

No. 23-477

IN THE
Supreme Court of the United States

UNITED STATES,
Petitioner,
v.

JONATHAN SKRMETTI, ATTORNEY GENERAL AND
REPORTER FOR TENNESSEE, ET AL.,
Respondents.

*On Writ of Certiorari to the United States Court of
Appeals for the Sixth Circuit*

**BRIEF OF AMICUS CURIAE SOCIETY FOR
EVIDENCE-BASED GENDER MEDICINE
(SEGM) IN SUPPORT OF NO PARTY BUT
SUGGESTING AFFIRMANCE**

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**IDENTITY AND INTEREST
OF AMICUS BRIEF**

Pursuant to Supreme Court Rule 37, the Society for Evidence-Based Gender Medicine (SEGM) respectfully submits this brief amicus curiae in support of neither party.¹

The Society for Evidence-Based Gender Medicine (“SEGM”) is a non-profit professional association promoting safe, compassionate, ethical, evidence-based healthcare for children, adolescents, and young adults with gender dysphoria. Over 100 clinicians and researchers from multiple specialties, hailing from 10 countries, supply SEGM’s expertise. There is broad scientific consensus that hormonal and surgical interventions for gender dysphoria, known as “gender-affirming care,” are supported by only low-quality evidence. This consensus gives rise to SEGM’s concern about providing poorly evidenced interventions, many of which are risky and irreversible, to gender-dysphoric youth whose identities and prefrontal cerebral cortices are still evolving, and who often struggle with other significant co-occurring mental health challenges. As Amicus, SEGM hopes to serve the Court by highlighting, curating, and contextualizing the relevant evidence in an objective manner.

¹ No counsel for a party or a party authored this brief in whole or in part and no counsel for a party or a party made a monetary contribution to fund the preparation or submission of this brief. No person other than SEGM has made a monetary contribution to fund the preparation or submission of this brief.

SUMMARY OF ARGUMENT

The practice of youth gender medicine has no parallels in modern medicine. Every aspect of the practice—from the diagnosis, which is unable to differentiate those who may be helped by treatment from those who will be harmed, to the highly invasive interventions themselves, which cause certain harms, such as sterility, while producing only uncertain benefits—challenges the conventions of evidence-based medicine.

Youth gender medicine is also exceptional for the intense divisiveness surrounding the issue, rarely seen with other clinical uncertainties. In 2020, when systematic evidence reviews began to send a strong signal that the harm-benefit ratio of gender transitions is unfavorable for most youth, the prior medical consensus regarding treatments of youth gender dysphoria collapsed. Several European health authorities sharply restricted the practice of medical gender transition for minors. At the same time, in the U.S., the medical establishment chose to ignore this new scientific evidence, and some organizations even began to vocally promote the practice using social-justice arguments.

SEGM's brief is neither in support of, nor in opposition to, Tennessee Senate Bill 1 (SB1). Our aim is to help the Court by summarizing the key dilemmas facing this understudied area of medicine, given the failure of the medical establishment to self-regulate in this area of medicine, which in turn, has created a safeguarding threat to tens of thousands of youths seeking help. We hope our analysis will aid the Court in making a better-informed, just decision.

ARGUMENT

I.

GENDER TRANSITION OF CHILDREN WAS INITIATED BECAUSE OF THE DISAPPOINTING OUTCOMES IN TRANSITIONED ADULTS

The decision to offer gender transition to minors was a direct result of the clinical experience of transitioning mature adults. It is common in medicine to extend medical treatments to children once they have been proven safe and effective in adults. However, in this case, the opposite occurred. The very rationale for transitioning children is due to the observations that gender transition in adults *failed* to yield the intended positive outcomes.

The current clinical debates surrounding gender transition do not concern mature adults; rather, these debates focus on young people, and the biggest controversies surround treatments for those under 18. However, the origins of transitioning adolescents, including the understanding of the etiology of the condition, and the rationale for treatment, came from the practice of transitioning adults. For this reason, understanding the history and evolution of the practice of adult gender transition, and how and why disappointing outcomes among adult patients gave rise to the practice of youth transitions, provides important context.

A. Christine Jorgensen and the rise of the “transsexual phenomenon” in the 1950’s.

Extremely gender-nonconforming individuals, including those who desire and/or seek to live their lives as members of the opposite sex, at various points in their lives, have likely existed since the dawn of humanity. Several such historical cases are well-documented, including a famous example of a French diplomat and spy Chevalière d'Éon (1728-1810), who infiltrated the court of the Russian empress Elizabeth dressed as a woman, and who lived as a woman full-time after retirement. When the medical community first began to discuss the phenomenon in the 1950s in medical literature, it was dubbed “eonism”, after d'Éon himself.² For the first half of the 20th century, the phenomenon was believed to be exceedingly rare in the Western world. Harry Benjamin, who is widely regarded as the father of transgender medicine, had only met a half-dozen such individuals over nearly five decades of work in the field of sexology.³ This all changed in 1952, when the world learned the story of the sex reassignment of George/Christine Jorgensen. For clarity, this brief will refer to Jorgensen as “he” before transition, and as “she” after transition.

² Christian Hamburger, Georg K. Copenhagen, Herstedvester Sturup Herstedvester, and Dahl-Iversen, “*Transvestism: Hormonal, Psychiatric, And Surgical Treatment.*” *Journal of the American Medical Association* 152, no. 5 (May 30, 1953) at 391.

³ Leah Cahan Schaefer, and Connie Christine Wheeler, “Harry Benjamin’s First Ten Cases (1938-1953): A Clinical Historical Note.” *Archives of Sexual Behavior* 24, no. 1 (February 1995) at 73–93.

Jorgensen's story of gender reassignment in 1952 changed the course of history. Following the worldwide publicity storm that surrounded the news of Jorgensen's gender transition, many more individuals began to approach their physicians with requests to undergo gender transition. The condition's label of "eonism" gave way to the new name, "transsexualism," with Harry Benjamin writing a seminal book in 1966 called "The Transsexual Phenomenon."⁴ As of 1979, there were an estimated 3,000 to 6,000 Americans who underwent hormonal and surgical sex reassignment, with an estimated 10 times as many individuals wishing to do so.⁵ The term "transsexualism" is no longer widely used today, and some consider it derogatory; it has been replaced with the term "transgender." Unlike the term "transsexual," which was reserved for individuals who wanted to undergo medical transition, the term "transgender" is a social term with a more loosely defined meaning. The number of US individuals aged 13 or older who consider themselves transgender is currently estimated at 1.6 million.⁶

While Jorgensen was not the first person to undergo some form of hormonal and surgical transition, the case became most famous—and not because of

⁴ Benjamin H, *The Transsexual Phenomenon*, Julian Press (1966).

⁵ The Harry Benjamin International Gender Dysphoria Association, Standards of Care Version 2, (1980).

⁶ Jody Herman, Andrew Flores, Kathryn O'Neill, [How Many Adults and Youth Identify as Transgender in the United States?](https://williamsinstitute.law.ucla.edu/publications/trans-adults-united-states/), UCLA School of Law, Williams Institute, <https://williamsinstitute.law.ucla.edu/publications/trans-adults-united-states/>.

Jorgensen's treating physician's diligent documentation and publication of the case in JAMA.⁷ The case became famous because a New York tabloid got a hold of Jorgensen's "coming out" letter to her parents, which Jorgensen wrote while still recovering from surgery in Denmark. The letter read, "my dears, nature made a mistake which I have had corrected and now I am your daughter." The Daily News published the entire letter and the "before-and-after" pictures with the headlines, "Ex-GI Becomes Blonde Beauty."⁸

Jorgensen became the symbol of a "true transsexual"—someone with an inborn mismatch between their sexed body and their gender identity, and who has known they were born in the "wrong body" their entire life. Jorgensen's biography, however, tells a more complex story.

As a child, George preferred acting in school plays to rough and tumble play with other boys; he admired flowers and needlework, and carried his "books up in [his] arms," "like a girl."⁹ Growing up, George was bullied by those around him for his "sissified ways."¹⁰ As George approached young adulthood, it became apparent that he did not "measure up to the acceptable standards of a budding young male."¹¹ George's "slightly affectionate" and "sentimental" demeanor

⁷ See *supra* note 2.

⁸ Ben White, Ex-GI Becomes Blonde Beauty, The Daily News, <https://www.newspapers.com/article/daily-news-ex-gi-becomes-blonde-beauty/25375703/>.

⁹ Christine Jorgenson, Christine Jorgensen: A Personal Autobiography, (2000).

¹⁰ *Id.* at 16.

¹¹ *Id.* at 14.

and “feminine voice production and movements” led to him “frequently taken for a homosexual.”¹² Strangers’ derogatory remarks about his presumed homosexuality became a source of ongoing embarrassment for Jorgensen, who did not believe he was a homosexual, although later in life Jorgensen confessed to having had romantic feelings for a childhood male friend.

As George watched his friends secure jobs and marry, he kept seeking an answer about what was wrong with him—and importantly, how to fix it. A psychiatrist offered George thirty expensive sessions in an attempt to rid him of his femininity, but George worried that even if his inclinations could be changed, his feminine appearance would plague him. An intellectually gifted and determined young man, George dedicated himself to researching his options, and eventually discovered that he could undergo a “sex change” procedure in Europe.

Many of the same characteristics that made George Jorgensen’s life as a young man in the US during late 1940s and early 1950s feel hopeless, later aided Christine Jorgensen in being exceptionally successful after gender transition. With further help from estrogen, Jorgensen’s femininity went from a source of social ridicule to one of societal admiration. The dark cloud over Jorgensen’s presumed sexuality was lifted. The unexpected but welcome “celebrity” status provided Jorgensen with a new and lucrative entertainment career, effectively resolving George’s perennial employment struggles.

¹² *Supra* note 2.

Not all Jorgensen's problems were solved, however. After sex reassignment, Jorgensen did not succeed in forming a family of her own, and struggled with excessive drinking and smoking, dying from cancer at age 62. During her life, Jorgensen admitted there were periods where she questioned the wisdom of undergoing gender transition. However, Jorgensen's story provided a convincing example to many others that living as a gender-transitioned individual is a feasible option in life. In the years that ensued, hundreds and then thousands of adults decided to follow Jorgensen's footsteps, many referencing Jorgensen's story and identifying with her struggles and her eventual success. Jorgensen herself saw little similarity between her own story, and the stories shared by others' in the hundreds of letters she would receive for the rest of her life.¹³

B. The search for the objective cause of the condition failed to yield results.

Initially, physicians who developed a specialization in the practice of gender transitions believed that a biological explanation for the condition would soon be found, either in laboratory tests of patients' blood and urine or in their DNA. After Jorgensen's physician failed to find any laboratory abnormalities, he hypothesized that patients like Jorgensen may have a chromosomal abnormality, which would show in "future investigations into the genetics and chromosome distribution" of the affected individuals.¹⁴ In the years

¹³ *Supra* note 10.

¹⁴ *Supra* note 2 at 392.

that ensued, DNA analyses and studies of twins¹⁵ failed to provide an adequate or consistent explanation for the etiology of gender dysphoria. As medical technology became more sophisticated, physicians turned to studying the brain. Some studies found brain differences between transgender-identified individuals and others, suggesting a possible organic cause for the transgender identity, but the sample sizes were small (as few as six cases)¹⁶ and methodologies were typically not robust. One of the most frequent limitations of brain studies is failure to control for sexual orientation and exposure to cross-sex hormones; studies that control for those two factors are no longer able to differentiate between the brains of transgender-identified individuals and non-transgender-identified individuals.¹⁷ The Endocrine Society’s Scientific Statement from 2021 summarizes the current state of knowledge in this way:

“Gender identity is a psychological concept that refers to an individual’s self-perception; while associations between

¹⁵ Milton Diamond, *Transsexuality Among Twins: Identity Concordance, Transition, Rearing, and Orientation*, *International Journal of Transgenderism* 14, no. 1 (January 2013) at 24–38.

¹⁶ JN Zhou, MA Hofman, LJ Gooren, DF Swaab, *A Sex Difference in the Human Brain and Its Relation to Transsexuality*, *Nature* 378, no. 6552 (November 2, 1995) at 68–70.

¹⁷ Sarah M. Burke, Amir H. Manzouri, Ivanka Savic, *Structural Connections in the Brain in Relation to Gender Identity and Sexual Orientation*, *Scientific Reports* 7, no. 1 (December 2017) at 17954; Antonio Guillamon, Carme Junque, and Esther Gomez-Gil, *A Review of the Status of Brain Structure Research in Transsexualism*, *Archives of Sexual Behavior* 45, no. 7 (October 2016) at 1615–48.

gender identity, neuroanatomic, genetic, and hormone levels exist, a clear causative biological underpinning of gender identity remains to be demonstrated.”¹⁸

C. The decision to medically transition minors was a direct result of Dutch research showing disappointing objective outcomes of transitioned adults

The Netherlands is the birthplace of the practice of youth gender transition. While it was not the first country to start providing transition services to adults, it was first to be institutionalize adult treatment in a premier academic hospital, which gave the practice gravitas.¹⁹ The Netherlands was also the first to reimburse for transition-related services through its national health insurance system, starting in the 1970 and 1980s.²⁰ This put the Netherlands in a unique position to conduct the first large-scale follow-up research on transition outcomes by the late 1980s.

¹⁸ Aditi Bhargava et al., *Considering Sex as a Biological Variable in Basic and Clinical Studies: An Endocrine Society Scientific Statement*, 42 *Endocrine Reviews* 219, 226 (Mar. 11, 2021).

¹⁹ A Bakkar, *The Dutch Approach* (2021). (The book is in English but its original publication in Dutch was under the title, “Half a century of transgender care at the VU” (Een halve eeuw transgenderzorg aan de VU) and was promoted on the VU University’s page.)

²⁰ N.D. IHILA, *De genderstichting. With Pride*, (2024) <https://withpride.ihlia.nl/story/de-genderstichting/>.

The results of the research, based on the 141 patients who agreed to participate (from the total of 229), were decidedly mixed.²¹ While the *subjective* outcomes were positive—85% of the participants said they were “moderately happy,” “happy,” or “very happy” with their transition—the *objective* outcomes were far less reassuring. The patients, and especially the male-to female individuals, had high rates of unemployment and lacked a romantic partner.²² Three committed suicide post-transition, and sixteen attempted suicide, with ten “motivated in their attempt by psychosocial problems and the associated feelings of loneliness and depression.”²³ The study called this finding a “critical signal.”²⁴ These concerning observations from the Dutch adults’ outcomes aligned with

²¹ Bram Kuiper, Peggy Cohen-Kettenis, *Sex Reassignment Surgery: A Study of 141 Dutch Transsexuals*, *Archives of Sexual Behavior* 17, no. 5 (1988) at 439–57 (by 1988, there were 229 patients, only 141 could be traced and agreed to participate in the research (62%). The 229 was derived by adding the following numbers in the study: “A total of 141 persons entered the study: 36 FMs (female-to-male transsexuals) and 105 MFs (male-to-female transsexuals). In all, 3 FMs and 4 MFs refused to cooperate for various reasons, 6 FMs and 33 MFs did not respond, and 9 FMs and 33 MFs could not be traced.”)

²² *Id.* (There were high rates of unemployment (60% of male-to-female, and 36% of female-to male individuals) and a lack of romantic partner (59% male-to-female and 33% of female-to male individuals). In addition, 15 in 103 male-to-female, and 1 in 35 female-to male individuals attempted suicide within 2 to 5 years of starting gender transition.

²³ *Id.* at 451.

²⁴ *Id.* at 455.

other countries' research into gender transitions of adults that was published around the same time.²⁵

The research revealed some surprising findings as well. For example, the patient's happiness with transition did not depend on the stage of transition itself (the sample contained a range of patients, from those who had completed treatment, to those who just had just started cross-sex hormones; the average follow-up in the sample was approximately 3-5 years after the initiation of medical transition).²⁶ The researchers hypothesized that patients who reported happiness but had not yet completed treatment were "taking a loan on the future."²⁷

The study authors also wrestled with the question of whether to attribute more meaning to positive subjective outcomes or negative objective outcomes in their conclusions. They opined that the subjective outcomes should have more weight, justifying this decision by the fact that since gender dysphoria itself is a subjective experience based on the principle of "self-diagnosis," it is "consistent and appropriate" to also

²⁵ T. Sørensen, *A Follow-up Study of Operated Transsexual Males*, *Acta Psychiatrica Scandinavica* 63, no. 5 (May 1981) at 486–503 (The operations turned out not to be resocializing, rather the contrary. The majority had no occupation at follow-up and the number of persons with disablement pension had increased considerably. About 66% lived alone and the majority of those with sexual relationships had had problems. Both before and after operation the majority felt socially isolated. About 66% were satisfied with the surgical outcome, nevertheless 50% wished for supplementary plastic surgery).

²⁶ *Supra* Note 23 at 454.

²⁷ *Id.*

rely on subjective self-evaluations “feelings of happiness and satisfaction” following gender reassignment.²⁸

The Dutch researchers’ conclusions about adult transitions were nuanced, if contradictory. On one hand, they concluded that “there is no reason to doubt the therapeutic effect of sex reassignment surgery.”²⁹ On the other hand, they noted that gender transition was “no panacea”³⁰ and that transition could lead to new problems and challenges.

In considering the varied outcomes of the adult patients, the researchers noted that female-to-male participants fared better post-transition than their male-to-female counterparts. They hypothesized that, among other factors, the males who transitioned at an older age (about nine years older on average) were saddled with a “heavier burden of a past life as a person of the original gender.”³¹ They also noted that female-to-male patients likely blended more easily in society due to testosterone’s strong masculinizing effects, relative to the much milder feminizing effect of estrogen on male bodies. They hypothesized that “passing” more convincingly as a member of the opposite sex lowered the distress levels of female-to-male patients, relative to their male-to-female counterparts, which, in turn, led to higher functioning.

The interpretation that was not considered was that the female-to-male patients may have been

²⁸ *Id.* at 441.

²⁹ *Id.* at 439.

³⁰ *Id.* at 455.

³¹ *Id.* at 456.

higher functioning before transition and remained high-functioning after. Prior research raised the possibility that the primary motivation for a number of women was that they were in existing relationships with other women, and sought acceptance as the primary motivation for transition at the time.^{32 33} The Dutch researchers did not appear to consider the possibility that transition may be particularly appealing to young gays and lesbians suffering from internalized as well as societal homophobia.³⁴

The Dutch researchers' hypothesis that better cosmetic outcomes and less "social baggage" of younger transitioners were key to a successful transition was at the root of the decision to start transitioning minors. Gender transition for minors in the Netherlands were initiated shortly after the adult outcomes were published.

D. The rationale for youth gender transition was that "early intervention" would result in better cosmetic outcomes which may improve overall outcomes

Shortly after the publication of the adult outcomes, the senior author of the research, Cohen-Kettenis,

³² Christian Hamburger, *The Desire for Change Of Sex As Shown By Personal Letters From 465 Men And Women*, *Acta Endocrinologica* 14, no. 4 (December 1953) at 361–75.

³³ Yolanda L. S. Smith, Stephanie H. M. Van Goozen, Abraham J. Kuiper, Peggy T. Cohen-Kettenis, *Sex Reassignment: Outcomes and Predictors of Treatment for Adolescent and Adult Transsexuals*, *Psychological Medicine* 35, no. 1 (January 2005) at 89–99.

³⁴ Michael Biggs, *The Dutch Protocol for Juvenile Transsexuals: Origins and Evidence*, *Journal of Sex & Marital Therapy* 0, no. 0 (September 19, 2022) at 1–21.

transferred from the adult sexology department of Utrecht University Medical Center to the hospital's child and youth psychiatry division. Upon encountering teenage patients who sought to undergo transition, Cohen-Kettenis, together with Louis Gooren of the Amsterdam Gender Clinic, decided there was no reason to delay the transition until the patient reached the age of 18. She shared this honest recollection of how the process of youth gender transition was initiated—and largely driven—by hubris:

My expertise expanded and with that the power and influence of my ideas. Lowering the starting age for cross-sex hormones to 16, was an important step I initiated. I was impressed by a number of adolescents, born girls who actually lived as boys, with whom I had hit a wall in therapy. Simply because there was nothing left to achieve: their stories were crystal clear; they had a male gender identity and all they wanted was to start treatment.... I myself, had faith in it. I based that on the adolescents themselves; I had spent a lot of time with them, talked extensively with them. These were clear-headed, level-headed adolescents who were able to properly think about themselves; That was important, because I had to 'sell' it: prove that it worked.³⁵

³⁵ *Supra* note 21 at 113.

At the time, the treatments considered by the psychologist Cohen-Kettenis for patients between sixteen and eighteen years of age were limited to cross-sex hormones. Puberty blockers had not entered the picture. However, unbeknownst to Cohen-Kettenis at the time, a much younger patient was already receiving puberty blockers from Dutch endocrinologist Delemarre-van de Waal, who specialized in treating disorders related to abnormally-timed puberty.³⁶

In 1987, Delemarre-van de Waal encountered a 12-year-old female patient³⁷ whose puberty was normally-timed, but who, from an early age “had no doubt whatsoever” that she “was supposed to be a boy.”³⁸ The patient “harbored an immense fear of the onset of puberty” and even wrote a suicide note, which the patient’s mother found.³⁹ When the distressed mother consulted doctors, she eventually got a referral to Delemarre-van de Waal, who decided to administer the same drugs used to stop abnormally timed puberty, to prevent the patient’s normally-timed puberty. The child became the first-known person to be treated with puberty blockers for gender dysphoria, and later was referenced in academic literature as “B” or “FG”.

³⁶ P.T. Cohen-Kettenis, S. H. M. van Goozen, *Pubertal Delay as an Aid in Diagnosis and Treatment of a Transsexual Adolescent*, *European Child & Adolescent Psychiatry* 7, no. 4 (December 10, 1998) at 246–48.

³⁷ *Supra* note 21 at 131

³⁸ *Id.*

³⁹ *Id.* at 123

⁴⁰ ⁴¹ ⁴² B/FG later proceeded to complete gender reassignment.

The “B/FG”’s story is more complicated than it appears on the surface. “B/FG” was a very gender non-conforming child, with an Italian father who held traditional views on gender and disapproved of his daughter’s masculinity. “Serious conflict ensued.”⁴³ Later, it became known that the patient was same-sex attracted—like 97% of the adolescent patients who would later be transitioned under the Dutch protocol.⁴⁴ ⁴⁵

Once B/FG turned 16 and presented for an evaluation to Cohen-Kettenis for the initiation of cross-sex

⁴⁰ *Supra* Note 35 at 1–21.

⁴¹ Peggy T Cohen-Kettenis, Sebastiaan E. E. Schagen, Thomas D. Steensma, Annelou L. C. de Vries, Henriette A. Delemarre-van de Waal, *Puberty Suppression in a Gender-Dysphoric Adolescent: A 22-Year Follow-Up*, *Archives of Sexual Behavior* 40, no. 4 (August 2011) at 843–47.

⁴² Peggy T Cohen-Kettenis, S. H. M. van Goozen, *Pubertal Delay as an Aid in Diagnosis and Treatment of a Transsexual Adolescent*, *European Child & Adolescent Psychiatry* 7, no. 4 (December 10, 1998) at 246–48.

⁴³ *Supra* Note 35 at 1–21.

⁴⁴ Peggy T. Cohen-Kettenis, Sebastiaan E. E. Schagen, Thomas D. Steensma, Annelou L. C. de Vries, and Henriette A. Delemarre-van de Waal, *Puberty Suppression in a Gender-Dysphoric Adolescent: A 22-Year Follow-Up*, *Archives of Sexual Behavior* 40, no. 4 (August 2011) at 843–47.

⁴⁵ *Id.* at 2278 (Table 1: 89% were exclusively homosexual as adolescents, 9% were bisexual, one (1%) was heterosexual, and one (1%) had not yet had a sexual identity.)

hormones, she was impressed with the patient’s “boyish appearance”⁴⁶ and lack of breast development. Upon learning that the endocrinologist, Delemarre-van de Waal, had been treating the child with puberty blockers for the past three years, the two clinicians met and the idea behind the “Dutch protocol” for youth gender transition—the protocol which is now the subject of so much debate —was born.

The new treatment protocol called for the use of puberty blockers at age twelve (the age when children could legally assent to treatment consented to by their parents), followed by cross sex hormones at sixteen (when the minor could legally consent on their own).⁴⁷ Upon turning eighteen, all the patients would undergo surgery, as sterilization was required as part of Dutch gender recognition laws at the time.⁴⁸

These treatments would be provided not to all the adolescents who wished for them, but rather for the carefully selected group who were deemed “juvenile transsexuals” — the patients for whom, “there is no reasonable expectation that their cross-sexed gender identity will evermore change.”⁴⁹ While the Dutch

⁴⁶ Supra Note 35 at 3.

⁴⁷ Annelou L. C. De Vries, Peggy T. Cohen-Kettenis, Henriette Delemarre-van de Waal, *Clinical Management of Gender Dysphoria in Adolescents*, *International Journal of Transgenderism* 9, no. 3–4 (September 2006) at 83–94.

⁴⁸ Andy Gregory, [Dutch government ‘truly sorry’ for gender recognition law that required sterilisation for legal recognition](https://www.independent.co.uk/news/world/europe/dutch-transgender-sterilisation-law-apology-b1965384.html), *Independent* (November 27, 2021) <https://www.independent.co.uk/news/world/europe/dutch-transgender-sterilisation-law-apology-b1965384.html>.

⁴⁹ Louis Gooren, Henriette Delemarre-van de Waal. *The Feasibility of Endocrine Interventions in Juvenile Transsexuals*,

clinicians claimed considerable clinical expertise in accurately determining which adolescents would become “genuine transsexuals,” their studies provided only limited guidance on how to replicate their selection process. Specifically, no guidance was provided about how to differentiate “genuine transsexual” adolescents from gender-dysphoric adolescents who would grow up to be gay, and who frequently experience gender-related distress.⁵⁰

II.

FOR MOST YOUTH, GENDER DYSPHORIA IS NOT A PERMANENT CONDITION, AND NEITHER THE PATIENT NOR THE DOCTORS CAN PREDICT THE FUTURE IDENTITY

A. For most children and adolescents, gender dysphoria is a temporary condition

Historically, most children who exhibit gender nonconforming, or even strongly cross-sex identified behaviors, did not grow up to be transgender-identifying adults. Research shows that among children whose gender dysphoria emerged before puberty, 61% to 98% come to identify with their sex before adult-

Journal of Psychology & Human Sexuality 8, no. 4 (August 25, 1996) at 69–74.

⁵⁰ Alexander Korte, David Goecker, Heiko Krude, Ulrike Lehmkuhl, Annette Grütters-Kieslich, Klaus Michael Beier. *Gender Identity Disorders in Childhood and Adolescence*, Deutsches Ärzteblatt International 105, no. 48 (November 2008) at 834–41.

hood, and a substantial number of them develop a homosexual orientation after puberty.⁵¹ Even when looking at the subset of the most cross-sex identified children who met the full diagnostic criteria of “Gender Identity Disorder”/“Gender Dysphoria”, 67% no longer met the diagnostic criteria as adults.⁵²

The Dutch researchers who began to experiment with youth transitions were aware of the risk of wrongly transitioning gender-nonconforming youth. They posited that there is a way to determine which of the gender-struggling youth were the “true transsexual” cases and which ones were “false positives.” They theorized that the key to telling the two apart was the presence of intense gender-dysphoria in adolescence, which had to be long lasting, and starting from “toddlerhood on.”⁵³

When the American gender clinicians adopted the practice, the condition of “lifelong gender dysphoria” was abandoned, and was replaced by a much simpler mantra: “gender dysphoric adolescents do not desist.” In other words, as long as gender-related distress is present in a teenager, regardless of the age of onset, the teenager is “transgender” and should be treated with all the available medical and surgical

⁵¹ Jiska Ristori, Thomas D. Steensma, *Gender Dysphoria in Childhood*, *International Review of Psychiatry* 28, no. 1 (January 2, 2016) at 13–20.

⁵² Kenneth J Zucker, *The Myth of Persistence: Response to ‘A Critical Commentary on Follow-up Studies and “Desistance” Theories about Transgender and Gender Non-Conforming Children*, *International Journal of Transgenderism* 19, no. 2 (April 3, 2018) at 231–45.

⁵³ *Supra* Note 42

technology to transform their body to conform to their identity.⁵⁴

The best available evidence from several countries does show that over 95% of children who start puberty blockers will go on to cross-sex hormones,⁵⁵ and a recent large follow-up study from the Dutch experience showed that 98% of those who start cross-sex hormones will continue for at least some time (the median follow up was under four years).^{56 57 58} However,

⁵⁴ Stephen M. Rosenthal, *Challenges in the Care of Transgender and Gender-Diverse Youth: An Endocrinologist's View*, *Nature Reviews Endocrinology* 17, no. 10 (October 2021) at 581–91.

⁵⁵ Polly Carmichael, Gary Butler, Una Masic, Tim J. Cole, Bianca L. De Stavola, Sarah Davidson, Elin M. Skageberg, Sophie Khadr, Russell M. Viner, *Short-Term Outcomes of Pubertal Suppression in Aselected Cohort of 12 to 15 Year Old Young People with Persistent Gender Dysphoria in the UK*, *PLOS ONE* 16, no. 2 (February 2, 2021) at e0243894.

⁵⁶ Chantal M. Wiepjes, Nienke M. Nota, Christel J.M. de Blok, Maartje Klaver, Annelou L.C. de Vries, S. Annelijn Wensing-Kruger, Renate T. de Jongh, et al, *The Amsterdam Cohort of Gender Dysphoria Study (1972–2015): Trends in Prevalence, Treatment, and Regrets*, *The Journal of Sexual Medicine* 15, no. 4 (April 2018) at 582–90.

⁵⁷ Maria A T C van der Loos, Daniel T Klink, Sabine E Han-nema, Sjoerdje Bruinsma, Thomas D Steensma, Baudewijntje P C Kreukels, Peggy T Cohen-Kettenis, Annelou L C de Vries, Martin den Heijer, Chantal M Wiepjes, *Children and Adolescents in the Amsterdam Cohort of Gender Dysphoria: Trends in Diagnostic- and Treatment Trajectories during the First 20 Years of the Dutch Protocol*, *The Journal of Sexual Medicine*, (January 26, 2023) at qdac029.

⁵⁸ [New "20-year" Study from Amsterdam's VUmc Youth Gender Clinic: A Critical Analysis](#), Society for Evidence-Based

there is a serious problem with using studies solely of actively transitioning youth and following them for only a short period of time. While such studies demonstrate a high rate of short-term patient adherence to treatment, at least in the Netherlands, they do not show what happens in the long term—and importantly, they tell very little about the underlying stability of gender dysphoria as a condition absent a professional team actively guiding a young person through a multi-stage treatment protocol.

Until recently, little has been known about the new cohort of adolescents presenting with gender dysphoria in recent years, which is markedly different from the original cohort for which the protocol was designed. Until around 2010, gender dysphoria in youth was rare, and most of the affected patients were biological males. However, starting in mid-2010s, there was a sudden and unexplained rise in gender dysphoria in youth, with several-thousand-percent increases documented in nearly every Western country, and with a preponderance of adolescent girls with pre-existing mental illness, but with no history of gender dysphoria in childhood.^{59 60}

Gender Medicine (February 2, 2023), <https://segm.org/20-years-of-the-Dutch-Protocol-critical-analysis>.

⁵⁹ Riittakerttu Kaltiala-Heino, Maria Sumia, Riittakerttu, Marja Työläjärvi, Nina Lindberg, *Two Years of Gender Identity Service for Minors: Overrepresentation of Natal Girls with Severe Problems in Adolescent Development*, *Child and Adolescent Psychiatry and Mental Health* 9, no. 1 (December 2015) at 9.

⁶⁰ Kenneth J. Zucker, *Adolescents with Gender Dysphoria: Reflections on Some Contemporary Clinical and Research Issues*, *Archives of Sexual Behavior* 48, no. 7 (October 2019) at 1983–92.

However, in the last year, several studies have shed light on the fact that gender dysphoria in adolescence is not a permanent diagnosis. At least three recent studies examined the diagnostic prevalence of the gender dysphoria diagnosis in youth.^{61 62 63 64} These studies found that as few as 40% to 50% of adolescents with a gender-related diagnosis retain that diagnosis after five to seven years, and trends indicate this number will continue to go down with longer follow-up.^{65 66} A recent analysis of insurance records of 85% of insured US population found that only 42.3 to 49.9% percent of youth retain their gender dysphoria diagnosis over a seven-year period (see graph below

⁶¹ Ching-Fang Sun, Hui Xie, Vemmy Metsutnan, John H Draeger, Yezhe Lin, Maria Stack Hankey, Anita S Kablinger, *The Mean Age of Gender Dysphoria Diagnosis Is Decreasing*, *General Psychiatry* 36, no. 3 (May 2023) at e100972.

⁶² Christian J. Bachmann,, Yulia Golub, Jakob Holstiege, Falk Hoffmann, *Gender Identity Disorders among Young People in Germany: Prevalence and Trends, 2013–2022. An Analysis of Nationwide Routine Insurance Data*, *Deutsches Ärzteblatt International*, (May 31, 2024).

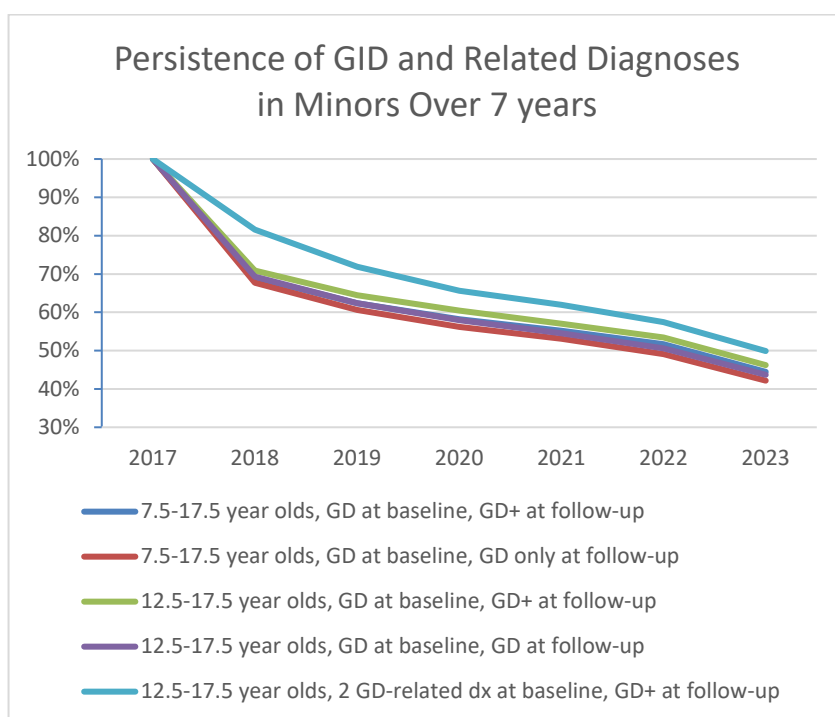
⁶³ [The Gender Dysphoria Diagnosis in Young People Has a “Low Diagnostic Stability.” Finds a New German Study](https://segm.org/gender-dysphoria-diagnosis-desistance-germany), Society for Evidenced Based Gender Medicine (July 19, 2024) <https://segm.org/gender-dysphoria-diagnosis-desistance-germany>.

⁶⁴ Leor Sapir, [Adolescent Gender Dysphoria Is a Temporary Diagnosis for Most Teens](#), *The City Journal*, (August 30, 2024),

⁶⁵ *Supra* Note 58.

⁶⁶ *Supra* Note 59.

for “gender identity disorders” (GID) and related diagnoses).⁶⁷



⁶⁷ Leo Sapir, [Adolescent Gender Dysphoria Is a Temporary Diagnosis for Most Teens](https://www.city-journal.org/article/adolescent-gender-dysphoria-is-a-temporary-diagnosis-for-most-teens), City Journal (August 30, 2024), <https://www.city-journal.org/article/adolescent-gender-dysphoria-is-a-temporary-diagnosis-for-most-teens>.

As one study concluded, gender dysphoria “is not a permanent diagnosis” due to the “gender-fluid” nature of the condition in youth.⁶⁸

Incidentally, the same analysis of the US population estimated the seven-year prevalence of diagnosis of gender dysphoria in youth under age 19 at 270,000 to 400,000 individuals, which is comparable to the prevalence of Type-I diabetes. This suggests that gender dysphoria is no longer a rare condition. The finding of low diagnostic stability of the gender dysphoria diagnosis, and its poor predictive validity, greatly challenges the key premise that gender-dysphoric adolescents are “transgender.”

B. The recent change in the diagnosis of gender dysphoria further erodes its validity as the basis for highly invasive and irreversible procedures

It has been widely acknowledged that there is no reliable method to identify which young people will continue to identify as transgender when they achieve maturity and stability in their identity development, and which ones will not.⁶⁹ While the duration and intensity of transgender identification may correlate with the ultimate outcome, it is not definitive.⁷⁰ The

⁶⁸ *Supra* Note 57.

⁶⁹ E. Coleman, A. E. Radix, W. P. Bouman, G. R. Brown, A. L. C. de Vries, M. B. Deutsch, R. Ettner, et al., *Standards of Care for the Health of Transgender and Gender Diverse People*, Version 8. *International Journal of Transgender Health* 23, no. sup1 (August 19, 2022) at S1–259.

⁷⁰ *Supra* Note 52.

diagnosis of “gender dysphoria” has been criticized for its unclear predictive validity.⁷¹

However, the 2022 change in the International Classification of Diseases (ICD) version 11 eliminated the diagnosis of “Gender Identity Disorder,” erasing decades of work codifying the criteria to give patients the best opportunity to receive treatments that will help, rather than harm—which is the primary function of any diagnosis.⁷² Instead, ICD-11 added the novel diagnosis of “gender incongruence.” This change was a culmination of “decades of activism” by gender clinicians and transgender activists arguing on the basis of “political human rights stances.”⁷³ The novel diagnosis eliminated the previous key criterion of “distress,”⁷⁴ leaving the diagnosis with ambiguous clinical targets. The diagnosis of adolescent “gender incongruence” is based on self-reported feelings of “marked and persistent” incongruence, and its provision is the

⁷¹ Kenneth J. Zucker, *The DSM Diagnostic Criteria for Gender Identity Disorder in Children*, *Archives of Sexual Behavior* 39, no. 2 (April 2010) at 477–98.

⁷² EP Balogh, BT Miller, JR Ball JR, [Improving Diagnosis in Health Care](https://www.ncbi.nlm.nih.gov/books/NBK338593/), [Committee on Diagnostic Error in Health Care: Board on Health Care Services; Institute of Medicine; The National Academies of Sciences, Engineering, and Medicine](https://www.ncbi.nlm.nih.gov/books/NBK338593/) (December 29, 2015), <https://www.ncbi.nlm.nih.gov/books/NBK338593/>.

⁷³ Antoine Baleige, Marie de la Chenelière, Cyane Dassonneville, Marie-Jeanne Martin, *Following ICD-11, Rebuilding Mental Health Care for Transgender Persons: Leads from Field Experimentations in Lille, France*, *Transgender Health* 7, no. 1 (February 1, 2022) at 1–6.

⁷⁴ Yulia Furlong, Aleksandar Janca, *Gender (r)Evolution and Contemporary Psychiatry*, *BJPsych Open* 8, no. 3 (May 2022) at e80.

basis for supplying teens with “gender-affirming” body-modifying interventions.^{75 76}

At the same time as this new diagnosis went into effect, the organization advocating for wide access to gender transitions, the World Professional Association for Transgender Health (WPATH), issued new treatment guidelines known as the “Standards of Care 8” (SOC8).⁷⁷ According to SOC8, patients diagnosed with “gender incongruence” are eligible for a wide range of endocrine and surgical interventions, with medical necessity of the various treatments determined by patient desires.

The list of procedures which WPATH considers “medically necessary,” includes highly unusual surgeries, including “non-binary” procedures.⁷⁸ Such procedures include non-binary mastectomies for females (a change to the shape of the breasts and nipples, to make the chest appear somewhere on the spectrum between feminine and masculine); non-binary genital surgeries (e.g., vaginoplasty “with the retention of penis and testicles); and surgeries to create a “sexless”

⁷⁵ Gender incongruence and transgender health in the ICD, World Health Organization, <https://www.who.int/standards/classifications/frequently-asked-questions/gender-incongruence-and-transgender-health-in-the-icd>.

⁷⁶ Gender identity alignment with ICD-11, ICD Update Platform (March 21, 2017) <https://icd.who.int/icd10updateplatform/PropD.aspx?prop=2272>.

⁷⁷ *Supra* Note 52.

⁷⁸ Binary Surgery, Crane Center, <https://cranects.com/non-binary-surgery/>.

appearance (e.g., genital “flat front” procedures, also known as “nullification surgeries.)”⁷⁹

WPATH removed minimum age requirements for hormones and most types of surgery⁸⁰ due to last-minute political pressures from the U.S. government (Admiral Levine), “social justice” attorneys, and the American Academy of Pediatrics, as recent court disclosures reveal.⁸¹

III.

THE FIELD OF YOUTH GENDER MEDICINE REMAINS EXPERIMENTAL, DESPITE 30 YEARS OF PRACTICE, WITH NO OTHER PARALLELS IN PEDIATRIC MEDICINE

A. All current studies in the field of youth gender medicine are of very poor quality and are unreliable, rendering the practice experimental

As with many medical innovations, this treatment approach to youth gender dysphoria emerged from a genuine desire to help alleviate patient suffering. However, unlike most medical innovations, this treatment and its outcomes have never been investi-

⁷⁹ *Supra* Note 70 at S136.

⁸⁰ *Supra* Note 52.

⁸¹ Notice of Evidentiary submission in Support of Summary Judgment at Exs. 36-38, *Boe v. Marshall*, Case No. 2:22-cv-184-LCB, WL 2646437 (M.D. Ala. March 27, 2023).

gated in rigorous clinical trials for safety and efficacy.⁸² Instead, the treatment was propelled from a small-scale experiment in the Netherlands into worldwide medical practice,⁸³ based on untested assumptions, hope, and one study.

The *single study* that was used to justify wide-scale adoption of the practice was based on a sample of 55 Dutch adolescents.⁸⁴ The fact that several adolescents experienced serious adverse effects (diabetes and obesity) and one died were not considered as a signal of harm, which would have required pausing to gather more evidence. The fact that the study's most encouraging reported outcome—the resolution of gender dysphoria—was the result of a misuse of a key scale was not noted until nearly 10 years later.⁸⁵

Dozens of studies have since been published by gender clinics, many reporting positive effects. However, when such studies are subjected to the scrutiny of systematic evidence reviews, their findings lose

⁸² E. Abbruzzese, Stephen B. Levine, and Julia W. Mason, *The Myth of 'Reliable Research' in Pediatric Gender Medicine: A Critical Evaluation of the Dutch Studies—and Research That Has Followed*, *Journal of Sex & Marital Therapy*, (January 2, 2023) at 1–27.

⁸³ Stephen B. Levine, E. Abbruzzese, Julia W. Mason, *Reconsidering Informed Consent for Trans-Identified Children, Adolescents, and Young Adults*, *Journal of Sex & Marital Therapy* 48, no. 7 (October 3, 2022) at 706–27.

⁸⁴ A.L.C. de Vries, J. K. McGuire, T. D. Steensma, E. C. F. Wagenaar, T. A. H. Doreleijers, P. T. Cohen-Kettenis, *Young Adult Psychological Outcome After Puberty Suppression and Gender Reassignment*, *Pediatrics* 134, no. 4 (October 1, 2014) at 696–704.

⁸⁵ *Supra* Note 81 at 1–27.

credibility due to profound problems of study designs. As the systematic review of the effects of puberty blockers found, the claimed positive changes “are either of questionable clinical value, or the studies themselves are not reliable and changes could be due to confounding, bias or chance.”⁸⁶ Multiple systematic reviews of evidence for the use of puberty blockers and cross-sex hormones to treat gender-dysphoric youth have been published in peer-reviewed journals to

⁸⁶ National Institute for Health and Care Excellence, NICE, (2020) at 13.

date, all coming to the same conclusion that the certainty of the claimed benefits is “very low” or “low.”⁸⁷
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C. NIH-funded research demonstrates the practice is experimental

Research proposals funded by the U.S. federal government underscore just how little is known about

⁸⁷ Kellan E Baker, Lisa M Wilson, Ritu Sharma, Vadim Dukhanin, Kristen McArthur, Karen A Robinson, *Hormone Therapy, Mental Health, and Quality of Life Among Transgender People: A Systematic Review*, *Journal of the Endocrine Society* 5, no. 4 (April 1, 2021) at 1–16.

⁸⁸ Florian D. Zepf, Laura König, Anna Kaiser, Carolin Ligges, Marc Ligges, Veit Roessner, Tobias Banaschewski, Martin Holtmann, *Beyond NICE: Aktualisierte systematische Übersicht zur Evidenzlage der Pubertätsblockade und Hormongabe bei Minderjährigen mit Geschlechtsdysphorie*, *Zeitschrift für Kinder- und Jugendpsychiatrie und Psychotherapie* (February 27, 2024) at 1422-4917/a000972.

⁸⁹ Jonas F. Ludvigsson, Jan Adolfsson, Malin Höistad, Per-Anders Rydelius, Berit Kriström, Mikael Landén, *A Systematic Review of Hormone Treatment for Children with Gender Dysphoria and Recommendations for Research*, *Acta Paediatrica* (April 17, 2023).

⁹⁰ [Evidence Review: Gender-Affirming Hormones for Children and Adolescents with Gender Dysphoria](https://cass.independent-review.uk/wp-content/uploads/2022/09/20220726-Evidence-review-Gender-affirming-hormones-For-upload-Final.pdf), National Institute for Health and Care Excellence (NICE) (2020), <https://cass.independent-review.uk/wp-content/uploads/2022/09/20220726-Evidence-review-Gender-affirming-hormones-For-upload-Final.pdf>.

⁹¹ Jo Taylor, Alex Mitchell, Ruth Hall, Claire Heathcote, Trilby Langton, Lorna Fraser, Catherine Elizabeth Hewitt, *Interventions to Suppress Puberty in Adolescents Experiencing Gender Dysphoria or Incongruence: A Systematic Review*, *Archives of Disease in Childhood*, (2024).

the effects of puberty blockers and cross-sex hormones on adolescent brains and bodies. Multiple federally funded research projects are currently evaluating the potential harms and unknown of puberty blockers and cross sex hormones. The recently funded proposals acknowledge:

“there is little information available on [puberty blockers’] effects on bone health in young peri-pubertal transgender youth.”⁹²

“GnRHa [puberty blockers] may also disrupt puberty-signaled neural maturation in ways that can undermine mental health gains over time and impact quality of life in other ways.”⁹³

“The relatively recent introduction of cross-sex hormone therapy for transgender youth represents a significant shift in clinical practices, however underlying mechanisms for these interventions are poorly understood, particularly during early stages of puberty.”⁹⁴

⁹² Skeletal Health and Bone Marrow Composition Among Youth, National Institute of Health (2024), <https://reporter.nih.gov/project-details/10794272>.

⁹³ The impact of pubertal suppression on adolescent neural and mental health trajectories - Resubmission – 1, National Institute of Health (July 5, 2023), <https://reporter.nih.gov/project-details/10615851>.

⁹⁴ Sex hormone effects on neurodevelopment: Controlled puberty in transgender adolescents, National Institute of

“GAHT [gender-affirming hormones therapy], particularly estrogen, may increase the risk of thrombosis. While hematologists often evaluate patients before GAHT start who are at risk of thrombosis due to personal/family risk factors, there are no guidelines or data to inform management.”⁹⁵

The studies emerging from the NIH-funded research reveal a concerning picture. The psychological benefits appear marginal, at best, with an alarming finding of young people committing suicide during treatment at the rate that is at least forty times the expected rates (2/315).⁹⁶ The studies of the harms of puberty blockers and cross-sex hormones are reporting

Health, (August 17, 2023), <https://reporter.nih.gov/project-details/10479828>.

⁹⁵ Thrombosis Risk in Transgender Adolescents and Young Adults Starting Gender-Affirming Hormone Therapy, National Institute of Health, (June 27, 2023) <https://reporter.nih.gov/project-details/10674629>.

⁹⁶ D. Chen, J. Berona, Y.M. Chan, D. Ehrensaft, R. Garofalo, R., M.A. Hidalgo, S.M. Rosenthal, A.C. Tishelman, J. Olson-Kennedy, J., *Psychosocial Functioning in Transgender Youth after 2 Years of Hormones*, *New England Journal of Medicine*, (2023) at 240–250, 288.

changes in the young people's bodies that are consistent with heightened risk of diabetes, cardiovascular disease, and potential bone health issues.^{97 98}

Further, all children treated according to the current treatment protocols (puberty blockers administered at the earliest stage, and followed with cross-sex hormones) are expected to develop infertility and sterility, with no opportunity for fertility preservation.^{99 100}

D. A growing number of European countries are reclassifying hormonal gen-

⁹⁷ Natalie J. Nokoff, Sharon L. Scarbro, Kerrie L. Moreau, Philip Zeitler, Kristen J. Nadeau, Daniel Reirden, Elizabeth Juarez-Colunga, Megan M. Kelsey, *Body Composition and Markers of Cardiometabolic Health in Transgender Youth on Gonadotropin-Releasing Hormone Agonists*, *Transgender Health* 6, no. 2 (April 1, 2021) at 111–19.

⁹⁸ Natalie Nokoff, Sharon L. Scarbro, Kerrie L. Moreau, Philip Zeitler, Kristen J. Nadeau, Elizabeth Juarez-Colunga, Megan M. Kelsey, *Body Composition and Markers of Cardiometabolic Health in Transgender Youth Compared With Cisgender Youth*, *The Journal of Clinical Endocrinology & Metabolism* 105, no. 3 (March 1, 2020) at e704–14.

⁹⁹ Krishna Bangalore, John S. Fuqua, Alan D. Rogol, Karen O. Klein, Jadranka Popovic, Christopher P. Houk, Evangelia Charmandari, Peter A. Lee, *Use of Gonadotropin-Releasing Hormone Analogs in Children: Update by an International Consortium*, *Hormone Research in Paediatrics* 91, no. 6 (2019) at 357–72.

¹⁰⁰ Marshall Dahl, Jamie L. Feldman, Joshua M. Goldberg, Afshin Jaber, *Physical Aspects of Transgender Endocrine Therapy*, *International Journal of Transgenderism*, 9, no. 3–4 (September 2006) at 111–34.

der transition of minors as experimental, and disallowing surgeries entirely.

The uncertainty of how to balance such uncertain benefits against a wide range of known and hypothesized harms has led to multiple public health authorities to begin to tightly regulate the practice of youth transitions. Following the seminal Cass Report,¹⁰¹ the UK National Health Service (NHS) decommissioned the use of puberty blockers for gender dysphoria and is in the process of restructuring its entire healthcare delivery system to prioritize noninvasive interventions.¹⁰² Several other countries, including Sweden, Finland, Norway, and a growing list of others have used their own regulatory systems to enact similar changes.¹⁰³ The Swedish National Board of Health and Welfare explicitly stated that the risks of the practice outweigh the benefits for most of affected youth.¹⁰⁴

¹⁰¹ Final Report, The Cass Review, <https://cass.independent-review.uk/home/publications/final-report/>.

¹⁰² Children and Young People's Gender Services: Implementing the Cass Review recommendations, NHS England. (August 2024). <https://www.england.nhs.uk/wp-content/uploads/2024/08/PRN01451-implementing-the-cass-review-recommendations.pdf>

¹⁰³ Azeen Ghorayshi, *Youth Gender Medications Limited in England, Part of Big Shift in Europe*, THE NEW YORK TIMES (Apr. 9, 2024), <https://www.nytimes.com/2024/04/09/health/europe-transgender-youth-hormone-treatments.html>.

¹⁰⁴ Care of Children and Adolescents with Gender Dysphoria: Summary, Socialstyrelsen (Swedish National Board of

CONCLUSION

The current practice of youth gender medicine operates on a remarkably weak scientific foundation, and without a credible diagnosis that can predict who will benefit and who will be harmed by treatment. At the same time, the treatments this area of medicine offers are among the most invasive in pediatric medicine. They carry a near-certainty of infertility and sterility, if they are administered according to the prevailing treatment protocols. They are also associated with significant risks, which are only beginning to be understood. Remarkably, the treatments have never been tested in a properly designed clinical trial.

There is no reason to doubt individual patients' beliefs that gender transition greatly improved their lives. However, individual stories do not make an evidence base. Evidence-based medicine demands a rigorous assessment of the benefits and harms of treatments through systematic reviews of evidence.

The lack of credible benefits of youth transitions, and the growing signals of harm, have appropriately led public health authorities in Europe to take the prudent action and tightly regulate this area of medicine. The US medical establishment's refusal to engage with the evidence has created a self-regulatory vacuum. The fact that the field of youth gender medicine in the US needs urgent regulation is without question. How and to what extent such regulation should occur is now up to the courts to decide.

Health and Welfare) (2022) <https://www.socialstyrelsen.se/globalassets/sharepoint-dokument/artikelkatalog/kus-kapsstod/2022-3-7799.pdf>.

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