Honorable Members of the State Senate:

My name is Bryon Herbel, M.D. After completing medical school at UND in 1986, I completed a four year residency in general psychiatry at the Menninger Clinic in Kansas and then completed a two year fellowship in child and adolescent psychiatry at Duke University in Durham, North Carolina. I worked for 25 years as a staff correctional and forensic psychiatrist at FCC Butner, a federal mental health and medical prison complex. My duties included providing psychiatric care to convicted inmates housed at the prison complex, as well providing evaluations for the federal court system on the the issues of competency to stand trial, insanity at the time of the alleged offense, need for involuntary treatment, and risk of future dangerousness. During my career, I was a co-author of two articles published the peer-reviewed forensic journals describing the outcomes of involuntary medication treatment for restoration of competency for selected groups of pretrial detainees. Along with a forensic psychology colleague, I submitted over 2000 reports to the federal court system and testified in federal court over 150 times as an expert witness on the disputed mental health issues. Hence I have considerable professional experience with careful scrutinization of evidence, including medical data. During my career in the Federal Bureau of Prisons, I provided psychiatric assessment or consultation for several adult inmates who had been diagnosed as transgender or had a history of cross-dressing as women. After retiring from the Bureau of Prisons in 2017, I returned to Bismarck, where I operate a small part-time outpatient psychiatric clinic for adults suffering from anxiety and depressive disorders.

I am testifying in support of House Bill 1254. In my opinion a false and misleading narrative is being foisted on the American public. This false narrative asserts the use of puberty blockers and surgery to treat transgenderism in children and adolescents is a noncontroversial and medically necessary intervention to treat the mental distress of minors suffering from transgender dysphoria, is relatively free from significant burden of side effects, and results in positive outcomes for the target population, including consistently good mental health outcomes.

More specifically, in my opinion this **false and misleading narrative is not being <u>drawn out of the evidence</u>, but rather is being <u>imposed upon the evidence</u> by several American medical organizations.** My main

intent is to summarize two recent medical articles published within the past few weeks in high-quality medical journals, which assert the bulk of the opposition testimony has been relying on weak or biased evidence from various international datasets **In other words, the information in these articles demonstrates the treatment paradigm for transgender minors being promoted by WPATH and other American medical associations is <u>opinion</u> based, NOT <u>evidence</u> based.**

In my opinion, part of this misleading narrative includes exaggerated fears of suicide in this clinical population. While there is no dispute that adolescents with gender dysphoria report markedly elevated rates of suicidal ideation and suicide attempts on surveys compared to their non-clinical same age peers, the surveys do not stratify suicide risk by differentiating between non-lethal self-harm behavior, such as superficial self-mutilation (which may be an expression of distress or a "cry for help") from highly lethal self-harm behaviors such as attempted hanging. There is very little empirical data about how many of these distressed transgender adolescents with self-harm ideation and behaviors go on to actually commit suicide, According to one report from a gender clinic in England described below, there were four suicides among 15,000 clinic patients over a ten year period. The author noted this suicide rate was much higher than that expected from a non-clinical comparison population, but the reported rate of suicide deaths among the clinic patients was still considered "rare."

The history of American psychiatry is replete with creative interventions by compassionate and well-meaning clinicians which were ultimately found to be ineffective or harmful. Some more recent examples include infecting patients with malaria in the 1920s to treat neurosyphilis, as well as the use of insulin coma therapy and prefrontal lobotomy to treat schizophrenia in the 1950s. In my opinion, the use of hormones, puberty blockers and surgery to treat gender dysphoria in children and adolescents is another unfortunate example of inappropriate and harmful treatment recommended to people suffering mental disorders by well-meaning but overzealous clinicians.

The first paper is "Gender dysphoria in young people is rising - and so is professional disagreement," which was published in the British Medical Journal (BMJ) on February 23, 2023.

There is no dispute that widespread support exists among American medical organizations for routine use of hormone and surgery to treat transgenderism in minors. However **the current American position is markedly different from the governing bodies in several other countries, such as Finland and Sweden, which restrict surgery for adults only.** France, Australia, and New Zealand have been moving away from early medicalization. **A review in the National Health Service of England recently concluded there was "scarce and inconclusive evidence to support clinical decision making" for minors with gender dysphoria and that for most who present before puberty it will be a "transient phase."**

In order to assess the quality of the treatment guidelines used by the American medical organizations, the BMJ article consulted with two experts on evidence-based guidelines, namely Dr. Gordon Guyatt, distinguished professor in the Department of Health Research Methods, Evidence and Impact at McMaster University and Dr. Mark Helfand, professor of medical informatics and clinical epidemiology at Oregon Health and Science University. **Dr. Guyatt found "serious problems" in the Endocrine Society guidelines, such as lack of evidence of the impact of the intervention on gender dysphoria itself, and at times pairing strong recommendations, phrased as "we recommend" - with weak evidence.**

Dr. Helfand reviewed the guidelines by the World Professional Association for Transgender Health (WPATH) and identified several deficiencies, including the lack of a grading system and lack of transparency for the number and results of the commissioned systematic reviews. Dr. Helfand also noted several instances in the WPATH guidelines in which the strength of evidence presented to justify a recommendation was "at odds with what their own systematic reviewers found." For example the WPATH guidelines praised the "strong evidence" which they claimed had demonstrated benefits in quality of life and well being of gender-affirming treatment in

minors, including endocrine and surgical procedures, which they asserted were safe and effective and not experimental. **However one of the commissioned systematic reviews referenced in this guideline found "low" evidence for the assertion that hormonal treatment may improve quality of life, depression and anxiety among transgender people and emphasized the need for more research, especially among adolescents. The review also concluded that "it was impossible to draw conclusions about the effects of hormone therapy" on death by suicide.**

The "gold standard" for evidence based medicine is an international organization named Cochrane, which has a highly respected reputation for delivery of independent evidence reviews on a wide variety of medical topics. **According to the BMJ article, Cochrane has never published a systematic review of gender treatments in minors and last year rejected a proposal to review puberty blockers in 2021 because "That review found the <u>evidence to be inconclusive</u>, and there have been no significant primary studies published since."**

In 2022 the state of Florida commissioned two an overview of systemic reviews looking at outcomes "important to patients" with gender dysphoria, including mental health, quality of life, and complications. **Two health research methodologists at McMaster University carried out the work, analyzing 61 systematic reviews and concluding that "there is great uncertainty about the effects of puberty blockers, cross-sex hormones, and surgeries in young people." <u>The body of evidence was "not sufficient" to support treatment decisions.</u>**

Dr. Robert Garofalo is chief of adolescent medicine at Lurie Children's Hospital in Chicago and a principal investigator in a study of the effects of hormone treatment in adolescents and children in early puberty. **In a podcast interview in May 2022, Dr. Garofalo stated the evidence based remained, "a challenge…it is a discipline where the evidence basis now being assembled" and that "it's truly lagging behind [clinical practice], I think, in some ways."**

The BMJ article ended with a short description of concerns in the **informed consent process** for the use of gender-affirming therapies. One

was the long-term impacts of the treatment, and the other involved whether a young person will persist in their gender identity.

The second paper is "The Myth of 'Reliable Research' in Pediatric Gender Medicine: A critical evaluation of the Dutch Studies - and research that has followed, " which was published in the Journal of Sex and Marital Therapy (JSMT).

In my opinion, the authors present a devastating and extremely detailed critique of the research data underlying gender transition in minors. The authors assert the original two Dutch studies published in 2011 and 2014 were methodologically flawed and suffer from such profound limitations that they should never have been used as justification for propelling these interventions into general medical practice. The authors assert neither the Dutch research nor the research that followed is fit for shaping policy or treatment decisions regarding gender dysphoric youth at the population level.

The authors of the JSMT article describe methodological biases which undermine the Dutch research. They also discussed the significant risk of harm from the Dutch research, as well as the lack of applicability of the Dutch protocol to the current escalating incidence of adolescent-onset, non-binary, psychiatrically challenged youth, who are preponderantly natal females. The authors also assert "spin" problems in in subsequent research from transgender clinics that are actively administering hormones and surgical interventions to youth, which is a tendency to present weak or negative result as certain and positive.

In summary, these two articles present credible and converging data from multiple sources, which conclude there is scanty or no scientific evidence to support the use of hormones, puberty blockers, and surgery to treat gender dysphoria in children and adolescents. These sources range from several European countries to multiple rigorous academic reviews by third-party experts on evidence based medicine. This data demonstrates the treatment guidelines by the World Professional Association for Transgender Health (WPATH), the

Endocrine Society, and other American medical associations are NOT based on solid scientific evidence and should NOT be viewed as impeccable authoritative guides for clinicians who treat transgender patients.

Another relevant article is a Letter to the Editor by Michael Biggs, published in the Archives of Sexual Behavior on 01/18/22, titled "Suicide by Clinic-Referred Transgender Adolescents in the United Kingdom." The letter presented data from the Gender Identity Develop Service, in which four suicides occurred in a cohort of about 15,000 patients between 2010 and 2020, which corresponded to an annual suicide rate of 13 per 100,000. Two suicides occurred in the waiting list group and two occurred in the treatment group. The author noted the suicide rate of this population was 5.5 times higher than the comparable United Kingdom population of similar age and sexual composition, but was also orders of magnitude smaller than the proportion of transgender adolescents who report having attempted suicide during surveys. In his conclusion, the author wrote "**The fact that deaths were so rare should provide some reassurance to transgender youth and their families, though of course this does not detract from the distress caused by self-harming behaviors that are non-fatal. It is irresponsible to exaggerate the prevalence of suicide.**"

Based upon the above information, I urge the members of the senate committee to vote in favor of House Bill 1254.

Thank you for your attention to this matter.

Bryon Herbel, M.D.