

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Q. In your report you discuss and somewhat criticize the provision of puberty blockers as treatment for gender dysphoria, is that correct?
A. I describe complications as a result of puberty blockers for gender dysphoria.
Q. And by puberty blockers we're talking about generation analogs, is that right?
A. For the most part, yes.
Q. Puberty blockers are routinely prescribed for the treatment of precocious puberty, is that correct?
A. Yes.
Q. Do you consider the use of puberty blockers as treatment for precocious puberty to be experimental?
A. No.
Q. Have you yourself prescribed puberty blockers for the treatment of central precocious puberty?
A. No.
Q. I'm going to show you what's been marked as Exhibit 11.
(Marked Deposition Exhibit No. 11.)
Q. (By Mr. Gonzalez-Pagan) Can you see this on the screen?

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A. Yes.
Q. This is an article titled "Treatment of Central Precocious Puberty," and it is authored by Erica A. Eugster and it appears in the Journal of the Endocrine Society, is that right?
A. Yes.
Q. And it was first published in 2019, is that right?
A. Yes.
Q. And the first -- let me ask you this, actually.
Do you recognize the Journal of the Endocrine Society?
A. Yes.
Q. And this is a peer-reviewed publication, is that right?
A. The publication is peer-reviewed, yes.
Q. And the first sentence of the abstract of this article states "Long-acting analogs of GnRH, (GnRHas) have been the gold standard treatment of central precocious puberty (CPP) worldwide and have an enviable track record of safety and efficacy."
Did I read that correctly?
A. Yes.
Q. Do you agree with that statement?

EXHIBIT G

UNITED STATES DISTRICT COURT

WESTERN DISTRICT OF F WASHINGTON

AT TACOMA

C.P., by and through his parents, Patricia Pritchard and Nolle Pritchard and PATRICIA PRITCHARD,

Plaintiffs,

vs. No. 3:20-cv-06145-RJB

BLUE CROSS BLUE SHIELD OF ILLINOIS,

Defendant.

ZOOM VIDEO DEPOSITION UPON ORAL EXAMINATION

OF

MICHAEL LAIDLAW

9:00 a.m.

September 2, 2022

REPORTED BY: Pat Lessard, CCR #2104

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identification.
It sounds like they're speculating about what might have happened.
Q. Do you know where the recruitment occurred in Lisa Littman's article?
A. I know it was an online recruitment.
But having a question about medical care doesn't, you know, invalidate their opinion. But it could be a skewed sample, I would say that that is correct.
Q. Okay. Turn to paragraph 65 of your report.
A. Yes.
Q. In that paragraph you refer to various approaches for modalities of treatment for gender dysphoria, is that right?
A. Yes.
Q. One of these is -- one is psychosocial treatment that helps the young person align their internal sense of gender with their physical sex, is that right?
A. Yes.
Q. And the other one would be to watch and wait and allow time and maturity to help the young person align sex and gender through natural desistance.
A. Yes.

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Q. And the third option is referred to as gender affirming, affirmative therapy, or GAT, and is the approach recommended by WPATH, is that right?
A. Yes.
Q. Okay. Is the first approach using psychosocial treatment to help the young person align their internal sense of gender with their physical sex, is that which you would refer -- to which other people would refer as reparative therapy?
A. I don't know.
Q. And you cite to Zucker. Is that Ken Zucker?
A. Ken Zucker, that's correct.
Q. Do you know what model Dr. Ken Zucker uses as a form of treatment for gender dysphoria?
A. I don't know if he's actively treating children for gender dysphoria currently.
Q. Do you know what model of treatment he used previously?
A. I know that it included -- I would say the first two, although I'm not an expert on Ken Zucker's approach. But I know that he believed that desistance was possible.
That, like the DSM states, that many of these children would grow up to be, say, gay or Lesbian, and that, therefore, medical treatments to

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change their bodies would not be something that should be approached in early childhood.
Q. Just to clarify children, you're referring to those studies in the 80s and 90s prior to the diagnosis of gender dysphoria being in existence, is that right?
A. Can you repeat that?
Q. When you say these children are you referring to those that were studied in the 80s and 90s up to the age of twelve prior to the existence of the diagnosis of gender dysphoria?
A. These are children who came to their clinic with what we would call now gender incongruence.
Q. But you don't know if they were children that showed up or would have met the criteria for gender dysphoria?
A. There would be no way to know that.
Q. I'm going to show you what's been marked as Exhibit 8.
(Marked Deposition Exhibit No. 8.)
Q. (By Mr. Gonzalez-Pagan) Can you see the screen?
A. Yes.
Q. This is an article "Gender nonconforming youth: current perspectives."

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It is authored by Diane Ehrensaft, published in 2017 in the Journal Adolescent Health, Medicine and Therapeutics, is that right?
A. Yes.
Q. Are you aware of who Dr. Ehrensaft is?
A. Yes.
Q. She's a psychologist, is that right?
A. I believe so.
Q. Are you familiar with the Journal of Adolescent Health, Medicine and Therapeutics?
A. I have probably seen it. I don't read it on a regular basis.
Q. Is that a peer-reviewed journal?
A. Presumably.
Q. I'm going to turn to page 61 of the exhibit.
This article is discussing here the "live in your own skin" model.
Do you see that?
A. Yes.
Q. Okay. "As mentioned earlier, this model was developed by Drs. Susan Bradley and Ken Zucker at the Center for Alcoholism and Mental Health gender clinic in Toronto. The treatment goal of facilitating a young child accepting the gender identity matching the sex assigned to that child at birth is based on the

EXHIBIT H

UNITED STATES DISTRICT COURT

WESTERN DISTRICT OF F WASHINGTON

AT TACOMA

C.P., by and through his parents, Patricia Pritchard and Nolle Pritchard and PATRICIA PRITCHARD,

Plaintiffs,

vs.

BLUE CROSS BLUE SHIELD OF ILLINOIS,

Defendant.

No. 3:20-cv-06145-RJB

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OF

MICHAEL LAIDLAW

9:00 a.m.

September 2, 2022

REPORTED BY: Pat Lessard, CCR #2104

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waited to age twelve to start puberty blockers, if that's what you're referencing.
Q. Okay. So under this model, the Dutch watchful waiting model, they would wait until age twelve and if-cross-gender identification persisted at that period of time they would initiate medical care, is that right?
A. No.
Q. No?
A. No, that's not right.
Q. Why?
A. Because it depends on other factors, psychological condition of the child, home situation. There are a lot of other factors involved before they went on to prescribe puberty blockers.
Q. I'm going to read some more description of the model by Dr. Ehrensaft. If a child's cross-gender identification and affirmation are persistent over time, interventions are made available for a child to consolidate a transgender identity, once it is assessed through therapeutic intervention and psychometric assessment as in the best interests of the child. These interventions include social transition, the shift from one gender to another, including possible name change, gender marker change,

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gender pronoun changes, puberty, blockers and later hormones and possible gender affirming surgeries.
Is that right, did I read that correctly?
A. You read it correctly.
Q. Okay. Is that consistent with your understanding of the watchful waiting model?
A. I'm rereading this. I would say these interventions "may" include these things.
So I think the sentence needs to be clarified. It's not 100 percent.
Q. Let me ask you this. You say that the watch and wait model allows time and maturity to help the young person align sex and gender from natural desistance.
At what point in time in the watch and wait model that you described is medical intervention appropriate?
A. Well, I mean, just to be clear, I'm not -- I'm not using the watch and wait as a term that's synonymous with the Dutch approach. I'm using it as a general medical term for any sort of condition where you watch with observation and support, not simply leaving a person in the lurch, so to speak. Yeah.
Q. I get -- I'm not trying to cut you off.
A. Okay.

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Q. I get that. My question is under your description of a watch and wait model at which point in time is medical intervention appropriate?
A. I would say it could be considered once they reach -- a person reaches the age of majority.
Q. So no person before the age of majority under that model would be ever able to obtain medical care for gender dysphoria?
MS. PAYTON: Object to the form.
A. These people could obtain medical care, but if you're talking about puberty blockers, cross-sex hormones, surgeries, there's not good evidence and there are certainly risks of harm so that they should not -- they would not be able to do that, to consent to the types of harm, the sterilization, you know, inability to breastfeed, until they reach the age of majority.
Q. (By Mr. Gonzalez-Pagan) Okay. So just to clarify, under the watch and wait model as you've described it --
A. Yes.
Q. -- no person under the age of majority would be prescribed puberty blockers, hormones or surgery as treatment for gender dysphoria?
A. Correct.

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Q. To what scientific literature do you cite in support of this model?
A. Pretty much my whole declaration is in support of this model.
Q. Yes. What I'm asking is any peer-reviewed article, clinical guideline, anything in scientific literature that recommends and describes this model.
A. This would be an opinion of myself based on my clinical experience and research on the topic.
Q. And your clinical experience is limited to -- in the treatment of gender dysphoria is limited to one person for whom you prescribed estrogen and one person which you've been seeing since May for detransition, is that right?
A. Well, the issue -- I mean there's -- the reason I opine on this topic is because as an adult endocrinologist patients can, and one already has, come to me who's been through these medical interventions.
So I have to A, be aware of them, B, be aware of any type of side effects or complications, endocrine complications, anatomical complications that result from that.
So I have to make that assessment. In other words, if someone comes to me who is, say, age 20, on

EXHIBIT I

From: Bedard, Stephanie
To: Daniel Gross; Stacy Hoffman; Payton, Gwendolyn; Neeleman, John; Rountree, Ian
Cc: Omar Gonzalez-Pagan; Jenny Pizer; Matt Terry; Theresa Redfern; Ele Hamburger
Subject: RE: [External] C.P. et al. v. BCBSIL - Notices of Depositions and Subpoenas to Dr. Burns and Dr. Laidlaw
Date: Tuesday, August 23, 2022 11:59:11 AM

Daniel,

Dr. Burns was provided a copy of BCBSIL's fifth supplemental interrogatory responses to Plaintiffs' second set of discovery requests.

Dr. Burns was provided with the following documents: BCBSIL_CP_0020804; BCBSIL_CP_0020989; BCBSIL_CP_0021061; BCBSIL_CP_0021187; BCBSIL_CP_0021251; BCBSIL_CP_0021270; BCBSIL_CP_0021328; BCBSIL_CP_0021400; BCBSIL_CP_0021643; BCBSIL_CP_0022107; BCBSIL_CP_0022118; BCBSIL_CP_0018074; BCBSIL_CP_0018083; BCBSIL_CP_0018208; BCBSIL_CP_0018772; BCBSIL_CP_0018815; BCBSIL_CP_0018910; BCBSIL_CP_0020053; BCBSIL_CP_0020204; BCBSIL_CP_0020351; BCBSIL_CP_0020484.

Thanks,
Stephanie

Stephanie Bedard
Kilpatrick Townsend & Stockton LLP
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From: Daniel Gross <Daniel@sylaw.com>
Sent: Thursday, August 18, 2022 4:58 PM
To: Bedard, Stephanie <Sbedard@kilpatricktownsend.com>; Stacy Hoffman <stacy@sylaw.com>; Payton, Gwendolyn <GPayton@kilpatricktownsend.com>; Neeleman, John <JNeeleman@kilpatricktownsend.com>; Rountree, Ian <IRountree@kilpatricktownsend.com>
Cc: Omar Gonzalez-Pagan <ogonzalez-pagan@lambdalegal.org>; Jenny Pizer <jpizer@lambdalegal.org>; Matt Terry <matt@sylaw.com>; Theresa Redfern <theresa@sylaw.com>; Ele Hamburger <ele@sylaw.com>
Subject: RE: [External] C.P. et al. v. BCBSIL - Notices of Depositions and Subpoenas to Dr. Burns and Dr. Laidlaw

Hello Stephanie –

Thanks for the clarifying information. I have two followup questions/requests:

1. I would appreciate if you would confirm whether Dr. Burns was provided all of BCBSIL's interrogatory responses. If not (e.g., if BCBSIL provided interrogatory responses to Dr. Burns and then supplemented their responses to Plaintiffs without sending the supplementary

responses to Dr. Burns), please send me copies of the Interrogatories and responses that he was furnished; and,
2. Please identify by Bates number the BPAs and SPDs that Dr. Burns was provided.

If you have any concerns or questions about these requests, please let me know as soon as you can.

Many thanks,

Daniel

Daniel S. Gross
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From: Bedard, Stephanie <Sbedard@kilpatricktownsend.com>
Sent: Thursday, August 18, 2022 1:11 PM
To: Daniel Gross <Daniel@sylaw.com>; Stacy Hoffman <stacy@sylaw.com>; Payton, Gwendolyn <GPayton@kilpatricktownsend.com>; Neeleman, John <JNeeleman@kilpatricktownsend.com>; Rountree, Ian <IRountree@kilpatricktownsend.com>
Cc: Omar Gonzalez-Pagan <ogonzalez-pagan@lambdalegal.org>; Jenny Pizer <jpizer@lambdalegal.org>; Matt Terry <matt@sylaw.com>; Theresa Redfern <theresa@sylaw.com>; Ele Hamburger <ele@sylaw.com>
Subject: RE: [External] C.P. et al. v. BCBSIL - Notices of Depositions and Subpoenas to Dr. Burns and Dr. Laidlaw

Hi Daniel,

To clarify, Dr. Burns was not provided with any deposition transcripts. He was provided with a copy of the amended complaint; BCBSIL's interrogatory responses; and a sampling of BPAs and SPDs.

Thanks,
Stephanie

Stephanie Bedard
Kilpatrick Townsend & Stockton LLP
Suite 2800 | 1100 Peachtree Street NE | Atlanta, GA 30309-4528
office 404 815 6039 | fax 404 541 3153
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From: Daniel Gross <Daniel@sylaw.com>
Sent: Wednesday, August 17, 2022 4:41 PM
To: Stacy Hoffman <stacy@sylaw.com>; Payton, Gwendolyn <GPayton@kilpatricktownsend.com>; Neeleman, John <JNeeleman@kilpatricktownsend.com>; Bedard, Stephanie <Sbedard@kilpatricktownsend.com>; Rountree, Ian <IRountree@kilpatricktownsend.com>
Cc: Omar Gonzalez-Pagan <ogonzalez-pagan@lambdalegal.org>; Jenny Pizer <jpizer@lambdalegal.org>; Matt Terry <matt@sylaw.com>; Theresa Redfern <theresa@sylaw.com>; Ele Hamburger <ele@sylaw.com>
Subject: RE: C.P. et al. v. BCBSIL - Notices of Depositions and Subpoenas to Dr. Burns and Dr. Laidlaw

Hello Gwendolyn and Stephanie:

I am following up on Ele's email below regarding if there are additional materials you intend to produce for the deposition of Dr. Burns. In particular, it appears that Dr. Burns reviewed and relied on depositions and some other documents from this case, but I was not able to find any such materials in what I believe is the Burns production - (BCBSIL_CP 0019214-20052). I would appreciate if you would either confirm that there were no "depositions and documents produced in this litigation" from which Dr. Burns gleaned evidence on which he relied in his report, provide us with copies (if they have not yet been produced), or point out where in discovery they are already found.

If you have any questions about this, please let me know.

Many thanks,

Daniel

Daniel S. Gross
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daniel@sylaw.com
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preferred pronouns – he/him/his

From: Ele Hamburger <ele@sylaw.com>
Sent: Thursday, July 28, 2022 2:19 PM
To: Stacy Hoffman <stacy@sylaw.com>; Gwendolyn C. Payton - Kilpatrick Townsend & Stockton

<gpayton@kilpatricktownsend.com>; John R. Neeleman - Kilpatrick Townsend & Stockton LLP <jneeleman@kilpatricktownsend.com>; Stephanie N. Bedard <sbedard@kilpatricktownsend.com>; irountree@kilpatricktownsend.com
Cc: Omar Gonzalez-Pagan <ogonzalez-pagan@lambdalegal.org>; Jenny Pizer <jpizer@lambdalegal.org>; Daniel Gross <Daniel@sylaw.com>; Matt Terry <matt@sylaw.com>; Theresa Redfern <theresa@sylaw.com>
Subject: RE: C.P. et al. v. BCBSIL - Notices of Depositions and Subpoenas to Dr. Burns and Dr. Laidlaw

Gwendolyn and Stephanie,

I think I located Dr. Burns' production (BCBSIL_CP 0019214-20052) but I did not see any documents that reflect the "evidence gleaned from depositions and documents produced in this litigation" that Dr. Burns considered, and as referenced in paragraph 14(d), p. 6 of his report.

If you have produced copies of the depositions and documents that were provided to Dr. Burns, can you identify the bates stamp of those documents? If they have not been produced, can you provide it? A list of the depositions and documents produced in this litigation that were given to Dr. Burns would be sufficient. If this statement in the Burns Report is inaccurate, and Dr. Burns did not review any of the depositions or documents exchanged in discovery in this litigation, please let us know.

Thank you,

Ele

From: Ele Hamburger
Sent: Thursday, July 28, 2022 1:55 PM
To: Stacy Hoffman <stacy@sylaw.com>; Gwendolyn C. Payton - Kilpatrick Townsend & Stockton <gpayton@kilpatricktownsend.com>; John R. Neeleman - Kilpatrick Townsend & Stockton LLP <jneeleman@kilpatricktownsend.com>; Stephanie N. Bedard <sbedard@kilpatricktownsend.com>; irountree@kilpatricktownsend.com
Cc: Omar Gonzalez-Pagan <ogonzalez-pagan@lambdalegal.org>; Jenny Pizer <jpizer@lambdalegal.org>; Daniel Gross <Daniel@sylaw.com>; Matt Terry <matt@sylaw.com>; Theresa Redfern <theresa@sylaw.com>
Subject: RE: C.P. et al. v. BCBSIL - Notices of Depositions and Subpoenas to Dr. Burns and Dr. Laidlaw

Counsel,

Did you produce the documents requested in the Burns SDT which were due by July 26? If so, can you identify where it is? If not, can you let us know when it will be produced, since the deposition is coming up?

Thank you,

Ele

From: Stacy Hoffman <stacy@sylaw.com>
Sent: Thursday, July 14, 2022 4:14 PM
To: Gwendolyn C. Payton - Kilpatrick Townsend & Stockton <gpayton@kilpatricktownsend.com>; John R. Neeleman - Kilpatrick Townsend & Stockton LLP <jneeleman@kilpatricktownsend.com>; Stephanie N. Bedard <sbedard@kilpatricktownsend.com>; irountree@kilpatricktownsend.com
Cc: Omar Gonzalez-Pagan <ogonzalez-pagan@lambdalegal.org>; Jenny Pizer <jpizer@lambdalegal.org>; Daniel Gross <Daniel@sylaw.com>; Ele Hamburger <ele@sylaw.com>; Matt Terry <matt@sylaw.com>; Theresa Redfern <theresa@sylaw.com>
Subject: C.P. et al. v. BCBSIL - Notices of Depositions and Subpoenas to Dr. Burns and Dr. Laidlaw

Dear Counsel:

Attached please find:

1. Notice of Deposition and Subpoena to Lawton Burns, Ph.D., M.B.A.; and
2. Notice of Deposition and Subpoena to Michael K. Laidlaw, M.D.

Regards,

Stacy Hoffman
Legal Secretary
SIRIANNI YOUTZ SPOONEMORE HAMBURGER PLLC
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Main: (206) 223-0303 | Fax: (206) 223-0246
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