Chairwoman Roegner, Vice Chair Antani, Ranking Member Hicks-Hudson, and Members of the Senate Government Oversight Committee:

I'm Dr Elizabeth McIntosh, and I am a board-certified family medicine physician practicing in Johnstown, OH. Incidentally, my office is less than 2 miles from the new Intel plant megasite that is going up. I have been in Johnstown for 3 years now, and I provide outpatient primary care for all ages, including children and teenagers.

I would like to speak in support of the proposed legislation HB68, especially in support of the SAFE act, because I believe it is a sensible and rather modest check on what is a rapid and unprecedented change in the standard of care for our kids. The legislation is not limiting anything for transgender adults; it is merely saying that we should ask our children to finish growing up before making life-altering medical decisions about their sexuality and future fertility.

Gender-related conditions in adolescents are obviously more complicated than in grown adults who have had years of living with their body and their mature sexual organs. Most teenagers struggle with the physical and emotional changes of puberty, regardless of their gender identity. Think back to when you were in middle school or junior high - did you like how you looked and sounded? Do you know *anyone* who felt comfortable in their own skin during that time? Most girls I see in the office, for example, dread the idea of having periods and the hassle of wearing bras. While there are exceptions, many cases of teenage gender dysphoria involve students who are just starting to feel the effects of the hormones that their bodies naturally produce, are uncomfortable with the changes, and want them to stop. But studies have also shown that most adolescents who question their gender identity will come to accept their biological sex by adulthood (see references 1-4). So it makes sense to give them time and treat with the least invasive measures to start, just like we do with other conditions.

A basic tenet of medical care is "first, do no harm," which is why we try to make sure that the potential benefits of an intervention will outweigh the risks. In the case of gender transition procedures, it is unclear if the treatments lead to any long-term benefits in mental health. (see reference 5). But it is clear that the medications do cause harms to physical health. Cross-sex hormones can cause weight gain, acne, increased risk of blood clots, decreased bone density, increased risk of certain cancers, and infertility, just to name a few. Even puberty blockers, which are often said to be reversible, permanently change the normal biological course of development. The NHS website for Great Britain notes that "little is known about the long-term side effects of hormone or puberty blockers in children with gender dysphoria. Although a physically reversible treatment if stopped, it is not known what the psychological effects may be. It's also not known whether hormone blockers affect the development of the teenage brain or children's bones. Side effects may also include hot flashes, fatigue, and mood alterations." And surgical procedures, of course, are even more invasive and irreversible.

Some would argue that minors should still be allowed to give consent after being presented with the risks and benefits. But neuroscience suggests that the teenage brain is just not mature enough to make such decisions. In truth, even 18 years old is probably still too young, since the prefrontal cortex that is involved in executive decision making doesn't fully develop until about age 25. The immature brain is why young people tend to be more impulsive, and to act on emotion without weighing the long-term consequences. We know this to be true in other areas of behavior, such as their tendency to engage in unprotected sex or to get in car accidents. If reaching maturity is essential for informed, responsible consent to sexual activity, it is essential for informed, responsible consent to procedures that affect sexuality and sexual organs.

We are already seeing lawsuits from minors who were started on puberty blockers and cross-sex hormones and now, having matured, starting to realize the true consequences of these chemicals. In Great Britain, Kierra Bell filed a court case against the Tavistock Center for starting her on puberty blockers at 16, followed by testosterone treatments and a double mastectomy. In California, an 18 year old named Chloe Cole is suing Kaiser Permanente for transgender surgery that was performed when she was only 13. And just last month, a woman in Florida named Isabelle Ayala is suing her doctors and the American Academy of Pediatrics for starting her on cross sex hormones at 14. Many other such cases have come forward (see references 6-9), and should urge us to greater caution in the treatment of gender-dysphoric youth.

In medical school, most curriculums start with learning how a healthy human body works, before covering disease states and pharmacology. We practice listening to healthy hearts over and over so that we can recognize when there is an abnormal heart murmur. We have to first know what normal is before we can understand and treat abnormal. It is the same for our kids. How can they know what gender they want to be before they have even experienced normal gender development?

Life is short enough as it is, and many times we don't get second chances. How often do you hear someone say, I wish I could be a kid again, or I should have spent more time with my kids before they grew up? Our children will only get one chance to be teenagers. Even though they may think that they know everything already and don't need our help, I believe that we should protect that time for them, and not let them rush into life-altering decisions that they may regret.

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