Exhibit II

UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF MARYLAND

PFLAG, INC.; *et al.*, *Plaintiffs*, v. DONALD J. TRUMP, in his official capacity as President of the United States; *et al.*, *Defendants*.	Civil Action No. 8:25-cv-00337-BAH

REPLY DECLARATION OF JACK TURBAN, M.D., M.H.S

INTRODUCTION

1. I have been retained by counsel for Plaintiffs as an expert in connection with the above-captioned litigation. I am over 18 years of age, of sound mind, and in all respects competent to testify.

2. I have actual knowledge of the matters stated herein.

3. I have reviewed the amicus briefs by Do No Harm, Inc. ("DNH") and Alabama et al. Here, I respond to some of the central points in those briefs. The materials I have relied upon in preparing this declaration are the same types of materials that experts in my field of study regularly rely upon when forming opinions on the subject. I may wish to supplement these opinions or the bases for them as a result of new scientific research or publications or in response to statements and issues that may arise in my area of expertise.

THE AMICUS BRIEFS ARE MISLEADING REGARDING THE RESEARCH ON GENDER-AFFIRMING MEDICAL INTERVENTIONS AND SUICIDALITY

4. On page 19 of the DNH brief, the authors provide a discussion of the research examining the impact of gender-affirming medical interventions on suicidality. They note that research has not linked such treatments to a reduction in *completed* suicides.[1] While this is true, it omits the critical fact that research regarding completed suicides is extraordinarily difficult. Only two treatments in psychiatry – clozapine and lithium – have research showing that they reduce *deaths* from suicide. Such a standard is not a reasonable one for deciding whether treatment for a condition is effective and would result in most treatments in psychiatry being vulnerable to government bans and other restrictions. Furthermore, while it is difficult to study completed

[1] The amicus brief by Alabama et al. contains a similar discussion on page 8.

suicides,[2] research studies have shown that access to gender-affirming medical treatments during adolescence is associated with lower odds of suicidal ideation and suicide attempts, facts that this amicus brief fails to discuss. For example, a study by Green et al. in the *Journal of Adolescent Health* found that access to gender-affirming hormone treatment during adolescence was associated with lower odds of having attempted suicide in the past year.[3] Of note, separate lines of research have shown that lower-intensity measures of suicidality (e.g., suicidal ideation) are associated with greater risk of future death from suicide.[4]

THE ALABAMA ET AL. BRIEF PROVIDES A LONG DISCUSSION OF THE WPATH STANDARDS OF CARE WHILE IGNORING STATEMENTS FROM OTHER MAJOR MEDICAL ORGANIZATIONS, INCLUDING CLINICAL GUIDELINES FROM THE ENDOCRINE SOCIETY

5. Though the amicus brief by Alabama et al. provides a lengthy critique of the World Professional Association for Transgender Health (WPATH), the brief fails to mention that similar guidelines have been issued by the Endocrine Society[5] and the brief provides no critique of the Endocrine Society or the guidelines it has published. Further, the amicus brief fails to note that all major medical organizations, including The American Medical Association, The American

[2] One reason for this is that to study completed suicides, researchers often use death records, and these do not routinely annotate whether a person is transgender or suffers from gender dysphoria.

[3] Green, A. E., DeChants, J. P., Price, M. N., & Davis, C. K. (2022). Association of gender-affirming hormone therapy with depression, thoughts of suicide, and attempted suicide among transgender and nonbinary youth. *Journal of Adolescent Health*, *70*(4), 643-649.

[4] Rossom, R. C., Coleman, K. J., Ahmedani, B. K., Beck, A., Johnson, E., Oliver, M., & Simon, G. E. (2017). Suicidal ideation reported on the PHQ9 and risk of suicidal behavior across age groups. *Journal of Affective Disorders*, *215*, 77-84

[5] Hembree, W. C., Cohen-Kettenis, P. T., Gooren, L., Hannema, S. E., Meyer, W. J., Murad, M. H., ... & T'Sjoen, G. G. (2017). Endocrine treatment of gender-dysphoric/gender-incongruent persons: an endocrine society clinical practice guideline. *The Journal of Clinical Endocrinology & Metabolism*, *102*(11), 3869-3903.

Psychiatric Association, The American Academy of Pediatrics, and the American Academy of Child & Adolescent Psychiatry, among many others, have issued explicit statements opposing bans on gender-affirming medical interventions for adolescent gender dysphoria.[6]

THE DNH AMICUS BRIEF OVERSTATES THE SIGNIFICANCE AND RELIABILITY OF SYSTEMATIC REVIEWS CONDUCTED BY A FEW INDIVIDUALS OUTSIDE OF THE UNITED STATES, INCLUDING THOSE CONDUCTED AS PART OF THE "CASS REPORT"

6. The DNH amicus brief provides a "pyramid of evidence" graphic and strangely tries to use this graphic to discredit the fact that all major medical organizations oppose bans on gender-affirming medical interventions.[7] While the graphic accurately highlights that a systematic review provides more information than a single case-control study or cohort study, it provides no information reflecting the fact that experts in this field aren't relying on a *single* case-control study or cohort study, but rather on their evaluation of the full medical literature. While the amicus brief is correct in noting that a narrative review (e.g., an expert declaration) could conceivably cherry-pick evidence—or omit evidence that does not align with its conclusions—the brief provides no such evidence that would contradict any statements made by major medical organizations that have endorsed this care, nor any statements made in my initial report.

7. The DNH brief suggests that the systematic reviews that were conducted as part of the United Kingdom's Cass Report, as well as other systematic reviews out of Europe and Florida, are the most reliable evidence on the safety and efficacy of gender-affirming medical care for minors. Although systematic reviews can be valuable, especially to identify and evaluate the

[6] See my initial report at ¶13.

[7] *Id.*

research for those who haven't closely reviewed it themselves,[8] the quality of systematic reviews varies, and many subjective decisions are made in carrying out systematic reviews and summarizing the literature. Below I discuss some of the significant issues with these reviews and why they do not merit the outsized weight the DNH brief attributes to them.

The United Kingdom's National Health Service "Cass Report" Systematic Reviews

8. The DNH amicus brief fails to mention that the systematic reviews commissioned by the "Cass Report" have been heavily criticized.[9] One major flaw is that the review authors changed their methodology from their pre-registration. Pre-registration is a process by which researchers upload their study protocol into a database prior to beginning their research project. This prevents researchers from later changing their study protocol if they do not like their results for some reason. Pre-registration prevents bias and is recommended, in particular, for systematic reviews. For example, *The Journal of the American Academy of Child & Adolescent Psychiatry*,

[8] The Endocrine Society noted in a statement, "NHS England's recent report, the Cass Review, does not contain any new research that would contradict the recommendations made in our clinical practice guideline on gender-affirming care." The Endocrine Society. Press Release: Endocrine Society Statement in Support of Gender-Affirming Care. Available at: https://www.endocrine.org/news-and-advocacy/news-room/2024/statement-in-support-of-gender-affirming-care. Accessed: May 27, 2024.

[9] See, for example, McNamara, M., Baker, K., Connelly, K., Janssen, A., Olson-Kennedy, J., Pang, K. C., Scheim, A., Turban, J., & Alstott, A. (2024). An evidence-based critique of "The Cass Review" on gender-affirming care for adolescent gender dysphoria. Available at: https://law.yale.edu/sites/default/files/documents/integrity-project_cass-response.pdf. Accessed: February 10, 2025.

as of July 1, 2024, requires that all systematic reviews be pre-registered in PROSPERO, the most commonly used pre-registration database.[10]

9. The authors of the systematic reviews commissioned by the Cass Report team on pubertal suppression and gender-affirming hormones pre-registered their study in PROSPERO.[11] However, the authors then changed their methodology without commenting on the change in their manuscript. In their pre-registration, the authors of the systematic reviews stated that they would assess the quality of research studies using the Mixed Methods Appraisal Tool (MMAT). However, in their final manuscripts, they switched to a different scale: a modified version of the Newcastle-Ottawa Scale. The authors made no reference to this change in their manuscript and provided no rationale. This is a clear divergence from standard academic publishing practices that are designed to minimize bias in the publishing of systematic reviews.

10. Additionally, the systematic review team commissioned by Cass used idiosyncratic standards in scoring, and thus, excluded studies that contain important evidence. For instance, the Cass team's modified Newcastle-Ottawa scale down scored studies if they used both validated outcome measures *and* unvalidated outcome measures. This approach is problematic, as it results in the exclusion of important findings from the validated measures. The systematic review team's modified Newcastle-Ottawa scale also down scored studies that did not control for age and sex in *every* statistical model. Such down scoring is anomalous, as many of the studies examined followed the standard statistical approach of only adjusting for age and/or sex in the models for

[10] Journal of the American Academy of Child & Adolescent Psychiatry. Instructions for Authors. Available at: https://www.jaacap.org/content/authorinfo. Accessed: May 27, 2024.

[11] Fraser, L. et al. The epidemiology, management, and outcomes of children with gender-related distress / gender dysphoria: a systematic review. *PROSPERO*. Available at: https://www.crd.york.ac.uk/prospero/display_record.php?RecordID=289659. Accessed: May 27, 2024.

which age and/or sex were associated with outcome variables. These mid-review subjective calls made by the systematic review team are particularly worrisome since the team did not follow their pre-registration methodology. Because of this scoring system, the reviews commissioned by the Cass Report excluded studies that have made important contributions to the field of treating adolescents with gender dysphoria.

11. In any event, as mentioned in my initial report, even with these significant flaws to the systematic reviews it commissioned, the Cass Report itself recognized that a ban on gender-affirming medical interventions for adolescent gender dysphoria would not be appropriate and highlighted that treatment should still be available to pediatric patients in certain circumstances (circumstances similar to those outlined in the Endocrine Society Guidelines), as I explained in my initial report in ¶36-39. This is in stark contrast to Executive Order 14187, which aims to take this treatment away from all adolescent patients experiencing gender dysphoria.

The Swedish Systematic Review

12. The DNH amicus brief also discusses a systematic review conducted by a research team in Sweden.[12] This systematic review similarly diverged from standard practice in systematic review pre-registration, posting their pre-registration on their own website instead of a third-party neutral database like PROSPERO. Though the published manuscript reports that the study methods are pre-registered on the authors' website, I was unable to find this pre-registration.

13. The Swedish review used the ROBINS-I tool for grading individual studies, excluding studies that, according to that instrument, were considered to have a high risk of

[12] Ludvigsson, J. F., Adolfsson, J., Höistad, M., Rydelius, P. A., Kriström, B., & Landén, M. (2023). A systematic review of hormone treatment for children with gender dysphoria and recommendations for research. *Acta Paediatrica*, *112*(11), 2279-2292.

methodological bias. They provided a list of studies that were excluded but did not provide information on how the ROBINS-I was specifically applied to these individual studies to justify their exclusion.

14. Strangely, studies published in the time period of their literature search, which linked gender-affirming medical interventions to positive mental health outcomes, were not included in their list of excluded or included studies. For example, a study by van der Miesen et al. in the *Journal of Adolescent Health*, published in 2020, which showed that access to pubertal suppression was associated with lower odds of mental health symptoms, was missing from the report altogether. Incidentally, the Cass Report's systematic review rated this same study excluded by the Swedish Review as "high quality" on its modified Newcastle-Ottawa Scale.

The Florida McMaster "Review of Reviews"

15. The McMaster report,[13] commissioned by the Florida Agency for Health Care Administration, was not peer-reviewed. Following publication, the report was analyzed by a joint team of professors at Yale Law School and Yale School of Medicine.[14] The authors of the Yale publication concluded that the "analysis [was] extremely narrow in scope, inexpert, and so flawed

[13] Brignardello-Peterson, R. & Wiercioch, W. (2022) Effects of gender affirming therapies in people with gender dysphoria: an evaluation of the best available evidence. Prepared for the Florida Agency for Health Care Administration.

[14] McNamara et al. (2022) A critical review of the June 2022 Florida Medicaid report on the treatment of gender dysphoria. Available at: https://medicine.yale.edu/lgbtqi/clinicalcare/gender-affirming-care/florida%20report%20final%20july%208%202022%20accessible_443048_284_55174_v3.pdf. Accessed: June 1, 2024.

that it merits no scientific weight at all."[15] They went on to explain that the failure of the review team to include a subject matter expert violated the systematic review standards set forth by the National Academy of Medicine (formerly the Institute of Medicine). Specifically, it violated standard 2.1, which requires that a systematic review study team "include experts in pertinent clinical content areas."[16] To emphasize this point, the Yale review explains, "by analogy, one would not rely on, say, two dermatologists to conduct a review of the scientific literature on neurosurgery and to make recommendations for clinical practice."[17]

The Finnish Report

16. The DNH amicus brief cites an unofficial translation of a report from Finland's Council for Choices in Health Care in Finland. This document only identified three studies examining the impact of gender-affirming medical interventions on adolescent gender dysphoria, when there are well over a dozen peer-reviewed research studies examining the impact of gender-affirming medical interventions on the mental health of adolescents with gender dysphoria. It is quite clearly not an accurate representation of the full scientific literature.

[15] *Id.*

[16] Institute of Medicine (US) Committee on Standards for Systematic Reviews of Comparative Effectiveness Research. (2011) Finding what works in health care: standards for systematic reviews. Available at: https://pubmed.ncbi.nlm.nih.gov/24983062/. Accessed: June 1, 2024.

[17] McNamara et al. (2022) A critical review of the June 2022 Florida Medicaid report on the treatment of gender dysphoria. Available at: https://medicine.yale.edu/lgbtqi/clinicalcare/gender-affirming-care/florida%20report%20final%20july%208%202022%20accessible_443048_284_55174_v3.pdf. Accessed: June 1, 2024.

Examining the Systematic Reviews Together

17. Examining them together, the systematic reviews upon which the DNH amicus brief relies are highly impacted by subjective methodological decisions (what scale was used when grading evidence, how the scales were adapted if at all, how the final scale was applied, and how the overall body of research was subsequently summarized). To emphasize this point, I list below the studies that were evaluated in both the Cass Report systematic review and the Swedish systematic review. One will see that these two systematic reviews disagreed, based on their assessment of study quality, on whether to include or exclude more than half of the studies:

Study	"Cass Report" Rating	Swedish Systematic Review Rating
Achille et al 2020	Rated low quality (excluded)	Rated low quality (excluded)
Allen et al 2019	Rated moderate quality (included)	Rated low quality (excluded)
de Vries et al 2011	Rated moderate quality (included)	Rated low quality (excluded)
Ghelani et al 2020	Rated moderate quality (included)	Rated low quality (excluded)
Hannema et al 2017	Rated moderate quality (included)	Rated low quality (excluded)
Jensen et al 2019	Rated high quality (included)	Rated low quality (excluded)
Lopez de Laura et al 2020	Rated moderate quality (included)	Rated low quality (excluded)
Millington et al 2020	Rated low quality (excluded)	Rated low quality (excluded)
Neyman et al 2019	Rated low quality (excluded)	Rated low quality (excluded)
deVries et al 2014	Rated low quality (excluded)	Rated of sufficient quality (included)
Costa et al 2015	Rated moderate quality (included)	Rated of sufficient quality (included)
Becker-Hebly et al 2020	Rated low quality (excluded)	Rated of sufficient quality (included)
Cantu et al 2020	Rated low quality (excluded)	Rated of sufficient quality (included)
Carmichael et al 2021	Rated moderate quality (included)	Rated of sufficient quality (included)
Hisle-Gorman et al 2021	Rated moderate quality (included)	Rated of sufficient quality (included)
Staphorsius et al 2015	Rated low quality (excluded)	Rated of sufficient quality (included)

18. It is also worth noting that despite diverse ratings of evidence quality, the studies reviewed consistently find that access to treatment is associated with improved mental health and quality of life.

CONCLUSION

19. The amicus briefs filed by DNH and Alabama et al. fail to provide a valid rationale supporting Executive Order 14187. In addition to the issues outlined above, they make a range of clearly erroneous statements[18] and vague rhetorical statements that lack value.[19] They should not be provided any weight.

Dated: February 26, 2025

Jack L. Turban

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[18] For example, claiming that adolescents with gender dysphoria are "healthy" on page 6 of the DNH brief, in a strange attempt to claim that the recognized diagnosis of gender dysphoria does not exist.

[19] For example, claiming that gender-affirming medical interventions are "science-denying" without explaining what science is being denied.