Good afternoon,

I am Dr. Jane Anderson, Vice President of the American College of Pediatricians and Clinical Professor of Pediatrics, University of California, San Francisco – retired. I am not representing the university today.

You will hear many myths concerning transgender ideology. I am here to provide you with the scientific evidence.

1. **No human is born in the wrong body.**

   There are two biological sexes determined by chromosomes that are present in every somatic cell of the body and the internal and external reproductive organs with reproductive cells that are sex specific. No outward physical alterations can change the chromosomal make-up of the individual.

2. **Gender ideology is based upon thoughts and feelings.**

   Gender ideology, the view that sex (male and female) is inadequate and that humans need to be further categorized based on an individual's thoughts and feelings described as "gender identity" or "gender expression", does not accommodate the reality of these innate sex differences.

3. **Gender dysphoria is not permanent.**

   Youth who feel uncomfortable in their biological sex, if allowed to progress through normal puberty with the natural increase in sex hormones that contribute to the development of the adolescent brain, will desist and feel comfortable in their biological sex 85% of the time. (1, 2)

   a. The American Psychological Association and the Endocrine Society guidelines warn against early diagnosis and confirmation of gender dysphoria. (3, 4, 5, 6)

4. **Gender dysphoria is not an isolated phenomenon.**

   Most youth who feel uncomfortable in their biological sex have experienced previous trauma, including adverse childhood experiences such as emotional, physical, or sexual abuse, or they have an underlying mental health concern such as depression, anxiety, or suffer from autism spectrum disorder. (7, 8, 9, 10, 11, 12, 13)

   a. One research article is instructive. Electronic medical records from Kaiser Permanente of 26,300 children and adolescents who identified with their biological sex were age and sex matched to 1333 transgender individuals
   b. Diagnoses <u>prior to diagnosis of gender dysphoria</u> were compiled
   c. There were high rates of psychiatric disorders and suicidal ideation <u>before</u> gender non-congruence in teens.
   d. Psychological hospitalizations were 22 – 44 fold higher and self-harm was 70 – 144 fold higher in transgender youth BEFORE trans identity. (9)

5. **Mental health evaluation and support for the patient and family is recognized as the standard of care for minors with gender dysphoria.**

   The 2015 report from Finland's gender identity services concluded, "Treatment guidelines need to consider gender dysphoria in minors in the context of severe psychopathology and developmental

difficulties." (14)

6. **Social affirmation and medical and surgical interventions have not proven to be effective.**

   These interventions do not treat the depression and anxiety experienced by these youth, nor do they decrease suicidal ideation.

   a. Systematic reviews performed in the United Kingdom (15, 16, 17, 18), Sweden (19, 20), Finland (21), and Germany (22) demonstrate that gender affirming care <u>does not decrease</u> the mental health concerns, including depression, experienced by transgender youth
   b. Studies have evaluated puberty blockers.
      1) The Florida Agency for Health Care Administration requested McMaster University Department of Health Research Methods to provide an analysis of gender affirming therapies. They found no study comparing outcomes between those using and not using puberty blockers, so they stated, "it is unknown whether people with gender dysphoria who use puberty blockers experience more improvement in gender dysphoria, depression, anxiety, and quality of life than those with gender dysphoria who do not use them." "There is very low certainty about the effects of puberty blockers on suicidal ideation." (23)
      2) The Cass Review in its Final Report stated in regard to puberty blockers, "No changes in gender dysphoria or body satisfaction were demonstrated." (15)
   c. Studies have evaluated cross sex / wrong sex hormones.
      1) The Cass Review in its Final Report in regard to cross sex / wrong sex hormones, "There is a lack of high-quality research assessing the outcomes of hormone interventions in adolescents with gender dysphoria/incongruence, and few studies that undertake long-term follow-up. No conclusions can be drawn about the effect on gender dysphoria, body satisfaction, psychosocial health, cognitive development or fertility." (15)
   d. Surgical interventions do not improve mental health.
      The best study on surgical interventions comes from Sweden – a population-based, longitudinal cohort study that matched each of 324 patients who underwent surgery with 10 controls. The overall mortality for sex-reassigned persons was higher during follow-up (aHR 2.8) than for controls ,and deaths from suicide were increased 19.1 fold. (24)
   e. **Dr. Hillary Cass, lead author of the Cass Report, called out the U.S. American Academy of Pediatrics for "holding on to a position that is demonstrated to be out of date by multiple systematic reviews."** (25)

7. **The interventions are harmful**
   a. Social affirmation leads to an increased likelihood that the child or adolescent will progress to the use of puberty blockers.
      i. The American Psychological Association Handbook on Sexuality and Psychology states, "Premature labeling of gender identity should be avoided. Early social transition (i.e.change of gender role…) should be approached with caution to avoid foreclosing this stage of (trans) gender identity development." (26)
      ii. In her final report, Cass stated, "The systematic review showed no clear evidence that social transition in childhood has any positive or negative mental health outcomes, and relatively weak evidence for any effect in adolescence. **However, those who had socially transitioned at an earlier age and/or prior to being seen in clinic were more likely to proceed to a medical pathway**. (emphasis added) (27)

b. Puberty blockers
    i. Puberty is a critical time-limited period of healthy physical, cognitive, emotional and social development during which an infertile child becomes a fertile and more mature adolescent.
    ii. Sex steroids have significant impact on the developing adolescent brain and contribute to the organization of the brain and interaction between lobes. (28, 29, 30)
        1) "Hormones organize the adolescent brain via many of the same mechanisms in play during hormonal organization of the perinatal brain, including cell proliferation and survival and synapse formation and elimination. As such, postnatal development appears to be a protracted period of sensitivity to the organizing actions of gonadal steroid hormones on the developing brain." (28)
        2) "Indeed, the effects of gonadal steroid hormones during adolescence on brain structure and behavioral outcomes differs markedly between the sexes. Research findings suggest that adolescence, like the perinatal period, is a sensitive period for the sex-specific effects of gonadal steroid hormones on brain and behavioral development." (28)
        3) "Hormonal surges and consequent physical maturation linked to pubertal development in adolescence are thought to affect multiple aspects of brain development, social cognition, and peer relations, each of which have also demonstrated associations with risk for mood and anxiety disorders." (30)
    iii. Puberty blockers prevent the surge of sex hormones integral to the initiation and maturation of puberty.
    iv. They have known side-effects that are listed in the package inserts and include emotional lability and irritability as well as headache. The package insert for Lupron recommends monitoring patients for development of new or worsening psychiatric symptoms. (31)
    v. An early intervention study on puberty blockers performed at Tavistock in the UK showed that after one year on puberty blockers, "children reported greater self-harm and girls experienced more behavioral and emotional problems and expressed greater dissatisfaction with their body – so puberty blockers exacerbated gender dysphoria." (32).
    vi. The Cass Report stated in reference to the above study on effects of puberty blockers, "A subsequent re-analysis of the early intervention study (McPherson & Freedman, 2023), using original anonymised data from the study, took account of the direction of change in mental health outcomes for individual young people rather than just reporting group means. This secondary analysis found that 37-70% experience no reliable change in distress across time points, 15-34% deteriorate and 9-29% reliably improve." (33)
    vii. Puberty blockers affect bone mass and density and may affect ultimate height. (34, 35)
    viii. Puberty blockers can cause sterility and decrease in sexual fulfillment (36)
    ix. Puberty blockers may have effects on cognitive maturation since Lupton impairs memory in adults using the drug to treat medical conditions. (37)

x. **From the Cass Report - "A further concern is that adolescent sex hormone surges may trigger the opening of a critical period for experience-dependent rewiring of neural circuits underlying executive function (i.e. maturation of the part of the brain concerned with planning, decision making and judgement). If this is the case, brain maturation may be temporarily or permanently disrupted by puberty blockers, which could have significant impact on the ability to make complex risk-laden decisions, as well as possible longer-term neuropsychological consequences. To date, there has been very limited research on the short-, medium- or longer-term impact of puberty- blockers on neurocognitive development." (38)**

c. Wrong sex (cross sex) hormones (39)
    i. Males given oral estrogen have increased risks of myocardial infarction, blood clots, strokes, gall stones, hypertriglyceridemia, breast cancer and gynecomastia.
    ii. Females given testosterone have increased risk of myocardial infarction and cardiovascular deaths, liver dysfunction, hypertension, breast cancer and possibly ovarian cancer.

8. **Minors cannot provide truly informed consent**. (40, 41, 42, 43, 44, 45, 46, 47)

a. Adolescents have developing and immature brains, especially in the areas involved with decision making (40, 41)
b. Adolescents are prone to risk taking and are vulnerable to peer-pressure. (46)
c. Adolescents often do not comprehend long-term consequences of their decisions.
d. In the journal of the American Academy of Pediatrics, Diekema summarizes the research on the immaturity of the adolescent brain and states, the adolescent is experiencing "prefrontal cortex deficit disorder" since they lack the control provided by a mature prefrontal lobe. He cautions, "the desire to respect adolescent decisions must be coupled with the recognition that decision-making, even of mature adolescents, may occasionally be flawed," and suggests, "the current age of majority (18-21 years of age depending upon the state) is not clearly supported by empirical data…it may well be that the age of majority should be reconsidered." (43)
e. Even those who promote "gender affirming care", such as WPATH, recognize this. (47)
    1) Dr. Diana Berg at WPATH conference stated, "but then you kind of have to listen to what the youth is doing with that information to kind of not, not catch them, but to pick up on the ways that they're not really understanding what, because they'll say they understand, but then they'll say something else that makes you think, Oh, they didn't really understand that they, that they are going to have facial hair, right?" "Because they say something else that makes you think, Oh, they didn't get that point, but they'll say they totally get it."
    2) Dr. Daniel Metzger, a Canadian endocrinologist stated, "We're often explaining these sorts of things to people who haven't even had biology in high school yet."

9. **Flawed research is used to promote "gender affirming care"**.

   Flaws include small sample sizes, incorrect sampling methods/recruitment bias, high percentages of patients who are lost to follow up, and lack of randomized prospective trials.
   a. "Gender-Affirming hormone therapy improves levels of depression in transgender individuals within the first year of treatment." This title sounds as if it confirms the benefit of providing hormone theray, but only **31** patients were followed for only **one** year. (48)

10. **Detransition regret is real** and minimized by those who promote "gender affirming care". (49, 50, 51)
    a. Rates of 0.3 – 0.6 % are usually given, but a nationwide registry in Finland between 1996 and 2019 found at least 7.9% discontinued cross-sex/wrong sex hormones with 3 times as many more discontinuing between 2013 and 2019. (49)
    b. Dr Cohn stated, after an analysis of the research on regret, "It is important for those considering medical intervention to know that the likelihood of regret, detransition, and discontinuation is unknown, that regret and detransition can be traumatic, and that the extremely small numbers quoted by some are not reliable or representative." (50)
    c. A reddit website for detransitioners has 56,000 members. (51)

11. **Refusing to provide "gender affirming care" is not discriminatory**, but rather protective of a vulnerable, at-risk population. Sterilization and surgical mutilation of otherwise healthy young bodies is not health care. (52)

As compassionate, caring adults who understand that transgender ideology is based upon emotional responses to mental health concerns, we must protect children from these experimental, harmful, mutilating and sterilizing interventions. Instead, they and their families deserve mental health services to address their underlying traumas.

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