Written Testimony in Opposition to SF 2209
Minnesota Senate Health and Human Services Committee
March 20, 2024

Dear Chair Wiklund and Members of the Health and Human Services Committee:

I oppose requiring health insurance plans to cover medical transition treatments as would be mandated if HF 2607/SF 2209 passes. The evidence base for these treatments is very poor, particularly for minors.

Before approving legislation like HF 2607/SF 2209, Minnesota should commission a systematic review of the research literature to be completed by an independent party regarding the safety and efficacy of these treatments. We should know that people benefit from treatments and not be harmed before requiring health plans to cover them.

Even the medical associations that endorse medical transition treatments acknowledge there is minimal research supporting their endorsements. In their 2022 Standards of Care, the World Professional Association for Transgender Health (WPATH) conceded that the number of studies of pediatric transition treatments is low, and that few outcome studies have followed youth into adulthood.[i] In regard to puberty blockers, the Standards of Care state that:

- "…the long-term effects on bone mass have not been well established." (page S114)
- "The potential neurodevelopmental impact of extended pubertal suppression in gender diverse youth has been specifically identified as an area in need of continued study." (page S65)
- Providers should discuss with families, "…the future unknowns related to surgical and sexual health outcomes." (page S64)

The Endocrine Society documented in its 2017 clinical practice guidelines for the endocrine treatment of gender dysphoric persons that all but one of its recommendations regarding the treatment of adolescents are based on low or very low-quality evidence. [ii]

WPATH, the American Academy of Pediatrics (AAP), and the Endocrine Society all acknowledge that following puberty blockers with cross sex hormones, a common treatment pathway, threatens patients' fertility. This is because children begin blockers in very early puberty[iii] before gametes (i.e. sperm or ova) have matured.[iv] For cross sex hormones to be effective, patients must continue to suppress their own endogenous hormones after stopping puberty blockers.[v] [vi] [vii] Under these conditions, the gametes will not mature, with a likely future consequence of sterility.[viii] [ix] What WPATH, the AAP and the Endocrine Society fail to acknowledge is that almost all children who take puberty blockers (between 93% and 98%) go on to take cross-sex hormones (CSHs) [x] [xi] [xii] Effectively, children and their families are making choices about future fertility during the very early stages of puberty.

In the last several years, health authorities in Finland, Sweden, and England have performed systematic reviews of the research literature to determine the safety and efficacy of pediatric medical transition treatments. They are rethinking the use of puberty blockers and cross-sex hormones as a result. Finland's 2020 treatment recommendations warn that "…gender reassignment of minors is an experimental practice," and recommend psychosocial support, therapy and treatment of comorbid psychiatric disorders as "the first-line intervention".[xiii] Swedish health authorities say the risks of treatment likely outweigh possible benefits,[xiv] and along with England's NHS now recommend that puberty blockers and cross sex hormones be given only in the context of research programs. [xv] [xvi]

The media often report that pediatric transition treatments are needed to prevent suicide. The evidence does not support this claim. A Systematic review of the literature published by the Endocrine Society could not find sufficient evidence to "…draw a conclusion about the effect of hormone therapy on death by suicide."[xvii] Finnish researchers published a large study just last month that found,

- Gender dysphoria does not seem predictive of suicide deaths.
- Medical gender reassignment does not have an impact on suicide risk.
- The main predictor of mortality in the gender dysphoric population is psychiatric morbidity…." When researchers controlled for psychiatric treatment needs, subjects in the control group versus the gender dysphoric group did not have statistically significant different levels of death by suicide.[xviii]

There are many uncertainties regarding medical transition treatments. Please commission a systematic review of the evidence before requiring health plans to cover these treatments.

Sincerely,

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[i] Coleman, E., et al. "Standards of Care for the Health of Transgender and Gender Diverse People, Version 8." *International Journal of Transgender Health*, 2022, pp. S1 – S258, Standards of Care - WPATH World Professional Association for Transgender Health (Page S46). *Quote:* "Despite the slowly growing body of evidence supporting the effectiveness of early medical intervention, the number of studies is still low, and there are few outcome studies that follow youth into adulthood. Therefore, a systematic review regarding outcomes of treatment in adolescents is not possible. A short narrative review is provided instead."

[ii] Hembree, Wylie C, et al. "Endocrine Treatment of Gender-Dysphoric/Gender-Incongruent Persons: An Endocrine Society Clinical Practice Guideline." *The Journal of Clinical Endocrinology & Metabolism*, vol. 102, no. 11, 13 Sept. 2017, pp. 3869–3903,

https://academic.oup.com/jcem/article/102/11/3869/4157558 (pages 3871-3872). A description of the evidence grading system is found on page 3872 in the section titled, *Method of Development of Evidence-Based Clinical Practice Guidelines*. Recommendations and suggestions for treating adolescents may be found on page 3871: sections 1.4, 1.5 and sections 2.1 through 2.6; and page 3872: sections 5.5 & 5.6. At the end of each recommendation or suggestion, the supporting evidence is graded. The supporting evidence for seven recommendations has a grade of "low quality," and the supporting evidence for three recommendations has a grade of "very low quality." The evidence for one recommendation to give adolescents information on options for fertility preservation has a grade of "moderate quality."

[iii] Coleman, E., et al. "Standards of Care for the Health of Transgender and Gender Diverse People, Version 8." *International Journal of Transgender Health*, 2022, pp. S1 – S258, Standards of Care - WPATH World Professional Association for Transgender Health (page S112). *Note*: WPATH provides the following guidance for determining when to start puberty blockers, "When a child reaches an age where pubertal development would normally begin (typically from 7-8 to 13 years for those with ovaries and from 9 to 14 years for those with testes), it would be appropriate to screen the child more frequently, perhaps at 4-month intervals, for signs of pubertal development (breast budding or testicular volume > 4 cc)."

[iv] Finlayson, Courtney, et al. "Proceedings of the Working Group Session on Fertility Preservation for Individuals with Gender and Sex Diversity." *Transgender Health*, vol. 1, no. 1, 2016, pp. 99–107, https://www.liebertpub.com/doi/10.1089/trgh.2016.0008 (page 100). *Quote:* "Pubertal suppression treatment, prescribed to youth with gender dysphoria as early as Tanner state 2 of puberty, pauses the development of undesired puberty, including some irreversible secondary sexual characteristics, but also prevents maturation of primary oocytes and spermatogonia to mature oocytes and sperm."

[v] Coleman, E., et al. "Standards of Care for the Health of Transgender and Gender Diverse People, Version 8." *International Journal of Transgender Health*, 2022, pp. S1 – S258, Standards of Care - WPATH World Professional Association for Transgender Health (page S115, Statement 12.6). *Quote:* "We recommend health care professionals measure hormone levels during gender-affirming treatment to ensure endogenous sex steroids are lowered and administered sex steroids are maintained at a level appropriate for the treatment goals for transgender and gender diverse people…."

[vi] Hembree, Wylie C, et al. "Endocrine Treatment of Gender-Dysphoric/Gender-Incongruent Persons: An Endocrine Society Clinical Practice Guideline." *The Journal of Clinical Endocrinology & Metabolism*, vol. 102, no. 11, 13 Sept. 2017, pp. 3869–3903, https://academic.oup.com/jcem/article/102/11/3869/4157558 (pages 3885-3886). The Endocrine Society Guidelines state that one of the major goals of cross sex hormone therapy is "…to reduce endogenous sex hormone levels, and thus reduce the secondary sex characteristics of the individual's designated gender…."

[vii] Coleman, E., et al. "Standards of Care for the Health of Transgender and Gender Diverse People, Version 8." *International Journal of Transgender Health*, 2022, pp. S1 – S258, Standards of Care - WPATH World Professional Association for Transgender Health (page S115). *Note:* This page in the SOC explains that in addition to taking estrogen to develop female secondary

sex characteristics, natal males must also take medication to block endogenous testosterone production to prevent development of male secondary sex characteristics. Testosterone both blocks the production of endogenous estrogen and develops male secondary sex characteristics, so natal females do not need a second medication to block estrogen production.

[viii] Mayhew, Allison C, and Veronica Gomez-Lobo. "Fertility Options for the Transgender and Gender Nonbinary Patient." *The Journal of Clinical Endocrinology & Metabolism*, vol. 105, no. 10, 14 Aug. 2020, pp. 3335–3345, https://academic.oup.com/jcem/article/105/10/3335/5892794?login=false (page 3337). *Quote:* "….significant concerns have been raised regarding the viability of fertility options for gonads that have not undergone puberty."

[ix] Joyce, Helen. *Trans: When Ideology Meets Reality*, Oneworld Publications, London, 2021 (page 91). *Quote:* "But there is no doubt about an indirect harm that will be suffered by any children who start taking them [puberty blockers] young enough to avoid puberty altogether: sterility. Cross-sex hormones cause the secondary sex characteristics of the desired sex to develop – breasts, beards, and so on – but only a person's own sex's hormones can cause their ovaries or testicles to mature."

[x] "The Cass Review Independent Review of Gender Identity Services for Children and Young People: Interim Report." NHS England and NHS Improvement, Feb. 2022, The Cass Review - Independent review of gender identity services for children and young people: Interim Report (page 38. section 3.31). *Quote:* "The most difficult question is whether puberty blockers do indeed provide valuable time for children and young people to consider their options, or whether they effectively 'lock in' children and young people to a treatment pathway which culminate in progression to feminising/masculinising hormones by impeding the usual process of sexual orientation and gender identity development. Data from both the Netherlands and the study conducted by GIDS demonstrated that almost all children and young people who are put on puberty blockers go on to sex hormone treatment (96.5% and 98% respectively)."

[xi] Biggs, Michael. "The Dutch Protocol for Juvenile Transsexuals: Origins and Evidence." *Journal of Sex & Marital Therapy*, 19 Sept. 2022, pp. 1–21, https://www.tandfonline.com/doi/full/10.1080/0092623X.2022.2121238 (page 5). *Quote:* "Subsequent experience in the Netherlands and other countries confirms the fact that 96%-98% of children who undergo puberty suppression continue to cross-sex hormones."

[xii] Van der Loos, Maria ATC, et al. "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*, vol. 20, Issue 3, March 2023, pp. 398-409, https://academic.oup.com/jsm/article/20/3/398/7005631?login=false (page 407). *Note:* In this document, the Dutch researchers who popularized the use of puberty blockers acknowledge that most children who take puberty blockers continue to cross sex hormones. *Quote:* "The majority of adolescents (93%) using GnRHa go on to start with GAH [gender-affirming hormones]. This finding may imply that GnRHa treatment is used as a start of transition rather than an extension of the diagnostic phase."

[xiii] *Recommendation of the Council for Choices in Health Care in Finland (PALKO/COHERE Finland) Medical Treatment Methods for Dysphoria Related to Gender Variance in Minors* – unofficial translation. Palveluvalikoima Tjänsteutbudet, 2020, pp 1-11 https://segm.org/sites/default/files/Finnish_Guidelines_2020_Minors_Unofficial%20Translatio

n.pdf (page 8). *Note*: I found the link for this report at the bottom of this webpage: https://segm.org/Finland_deviates_from_WPATH_prioritizing_psychotherapy_no_surgery_for_minors

[xiv] *Care of Children and Adolescents with Gender Dysphoria Summary of National Guidelines*. Socialstyrelsen The National Board of Health and Welfare, Dec. 2022, pp. 1-6 https://www.socialstyrelsen.se/globalassets/sharepoint-dokument/artikelkatalog/kunskapsstod/2023-1-8330.pdf (page 3). *Quote:* "At group level (i.e. for the group of adolescents with gender dysphoria, as a whole), the National Board of Health and Welfare currently assesses that the risks of puberty blockers and gender-affirming treatment are likely to outweigh the expected benefits of these treatments."

[xv] *Interim Service Specification: Specialist Service for Children and Young People with Gender Dysphoria (Phase 1 Providers) Publication Reference: PR1937_i*. NHS England, 20 Oct. 2022, pp. 1-26, https://www.engage.england.nhs.uk/specialised-commissioning/gender-dysphoria-services/user_uploads/b1937-ii-specialist-service-for-children-and-young-people-with-gender-dysphoria-1.pdf (page 16). *Quote:* "Consistent with advice from the Cass Review highlighting the uncertainties surrounding the use of hormone treatments, NHS England is in the process of forming proposals for prospectively enrolling children and young people being considered for hormone treatment into a formal research programme with adequate follow up into adulthood, with a more immediate focus on the questions regarding GnRHa. On this basis NHS England will only commission GnRHa in the context of a formal research protocol."

[xvi] *Care of Children and Adolescents with Gender Dysphoria Summary of National Guidelines*. Socialstyrelsen The National Board of Health and Welfare, Dec. 2022, pp. 1-6, https://www.socialstyrelsen.se/globalassets/sharepoint-dokument/artikelkatalog/kunskapsstod/2023-1-8330.pdf (page 4). *Quote:* "The Swedish Agency for Health Technology Assessment and Assessment of Social Services (SBU) concludes that existing scientific evidence is insufficient for assessing the effects of puberty suppressing and gender-affirming hormone therapy on gender dysphoria, psychosocial health and quality of life of adolescents with gender dysphoria [2]. Knowledge gaps need to be addressed and the National Board of Health and Welfare recommends that these treatments be provided in the context of research."

[xvii] Baker, Kellan E., et. al. "Hormone Therapy, Mental Health, and Quality of Life Among Transgender People: A Systematic Review." *Journal of the Endocrine Society*, 19 February 2021, pp. 1-16, https://doi.org/10.1210/jendso/bvab011 (page 13, Table 6).

[xviii] Ruuska, Sami-Matti, et al., "All-cause and suicide mortalities among adolescents and young adults who contacted specialised gender identity services in Finland in 1996–2019: a register study." *BMJ Mental Health*, 17 February 2024, pp. 1-6, https://mentalhealth.bmj.com/content/ebmental/27/1/e300940.full.pdf (pages 1 and 5).