March 11, 2023

Dear Chair Lee and members of the Senate Human Service Committee

I respectfully ask that you give HB 1254 a DO NOT PASS recommendations.

My name is Luis Casas. I am one of two pediatric endocrinology specialists in the state of North Dakota. Although I was not born or raised in Kindred, North Dakota, I have been a proud resident for the past 10 years. My wife was born and raised in North Dakota and serves as the only medical geneticist in North Dakota. My training after medical school included four years of a combined pediatric and internal medicine residency and an additional four year combined pediatric and adult endocrine fellowship. After completion of my training, I became boarded in all four specialties that included Pediatrics, Internal Medicine, Pediatric Endocrinology and Endocrinology & Metabolism (Adult endocrinology). Upon graduation from medical school, I swore to the Hippocratic Oath (an oath of ethics) to first do no harm. As a practicing endocrinologist, I am trained to follow the research backed guidelines and standards of care by reputable medical societies that include the Endocrine Society, American Association of Clinical Endocrinology and the Pediatric Endocrine Society.

An endocrinologist has specialized training in the field of medicine that studies conditions related to hormones, including the hormone treatments of adolescents with gender dysphoria. Hormone treatments for gender dysphoria that includes hormones to suppress puberty, hormone blockers and hormone replacements (cross hormone therapy) have been extensively studied and are part of the recommendations endorsed by the World Professional Association for Transgender Health and supported by the aforementioned endocrine medical societies.

Gender dysphoria is a condition where a person experiences discomfort or distress because there is a mismatch between their biological sex and gender identity. Being transgender is not a disorder and is not a condition I am treating; I am involved in the treatment of gender dysphoria. Pediatric endocrinologist treatment of mental health disorders with hormones is not new. Since the 1950's, we have been treating height dysphoria (a type of body image anxiety disorder) with growth hormone to affect the growth and final height of children and adolescent who are short, distressed about their height and seek treatment to alleviate their mental distress. We also use hormones to treat adolescent girls with polycystic ovarian syndrome who are distressed by unwanted facial hair growth and severe acne that comes from excessive androgen hormones. The hormone treatment for gender dysphoria is similar in concept, but more complex because of the social stigma of this disorder.

Gender dysphoria can be present as early as two years of age and can present at anytime during childhood. However, only about 30% of all children who present with symptoms of gender dysphoria in childhood (before entering puberty) will go on to have gender dysphoria as adolescents and adults and ultimately transition to a different gender. It is for this reason that hormone therapy or pubertal blockers play no role in the treatment of pre-pubertal children. Despite what you may hear from supporters of this Bill, pediatric endocrinologists DO NOT treat pre-pubertal children with any hormone therapy; it simply does not make sense to do so and is not in the recommended guidelines.

In prior testimonies, there are claims that young or pre pubertal children are being treated with pubertal suppression drugs and that the drugs have deleterious and irreversible effects. -First, when an

adolescent enters puberty the symptoms of gender dysphoria will either go away or intensify along with symptoms of increasing anxiety and depression. It is that 30% whose symptoms intensify who are the focus of my care. The rest will NOT go on to receive endocrine or hormone care. For those younger adolescents who have clinically entered puberty and whose dysphoria has intensified, pubertal hormone blockers are offered but NOT hormone affirmation treatment (cross hormones). Pubertal hormone blockers are meant to put "a pause" on puberty to give that adolescent time to work closely with their parents and behavioral health providers to explore their gender experience. After a few years of hormone therapy, some may decide to not move forward with hormone transition and pubertal blockers can be stopped. These adolescents will resume puberty normally and there would be no permanent adverse effects of their treatment to "pause puberty" (It is fully reversible). For those who continue to experience gender dysphoria and reach an age where hormone transition is appropriate, hormone affirmation treatment options are then considered. Of note, pubertal suppression treatment is also a standard of care used for children with premature or early puberty (for which >95% of pubertal blockers is used in children) and yet we don't hear concerns of these treatments in this group of children who receive the same medications. Hormone blockers which is different than that of pubertal blockers are also used in the care of gender dysphoria to block the feminizing effects of natural estrogen or the masculinizing effects of natural testosterone. Use of hormone blockers do not affect estrogen or testosterone levels (we simply block the hormone affects, rather than block the hormone's productions). This treatment is also fully reversible and once the medications are stopped, the hormones will no longer be blocked and its effects on the body will continue.

Before an adolescent is offered hormone affirmation treatment, they must first have an evaluation by a mental health provider experienced in the area of gender health who must state that this adolescent meets the Diagnostic and Statistical Manual of Mental Health (DSM-5) criterial for gender dysphoria and that the gender dysphoria has been long lasting. They must show that the adolescents' general / overall mental health is reasonably well controlled and that they can have the capacity to make an informed consent. Finally, their parent or legal guardian must be involved in their care and able to consent to treatment. Under no circumstance is an adolescent treated with hormone affirmation therapy without the involvement of a mental health provider and their explicit recommendations for treatment. As an endocrinologist, we must also believe that treatment with hormones is in their best interest. Many adolescents do not receive treatment with hormones if we deem that the treatment is unlikely to alleviate their gender dysphoria (such as an adolescent who may identify has gender fluid or non-binary and has no strong desire to be either masculine or feminine).

Other arguments by those favoring this Bill include treatments that result in "chemical" or surgical "castration". The fact is that the use of hormone affirmation treatment (cross hormones) or pubertal suppression makes them temporarily infertile. This is to adolescent girls who are treated with birth control pills. Infertility in the first 10 years of treatment is considered reversible in the same way that stopping birth control pill would restore fertility. The risk of infertility increases with long term use of cross hormone therapy which takes many years of treatment and only in those who as adults, chose to continue cross hormone therapy. Regarding surgical hysterectomy or orchiectomy (removal of testicles), these surgical treatments are NOT recommended before the age of 18 years and have NOT occurred in North Dakota for treatment of gender dysphoria.

As a pediatric and adult endocrinologist, I also have the unique experience of seeing first-hand the transition from distressed adolescents to happy and successful adults. I see many adolescents presenting with significant depression, anxiety and suicidal thoughts who are struggling with school and friendships because of their gender dysphoria. After undergoing treatments that include behavioral

health therapy and hormone affirmation therapy, they go on to succeed in college and/or productive jobs and long-term relationships.

Finally, I have heard by oral and written testimony by many favoring this Bill that this Bill is intended to "protect our children". Once again, we are not treating being transgender, we are treating the mental health disorder of gender dysphoria that increases risk for self-harm and death through suicide. How are we protecting these adolescents by removing the treatments that alleviate their gender dysphoria and reducing their risk of suicide (proven effect of treatment)? We are in fact hurting our adolescents by removing the proven treatments that alleviates their distress.

To truly protect our children, I urge you to give this Bill a DO NOT PASS.

Thank you for your time,

Luis Casas, MD
Pediatric and Adult Endocrinologist