APPENDIX D

Selections from Excerpts of Record

UNITED STATES DISTRICT COURT
DISTRICT OF IDAHO

PAM POE, by and through her parents and next friends, Penny and Peter Poe; PENNY POE; PETER POE; JANE DOE, by and through her parents and next friends, Joan and John Doe; JOAN DOE; JOHN DOE,

Plaintiffs,

v.

RAÚL LABRADOR, in his official capacity as the Attorney General of the State of Idaho; JAN M. BENNETTS, in her official capacity as County Prosecuting Attorney for Ada, Idaho; and the INDIVIDUAL MEMBERS OF THE IDAHO CODE COMMISSION, in their official capacities,

Defendants.

Case No. 1:23-cv-00269-CWD

REMOTE VIDEOTAPED DEPOSITION OF JACK TURBAN, M.D., MHS
MONDAY, OCTOBER 16, 2023

Reported By: Amy E. Simmons, CSR, RDR, CRR, CRC

REMOTE VIDEOTAPED DEPOSITION OF JACK TURBAN, M.D., MHS

BE IT REMEMBERED that the remote videotaped deposition of JACK TURBAN, M.D., MHS was taken via Zoom videoconference by the attorney for the Defendants before Associated Reporting & Video, a Veritext company, Amy E. Simmons, Idaho CSR No. 685, California CSR No. 14553, Washington CSR No. 22012915, Oregon CSR No. 22-009, and Notary Public in and for the County of Ada, State of Idaho, on Monday, the 16th day of October, 2023, commencing at the hour of 9:06 a.m. Pacific time in the above-entitled matter.

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something like recall bias, et cetera, that that's usually the part of the paper where that's going to be written.

But I think most experts are also going to read the full paper to see if they identify any other limitations of the study that weren't explicitly noted in the discussion section of the paper.

Q. And this will for now be my last question on this, and then maybe we can take a break.

But I'd like to go to page 182 in this document. Just let me know if you're there.

A. We're there.

Q. Okay. And I'd like to look at the last paragraph on the page in the first sentence. And I'll just read it and ask if I read it correctly.

It says "In answering any clinical question, our first goal should be to identify whether there is an existing systematic review of the topic that can provide a summary of the highest quality available evidence (see the summarizing the evidence section)."

Did I read that correctly?

A. Yes.

Q. And do you agree that the first goal in

answering any clinical question is to identify whether there is an existing systematic review of the topic?

MS. NOWLIN-SOHL: Object to the form.

THE WITNESS: I think what this is likely referencing -- not having read the entire textbook, but it looks like it's a textbook about teaching clinicians how to conduct evidence-based medicine -- I think they're saying when you first come to a topic, so if you're not an expert in a topic -- let's say I were going to treat someone with -- let's just say it's a hypothetical condition that I don't treat every day but I have a patient who I need to help.

One of the first things I would look for is yes, a systematic review. If I don't already know that literature, that's going to be a really fast way for me to find a summary of a lot of the literature that I need to know for that given situation. So yes, it would be a good place to start.

I think if your aim is to be an expert in the field, you wouldn't stop there. You would read the systematic review. You would look at the evidence that's in there but then if you really

wanted to be an expert, you would probably pull the individual studies that are identified in the systematic review, analyze them further, see what additional information can be teased out that maybe wasn't teased out by the person who did the initial systematic review where likely their goal was just to give you a sense of the whole of the literature.

MR. RAMER: All right. I think maybe we're at a breaking point here. Does that sound good?

MS. NOWLIN-SOHL: Yeah, that sounds good. Five minutes?

MR. RAMER: Yeah, works for me.

THE VIDEOGRAPHER: Okay. So the time is 10:06 a.m. Pacific time, and we are off the record.

(Break taken from 10:06 a.m. to 10:12 a.m.)

THE VIDEOGRAPHER: So we are recording. The time is 10:12 a.m. Pacific, and we are back on the record.

Q. (BY MR. RAMER) Dr. Turban, I'd like to go to your declaration, which is Turban Exhibit 1, and specifically go to page 15 and paragraph 24.

And I just want to read the -- it's

toward the end of the paragraph on this page. I'll read the sentence starting with the word "but" and then just ask if I read it correctly.

It says "But all a systematic review means is that the authors of the reports predefined the search terms they used when conducting literature reviews in various databases."

And did I read that correctly?

A. Correct. There's a citation to the Harvard Countway Library.

Q. And based on what we've discussed so far today, do you agree that this sentence is wrong?

A. No.

Q. You maintain that all a systematic review means is that the authors of the reports predefine the search terms they used when conducting the literature reviews; is that right?

A. Correct.

Q. Okay.

A. There are other things one may do as part of a systematic review to add to it, but the label at its face means that the review was systematic, that you defined your search terms and your databases for how you identified your literature.

Different authors might do different things from there.
Q. And so you do not think that a systematic review includes the assessment of the individual studies that make up the review?
A. What differentiates a systematic review from a narrative review or a different type of review -- all of those are going to talk about the literature, but what distinguishes it is that it defines its search terms and the bases that it uses so that others can repeat that search.
Q. And so you do not think that the assessment of individual studies for bias is a component of a systematic review; is that right?
A. It may or may not be. Depends on the systematic review. Ideally it would, but just calling something a systematic review doesn't mean it will do that.
Q. And so you're not speaking categorically in that sentence; is that right?
MS. NOWLIN-SOHL: Object to form.
THE WITNESS: I'm saying the term "systematic review" means that the authors of the reports predefined the search terms they used when conducting the literature reviews in various

databases.
Q. (BY MR. RAMER) Are there systematic reviews where the authors also include an assessment of the individual studies that make up the systematic review?
A. Yes.
Q. So then isn't it wrong to say that all a systematic review is is just predefining the search terms?
MS. NOWLIN-SOHL: Object to the form; argumentative, mischaracterizes prior testimony.
THE WITNESS: It says "but all a systematic review means is that the authors of the reports predefined the search terms they used when conducting literature reviews in various databases."
So if you're calling a paper a systematic review, that is what the term "systematic review" means.
It's not saying there's nothing else in it but the search terms. There's the search terms that the papers identify that they summarize in the literature, but when you're using the term "systematic review," what you're highlighting is that -- exactly what I put there, that you

predefined your search terms and the databases you used for searching.
MR. RAMER: Okay. I'd like to go to -- yeah, I'd like to go to what I'll call Turban Exhibit 6 that I just sent. Let me know when you have it.
(Deposition Exhibit No. 6 was marked.)
Q. (BY MR. RAMER) And is this the web page you're citing in footnote 31?
A. Yes, it appears to be.
Q. Okay. And you cite this page in support of the proposition that all a systematic review means is that the authors of the reports predefined the search terms they used when conducting literature reviews in various databases, correct?
A. Correct. This then goes on to say other things went in to add to a systematic review to make it a better systematic review, but again, what the phrase "systematic review" means is that you were systematic in how you collected your literature for the review.
Q. You don't think that it also includes being systematic in how you assess the studies that form the systematic review?

A. Not necessarily. Ideally it would be, but I don't believe all systematic reviews reach that level of rigor.
Q. Okay. So on this document, Turban Exhibit 6, there is a -- on page 1 there is a bold question that says "What is a systematic review?" And I'm just going to read the first two sentences under that and ask if I read them correctly.
It says "A systematic review is guided filtering and synthesis of all available evidence addressing a specific, focused research question, generally about a specific intervention or exposure. The use of a standardized, systematic methods and preselected eligibility criteria reduce the risk of bias in identifying, selecting, and analyzing relevant studies."
Did I read that correctly?
A. Yes.
Q. What is your understanding of what this page is describing when it mentions "analyzing relevant studies"?
MS. NOWLIN-SOHL: Object to form.
THE WITNESS: So they're saying you use standardized systematic methods in preselected eligibility criteria, so those are all things to

identify the studies you're going to look at.
They're saying that doing that reduces the risk of bias in identifying, selecting, and then reporting out the relevant studies. If you -- if you didn't do a systematic review -- and again, a systematic review doesn't guarantee that your search methods are perfect, but it increases the likelihood that you're not going to miss important studies that need to be analyzed.
But I don't read this as saying that you necessarily need to have a standardized systematic method of analyzing the relevant studies, although that would be ideal.
Q. (BY MR. RAMER) Well, in the first sentence then, what is your understanding of what it's referring to when it is discussing the synthesis of all available evidence?
A. The general process of taking all the studies that you identify and then reporting out the summary.
Q. Would creating a synthesis of all available evidence require analyzing the relevant studies?
A. There are many ways you could go about analyzing the relevant studies.

Q. Like what?
A. You could read them and give your general impression.
You could, if you were doing a practice guideline, you might be able to create criteria. Those are two examples.
You might look at the sample size of all of that.
You might look at the inclusion and exclusion criteria.
Q. Do you agree that this paragraph states that a systematic review is something more than predefining search terms used when conducting literature reviews in various databases?
MS. NOWLIN-SOHL: Object to form.
THE WITNESS: I believe it explains that the term "systematic review" means that one defines the way that they're defining their search terms and their databases. That's what a systematic review as a whole means.
It goes on to say -- it says -- well, it says halfway down a well-designed systematic review includes clear objectives, preselected criteria, an explicit methodology, a thorough and reproducible search of the literature, an

assessment of the validity or risk of bias. And it does go on to tell you how ideally they would be conducted.
But the term "systematic review" means what I noted in my declaration.
Q. (BY MR. RAMER) But you think the meaning of the term you note in your declaration comes from what we're looking at right now?
MS. NOWLIN-SOHL: Object to form; argumentative.
THE WITNESS: Yes.
Q. (BY MR. RAMER) What is this paragraph -- let me rephrase.
What is your understanding of what this paragraph is discussing in the sentence you were reading where it says "an assessment of the validity or risk of bias of each included study"?
MS. NOWLIN-SOHL: Object to form; asked and answered.
THE WITNESS: Sorry. I'm not sure which sentence you're referring to.
Q. (BY MR. RAMER) You were reading the second-to-last sentence in this paragraph, and you got to the point where it says "an assessment of the validity or risk of bias of each included

study."
And my question is what is your understanding of what that is referring to?
MS. NOWLIN-SOHL: Same objections.
THE WITNESS: Yeah. So again, that sentence starts "A well-designed systematic review includes," and it ends with "an analysis and presentation of the findings of the included studies." And before that, "an assessment of the validity or risk of bias that each study included."
Not all systematic reviews will be well designed.
Q. (BY MR. RAMER) Why would a well-designed systematic review include an assessment of the validity or risk of bias of each included study?
A. Again, it's useful information. Different -- analyses of different types of bias provide different types of useful information.
But for instance, recall bias would be important to know if people are asked questions about the remote past. Right? Like, you'd want to know if you were asking someone about their childhood how long ago was that? What kind of question was it? Is it likely that they would

remember something that long ago given the nature of the event? It's just one example of the many types of bias we may examine.
Q. And why would a well-designed systematic review look for bias in the individual studies?
A. Because it gets you more information about what the study actually tells you.
Q. Do you agree that assessing bias in the individual studies is an advantage of a systematic review over a narrative review?
MS. NOWLIN-SOHL: Object to form.
THE WITNESS: No. I think both can do that.
Q. (BY MR. RAMER) Do they both do it systematically?
MS. NOWLIN-SOHL: Object to form.
THE WITNESS: Not necessarily.
Q. (BY MR. RAMER) And why not necessarily?
A. Both of them could do it unsystematically based on general impression of the authors.
Q. And I'd like to go back to your declaration and the same paragraph but on the next page, so the run-over. And the second to last sentence, I'll just read it and ask if I read it correctly.

It says "The primary advantage to a systematic review would be its potential, and no guarantee, to identify research publications that had not previously been identified in this discussion."
Did I read that correctly?
A. Yes.
Q. And you do not cite anything for that proposition, correct?
A. Correct. There's no citation on that sentence.
Q. Do you think the documents we were looking at, Turban Exhibit 6 from Harvard that you cited in footnote 31, could support that proposition?
A. Let me look.
Q. And if you don't know, that's fine.
Just so I can keep track of time, what page are you on currently?
A. I went through -- I'm not seeing that there is a section that explicitly is discussing what the advantage of the systematic review is over something else. It's mostly describing what they are.
Q. Okay.

A. So I don't know that I would use this specific citation.
Q. Okay. And then just going back to your declaration page -- sorry, paragraph 24, but back to page 15 and the sentence we were previously discussing, and so the point of -- I'll just -- to refresh, the sentence says "But all a systematic review means is that the authors of the reports predefined the search terms they used when conducting literature reviews in various databases."
And you would agree that the description you give there does not define a well-designed systematic review, correct?
MS. NOWLIN-SOHL: Object to form.
THE WITNESS: I think it's a rectangle/square situation. I think my definition will cover all systematic reviews.
Q. (BY MR. RAMER) I think where I'm getting hung up with that answer is the beginning of the sentence where you say, "but all a systematic review means," which means to describe the full universe of systematic reviews can be defined strictly by the fact that the authors used predefined search terms.

Is there --
A. All systematic reviews will have predefined their search terms.
Q. And will well-designed systematic reviews only predefine their search terms?
MS. NOWLIN-SOHL: Object to form.
THE WITNESS: This is my rectangle/square comment.
So when you're calling something a systematic review, the piece of information you're communicating is that they predefined their search terms and the databases they used. So that term is telling you that.
There are a million other things that the term doesn't tell you, right? It doesn't tell you the author list. It doesn't tell you how long it is. It doesn't tell you how they went about analyzing all the studies.
That term tells you that they predefined their search terms in some way, and they tell you what databases they used. It doesn't tell you more than that.
Q. And can we return to Turban Exhibit -- let's see -- Exhibit 4, which is the Users' Guidelines to the Medical Literature?

A. I'm not sure if they sign up for it or -- but essentially most of the major high-impact medical journals send out press releases about articles that are coming out in their future editions that aren't out yet to journalists so that the journalists have a chance to request an embargoed version of the article with the agreement that they don't talk about it publicly until the article is officially posted online.

Q. And then in this NBC article, which is Turban Exhibit 13, I'd like to go to page 2 of the PDF. And about halfway down before this blank space, there's a quote attributed to you.

And it says "We hope our findings contribute to ongoing legislative efforts to ban gender identity conversion efforts."

Do you see that?

A. Yes.

Q. And do you think that's an accurate quote?

A. Yes.

Q. And before you conducted this study, did you want to ban gender identity conversion efforts?

A. They were labeled dangerous and unethical

by all major medical organizations, including the American Psychiatric Association and the American Academy of Child and Adolescent Psychiatry. And there was broad consensus prior to this research that they were dangerous and ineffective.

And anytime there's broad consensus that the practice is harmful towards children in particular, I would be in favor of children not being exposed to that practice.

Q. And so yes, you did want to ban gender identity conversion efforts before you conducted this study, correct?

A. I am personally not in a position to ban practices, but I was in agreement with the position statements of the American Psychiatric Association and the American Academy of Child and Adolescent Psychiatry.

MR. RAMER: Let's turn to -- I'd like to introduce Turban Exhibit 14. Do you have that?

MS. NOWLIN-SOHL: We do.

MR. RAMER: Okay.

(Deposition Exhibit No. 14 was marked.)

Q. (BY MR. RAMER) And, Dr. Turban, do you recognize this document? And if so, what is it?

A. Yes. This is a research article we

published in the Journal of Adolescent Health in 2023.

Q. And just as a general matter for me to understand the method in this article, basically you're identifying two relevant time periods.

And the first is when -- the first time period is when participants realize their transgender identity, correct?

A. Correct.

Q. Sorry?

A. Correct.

Q. And the second time point is when participants share that identity with others, correct?

A. Correct.

Q. And so you measure the period between those two points. And as a general matter, if the time period between those two points is longer, that tends to undermine the ROGD hypothesis, right?

MS. NOWLIN-SOHL: Object to form.

THE WITNESS: I wouldn't say the ROGD hypothesis was a major part of this study. It's been -- I don't think there are many people who take that hypothesis seriously, and the American

Psychological Association has emphasized that it's not a valid diagnosis and shouldn't be used in assessment or clinical context.

So I think that's an interesting, like, extra thing to think about with this paper, but I think what was most interesting about this paper was that a substantial proportion of trans adults don't come to realize their gender identity until later, after age 10, and that for those who realize in childhood before age 10 that there is a very long period of time before they tell someone else, 14 years.

The reason that's interesting for that survey from 2018 about rapid onset gender dysphoria is the way they determined in that study that the person's gender identity or gender dysphoria was rapid in onset was based on when parents came to know that the child had gender dysphoria or a trans identity.

And this is just highlighting that there are many years. The median was 14 years between somebody knowing their gender identity and telling it to another person when they realized as children, highlighting that using parent report alone the way that survey did is not reliable.

Q. Yeah. And so the reason that the findings here tend to undermine the ROGD hypothesis is because of how long that -- in part because of how long that time period was between the point that the individual identified as transgender and the point that the individual disclosed that information, correct?
A. Yes. It undermines the notion, one of many notions in the hypothesis that when a parent comes to understand that their child is trans that that coincides with when the child themselves came to understand that.
Q. Right. Okay. And so yeah, the longer the time period, the more it tends to undermine the hypothesis.
And that's why the 14 years is relevant, right?
MS. NOWLIN-SOHL: Object to form.
THE WITNESS: I don't know that I really agree with that characterization that, you know, if it were 16 versus 14, that would be a matter, or if it would be 14 versus 30. Just the fact that there is a substantial period of time I think is what undermines it.
Q. (BY MR. RAMER) And for this study, the

data you used again comes from the U.S. Transgender Survey; is that right?
A. Yes.
Q. And so on page 1 here under "Results," the first sentence says "Of 27,497 participants, 40.8 percent reported 'later realization' of TGD identities."
Did I read that correctly?
A. Yes.
Q. And so you're saying there that -- I mean, the upshot of this is that later realization was common among the adult survey participants --
MS. NOWLIN-SOHL: Objection.
MR. RAMER: I'm sorry.
MS. NOWLIN-SOHL: I'm sorry, go ahead. Continue.
Q. (BY MR. RAMER) Okay. Well, I guess why is that relevant with respect to the ROGD hypothesis?
MS. NOWLIN-SOHL: Object to form.
THE WITNESS: It's not necessarily. I think it's more relevant that there's the misconcept, I think, less within the field, but more kind of in, like, media and public policy debates that if one comes to understand their

gender identity after the onset of puberty that they are less likely to continue to have that identity in adulthood.
So it's interesting to see that among trans adults. It's actually not an uncommon experience.
Q. (BY MR. RAMER) Right. And the reason it's interesting is it undercuts the idea that, you know, late realization is some sort of new experience, correct?
MS. NOWLIN-SOHL: Object to form.
THE WITNESS: I suppose, or that the later realization, you know, is synonymous -- [indiscernible].
THE REPORTER: Dr. Turban, I'm sorry to interrupt. I couldn't understand you.
THE WITNESS: Oh, sorry. How far back do you want me to go?
THE REPORTER: Just repeat your answer, if you wouldn't mind.
THE WITNESS: So just saying the thing that's interesting to me is that there was this notion, less so in the field, but sometimes out among the general public, that if one comes to understand their trans identity after puberty,

that it will not persist into adulthood.
But here we saw that among adults, it was actually a fairly common experience for them to first come to understand their gender identity after age 10, which is a rough cutoff for puberty.
Q. (BY MR. RAMER) Well, I guess if the 40.8 percent is relevant in the context of persistence or desistance, wouldn't you need to know the individuals who had later realization but then did, in fact, come to identify as cisgender?
A. Yeah, I think you're pointing out there are different studies that could be done. You could follow people longitudinally and then you could find a desistance rate, if that's the term you wanted to use.
This study wasn't that since we didn't follow people longitudinally. We didn't have that data available.
So this was just showing that among trans adults, this isn't an uncommon experience. But it doesn't tell you how many people would continue to identify that way longitudinally.
Q. And then still on the same page in the same results paragraph, the second and third sentences, you say, "Within the 'childhood

realization' group, the median age of sharing one's gender identity with another person was 20. In this group, the median time between realization of one's gender identity and sharing this with another person was 14 years."

And did I read that correctly?

A. Yes.

Q. Did you also record the median age of participants sharing their gender identity for the later realization group?

A. We did. We didn't have room in this paper because it wasn't the focus. But we recently published a response to the letter to the editor where we provided that additional data. I would have to pull it up to get the numbers.

Q. What letter to the editor are you referring to?

A. I forget the author of the letter, but someone wrote in to the journal asking for more information and analyses, and so we provided them.

Q. And so the -- and this is just a clarification, not a trick question.

So in the last sentence here, you're talking about the median time. That is only referring to the childhood realization group; is

that right?

A. Correct. The letter author asks for what you're asking, and so we had it published in the letter response, but I don't have it in front of me.

Q. Okay. And do you think it's fair to say that -- granting that you disagree with any sort of ROGD hypothesis, do you think it's fair to say that people who think the ROGD hypothesis may be worth investigating, that the hypothesis is focused on adolescents and not children?

A. I think you're missing the point of it in that the reason this childhood question is relevant is that the rapid onset gender dysphoria study survey used the time that parents heard about their child's gender identity as when the children came to recognize their gender identity.

What this paper is showing is that those people where the parents first found out in adolescence may have known 12 years earlier, right? Because there's a mean 12 years between realizing and telling another person.

So for what was, from the parents' perspective, the onset of time was actually much, much later potentially than when the young person

came to know.

So I think one author called it rapid onset parental notification, like the parents found out all of a sudden in adolescence, but that it's actually pretty typical for children to withhold this information from their parents for many years, in my clinical experience, due to fear that their parents won't accept them.

Q. And I'd like to go back to Turban Exhibit 10, which is the U.S. -- the report of the U.S. Transgender Survey. And go to page 259. And left column, Section 3 --

A. Yes, we have it.

Q. So question 3.1 says "At about what age did you begin to feel that your gender was 'different' from your assigned birth sex?"

Did I read that correctly?

A. Yes.

Q. And this is the question you used to collect data for determining when the participants first realized their transgender identity, correct?

MS. NOWLIN-SOHL: Object to form.

THE WITNESS: Let me double-check. Sorry. I'm looking at the underlying question

because I just want to make sure I'm telling you correct.

Q. (BY MR. RAMER) I guess it's page -- in your article, page 54, left column under "Age of sharing" -- oh, no, that's the other one. Sorry.

Yeah, so page 853, right column, very bottom. "Age of TGD identity realization."

And you say, "As outlined above, participants were asked the age at which they felt that their gender was different from societal expectations based on their sex assigned at birth and were provided with a drop-down list of integer ages from 1 to 99 years."

A. Yes, question 3.1.

Q. And so returning to -- sorry, if you can -- and so returning to Exhibit 10 in the same page we were on, 259, and same left column, Section 3, I'm going to read question 3.2 and ask if I read it correctly.

It says, "At about what age did you start to think you were trans (even if you did not know the word for it)?"

Did I read that correctly?

A. Yes.

Q. So why did you use question 3.1 instead

age less than 10, and one for age 11-plus; is that correct?
A. Yes.
Q. And I think you and Mr. Ramer were talking about the percentages in those columns as -- at one point it was mentioned that they didn't quite add up to 100 percent.
Can you help clarify what the numbers in parentheses after each block number reflects?
A. Yes. So I think the question was trying to get at how many participants in the overall study were in each of those age brackets at the top left, 18 to 24, 25 to 44, 45 to 64, and 65 plus.
And the question was how many of them are in each of those categories of percentage of the full population, and I was doing incorrect math. My apologies.
So in order to calculate that, you would add the two numbers in each of the rows from both columns, and then divide that by the total number in the study. So the percentages I was giving earlier were incorrect.
MS. NOWLIN-SOHL: No further questions.
MR. RAMER: Can I just ask one follow-up

on that?

FURTHER EXAMINATION
BY MR. RAMER:
Q. Which, looking at that same table, looking at the 18 to 24 group, do you agree -- well, sorry. I may have gotten more confused.
But so the 33.4 next to 18 to -- in the 18 to 24 row, the 33.4 in parentheses, that means that the 18 to 24 group makes up 33.4 percent of the early realization group; is that right?
A. Yes. I believe that's true.
Q. And then when you shift over a column, the 18 to 24 group makes up 56.4 percent of the later realization group, correct?
A. Yeah, that looks correct. Whatever 6,322 divided by 11,218 is, which sounds roughly like 56.4.
11,218 is the total number of people in the late realization group.
Q. Got it. Okay. I'm clear now.
MR. RAMER: Thank you very much, Doctor. I appreciate it. I think we're all set.
THE VIDEOGRAPHER: All right. That's it?
MR. RAMER: Yeah.

THE VIDEOGRAPHER: Okay. Then this concludes our video deposition with Dr. Jack Turban. It is October 16, 2023. The time is 5:26 p.m. Pacific time, and we are off the record.

(Whereupon the deposition was concluded at 5:26 p.m.)
****
(Signature requested.)

REPORTER'S CERTIFICATE
STATE OF IDAHO)
)
COUNTY OF ADA)

I, Amy E. Simmons, Certified Shorthand Reporter and Notary Public in and for the State of Idaho, do hereby certify:
That prior to being examined, the witness named in the foregoing deposition was by me duly sworn to testify to the truth, the whole truth, and nothing but the truth;
That said deposition was taken down by me in shorthand at the time and place therein named and thereafter reduced to typewriting under my direction, and that the foregoing transcript contains a full, true, and verbatim record of said deposition.
I further certify that I have no interest in the event of the action.
WITNES day of October, 2023.

AMY E. SIMMONS
ID CSR No. 685
CA CSR No. 14453
WA CSR No. 22012915
OR CSR No. 22-009
RDR, CRR, CRC,
and Notary Public
My commission expires: 6/13/28.

UNITED STATES DISTRICT COURT
DISTRICT OF IDAHO

PAM POE, by and through her parents and next friends, Penny and Peter Poe; PENNY POE; PETER POE; JANE DOE, by and through her parents and next friends, Joan and John Doe; JOAN DOE; JOHN DOE,

Plaintiffs,

v.

RAÚL LABRADOR, in his official capacity as the Attorney General of the State of Idaho; JAN M. BENNETTS, in her official capacity as County Prosecuting Attorney for Ada, Idaho; and the INDIVIDUAL MEMBERS OF THE IDAHO CODE COMMISSION, in their official capacities,

Defendants.

Case No. 1:23-cv-00269-CWD

REMOTE VIDEOTAPED DEPOSITION OF KARA CONNELLY, M.D.
MONDAY, AUGUST 28, 2023

EXHIBIT A

Reported By: Amy E. Simmons, CSR, RDR, CRR, CRC

REMOTE VIDEOTAPED DEPOSITION OF KARA CONNELLY, M.D.

BE IT REMEMBERED that the remote videotaped deposition of KARA CONNELLY, M.D., was taken via Zoom videoconference by the attorney for the Defendants before Associated Reporting & Video, a Veritext company, Amy E. Simmons, Idaho CSR No. 685, California CSR No. 14553, Washington CSR No. 22012915, Oregon CSR No. 22-009, and Notary Public in and for the County of Ada, State of Idaho, on Monday, the 28th day of August, 2023, commencing at the hour of 10:08 a.m. Mountain time in the above-entitled matter.

APPEARANCES (remotely):

For the Plaintiffs:
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P R O C E E D I N G S

THE VIDEOGRAPHER: All right. We are on the record and we are recording. Today's date is August 28, 2023. The time is 10:08 a.m. Mountain time.

For the record, this is the videotaped deposition of Dr. Kara Connelly. It's taken by the Defendants in the matter of Poe, et al., vs. Labrador, et al. It's Case No. 1:23-cv-00269-CWD. It is in the United States District Court for the District of Idaho.

The videotaped deposition is being held remotely via Zoom videoconference. The videotaped deposition is being recorded by Chris Ennis and reported by Amy E. Simmons of Associated Reporting & Video, a Veritext Company.

And if counsel will please state their appearances and any stipulations for the record.

MR. RAMER: John Ramer on behalf of the Idaho Attorney General's Office.

MS. NOWLIN-SOHL: Li Nowlin-Sohl on behalf of Plaintiffs.

MS. COOPER: Leslie Cooper, Plaintiffs.

MR. MAY: Philip May from the law firm of

successfully transition their care to an adult provider.

Q. So is it fair to say 100 percent of your patients are below the age of 18?

A. Not 100 percent. 100 percent of new patients that establish care with us are under 18, but we continue to follow them into -- some of them into their early 20s if we have difficulty transitioning their care to an adult provider.

Q. And then in your -- turning to your declaration, I'd like to look at page 2, paragraph 10, third sentence.

And you state that your clinic had 993 patients in 2022; is that right?

A. That's correct.

Q. And do you have more patients now than in prior years?

MS. NOWLIN-SOHL: Objection to form.

THE WITNESS: Can you clarify what you mean by "now"?

Q. (BY MR. RAMER) Okay. Did you have more patients in 2022 than you did in prior years?

A. Yes.

Q. All right. How much would you estimate your patient population has grown over the last

five years?

A. Do you mean like a percentage growth?

Q. Sure.

A. Or a number of growth?

So five years ago, 2017, I'd estimate that we saw about 500 patients. I can't say for certain exactly how many patients.

Q. Yeah, that's fair. An estimate of 500 is what you said; is that right?

A. Yes.

Q. And of the 993 patients that you reference in paragraph 10, had all those patients been diagnosed with gender dysphoria?

A. Not all of them.

Q. Okay. What percentage of those patients would you estimate were diagnosed with gender dysphoria?

A. I'd say at least 90 percent.

Q. And at your clinic, do you have patients who were diagnosed with gender dysphoria during childhood?

A. Yes.

Q. And just to confirm we're on the same page, what do you understand "childhood" to mean?

A. I generally understand "childhood" to

mean prior to the onset of puberty, or prior to adolescence.

Q. And when you say "the onset of puberty," do you equate that with Tanner Stage II?

A. Yeah. Yes, I do.

Q. And do you have patients who were diagnosed after Tanner Stage II but before they turned 18?

A. Yes.

Q. And if I called that period between Tanner Stage II and 18 years old "adolescence," would you understand what I mean?

A. Yes, generally.

Q. And so you don't have any -- because of the -- sorry, start again.

Because of the ages of your patients that you treat, you don't have any who were diagnosed with gender dysphoria after 18, correct?

A. That is correct.

Q. And of the patients in your clinic, which diagnosis would you estimate is more common, childhood or adolescence?

A. In my clinic, adolescence is more common.

Q. Can you estimate a percentage of patients that were diagnosed in adolescence as opposed to

Of your total patient population, what percentage would you estimate receive puberty blockers?

A. I would estimate approximately 20 to 25 percent.

Q. And of your total patient population, what percentage would you estimate receive cross-sex hormones?

A. I would estimate approximately 80 to 85 percent.

Q. And of your total patient population, what percentage would you estimate receive surgical interventions?

A. The -- it is very, very rare for our patients to have surgeries under the age of 18, so do you mean -- you mean also including those over 18?

Q. No. I think for purposes of this question, just under 18 years old.

A. What percentage receive surgery?

Q. Correct.

A. I'd estimate probably about 5 percent or less. And those are -- the overwhelming majority are top surgery.

Q. And could you clarify what you mean by

"top surgery"?

A. Mastectomy, or removal of the chest tissue.

Q. And that's a procedure that would take place -- sorry.

That's a procedure that would be conducted on natal females, correct?

A. That is a procedure that would be conducted on individuals assigned female at birth.

Q. Do you have neuro-diverse patients?

A. Can you clarify what you mean by "neurodiverse"?

Q. Well, as a clinician, what's your understanding of the term "neurodiverse"?

A. Well, I think there are a lot of different conditions that can be included in that phrase. Some people think of neurodiversity as simply somebody who falls on the autism spectrum disorder or carries a diagnosis of autism. A lot of other clinicians also include ADHD in that category.

And so in my definition, I have the more broad -- I use the more broad definition, including individuals who have been diagnosed with a condition such as autism spectrum disorder or

ADHD and carry that diagnosis.

Q. Okay. So if we view the term "neurodiverse" to include autism spectrum disorder and ADHD, do you have neurodiverse patients?

A. Yes.

Q. And what percentage of your total patient population would you estimate is neurodiverse?

A. I am not sure if I can give a very accurate estimation.

Q. Can you state whether it's less than 25 percent?

A. Yes.

Q. Can you state whether it's less than 10 percent?

A. I was originally going to say less than 15 percent, but again, I can't say with certainty.

Q. And you mentioned autism spectrum disorder.

Do you have patients who have autism spectrum disorder?

A. Yes.

Q. And what percentage of your total patient population would you estimate have autism spectrum disorder?

A. Again, that would be difficult for me to

say with certainty, but with a formal diagnosis of autism spectrum disorder, less than 5 percent.

Q. So turning back to your declaration, going to page 8, paragraph 28, I'm just going to read that paragraph. And my first question is going to be if I read it correctly.

"Gender-affirming medical interventions are not indicated for all individuals who present for care. Overall, about one-third of our patient population continues to see our team for support without accessing medical interventions."

Did I read that correctly?

A. Yes.

Q. So does this mean that two-thirds of your patient population does access medical interventions?

A. Yes.

Q. In the second sentence, when you say "patients receive support without accessing medical interventions," what kind of support are you referencing?

A. That can include mental health care and support and connecting the patients and their families with resources.

Q. What kind of resources?

the family and there are options for fertility preservation."

Did I read that correctly?

A. Yes.

Q. And what are the options for fertility preservation you mention there?

A. Well, that depends on what gonads the person was born with. But generally sperm preservation or cryopreservation or ovocyte cryopreservation.

Q. Sorry, could you say those again. So cryopreservation is one; is that right?

A. Sperm cryopreservation, which is essentially freezing sperm, and ovocyte cryopreservation is freezing eggs from ovarian tissue.

Q. Are there any other options for fertility preservation other than those two?

A. Well, the other options may involve development of an embryo after the sperm or eggs are retrieved and then freezing embryos.

Q. When you -- sorry, go ahead.

A. Sorry. I was going to say those are much less often sought, especially in younger patients.

Q. What are much less often sought?

A. Freezing embryos.
Q. And in describing that option, you had mentioned retrieving.
Are you saying retrieving from the cryopreservation or retrieving from the individual?
A. Can you remind me what I said?
Q. Well, I don't know if I know. So the -- we had the sperm cryopreservation.
I think you said ova cryopreservation.
And then the third one you had mentioned embryos. And I just didn't understand what that was. Could you just explain that a little bit?
A. Yeah. The embryos are -- the embryos are formed if either a sperm or an egg is obtained and fertilized at the time that they are obtained and prior to freezing.
Q. I see. Have you ever had a patient pursue that option?
A. No. Not -- no, not a patient in my care.
Q. And what do you tell your patients about the options for fertility preservation?
A. Do you mean regardless -- it's a little different depending on what gonads they have, whether they have testicles or ovaries.

Q. Let's start with one and then do the other.

A. Okay. So for individuals who were born with testicles, the options include preserving sperm and freezing sperm.

And one of the ways of obtaining sperm is through ejaculation.

And another way can be what's called testicular extraction where a urologist -- I don't know the specifics of the procedure, but it's something that -- a procedure that a urologist performs. And then the sperm is frozen until later, if they desire to use it later on.

Q. And then what about the other categories?

A. So for individuals who are born with ovaries, that generally involves freezing eggs. And so that -- again, it happens in a reproductive endocrinology and then fertility clinic, so I'm not the provider that does the procedures, but generally involves development of the eggs and then the retrieval through a procedure and then freezing the eggs.

Q. And what do you tell your patients about the likelihood of those options being successful?

MS. NOWLIN-SOHL: Object to form.

THE WITNESS: Can you specify which option?

Q. (BY MR. RAMER) Let's assume -- am I right we're talking about cryopreservation for both?

A. Yes.

Q. And unless there's a distinction, which please -- a relevant distinction, just please tell me.

All I'm wondering is when you are discussing this with patients, what do you tell them about the prospect that either form of cryopreservation will ultimately be successful if they want to have children later in life?

MS. NOWLIN-SOHL: Object to form.

THE WITNESS: And are you defining "successful" as resulting in a baby or a pregnancy?

Q. (BY MR. RAMER) Sure, a healthy pregnancy or a healthy birth in the context of, you know, those with testicles.

MS. NOWLIN-SOHL: Object to the form.

THE WITNESS: So we're just talking about those with testicles?

Q. (BY MR. RAMER) No. I was trying to

For patients who have been referred for surgery from your clinic, have any of those patients received a form of surgery other than top surgery as you've described it?

MS. NOWLIN-SOHL: Object to form.

THE WITNESS: Can you be more specific about what types of surgeries?

Q. (BY MR. RAMER) Well, I guess let's start there.

What types of surgeries has your clinic referred patients for?

A. Well, so you're specifying gender-affirming surgeries?

Q. Right.

A. Okay. Well, we've had patients that have pursued surgeries, and a lot of the times they don't require a referral from our clinic.

We've had patients who had been seen in our clinic that have accessed surgeries with outside surgeons.

Q. Okay. So taking the kind of technical concept of a referral out of the equation, what types of gender-affirming surgeries have patients of your clinic received?

A. And do you mean of all ages or just

patients that had been seen in our clinic?

Q. Could you explain the distinction you're drawing there?

A. You mean any patient who has ever been seen in our clinic?

Q. No. I mean for patients who are under 18 years of age who have received a gender-affirming surgery, what kind of surgeries have they received while under 18?

A. Okay. So while under 18.

Almost all of them have been top surgeries. And I can think of one person who has had a vaginoplasty.

Q. And could you explain what a vaginoplasty is?

A. It is the creation of a vulva and vaginal canal.

Q. What is it created from?

A. That depends on the surgical technique that's used.

Q. What does it depend on?

A. It can depend on the surgeon and the technique that the surgeon determines would be the best for that patient. I can't -- I'm not the one that makes the decisions about what technique is

used.

Q. Could you just explain an example of what you mean by different techniques would result in the vaginoplasty being the -- just explain what you mean by "different techniques."

A. Well, the surgeons can use different types of tissue to create the vaginal canal.

Q. Can you give some examples of types of tissue that can be used to create the vaginal canal?

A. In some cases it can be the genital skin. And some surgeons I believe have used colon tissue and some surgeons have used something called the peritoneum.

Q. What is that?

A. And some surgeons have used skin grafts.

Q. What was the -- peritoneum?

A. Yeah. It's -- again, not being the surgeon and the expert in the -- in that anatomy, it's difficult for me to explain how that's used. It's intraabdominal, in the abdomen.

Q. And you said, I believe, you're aware of one vaginoplasty; is that right?

A. One patient who had vaginoplasty under the age of 18.

mastectomy, after it has occurred, the chest tissue that's been removed cannot be replaced, cannot be reintroduced onto the body.

Q. And sorry, this is for my own -- is the first T in that word pronounced, so it's "mastectomy"?

A. Yes.

Q. Okay. After a natal female, which you described as assigned female at birth, receives a gender-affirming mastectomy, will she ever -- sorry. Let me rephrase.

After a natal female, also described as assigned female at birth, receives a gender-affirming mastectomy, will that individual ever be able to breastfeed a child?

A. That depends on the type of surgery that's performed.

Q. Can you say more about that?

A. Well, again, I'm not a surgeon, but my understanding is there are some surgeries that are characterized as top surgeries where not all of the chest tissue is removed. And it depends on the patient.

Q. Why would not all of the chest tissue be removed?

A. Again --

MS. NOWLIN-SOHL: Objection; foundation.

THE WITNESS: I can't say for certain because I'm not the surgeon having these conversations with patients.

Q. (BY MR. RAMER) So I guess if the question is after a natal female receives a gender-affirming mastectomy, will that individual ever be able to breastfeed a child, if that is the question, is the answer to that question beyond the scope of your expertise?

A. I would not consider it within my scope of expertise to be able to determine if someone is able to breastfeed after they've had gender-affirming top surgery.

Q. Okay. So same -- back in your declaration, same paragraph which is on -- we're on page 8, paragraph 26, and it is the sentence after the one we were just discussing. And I'll just read it and ask if I read it correctly.

It says "Under the Endocrine Society guideline, genital surgery is not recommended to patients under age 18."

Did I read that correctly?

A. Yes.

Q. And does the category of genital surgery include more than just a vaginoplasty?
A. Meaning other genital surgeries other than vaginoplasty options?
Q. I guess are there other genital surgeries other than vaginoplasty?
A. There are, yes.
Q. Okay. What are those?
A. There are -- there's something called a vulvoplasty.
Q. And what is that?
A. That is the creation of the external vulva without the creation of a vaginal canal.
Q. And like our discussion of the vaginoplasty, does the tissue used for that procedure vary based on the technique the surgeon uses?
A. I believe so.
Q. In the next sentence in this paragraph, I'll read it and ask if I read it correctly.
It says "The WPATH standards of care do not provide an age delineation for vaginoplasty, but strongly caution about the need to ensure that the patient has the maturity to make this decision."

you sit here, that's fine.

A. Yeah, I don't know what -- I don't know what they're referring to in that statement without looking at the rest of it and seeing how it correlates with the Chen article.

Q. All right. And so same editorial right column, second full paragraph that begins with "Finally." And I'll just read this sentence and ask if I read it correctly.

It says "Finally, benefits of early medical intervention, including puberty suppression, need to be weighed against possible adverse effects, for example, with regard to bone and brain development and fertility."

Did I read that correctly?

A. Yes.

Q. Do you see where de Vries mentions possible effect on brain development?

A. In that sentence?

Q. Yes.

A. Yes.

Q. And what do you know about the risk of adverse effects on brain development from puberty suppression?

A. What do I know about adverse effects on

brain development?

Q. Correct.

A. Just in general?

Q. Yes.

A. I don't think there's enough data to draw conclusions about adverse effects on brain development in patients treated with medical interventions.

Q. Is adolescence associated with significant neurodevelopment?

A. Can you be more specific about neurodevelopment?

Q. Yeah, I guess maybe we'll do it this way. We'll go to Connelly Exhibit 16, which has a 13 in the file name.

(Deposition Exhibit No. 16 was marked.)

Q. (BY MR. RAMER) And, Doctor, have you seen this article before?

A. I don't recall seeing it before.

Q. Do you recognize the name of the lead author?

A. Diane Chen.

Q. Is that the same Chen that you cite in your declaration?

A. Yes, I believe so.

Q. And I understand you haven't read this, but I just want to make sure I understand the scope of your expert opinion. And I'd like to go to page 254 and specifically the left column. There's the bold "Discussion" header, and then I'd like to read the second sentence, and I'll ask if I read it correctly.

It says "However, puberty is a major developmental process and the full consequences (both beneficial and adverse) of suppressing endogenous puberty are not yet understood."

Did I read that correctly?

A. Yes.

Q. And do you agree that the full consequences of suppressing endogenous puberty are not yet understood?

A. I think I would need to look at this in a little more depth.

Q. Okay. Well, let's go to page 249. And right column, first full paragraph, first sentence and then the italics after that. I'll read it and ask if I read it correctly.

"We employed a two-round Delphi procedure to obtain expert consensus regarding the most efficacious research design elements to address

A. Yes.
Q. And what does "See, e.g." mean?
A. It's an example of a study that is -- that I'm referring to or that I'm referencing in making the prior statement.
Q. And so are you suggesting there are other studies that support the proposition that many individuals assigned female at birth who take testosterone are able to achieve pregnancy or use assistive reproductive technology to conceive after discontinuing testosterone?
A. Yes. There's another reference in the same paragraph.
Q. I'm sorry. Can you clarify that answer? What do you mean?
A. So were you saying that I'm saying that there are other studies that can --
Q. I guess -- sorry.
A. -- support the statement?
Q. Right. The way I was reading this is you say -- you make this statement at the beginning of footnote 10, and then you say "See, for example, the Light study."
And when I read that, it suggests the Light study is just one example that shows the

proposition in this first sentence.

And my question is can you name another study that demonstrates that proposition?

A. Yeah. The second -- the second study following that one or following the next statement can also support the prior statement. It's a study, a completely different way of looking at the question, but it was a study that demonstrated that transgender men can achieve pregnancy, transgender men who have taken testosterone can achieve pregnancy.

Q. And just to make sure we're on the same page, are you referencing the Thornton study there?

A. Yes.

Q. Okay. Are you aware of any study that suggests many individuals who are assigned female at birth who transition during adolescence are able to achieve pregnancy?

A. No, not of adolescence. I don't believe that there are any studies that have reported on that specific question in a large population.

Q. And in the same footnote, its second to last sentence starts with "Some transgender women."

Do you see that?
A. Yes.
Q. Do you counsel your patients about this option?
MS. NOWLIN-SOHL: Object to form.
THE WITNESS: Can you be more specific about counseling patients about this option for this specific reason?
Q. (BY MR. RAMER) Right. Do you ever tell your patients that to preserve fertility potential, you could elect to use only antiandrogen medications without estrogen?
A. Yes.
Q. And do patients choose that option?
A. Yes.
Q. And is that protocol in accordance with the WPATH guidelines?
MS. NOWLIN-SOHL: Object to form.
THE WITNESS: Can you be more specific about -- what do you mean by "protocol"?
Q. (BY MR. RAMER) Prescribing antiandrogen medications without estrogen to a patient.
Is that consistent with the WPATH guidelines?
MS. NOWLIN-SOHL: Same objection.

patients that have reached that point and have had their sperm used to conceive a pregnancy or to conceive a child.

Q. And are you aware of any report of such a case in the literature?

A. Of? Can you remind me? The case of someone who started treatment as adolescent?

Q. Right. Male -- assigned male at birth who underwent cross-sex hormone treatment for a period of years.

A. I can't say specifically, but there are a number of individuals who elected to undergo sperm cryopreservation, which would -- that held that the sperm would not have been impacted by the gender-affirming hormone treatment.

Q. And are you aware of any patients that have pursued that option successfully?

MS. NOWLIN-SOHL: Object to form.

THE WITNESS: I have -- can you define what you mean by "successful"?

Q. (BY MR. RAMER) Have you ever had a patient, natal male or assigned male at birth, who pursued cryopreservation of sperm and then subsequently conceived a child?

A. None of my patients that I have

prescribed treatments to have, as far as I know, conceived a child. I do have a number of patients that have undergone sperm cryopreservation, and they may use the cryopreserved sperm in the future, but the majority -- I can't think of any of my patients that I have treated who have reached -- who are out of their 20s at this time. So it may not be a goal of theirs right now.

Q. Are you aware of any published case study that documents a natal female or assigned female at birth who underwent cross-sex hormone treatment for a period of years and subsequently gave birth to a healthy child?

A. I'm sorry if I missed this, but are you referring to people who started hormone treatment at any age?

Q. Let's start with adolescence.

A. I'm not aware of a study that has looked specifically at this question for someone to -- for people who started hormones in adolescence. But in adults, yes.

Q. Do you agree that a child who begins taking -- let me rephrase.

Do you agree that an individual who begins taking puberty blockers at Tanner Stage II

and proceeds without interruption to cross-sex hormones will be infertile?

MS. NOWLIN-SOHL: Object to form.

THE WITNESS: I think that we are -- we're still learning the effects of hormones on future fertility for individuals who start puberty blockers prior to completion of their endogenous puberty, but there are some situations such as individuals assigned female at birth and start puberty blockers and then testosterone, cross-sex hormones, without going through or completing their endogenous puberty who in the future may be able to come off treatments and be able to carry a pregnancy in the uterus that they were born with. But I'm not aware of any studies that specifically looked at that.

Q. (BY MR. RAMER) For a natal male or an individual who's assigned male at birth who is at Tanner Stage II and seeking to begin puberty blockers, what are the options for preserving that individual's fertility?

A. So at Tanner Stage II of testicular development, the only options are either to not start puberty suppression, pubertal suppression, and there are some research protocols that -- in

REPORTER'S CERTIFICATE

STATE OF IDAHO)
)
COUNTY OF ADA)

I, Amy E. Simmons, Certified Shorthand Reporter and Notary Public in and for the State of Idaho, do hereby certify:

That prior to being examined, the witness named in the foregoing deposition was by me duly sworn to testify to the truth, the whole truth, and nothing but the truth;

That said deposition was taken down by me in shorthand at the time and place therein named and thereafter reduced to typewriting under my direction, and that the foregoing transcript contains a full, true, and verbatim record of said deposition.

I further certify that I have no interest in the event of the action.

WITNESS my hand and seal this 28th day of August, 2023.

AMY E. SIMMONS
ID CSR No. 685
CA CSR No. 14453
WA CSR No. 22012915
OR CSR No. 22-009
RDR, CRR, CRC,
and Notary Public

My commission expires: 6/13/28.

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF IDAHO

PAM POE, by and through her parents and next friends, et al. *Plaintiffs*, v. RAÚL LABRADOR, in his official capacity as Attorney General of the State of Idaho, et al. *Defendants.*	Case No. 1:23-cv-00269-BLW

EXPERT DECLARATION OF DANIEL WEISS MD

I, Daniel Weiss MD, hereby declare and state as follows:

Background and Qualifications:

1. I am a physician who is Board Certified in Internal Medicine and Diabetes/Endocrinology and Metabolism.

2. I completed my undergraduate work at Columbia University in New York, where I majored in chemistry. Although I was offered a fully paid scholarship to continue graduate work in chemistry at the Massachusetts Institute of Technology, I chose to become a physician. I have been fascinated by the wonders of the human body since grade school.

3. I obtained my medical degree from the University of Texas Southwestern Medical Center in Dallas. I went on to a residency in Internal Medicine at Upstate Medical Center in New York and then to the University of Iowa Hospitals and Clinics, where I completed a fellowship in Endocrinology. After my fellowship, I accepted a teaching staff position at the University of Iowa Hospitals and Clinics, where I received the award for Teacher of the Year.

4. Since the end of my fellowship in 1986, I have been in the active and continuous practice of Endocrinology to the present day. I served as the sole endocrinologist in a group of 110 physicians

Bases for Opinions:

18. In preparing this declaration, I have reviewed Idaho House Bill 71, the complaint for declaratory and injunctive relief, the declarations of the plaintiffs' experts, and the references that I have cited in this declaration.

19. I formed my opinion from my clinical expertise and experience, my rationality or common sense, and my critical review of the scientific literature and the publications on this subject. I use the same approach that others in my field would rely upon in forming an opinion.

20. My commentary in areas of psychology and surgery is based upon analysis of published evidence and its methodology. Well-trained practicing physicians must analyze scientific evidence through careful reading in order to provide the best care for their patients.

Summary of this declaration:

21. In this document I will analyze and summarize the evidence in support of these five key points.

- "Gender dysphoria" is a construct. In minors, in most cases, it arises from previous trauma, abuse, social isolation, depression, and other psychosocial factors.
- Hormonal and surgical interventions usually leave psychologic issues unexplored and unresolved. These interventions can cause substantial harm and create permanent patients out of healthy young people.
- Professionals who advocate for medical intervention fail to admit that the evidence base is poor. The extrapolation of the flimsy existing evidence to a "one size fits all" generalized approach is profoundly unscientific. These interventions are experimental and violate the foundational principles of medical ethics and informed consent.

- The interventions that Idaho House Bill 72 bans are neither safe nor effective. I will review the harms of puberty blockers and opposite sex hormones, the risk of post-surgical complications, and the experience of desisters and detransitioners.
- There is no medical consensus in support of the "gender affirmation" model. Medical societies that endorse these interventions are politicized and do not represent the viewpoint of their members. Countries with much more experience than the US have curtailed hormonal and surgical interventions in minors. Unfortunately, a set of perverse financial incentives is likely to play an important role in the massive expansion of these harmful interventions in the U.S.

Point #1 - "Gender dysphoria" is a construct. In most cases in minors, it arises from previous trauma, abuse, social isolation, depression, and other psychosocial factors.

The DSM criteria for diagnosing "gender dysphoria" is based on feelings and behavior.

22. The Diagnostic and Statistical Manual of Mental Disorders (DSM) is used by clinicians and researchers to diagnose and classify mental disorders. The latest version is called DSM-5-TR. [1] In the DSM, "gender dysphoria" is defined in children as: A marked incongruence between one's experienced/expressed gender and "assigned" gender, lasting at least six months, as manifested by at least six of the following (one of which must be the first criterion):

a. A strong desire to be of the other gender or an insistence that one is the other gender (or some alternative gender different from one's assigned gender);

[1] American Psychiatric Association, *Diagnostic and Statistical Manual of Mental Disorders. 5th Ed. Text Revision.* , (American Psychiatric Association., 2022).

b. In boys (assigned gender), a strong preference for cross-dressing or simulating female attire; or in girls (assigned gender), a strong preference for wearing only typical masculine clothing and a strong resistance to the wearing of typical feminine clothing;

c. A strong preference for cross-gender roles in make-believe play or fantasy play;

d. A strong preference for the toys, games or activities stereotypically used or engaged in by the other gender;

e. A strong preference for playmates of the other gender;

f. In boys (assigned gender), a strong rejection of typically masculine toys, games, and activities and a strong avoidance of rough-and-tumble play; or in girls (assigned gender), a strong rejection of typically feminine toys, games, and activities;

g. A strong dislike of one's sexual anatomy; or

h. A strong desire for the physical sex characteristics that match one's experienced genders.

23. In adolescents, the DSM-5-TR criteria "clinically significant distress" is a criterion for diagnosis.[2]

[2] Ibid.

or ambiguous genitalia is estimated to occur in less than 1 in 10,000 births.[21] These rare conditions are the only occasions in which the sex of a newborn may be uncertain.

32. Males have XY chromosomes and females have XX chromosomes in every cell in their body. Therefore, genetic analysis, performed at birth, can reveal the sex of the rare child born with ambiguous genitalia.

33. As defined by biology and reproductive function, sex is clear, binary, and cannot be changed. The Endocrine Society states that sex is a biological concept, that "all mammals have two distinct sexes" and that "in mammals, numerous sexual traits (gonads, genitalia, etc.) that typically differ in males and females are tightly linked to each other."[22]

34. While hormonal and surgical procedures may enable some individuals to appear to others to be the opposite sex during some parts of their lives, no procedure can enable an individual to perform the reproductive function of the opposite sex. Dr Christiane Nusslein-Volhard the Nobel prize winning biologist has stated, "all mammals have two sexes and man is a mammal." "There are people who want to change their gender, but they can't do it"[23]

Point #2- Hormonal interventions and surgery leave psychologic issues unexplored and unresolved.

a. "Gender dysphoria" in minors usually resolves if left untreated.

[21] 'Intersex Society of America, Incidence of Intersex'.
[22] Bhargava and others
[23] Michael Tennant, 'Nobel Prize-Winning German Biologist: Multiple Genders Are "Nonsense" and "Unscientific"', in *The New American,* (https://thenewamerican.com/nobel-prize-winning-german-biologist-multiple-genders-are-nonsense-and-unscientific/?print=pdf: TheNewAmerican.com, 2022).

35. Eleven studies reveal that approximately 90% of children who are diagnosed with "gender dysphoria" will "desist" if left untreated (no medical interventions). [24,25,26,27] In other words, "gender dysphoria" will resolve on its own by the end of puberty or adulthood. [28]Among teens and young adults who have experienced "rapid onset gender dysphoria" (those with no sign of discomfort with their biologic sex during childhood), desistance is frequent.[29] Minors who develop "gender dysphoria" during or shortly after adolescence are susceptible to psychosocial factors including pressure from peers and social media.[30]

36. There are few studies of the long-term outcome of the interventions made in gender clinics. One paper from gender clinics in the Netherlands, Germany, and Norway reported the experience of 201 young adults followed for an average of five years after treatment. Fourteen percent of that group had no medical interventions. Yet these untreated persons exhibited a 67% reduction in their "gender dysphoria" score.[31]

37. The Endocrine Society clinical practice guidelines state that "in most children diagnosed with GD/gender incongruence, (the symptoms) did not persist into adolescence."[32] No test can predict whether "gender dysphoria" will persist or not.

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[24] S. L. Adelson, Child American Academy of, and Issues Adolescent Psychiatry Committee on Quality, 'Practice Parameter on Gay, Lesbian, or Bisexual Sexual Orientation, Gender Nonconformity, and Gender Discordance in Children and Adolescents', *J Am Acad Child Adolesc Psychiatry,* 51 (2012).
[25] J. M. Cantor, 'Transgender and Gender Diverse Children and Adolescents: Fact-Checking of Aap Policy', *J Sex Marital Ther,* 46 (2020).
[26] J. Ristori and T. D. Steensma, 'Gender Dysphoria in Childhood', *Int Rev Psychiatry,* 28 (2016).
[27] D. Singh, S. J. Bradley, and K. J. Zucker, 'A Follow-up Study of Boys with Gender Identity Disorder', *Front Psychiatry,* 12 (2021).
[28] Ristori and Steensma.
[29] Littman.
[30] Ibid.
[31] T. C. van de Grift and others, 'Effects of Medical Interventions on Gender Dysphoria and Body Image: A Follow-up Study', *Psychosom Med,* 79 (2017).
[32] W. C. Hembree and others, 'Endocrine Treatment of Gender-Dysphoric/Gender-Incongruent Persons: An Endocrine Society Clinical Practice Guideline', *Endocr Pract,* 23 (2017).

38. It is notable that "gender dysphoria" is the only diagnosis listed in the DSM that for which medication and/or surgery might be used with the goal of altering body appearance.

b. Psychotherapy is underutilized in treating "gender dysphoria."

39. In 2021, the Royal Australian and New Zealand College of Psychiatrists issued a position statement with the key message that there is "mixed evidence regarding (medical) treatment options for people with gender concerns, especially children and young people."[33]

40. The goal of treatment in patients with "gender dysphoria" should be to resolve gender related distress. Therefore, it is essential to understand the factors that might have led to the patient's rejection of their natal sex.[34,35,36,37] Exploratory, non-judgmental psychotherapy can alleviate suffering in patients with "gender dysphoria" and may help them accept their natal sex.[38,39]

41. World Professional Association for Transgender Health (WPATH) guidelines (discussed in more detail 3a below) have gained influence along with the rapid proliferation of gender clinics that emphasize medical interventions. However, the WPATH guidelines are not universally accepted, either internationally or within the United States. Many endocrinologists refuse to treat "gender dysphoria" patients, though few speak out about their concerns.

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[33] 'Recognizing and Addressing the Mental Health Needs of People Experiencing Gender Dysphoria/Gender Incongruence', in *Position Statement of the Royal Australian and New Zealand College of Psychiatrists,* (2021).
[34] S. B. Levine, 'Reflections on the Clinician's Role with Individuals Who Self-Identify as Transgender', *Arch Sex Behav,* 50 (2021).
[35] L. Griffin and others, 'Sex, Gender and Gender Identity: A Re-Evaluation of the Evidence', *BJPsych Bull,* 45 (2021).
[36] M. Evans, 'Freedom to Think: The Need for Thorough Assessment and Treatment of Gender Dysphoric Children - Corrigendum', *BJPsych Bull,* 45 (2021).
[37] R. Withers, 'Transgender Medicalization and the Attempt to Evade Psychological Distress', *J Anal Psychol,* 65 (2020).
[38] R. D'Angelo and others, 'One Size Does Not Fit All: In Support of Psychotherapy for Gender Dysphoria', *Arch Sex Behav,* 50 (2021).
[39] A. Churcher Clarke and A. Spiliadis, ''Taking the Lid Off the Box': The Value of Extended Clinical Assessment for Adolescents Presenting with Gender Identity Difficulties', *Clin Child Psychol Psychiatry,* 24 (2019).

after opposite sex hormone treatment, treated children showed no improvement in gender distress, anxiety, or anger.[63] This finding was downplayed in the final discussion.

54. At the end of the study 55 children remained, all of whom had received "surgical reassignment." These research subjects showed a marked reduction in "gender dysphoria" using the UGDS scale.[64] This dramatic change in UGDS score is best explained by the researchers' decision to switch the scale from male to female, or the other way around. In other words, females were measured as females before surgery then evaluated as males after surgery, and vice versa. To be clear, changing measurements scales in the middle of a scientific experiment invalidates that experiment.

55. How would changing the measurement tool alter the study outcome?[65] Abbruzzese's rigorous critique describes this scenario: A severely dysphoric biologic female "is asked to answer two of the UGDS questions: 'Every time someone treats me like a girl I feel hurt' and 'Every time someone treats me like a boy I feel hurt.' It is likely that this female patient would *strongly agree* with the first statement and *strongly disagree* with the second. The first answer would lead to the score of '5' on the UGDS "gender dysphoria" scale, indicating the highest possible level of dysphoria. The second answer—which is effectively the same answer—would result in the score of '1' indicating the lowest possible gender dysphoria. In other words, unlike the first question, which belongs to the 'female' battery of questions, the second question belongs to the 'male' battery of questions and effectively assumes the subject to be male—hence, the lack of distress of being associated with 'maleness' receives the minimum 'gender dysphoria' score.[66]

[63] de Vries and others
[64] de Vries and others
[65] Abbruzzese, Levine, and Mason.
[66] Ibid.

56. Others have challenged the validity of the "Dutch protocol" results, because switching the UGDS score invalidates any interpretation.[67,68]

57. A little known, and poorly acknowledged tragedy occurred during the Dutch study.[69] After surgery to create a vagina like structure, a boy died from necrotizing fasciitis ("flesh eating disease").

58. The Gender Identity Development Service (GIDS) in the United Kingdom began treatment of minors with "gender dysphoria" in 1989 and is slated to close in March of 2024[70]. It is the largest and oldest center in the world treating children with "gender dysphoria". Psychologist Dr. Polly Carmichael became the director of the center in 2009. In 2011, GIDS embarked on a clinical trial in children aged 12-15 to investigate the benefits of pubertal suppression. Before 2011, GIDS offered puberty blockers to slightly older children, admittedly without adequate evidence. The GIDS research team, sought to confirm the claims of the Dutch group. The British study included only 44 children. As in the Dutch study, there was no untreated control or comparison group. The children were observed over the course of 3 years of treatment with puberty blockers. The study results, published in 2021, showed no change whatsoever in psychiatric distress with puberty suppression.[71] Dr. Carmichael and her colleagues concluded that more studies were needed to "fully quantify the harms and benefits of pubertal suppression."[72]

b. In the United States, the experimental "Dutch Protocol" has been misapplied and fails.

[67] J. K. McGuire and others, 'Utrecht Gender Dysphoria Scale - Gender Spectrum (Ugds-Gs): Construct Validity among Transgender, Nonbinary, and Lgbq Samples', *Int J Transgend Health,* 21 (2020).
[68] Biggs.
[69] de Vries and others
[70] 'Closure of Tavistock Gender Identity Clinic Delayed', (https://www.bbc.com/news/uk-65564032, 2023).
[71] P. Carmichael and others, 'Short-Term Outcomes of Pubertal Suppression in a Selected Cohort of 12 to 15 Year Old Young People with Persistent Gender Dysphoria in the Uk', *PLoS One,* 16 (2021).
[72] Ibid.

55. Dr. Norman Spack, a pediatric endocrinologist at Boston Children's Hospital began to recommend using the Dutch Protocol for children with "gender dysphoria" in 2009. In collaboration with researchers from the Dutch group, Dr. Spack wrote the first set of practice guidelines for the Endocrine Society in 2009.[73]

56. Those Endocrine Society guidelines have been updated, most recently in 2017, and conclude with the following disclaimer: "The guidelines are not intended to dictate the treatment of a particular patient. Treatment decisions must be made based on the independent judgement of healthcare providers and each patient's individual circumstances."[74]

57. The Endocrine Society guidelines have been widely implemented, despite the Endocrine Society disclaimer. For example, a publication appeared in the high-impact New England Journal of Medicine (NEJM) early in 2023.[75] This observational study described the treatment of transgender youth with opposite sex hormones at four U.S. clinics over a two-year period. The subjects' ages ranged from 12-20 with a mean age of 16. The exact medical treatment protocols varied but included the use of puberty blockers.[76]

58. Like the Dutch and British studies, this U.S. research did not include control or comparison groups, and it provided no description of psychologic assessment or treatment. The authors found no change in depression, anxiety, or life satisfaction in biologic males after they had received the medicalized interventions.[77]

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[73] W. C. Hembree and others, 'Endocrine Treatment of Transsexual Persons: An Endocrine Society Clinical Practice Guideline', *J Clin Endocrinol Metab,* 94 (2009).
[74] Hembree and others
[75] D. Chen and others, 'Psychosocial Functioning in Transgender Youth after 2 Years of Hormones', *N Engl J Med,* 388 (2023).
[76] Ibid.
[77] Ibid.

92. In another study of more than 8,000 transgender persons, two-thirds of those who died by suicide had remained on their opposite-sex hormones at the "gender clinic".[144]

93. One of few long-term outcome studies, performed at a "gender clinic" in the Netherlands, found that the suicide rate was six times higher in male to female persons than in an age-matched normal population, over the course of 18 years of follow-up.[145]

94. In the NEJM study previously mentioned, there was a 45-fold higher than expected suicide rate in the adolescents receiving opposite sex hormone therapy during their care at gender clinics (compared to the Center for Disease Control age-matched population).[146,147]

95. Dr. Connelly makes no mention of the suicides reported in this NEJM paper with those interventions that she endorses.

96. A Danish gender clinic reported its experience with suicide in treated patients followed for up of 6 years.[148] Despite ready access (since 2017) to opposite sex hormones and "surgical reassignment", transgender persons had a 7-fold higher rate of suicide attempts, a 3½ fold higher rate of death by suicide and were twice as likely to die from non-suicide related causes.[149]

97. In summary, persons with "gender dysphoria" continue to have significant psychiatric issues despite hormonal and surgical interventions.

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[144] C. M. Wiepjes and others, 'Trends in Suicide Death Risk in Transgender People: Results from the Amsterdam Cohort of Gender Dysphoria Study (1972-2017)', *Acta Psychiatr Scand,* 141 (2020).
[145] H. Asscheman and others, 'A Long-Term Follow-up Study of Mortality in Transsexuals Receiving Treatment with Cross-Sex Hormones', *Eur J Endocrinol,* 164 (2011).
[146] Chen and others
[147] Suicide and Homicide Death Rates among Youth and Young Adults Aged 10-24: United States, 2001-2021 from the Centers for Disease Control,
U.S. Department of Health and Human Services.
[148] A. Erlangsen and others, 'Transgender Identity and Suicide Attempts and Mortality in Denmark', *JAMA,* 329 (2023).
[149] Ibid.

98. Psychotherapy has known efficacy in reducing the risk of suicide.[150] In my opinion, psychotherapy remains an essential treatment for "gender dysphoria," and the best prevention against suicide.

99. Gender is not to be confused with sexual orientation. It is therefore simplistic and misleading to "amalgamate aversion therapy for adult homosexuals, c.1970, with cautious exploratory psychotherapy with gender non-conforming children today."[151]

b. Puberty blockers are not a "pause button." Puberty is a necessary stage in human development.

100. I will start this discussion with a quote by Dr Joshua Safer, an endocrinologist who has repeatedly minimized the risk of hormonal and surgical interventions for "gender dysphoria". In a probable conflict of interest, he has co-authored the Endocrine Society guidelines while at the same time serving as the director of a gender clinic. He writes of the "need for appropriate humility regarding what we know versus what we only predict." He writes: "Even the most logical conclusions extrapolated from our understanding of physiology must remain suspect until demonstrated in actual clinical environments."[152] Elsewhere this author writes that there are "numerous gaps in knowledge"[153] in transgender medicine.

101. I agree with these statements, and I will now describe what we, in fact, do know.

[150] P. Mendez-Bustos and others, 'Effectiveness of Psychotherapy on Suicidal Risk: A Systematic Review of Observational Studies', *Front Psychol,* 10 (2019).
[151] D. Pilgrim, 'British Mental Healthcare Responses to Adult Homosexuality and Gender Non-Conforming Children at the Turn of the Twenty-First Century', *Hist Psychiatry,* (2023).
[152] J. D. Safer, 'Using Evidence to Fill Gaps in the Care of Transgender People', *Endocr Pract,* 26 (2020).
[153] J. D. Safer, 'Are the Pharmacokinetics of Sublingual Estradiol Superior or Inferior to Those of Oral Estradiol?', *Endocr Pract,* 28 (2022).

102. Background: The ovaries make the principal female hormone called estrogen. The testes make the principal male hormone called testosterone. Ovaries are the site of production of gametes called ova (singular is ovum). When an ovum is fertilized with a sperm, an embryo can form and lead to the birth of a newborn baby. At the moment of fertilization, the sex of the future baby is determined by the sex (X and Y) chromosomes.

103. The testes and ovaries are both regulated by a small gland in the brain called the pituitary. The pituitary is considered a master gland because it regulates other hormone producing glands, not just the ovaries and testes. The pituitary makes many hormones, two of which are Luteinizing hormone (LH) and Follicle stimulating hormone (FSH). LH and FSH are called gonadotropins; they regulate the ovaries and testes.

104. The pituitary gland is, in turn, controlled by an area located above it called the hypothalamus. The hypothalamus produces many vital substances. One of these is gonadotropin releasing hormone, abbreviated GnRH. GnRH stimulates the release of LH and FSH.

105. The chemical structure of GnRH has been modified by pharmaceutical companies into chemicals called GnRH analogs. GnRH analogs are often called puberty blockers. GnRH analogs are administered, usually as an injection (every 1-6 months). There is also an implanted version (under the skin) of GnRH analogs. GnRH analogs block or stop the GnRH signals that come from the hypothalamus. Blockade of those signals means there is no secretion of LH and FSH and, consequently, the testes and ovaries are turned off.

106. GnRH analogs are called puberty blockers. GnRH analogs are not FDA approved for use in children with “gender dysphoria”. They are approved for use in children who have the relatively rare disorder called central precocious puberty. Central precocious puberty is a condition

in which puberty occurs at an abnormally early age, generally below the age of 8 in girls and 9 in boys.

107. GnRH analogs are approved for treatment of endometriosis in women. GnRH analogs will stop the signals from the brain that cause ovulation and menstruation. They will markedly lower estrogen and reduce bone density.[154]

108. GnRH analogs have also been used in the treatment of prostate cancer because they markedly lower the male hormone, testosterone. Testosterone increases the growth of diagnosed prostate cancer.[155] The cancer is suppressed by reducing testosterone.

109. There are no controlled trials that prove the safety of GnRH analogs in children with normal puberty.[156] There are many unknowns with puberty blockers even in those conditions for which treatment is FDA approved. Some have called GnRH analogs use in these children with normal puberty a "momentous step in the dark."[157]

110. Puberty blockers may cause hot flashes, weight gain, fatigue, and mood alterations.[158,159] Seizures have also been reported.

111. A disorder affecting the hip, slipped capital femoral epiphysis, has been reported in children on puberty blockers.[160]

[154] 'Lupron for Endometriosis, Prescribing Information'.
[155] 'Lupron for Prostate Cancer, Prescribing Information', (https://www.rxabbvie.com/pdf/lupronuro_pi.pdf).
[156] C. Richards, J. Maxwell, and N. McCune, 'Use of Puberty Blockers for Gender Dysphoria: A Momentous Step in the Dark', *Arch Dis Child,* 104 (2019).
[157] Ibid.
[158] Hembree and others
[159] 'Lupron Prescribing Information '.
[160] K. Bangalore Krishna and others, 'Use of Gonadotropin-Releasing Hormone Analogs in Children: Update by an International Consortium', *Horm Res Paediatr,* 91 (2019).

112. Reductions in bone density are seen with the use of puberty blockers; those reductions increase the risk of bone fractures.[161,162,163]

113. Pseudotumor cerebri (also known as idiopathic intracranial hypertension) has been associated with puberty blockers. This condition causes severe headache and loss of vision.[164,165]

114. Early administration of puberty blockers reduces penile growth. The surgery for creation of a vagina-like structure (or pseudo-vagina) in male to female transgender individuals is called vaginoplasty. This surgery uses penile tissue. The pre-pubertal penis does not provide sufficient tissue to create a vagina-like structure, leading to more complex surgeries with more post-surgical complications.[166]

115. Dr. Marci Bowers, a surgeon and vaginoplasty specialist, described another important adverse effect of puberty blockers in transgender people. These persons will not be able to achieve an orgasm as adults.[167]

116. Children who fail to progress through puberty are infertile. This is a biologic fact. The same physiology means that early initiation of puberty blockers will stop maturation of the testes

[161] M. Biggs, 'Revisiting the Effect of Gnrh Analogue Treatment on Bone Mineral Density in Young Adolescents with Gender Dysphoria', *J Pediatr Endocrinol Metab,* 34 (2021).
[162] D. Klink and others, 'Bone Mass in Young Adulthood Following Gonadotropin-Releasing Hormone Analog Treatment and Cross-Sex Hormone Treatment in Adolescents with Gender Dysphoria', *J Clin Endocrinol Metab,* 100 (2015).
[163] Lupron Prescribing Information
[164] U. Gul and others, 'Pseudotumour Cerebri Presentation in a Child under the Gonadotropin-Releasing Hormone Agonist Treatment', *J Clin Res Pediatr Endocrinol,* 8 (2016).
[165] A. A. Omar, G. Nyaga, and L. N. W. Mungai, 'Pseudotumor Cerebri in Patient on Leuprolide Acetate for Central Precocious Puberty', *Int J Pediatr Endocrinol,* 2020 (2020).
[166] T. C. van de Grift and others, 'Timing of Puberty Suppression and Surgical Options for Transgender Youth', *Pediatrics,* 146 (2020).
[167] Transleithanian@genderthehun, in *"Gender affirming" surgeon admits children who undergo transition before puberty never attain sexual satisfaction* (2022).

and the ovaries. If the testes or ovaries fail to mature, sperm and ova cannot be produced. Infertility will likely occur, especially if followed by opposite sex hormones.[168,169,170]

117. Gender clinics now are advised to routinely counsel children about the loss of fertility and steps they might take to preserve it.[171] An informed consent form for a research study at Children's Hospital of Los Angeles included this language, 7 years ago: "If your child starts puberty blockers in the earliest stages of puberty, and then goes on to gender affirming hormones, they will not develop sperm or eggs. This means that they will not be able to have biological children. This is an important aspect of blocking puberty and progressing to hormones that you should understand prior to moving forward with puberty suppression."[172]

118. Authors this year wrote that "Research protocols for ovarian and testicular tissue cryopreservation have been developed at some centers and these methods can be also applied to children."[173] These "research" approaches are costly and have uncertain efficacy.

119. Children given puberty blockers for "gender dysphoria" find themselves unable to get off the conveyor belt of "gender transition." After puberty blockers, more than 95% go on to opposite sex hormones.[174]

120. The Swedish government commissioned a study on hormonal therapy in children with "gender dysphoria". The authors concluded in their systematic review[175] that "the long-term

[168] S. Baram and others, 'Fertility Preservation for Transgender Adolescents and Young Adults: A Systematic Review', *Hum Reprod Update,* 25 (2019).
[169] K. Rodriguez-Wallberg and others, 'Reproductive Health in Transgender and Gender Diverse Individuals: A Narrative Review to Guide Clinical Care and International Guidelines', *Int J Transgend Health,* 24 (2023).
[170] Hembree and others
[171] E. Bayar and others, 'Fertility Preservation and Realignment in Transgender Women', *Hum Fertil (Camb),* (2023).
[172] Johanna Olsen Kennedy, 'Puberty Blockers for Minor in Early Adolescence. Parent or Guardian Consent', (https://defendinged.org/wp-content/uploads/2023/05/consent_forms-JOK.pdf, 2016).
[173] Rodriguez-Wallberg and others
[174] Carmichael and others
[175] J. F. Ludvigsson and others, 'A Systematic Review of Hormone Treatment for Children with Gender Dysphoria and Recommendations for Research', *Acta Paediatr,* (2023).

effects of hormone therapy on psychosocial and somatic health are unknown, except that GnRH analog treatment seems to delay bone maturation and a normal gain in bone mineral density." They concluded that "GnRH analog treatment in children with "gender dysphoria" should be considered experimental."[176]

121. In 2021, the UK's National Institute for Health and Care Excellence (NICE) published an extensive review, over 130 pages, examining puberty blockers for "gender dysphoria" in children.[177] They found "a lack of reliable comparative studies." They concluded that "the studies that reported impact on the critical outcomes of "gender dysphoria" and mental health (depression, anger and anxiety), and the important outcomes of body image and psychosocial impact (global and psychosocial functioning) in children and adolescents with "gender dysphoria" are of very low certainty using modified GRADE."

122. The UK authors wrote that these studies "suggest little change with GnRH analogues from baseline to follow-up." They did note a loss of the expected increase in bone density that is normally seen in children not taking puberty blockers.

123. Blocking of puberty in a child with normal puberty is a powerful intervention that has psychologic and physical impacts. Brain maturation during puberty is crucial.[178,179] There are no studies of the effect of blocking normal puberty on judgment, cognition, and emotional development.[180]

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[176] Ibid.
[177] 'New Systematic Review of Puberty Blockers and Cross Sex Hormones Published by the National Institute for Health and Care Excellence (Nice)', (2021).
[178] S. J. Blakemore, S. Burnett, and R. E. Dahl, 'The Role of Puberty in the Developing Adolescent Brain', *Hum Brain Mapp,* 31 (2010).
[179] M. Arain and others, 'Maturation of the Adolescent Brain', *Neuropsychiatr Dis Treat,* 9 (2013).
[180] K. Kozlowska and others, 'Attachment Patterns in Children and Adolescents with Gender Dysphoria', *Front Psychol,* 11 (2020).

124. However, one careful study is noteworthy. An 11-year-old male treated with a GnRH analog for "gender dysphoria" showed an abnormal failure to increase brain white matter. In addition, he had a reduction in IQ and memory over the course of 22 months of puberty blockers.[181]

125. The Endocrine Society pointed out the need for more data on the effects on the brain and wrote that "animal data suggest there may be an effect of GnRH analogs on cognitive function."[182]

126. Dr. Hilary Cass, a former president of the Royal College of Pediatrics and Child Health, in her interim report[183] (see below) expressed concern that blockade of puberty may impair "maturation and development of frontal lobe functions which control decision making, emotional regulation, judgement and planning ability."

127. Furthermore, Dr. Cass stated: "The most difficult question is whether puberty blockers do indeed provide valuable time for children and young people to consider their options, or whether they effectively 'lock in' children and young people to a treatment pathway which culminates in progression to feminising/masculinising hormones by impeding the usual process of sexual orientation and gender identity development."[184] Dr. Cass concluded that more research is needed.

128. Advocates for "gender affirming care" hope that GnRH analogs will reduce the patient's dysphoria. Yet the risks of this treatment approach are high, and effects on bone and brain development may be irreversible.

[181] M. A. Schneider and others, 'Brain Maturation, Cognition and Voice Pattern in a Gender Dysphoria Case under Pubertal Suppression', *Front Hum Neurosci,* 11 (2017).
[182] Hembree and others
[183] Cass.
[184] Ibid.

129. In summary, GnRH analogs are not a "pause button." They are a powerful intervention and are neither safe nor effective.

c. Hormones have powerful effects.

130. Most of the data on the effects of opposite sex hormones come from follow up studies of adults. There are very little data on minors. Despite Dr. Connelly's belief, there are no studies on the safety of opposite sex hormones in children with "gender dysphoria." Furthermore, pediatricians and pediatric endocrinologists are unlikely to see the long-term harms of opposite sex hormones begun in childhood, because they rarely provide care for persons after the age of 18.

131. The dose of the principal male hormone, testosterone, that is recommended by the Endocrine Society for gender dysphoric females would produce levels 20-40 times higher than the normal blood level of testosterone in females.[185]

132. Estradiol is the main female hormone. Males normally have levels below 30 pg/ml.[186] For "gender dysphoria" in biologic males, the Endocrine Society recommends an estradiol level of 100-200 pg/ml, about 5 times higher than a normal male. [187]

c1. For natal females treated with testosterone

[185] Hembree and others
[186] C. Ohlsson and others, 'Comparisons of Immunoassay and Mass Spectrometry Measurements of Serum Estradiol Levels and Their Influence on Clinical Association Studies in Men', *J Clin Endocrinol Metab,* 98 (2013).
[187] Hembree and others

133. Short term effects of testosterone given to natal females include acne,[188] baldness, facial hair, clitoral enlargement, and pelvic pain.[189] The voice may deepen.

134. Infertility is frequent in those females treated with testosterone even if not given puberty blockers.[190,191,192,193] Testosterone causes obstruction of the fallopian tubes which transport the ovum.[194] Dr. Connelly provides a reference in her claim that females can get pregnant despite use of testosterone. That reference does not support her belief. That 9-year-old publication[195] was a web-based convenience sample with lots of missing data. And over 60% stated that they were not on testosterone and those who did get pregnant required fertility drugs or costly assisted reproduction.

135. In fact, effective treatment for the infertility in natal females on opposite sex hormones is so uncertain that mouse studies are being done to try to understand how to mitigate the harm.[196]

136. Increases in the red blood cells with consequent thickening of the blood, called erythrocytosis, is a known risk of testosterone therapy especially when testosterone is given by injection.[197]

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[188] L. Chu and others, 'Incidence and Factors Associated with Acne in Transgender Adolescents on Testosterone: A Retrospective Cohort Study', *Endocr Pract,* 29 (2023).
[189] S. Zwickl and others, 'Pelvic Pain in Transgender People Using Testosterone Therapy', *LGBT Health,* 10 (2023).
[190] Baram and others
[191] Rodriguez-Wallberg and others
[192] K. Dulohery and others, 'How Do Elevated Levels of Testosterone Affect the Function of the Human Fallopian Tube and Fertility?-New Insights', *Mol Reprod Dev,* 87 (2020).
[193] Hembree and others
[194] Dulohery and others
[195] A. D. Light and others, 'Transgender Men Who Experienced Pregnancy after Female-to-Male Gender Transitioning', *Obstet Gynecol,* 124 (2014).
[196] A. R. Schwartz and others, 'Impaired Ivf Outcomes Following Testosterone Treatment Improve with Washout in a Mouse Model of Gender-Affirming Hormone Treatment', *Am J Obstet Gynecol,* (2023).
[197] M. K. Laidlaw and others, 'Letter to the Editor from Laidlaw Et Al: "Erythrocytosis in a Large Cohort of Transgender Men Using Testosterone: A Long-Term Follow-up Study on Prevalence, Determinants, and Exposure Years"', *J Clin Endocrinol Metab,* 106 (2021).

137. Increases in blood pressure and reduced elasticity of the arteries has been reported with testosterone treatment in adolescent females.[198]

138. Testosterone use in females has also caused pseudotumor cerebri.[199]

139. After testosterone use in females, breast cancer onset is 20 years earlier than the onset seen in females not administered testosterone.[200,201] Breast cancer has been seen even in those females who have had mastectomies—euphemistically called "top surgery"—as the procedure leaves some residual breast tissue.[202,203]

140. Testosterone use in females causes abnormalities in the pap smear making it more difficult to diagnose cervical cancer.[204]

141. Testosterone use increases the risk of myocardial infarctions (heart attacks) by three and half times that of women not given testosterone.[205,206,207]

142. Testosterone increases the risk of strokes almost two-fold compared to women not given testosterone. [208,209,210]Strokes are usually caused by blockage of blood flow to the brain.

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[198] F. S. Cunha and others, 'Arterial Stiffness in Transgender Men Receiving Long-Term Testosterone Therapy', *J Endocr Soc,* 7 (2023).
[199] N. E. Gutkind and others, 'Idiopathic Intracranial Hypertension in Female-to-Male Transgender Patients on Exogenous Testosterone Therapy', *Ophthalmic Plast Reconstr Surg,* (2023).
[200] M. Berliere and others, 'Effects of Hormones on Breast Development and Breast Cancer Risk in Transgender Women', *Cancers (Basel),* 15 (2022).
[201] G. Corso and others, 'Risk and Incidence of Breast Cancer in Transgender Individuals: A Systematic Review and Meta-Analysis', *Eur J Cancer Prev,* 32 (2023).
[202] C. S. Cortina and A. L. Kong, 'Chest Mass in a Transgender Man after Top Surgery', *Lancet Oncol,* 24 (2023).
[203] C. J. M. de Blok and others, 'Breast Cancer Risk in Transgender People Receiving Hormone Treatment: Nationwide Cohort Study in the Netherlands', *BMJ,* 365 (2019).
[204] J. C. Wang and others, 'Factors Associated with Unsatisfactory Pap Tests among Sexually Active Trans Masculine Adults', *LGBT Health,* (2023).
[205] T. Alzahrani and others, 'Cardiovascular Disease Risk Factors and Myocardial Infarction in the Transgender Population', *Circ Cardiovasc Qual Outcomes,* 12 (2019).
[206] D. Getahun and others, 'Cross-Sex Hormones and Acute Cardiovascular Events in Transgender Persons: A Cohort Study', *Ann Intern Med,* 169 (2018).
[207] N. M. Nota and others, 'Occurrence of Acute Cardiovascular Events in Transgender Individuals Receiving Hormone Therapy', *Circulation,* 139 (2019).
[208] Alzahrani and others
[209] Getahun and others
[210] Nota and others

c2. For natal males treated with estrogen

143. Biologic males treated with estrogen have a 22-fold increase in the rate of breast cancer.[211]

144. Biologic males treated with estrogen may have an increased risk of prostate cancer.[212]

145. Prostate cancer can be easily overlooked in these men who, though they may appear as women, still have a prostate gland.

146. Estrogen treatment in biologic males may increase the risk of other cancers.[213]

147. Biologic males treated with estrogen have a 36-fold higher risk of strokes. Venous thromboembolism (clots in veins that can pass to the lung and can cause death) is increased more than six times that of males who are not given estrogen.[214,215,216]

148. Biologic males treated with estrogen may have an increased risk of retinal vein occlusion (blockage in blood flow from the eye).[217]

149. Prescribing estrogen to biologic males may alter their immune systems and increase the risk of autoimmune disorders.[218]

d. Post-surgical complications for biologic females who undergo bilateral mastectomies

[211] R. R. Gurrala and others, 'The Impact of Exogenous Testosterone on Breast Cancer Risk in Transmasculine Individuals', *Ann Plast Surg,* 90 (2023).
[212] K. Chandran and others, 'A Transgender Patient with Prostate Cancer: Lessons Learnt', *Eur Urol,* 83 (2023).
[213] J. O. Santellan-Hernandez and others, 'Multifocal Glioblastoma and Hormone Replacement Therapy in a Transgender Female', *Surg Neurol Int,* 14 (2023).
[214] Alzahrani and others
[215] Getahun and others
[216] Nota and others
[217] V. Andzembe and others, 'Branch Retinal Vein Occlusion Secondary to Hormone Replacement Therapy in a Transgender Woman', *J Fr Ophtalmol,* 46 (2023).
[218] A. A. White and others, 'Potential Immunological Effects of Gender-Affirming Hormone Therapy in Transgender People - an Unexplored Area of Research', *Ther Adv Endocrinol Metab,* 13 (2022).

150. The most common surgery performed on minors with "gender dysphoria" is bilateral mastectomy.[219] Bilateral mastectomy has been euphemistically called "top surgery" and "chest contouring." Physicians who perform these surgeries use this phrase. It is notable that physicians do not speak of "top surgery" or "chest contouring" when women have their breasts removed because of cancer. This phrase has been applied only in reference to girls who have their healthy breasts removed.

151. The majority of boys have normal breast tissue development during puberty. This pubertal gynecomastia resolves in almost all boys with no treatment. Less than 5% of boys have persistent pubertal gynecomastia[220]. Surgery is rarely done to remove this tissue.

152. Dr. Connelly trivializes the removal of healthy breasts in girls by making a comparison to gynecomastia in boys.

153. A recent paper reports on a series of 81 girls who underwent bilateral mastectomies.[221] Follow-up was for three months only and was not available for 13% of the group. The youngest child was 13 years old.

154. Between 15-38% of children who undergo mastectomies require additional surgeries.[222,223,224] Up to a third have post-operative complications.[225] These complications include

[219] J. C. Uffman and others, 'Characteristics of Transgender and Gender-Diverse Youth Presenting for Surgery in the United States', *Anesth Analg,* (2023).
[220] Bradley Anawalt, 'Gynecomastia', in *Degroot's Endocrinology 8th Edition* (Elsevier, 2023), pp. pp. 1811- 24.
[221] M. Ascha and others, 'Top Surgery and Chest Dysphoria among Transmasculine and Nonbinary Adolescents and Young Adults', *JAMA Pediatr,* 176 (2022).
[222] S. Kuhn and others, 'Mastectomy in Female-to-Male Transgender Patients: A Single-Center 24-Year Retrospective Analysis', *Arch Plast Surg,* 46 (2019).
[223] W. J. Rifkin and others, 'Gender-Affirming Mastectomy: Comparison of Periareolar and Double Incision Patterns', *Plast Reconstr Surg Glob Open,* 10 (2022).
[224] A. Tang and others, 'Gender-Affirming Mastectomy Trends and Surgical Outcomes in Adolescents', *Ann Plast Surg,* 88 (2022).
[225] R. Rysin, R. Skorochod, and Y. Wolf, 'Implications of Testosterone Therapy on Wound Healing and Operative Outcomes of Gender-Affirming Chest Masculinization Surgery', *J Plast Reconstr Aesthet Surg,* 81 (2023).

excessive scarring, pain and swelling from blood or fluid buildup, wound dehiscence (opening up where the surgical incisions were sewn together), and nipple necrosis (death of the nipple tissue).

155. Most studies did not assess patient satisfaction, had short term follow up, and had no formal, unbiased method of determining regret. The literature on this subject clearly illustrates the inadequate assessment of children undergoing mastectomy.

e. Desisters and detransitioners expose the lack of efficacy and the harm.

156. Gender clinics have failed to follow-up on children to determine the outcome of medical interventions. In general, pediatricians and pediatric endocrinologists stop caring for children once those children turn 18 years of age. Therefore, these physicians cannot recognize long-term complications that they may have caused.

157. There is increasing evidence of regret[226]. There are over 49,000 members of the reddit.com detransition site.[227] Detransition tends to occur at least four years after interventions.[228,229,230,231] Therefore, short-term follow-up after medical interventions is insufficient.[232,233,234,235]

[226] S. C. J. Jorgensen, 'Transition Regret and Detransition: Meanings and Uncertainties', *Arch Sex Behav,* (2023).
[227] 'R Detrans/Detransition Subreddit', (https://www.reddit.com/r/detrans/).
[228] E. Vandenbussche, 'Detransition-Related Needs and Support: A Cross-Sectional Online Survey', *J Homosex,* 69 (2022).
[229] Littman.
[230] C. M. Roberts and others, 'Continuation of Gender-Affirming Hormones among Transgender Adolescents and Adults', *J Clin Endocrinol Metab,* 107 (2022).
[231] R. Hall, L. Mitchell, and J. Sachdeva, 'Access to Care and Frequency of Detransition among a Cohort Discharged by a Uk National Adult Gender Identity Clinic: Retrospective Case-Note Review', *BJPsych Open,* 7 (2021).
[232] Vandenbussche.
[233] Littman.
[234] Roberts and others
[235] Hall, Mitchell, and Sachdeva.

169. In the UK, there are now strict criteria for continuing (or discontinuing) opposite sex hormones for those children who have already been taking them.[250] Among the 6 required criteria are: they must not have started those hormones before the age of 16. The primary intervention for persons under 18 years of age is psychosocial intervention and psychologic support[251]

170. In February 2022, Sweden issued new guidelines[252] recommending psychologic care as its first line of treatment for children with "gender dysphoria." Its new guidelines state that the risks of hormonal interventions outweigh benefits and that hormonal interventions in minors should only be used as part of a research protocol.

171. The French National Academy of Medicine has recommended extending as much as possible the psychological support phase. They advised "the greatest reserve" in the use of hormonal treatments.[253]

172. In Norway, the Norwegian Healthcare Investigation Board concluded that there was "insufficient evidence for the use of puberty blockers and opposite sex hormones in young people."[254]

173. Finland issued new guidelines in 2020.[255] In Finland, psychosocial support is the first line treatment including therapy for comorbid psychiatric disorders. The Finnish health care board stated

[250] 'National Health Service England: Interim Specialist Service for Children and Young People with Gender Incongruence ', (https://www.england.nhs.uk/wp-content/uploads/2023/06/Interim-service-specification-for-Specialist-Gender-Incongruence-Services-for-Children-and-Young-People.pdf, 2023).
[251] Ibid.
[252] 'Sweden National Board of Health and Welfare: Updated Recommendations for Hormone Therapy in Sex Dysphoria in Young People', (https://www.socialstyrelsen.se/om-socialstyrelsen/pressrum/press/uppdaterade-rekommendationer-for-hormonbehandling-vid-konsdysfori-hos-unga/, 2022).
[253] 'Academie Nationale De Medecine: Medicine and Gender Trans Identity in Children and Adolescents', (2022).
[254] J. Block, 'Norway's Guidance on Paediatric Gender Treatment Is Unsafe, Says Review', *BMJ,* 380 (2023).
[255] 'Recommendations by the Board for Selection of Choices for Health Care in Finland: Medical Treatment Methods for Dysphoria Related to Gender Variance in Minors', (https://segm.org/sites/default/files/Finnish_Guidelines_2020_Minors_Unofficial%20Translation.pdf, 2020).

that "hormonal interventions may be considered "with a great deal of caution" and "no irreversible treatment should be initiated."

174. Denmark will be revising their "gender dysphoria" guidelines this year, according to the Danish Health Authority website.[256] In 2018, Denmark prohibited surgery to remove the ovaries or testes in minors with "gender dysphoria".[257]

175. Psychiatrists in Australia criticized the "enthusiastic prescription of hormones and surgery for a condition of questionable construct validity and with such a high rate of natural desistance."[258]

176. In contrast, WPATH guidelines have no lower age-limit for any intervention including surgery to remove ovaries or testes.

c. Financial incentives likely explain the massive expansion of medical interventions in U.S. children, despite the European experience.

177. In the United States there are over 400 clinics and medical offices offering medical interventions for minors with "gender dysphoria".[259] This total does not include Planned Parenthood sites where opposite sex hormones are easily obtained. In Idaho, opposite sex hormones can be obtained at Planned Parenthood clinics in Twin Falls and Meridian.[260,261]

[256] 'Danish Health Authority: Guidance on Medical Assistance in Connection with Gender Identity Issues (Google Translation from the Danish)', (https://www.sst.dk/da/viden/Seksualitet-og-koen/Koensidentitet/Koensidentitetsforhold/Vejledning-om-sundhedsfaglig-hjaelp, 2023).
[257] 'Danish Health Authority: Guide on Healthcare Related to Gender Identity', (https://www.sst.dk/-/media/English/Publications/2018/Guide-on-healthcare-related-to-gender-identity.ashx, 2018).
[258] J. C. d'Abrera and others, 'Informed Consent and Childhood Gender Dysphoria: Emerging Complexities in Diagnosis and Treatment', *Australas Psychiatry,* 28 (2020).
[259] 'The Gender Mapping Project', (https://www.gendermapper.org/, 2023).
[260] 'Planned Parenthood: Transgender Hormone Therapy in Twin Falls, Id', (https://www.plannedparenthood.org/health-center/idaho/twin-falls/83301/twin-falls-health-center-2938-91810/transgender-hormone-therapy).
[261] 'Planned Parenthood: Transgender Hormone Therapy in Meridian Id', (Planned Parenthood).

178. According to the Gender Mapping Project,[262]in Idaho, there are at least 2 medical practices that prescribe opposite sex hormones and puberty blockers for minors. There is also a practice where surgery is performed[263] on minors with "gender dysphoria."

179. In 2021, as compared to 2017, there was a tripling in the number of minors who feel they are a different sex.[264] In the 3 years ending in 2021, there were at least 776 mastectomies in girls ages 13-17 in the U.S. This total does not include those surgeries paid for out of pocket.[265]

180. A 2016 report[266] estimated the size of the U.S. market for mastectomies in adults with "gender dysphoria" to be at least $11 billion. Revenues from interventions on minors are a substantial incentive.[267]At present U.S. practitioners appear to ignore our European colleagues' wisdom.

Conclusion:

181. In summary, some children may feel, despite reality, that they are a different sex. Any associated psychic distress is not improved by medical interventions to alter body appearance. These interventions do not constitute "care" and are not sensible. Furthermore, these medical interventions can cause irreversible harm and lead to lifelong regret. Many members of the medical community agree with this view and stress, as do I, that as physicians we must first, do no harm.

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[262] The Gender Mapping Project.
[263] Ibid.
[264] Robin Respaut and Chad Terhune, 'Putting Numbers on the Rise in Children Seeking Gender Care', (https://www.reuters.com/investigates/special-report/usa-transyouth-data/, 2022).
[265] Ibid.
[266] Aaron Berhanu and Richard Bartlett, 'Understanding the Market for Gender Confirmation Surgery in the Adult Transgender Community in the United States:Evolution of Treatment, Market Potential and Unique Patient Characteristics', (https://dash.harvard.edu/handle/1/40620231: Harvard University, 2016).
[267] 'Dr. Shayne Taylor Lectures at Vanderbilt on Revenue Generation at Vanderbilt from Gender Interventions', in *Dr. Shayne Taylor lectures at Vanderbilt on revenue generation at Vanderbilt from gender interventions,* (2022).

I declare under penalty of perjury that the foregoing is true and correct.

Executed Sept 1, 2023

Daniel Weiss MD

IN THE UNITED STATES DISTRICT COURT
UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF IDAHO

Pam POE, et al.,

Plaintiffs,

v. Case No. 1:23-cv-00269-CWD

Raúl LABRADOR, et al.,

Defendants.
_____/

Expert Report of

James M. Cantor, PhD

B. Clinical expertise vs. scientific expertise

9. In clinical science, there are two kinds of expertise: Clinicians' expertise regards applying general principles to the care of an individual patient and the unique features of that case. A scientist's expertise is the reverse, accumulating information about many individual cases and identifying the generalizable principles that may be applied to all cases. Thus, different types of decisions may require different kinds of experts, such that questions about whether a specific patient represents an exception to the general rule might be better posed to a physician's expertise, whereas questions about establishing the general rules themselves might be better posed to a scientist's.

10. In legal matters, the most familiar situation pertains to whether a given clinician correctly employed relevant clinical standards. Often, it is other clinicians who practice in that field who will be best equipped to speak to that question. When it is the clinical standards that are themselves in question, however, it is the experts in the assessment of scientific studies who are the relevant experts.

C. The professional standard to evaluate treatment models is to rely on objective assessors, not treatment model users in a conflict of interest with its results.

11. I describe in a later section the well-recognized procedures for conducting reviews of literature in medical and scientific fields to evaluate the strength of evidence for particular procedures or treatments. Importantly, the standard procedure is for such evaluations to be conducted by objective assessors with expertise in the science of assessment, and not by those with an investment in the procedure being assessed. Because the people engaged in providing clinical services are necessarily in a conflict of interest when claiming that their services are effective, formal evaluations of evidence are routinely conducted by those *without* direct

professional involvement and thus without financial or other personal interest in whether services are deemed to be safe or effective. This routine practice standard is exemplified by all of the only three systematic, comprehensive research reviews that have been conducted concerning the safety and efficacy of puberty blockers and cross-sex hormones as treatments for gender dysphoria in children.

12. In 2020, England's National Health Service (NHS) commissioned a major review of the use of puberty blockers and cross-sex hormones in children and young people and appointed prominent pediatrician Dr. Hilary Cass to lead that review, explicating that "Given the increasingly evident polarization among clinical professionals, Dr. Cass was asked to chair the group as a senior clinician with *no prior involvement* or fixed views in this area." (Cass 2022 at 35, italics added.) Dr. Cass's committee in turn commissioned formal systematic reviews of evidence from the England National Institute for Health & Care Excellence (NICE), a government entity of England's Department of Health and Social Care, established to provide guidance to health care policy, such as by conducting systematic reviews of clinical research, but without direct involvement in providing treatment to gender dysphoric individuals. (https://www.nice.org.uk/.) Similarly, the Finnish health care council commissioned its systematic review to an external firm, Summaryx Oy. (Pasternack 2019.) Summaryx Oy is a "social enterprise" (a Finnish organization analogous to a non-profit think-tank) that conducts systematic research reviews and other analyses for supporting that nation's medical and social systems. Its reviews are conducted by assessment professionals, not by clinicians providing services. (www.summaryx.eu/en/.) The systematic review by Sweden's National Board of Health and Welfare (NBHW) included four experts. (SBU Scoping Review 2019.) In addition to their own research fields, they provided clinical services in areas adjacent to but apart from gender

dysphoric children, such as physical disorders of sexual development (Dr. Berit Kriström) or gender dysphoria in adults (Dr. Mikael Landén).

13. My own most-cited peer-reviewed paper relating to gender dysphoria in minors illustrates the expertise in the evaluation of scientific evidence that I have and am recognized for. That is, that paper provided not clinical advice or a clinical study, but rather a review and interpretation of the available evidence concerning desistance in children who suffer from gender dysphoria, as well as of evidence (and lack of evidence) concerning the safety and efficacy of medical transition to treat gender dysphoria in minors. (Cantor 2019.)

14. My extensive background in the assessment of sexuality research and in the development of human sexuality places me in exactly the position of objectivity and freedom from conflict-of-interest required by the universal standards of medical research science.

15. I do not offer opinions about the best public policy. Multiple jurisdictions have attempted multiple different means of implementing that science into various public policies. Although I accept as an axiom that good public policy must be consistent with the scientific evidence, science cannot objectively assess societal values and priorities. Therefore, my opinions summarize and assess the science on which public policy is based, but I can offer no opinion regarding which public policy mechanisms would be best in light of that science.

II. Multiple international health care systems that had initially expanded medicalized transition to include minors have reversed that policy, as research on safety and effectiveness accumulated, in a growing international trend against the medicalized transition of minors.

16. Medicalized interventions for minors originated in European clinics (most prominently in the Netherlands and Sweden), and these precedents (and in particular the so-called "Dutch Protocol") are frequently cited by American clinicians. However, growing concerns about safety together with the continuing absence of reliable evidence of benefit even after more than 20 years of experience have led respected and far-from "conservative" European health care ministries to step back and discourage or even cease providing medicalized transition of minors, other than in exceptional and carefully limited circumstances, such as within registered and approved research trials. Instead, these authorities now endorse psychotherapy as the treatment of choice for minors, with medical interventions representing a method of last resort, if permitted at all. These range from medical advisories to outright bans on the medical transition of minors. I provide details concerning these policy changes below, and provide additional details regarding the underlying systematic reviews in Sections V and VI below.

A. England

17. The National Health Service (NHS) of England centralized gender counselling and transitioning services into a single clinic, the Gender Identity Development Service (GIDS) of the Tavistock and Portman NHS Foundation Trust. Between 2008 and 2018, the number of referrals to the clinic had increased by a factor of 40, leading to a government inquiry into the causes. (Rayner 2018.) The GIDS was repeatedly accused of approving and endorsing medical transition in minors without adequate justification, including by 35 members of the GIDS own staff, who resigned by 2019. (BBC News 2021; Donnelly 2019). An ex-governor and psychotherapist of the Trust who resigned, Marcus Evans, said staff feared being called

transphobic, which was impacting their objectivity in their work. (Doward 2019).

18. In 2020, a former patient of the GIDS, Keira Bell, brought a lawsuit alleging that the GIDS practices with respect to prescribing puberty blockers for minors were unproven and potentially harmful in ways that meant that it was impossible for minors to give meaningful informed consent. After taking extensive expert evidence, the trial court concluded that puberty blockers might have "potentially irreversible" and "life-changing" effects on a young person (*Bell v. Tavistock*, [2020] EWHC 3274 (Admin), ¶148, 151), that there was "very limited evidence as to its efficacy" (¶134) such that "it is right to call the treatment experimental" (¶148), and that use of puberty blockers almost always led to use of cross-sex hormones that "may well lead to a loss of fertility" (¶¶ 137-138). While an appeals court later concluded that the trial court had exceeded the proper role of the court in making factual findings on these questions, the appeals court acknowledged that "Medical opinion is far from unanimous about the wisdom of embarking on treatment before adulthood. The question raises not only clinical medical issues but also moral and ethical issues, all of which are the subject of intense professional and public debate." (Bell v. Tavistock 2021 at ¶3.)

19. Perhaps prompted by the Keira Bell litigation, also in 2020 the English National Health Service ("NHS") commissioned the thorough independent review of the use of puberty blockers and cross-sex hormones to be chaired by Dr. Cass that I have described above. After an extensive process that included obtaining the systematic reviews of all published studies bearing on safety or efficacy of these hormonal interventions in minors as well as "extensive" listening sessions with clinicians, patients, and families, in February 2022 Dr. Cass issued an extensive "Interim Report" summarizing the state of the relevant medical science and in particular highlighting the presence of serious but unstudied risks and the lack of strong evidence of

efficacy. I will quote specific items from Dr. Cass's Report as relevant to specific topics below. At a high level, Dr. Cass concluded that to date there has been "very limited research on the sexual, cognitive, or broader developmental outcomes" from the use of puberty blockers for gender dysphoria (Cass 2022 at 19), that it is an unanswered question "whether the evidence for the use and safety of [puberty blockers] is strong enough as judged by reasonable clinical standards" (at 37), and that "the available evidence was not strong enough to form the basis of a policy position" with regard to use of both puberty blockers and cross-sex hormones in minors (at 35).

20. Following issuance of Dr. Cass's Interim Report, the National Health Service of England (NHS England) published a consultation document concerning a proposed revised service specification under which "NHS England will only commission [puberty blockers] in the context of a formal research protocol." (NHS Interim Service Specification at 12.) As of June 9, 2023, the NHS England announced its implementation of its previously interim policy. They reasserted "there is not enough evidence to support their safety or clinical effectiveness as a routinely available treatment." and that it will limit the use puberty-blockers to formal clinical trials. (Ghorayshi 2023; Moss & Parry 2023).

B. Finland

21. In Finland, minors were made eligible for medicalized transition in 2011 by that country's health care service, the Council for Choices in Health Care in Finland (COHERE). Assessments of mental health and preparedness were centralized by law into two research clinics, Helsinki University Central Hospital and Tampere University Hospital.

22. In 2019, the Service Selection Council (Palko) of the Finnish Ministry of Social Affairs and Health commissioned a systematic review of the effectiveness and safety of

medicalized transition (Pasternack 2019), and in 2020, Finnish researchers published an analysis of the outcomes of adolescents diagnosed with gender dysphoria and receiving cross-sex hormone treatment in Finland's Tampere University Hospital. (Kaltiala 2020.) Despite the purpose of medical transition being to improve mental health, the study showed:

> Medical gender reassignment is not enough to improve functioning and relieve psychiatric comorbidities among adolescents with gender dysphoria. Appropriate interventions are warranted for psychiatric comorbidities and problems in adolescent development. (Kaltiala 2020 at 213.)

They concluded that the youth who were functioning well after transition were those who were already functioning well before transition, and those who were functioning poorly before transition continued to function poorly after transition.

23. Importantly, the results of this study exemplify why correlations reported from surveys cannot be interpreted as evidence of causality. Mental health assessment would exclude the most poorly functioning youth from among those permitted to transition, but transition itself did not improve the functioning of those who were permitted to transition.

24. Consistent with the results of the independent evidence review by Summaryx Oy and analysis of the ethical issues involved, Finland's health care service ended the surgical transition of minors, ruling in 2020 that "Surgical treatments are not part of the treatment methods for dysphoria caused by gender-related conflicts in minors." (COHERE Summary 2020.) The review of the research concluded that "[N]o conclusions can be drawn on the stability of gender identity during the period of disorder caused by a psychiatric illness with symptoms that hamper development." (COHERE Summary 2020.) COHERE also greatly restricted access to puberty-blocking and cross-sex hormonal treatments, explicating that they may be considered for minors "only if it can be ascertained that their identity as the other sex is of a permanent nature and causes severe dysphoria," and only "if the need for it continues *after* [any] other psychiatric

symptoms have *ceased* and adolescent development is progressing normally." (COHERE Summary 2020, italics added.) They restricted the procedures to their centralized research clinics. The council was explicit in noting the lack of research needed for decision-making, "There is also a need for more information on the disadvantages of procedures and on people who regret them." (COHERE Summary 2020.) In light of the special developmental and ethical considerations surrounding minors, COHERE recommended that "no decisions should be made that can permanently alter a still-maturing minor's mental and physical development." (COHERE Recommendation 2020 at 7.)

C. Sweden

25. Sweden's national health care policy regarding trans issues has developed quite similarly to that of the UK. Already in place 20 years ago, Swedish health care policy permitted otherwise eligible minors to receive puberty-blockers beginning at age 14 and cross-sex hormones at age 16. At that time, only small numbers of minors sought medical transition services. An explosion of referrals ensued in 2013–2014. Sweden's Board of Health and Welfare ("Socialstyrelsen") reported that, in 2018, the number of diagnoses of gender dysphoria was 15 times higher than 2008 among girls ages 13–17. (Swedish Socialstyrelsen Support 2022 at 15.)

26. Sweden has long been very accepting with regard to sexual and gender diversity. In 2018, a law was proposed to lower the age of eligibility for surgical care from age 18 to 15, remove the requirement for parental consent, and lower the legal age for change of gender to age 12. A series of cases of regret and suicide following medical transition were reported in the Swedish media. (Orange 2020.) In 2019, the Swedish Agency for Health Technology Assessment and Assessment of Social Services (SBU) therefore initiated its own systematic review of the research. The SBU released English-language results first as a summary and then

published as a peer reviewed article. (Ludvigsson et al., 2023.) Like the UK, the Swedish investigation employed standardized review methods to ensure the encapsulation of all the relevant evidence and came to the same conclusions: "This systematic review of almost 10 000 screened abstracts suggests that long-term effects of hormone therapy on psychosocial and somatic health are unknown, except that GnRHa treatment seems to delay bone maturation and gain in bone mineral density." (Ludvigsson 2023 at 12.) They emphasized, "The absence of long-term studies is worrying because many individuals start treatment as minors (<18 years) and CSHT is lifelong." (Ludvigsson 2023 at 10.) Regarding the full set of studies, "No randomised controlled trials were found, but we could identify 24 relevant observational studies. However, these were limited by methodological weaknesses, for instance lack of or inappropriate control group, lack of intra-individual analyses, high attrition rates that precluded conclusion to be drawn." (Ludvigsson 2023 at 9–10.)

27. In 2021, the leading Swedish pediatric gender clinic, at the Karolinska Institute, issued a new policy statement in which it stated that the Swedish evidence review "showed a lack of evidence for both the long-term consequences of the treatments, and the reasons for the large influx of patients in recent years." (Karolinska 2021.) The Karolinska Institute further stated that "These treatments are potentially fraught with extensive and irreversible adverse consequences such as cardiovascular disease, osteoporosis, infertility, increased cancer risk, and thrombosis." In a dramatic reversal of its policy, the Institute announced that "In light of the above, and based on the precautionary principle, which should always be applied, it has been decided that hormonal treatments (i.e., puberty blocking and cross-sex hormones) will not be initiated in gender dysphoric patients under the age of 16." Further, the Karolinska clinic announced that patients ages 16–18 would receive such treatments *only* within research settings

(clinical trials monitored by the appropriate Swedish research ethics board). (Karolinska 2021.)

28. In 2022, the Swedish National Board of Health and Welfare published a major new national policy document concerning "Support, investigation and hormone therapy in gender incongruence in children and youth," including an English-language summary. (Swedish Socialstyrelsen Support 2022.) The National Board of Health noted "the continued lack of reliable scientific evidence concerning the efficacy and the safety of both [puberty blockers and cross-sex hormones]," and concluded (based on the commissioned evidence reviews) that "the evidence on treatment efficacy and safety is still insufficient and inconclusive for all reported outcomes. Further, it is not possible to determine how common it is for adolescents who undergo gender-affirming treatment to later change their perception of their gender identity or interrupt an ongoing treatment." As a result, the Board of Health concluded that, "[f]or adolescents with gender incongruence, the . . . risks of puberty suppressing treatment with GnRH-analogues and gender-affirming hormonal treatment currently outweigh the possible benefits." (Swedish Socialstyrelsen Support 2022 at 10-12.) Accordingly, the Swedish Board of Health and Welfare "recommends restraint when it comes to hormone treatment." (Swedish Socialstyrelsen Updated Recommendations 2/22/22.)

D. France

29. While medical authorities in France have not issued any actual restriction, in 2022, the Académie Nationale de Médecine of France issued a strongly worded statement, citing the Swedish ban on hormone treatments:

> [A] great medical caution must be taken in children and adolescents, given the vulnerability, particularly psychological, of this population and the many undesirable effects, and even serious complications, that some of the available therapies can cause…such as impact on growth, bone fragility, risk of sterility, emotional and intellectual consequences and, for girls, symptoms reminiscent of menopause." (Académie Nationale de Médecine 2022.)

For hormones, the Académie concluded "the greatest reserve is required in their use," and for surgical treatments, "[T]heir irreversible nature must be emphasized." The Académie warned "the risk of over-diagnosis is real, as shown by the increasing number of transgender young adults wishing to 'detransition'." Rather than medical interventions, it advised health care providers "to extend as much as possible the psychological support phase." The Académie reviewed and emphasized the evidence indicating the very large and very sudden increase in youth requesting medical transition. It attributed the change, not to society now being more accepting of sexual diversity, but to social media, "underlining the addictive character of excessive consultation of social networks which is both harmful to the psychological development of young people and responsible, for a very important part, of the growing sense of gender incongruence." (Académie Nationale de Médecine 2022.)

E. Norway

30. In 2022, Norway's Healthcare Investigation Board (Ukom) began a review of that country's guidelines for the medicalized transition of minors. (Block, Norway's Guidance, 2023.) In 2023, it released its report, which concluded that the evidence for the use of puberty blockers and cross-sex hormone treatments in youth was insufficient, and acknowledged the international recognition of the dearth of evidence of safety and effectiveness. The report deemed medicalized transition to be experimental. (Ukom 2023, Summary and Section 11.) The report faulted the existing Norwegian guidelines, published in 2020, for concentrating on "equality and rights" while "deviating from the requirements for the development of knowledge-based guidelines." (Ukom 2023, Summary.)

31. The Norwegian report concluded that "The knowledge base, especially research-based knowledge for gender-affirming treatment (hormonal and surgical), is insufficient and the

long-term effects are little known" and that "This applies particularly to the teenage population, which accounts for a large part of the increase in referrals to the specialist health service in the last decade." (Ukom 2023, Summary and Section 7.)

32. In an interview about the report with the *British Medical Journal,* the Ukom Medical Director, Stine Marit Moen, said, "We're concerned that there may be undertreatment, overtreatment, and the wrong treatment" and added:

> We've seen a marked increase in referrals to specialised healthcare services in Norway for teenagers, as seen in many other western countries, and nobody knows the reason. The stability of the gender dysphoria of these teenagers is not known, and the evidence of long term effects of gender affirming treatments for this young population is insufficient. (Block, Norway's Guidance, 2023.)

33. Ukom noted that referrals to its national treatment service increased by a factor of eight between 2007 and 2018, and that this increase was largely from young biological females. Seventy-five percent of the referrals to its National Treatment Service had other co-morbid psychiatric diagnoses, including not only depression and anxiety but also autism spectrum disorders, ADHD, and Tourette's Syndrome. (Ukom 2023, Summary and Section 7.)

F. Assertions by U.S. organizations and officials that there is 'no debate' over medicalized transition are false.

34. The international consensus is clearly demonstrated by the multiple recent analyses, statements, and policy decisions from the health care service systems around the world. These include England's National Health Service, which noted the "Scarce and inconclusive evidence to support clinical decision making [which] has led to a lack of clinical consensus on what the best model of care for children and young people experiencing gender incongruence and dysphoria should be." (NHS 2022 at 5.)

35. As these several recent national policy reviews, statements, and recommendations make very clear, there is a great deal of doubt and debate among the sophisticated international

(See Section IV.E on *Selection Bias*.) (3) It is also possible that a third factor, such as wealth or socioeconomic status, causes both the higher likelihood of transitioning (by being better able to afford it) and the likelihood of mental health (such as by avoiding the stresses of poverty or affording psychotherapy).

61. This principle of scientific evidence is why surveys do not (cannot) represent evidence of treatment effectiveness: Surveys are limited to correlations. (See Section III.F. on *Surveys*.)

C. When two or more treatments are provided at the same time, one cannot know which treatment caused observed changes (i.e., 'confounding').

62. Confounding is a well-known issue in clinical research design. As detailed in the present report, it applies throughout treatment studies of gender dysphoria. Patients who undergo medical transition procedures in research clinics routinely undergo mental health treatment (psychotherapy) at the same time. Without explicit procedures to distinguish them, it cannot be known which treatment produced which outcome (or in what proportions). Indeed, that mental health improvement came from mental health treatment is a more parsimonious (and therefore, scientifically superior) conclusion than is medicalized treatment causing mental health improvement.

D. Extrapolation to dissimilar populations and dissimilar conditions.

63. The purpose of clinical science is to establish from a finite sample of study participants information about the effectiveness and safety, or other variables, of a treatment that can be generalized to other people. Such extrapolation is only scientifically justified with populations matched on all relevant variables. The identification of those variables can itself be a complicated question, but when an experimental sample differs from another group on variables already known to be related, extrapolation cannot be assumed but must be demonstrated directly

and explicitly.

64. Each of the systematic reviews from the UK, Sweden, and Finland emphasized that the recently observed, greatly increased numbers of youth coming to clinical attention are a population different in important respects from the subjects of often-cited research studies. Conclusions from studies of adult-onset gender dysphoria and from childhood-onset gender dysphoria cannot be assumed to apply to the current patient populations of adolescent-onset gender dysphoria. The Cass Report correctly advised:

> It is also important to note that any data that are available do not relate to the current predominant cohort of later-presenting birth-registered female teenagers. This is because the rapid increase in this subgroup only began from around 2014-15. Since young people may not reach a settled gender expression until their mid-20s, it is too early to assess the longer-term outcomes of this group. (Cass 2022 at 36.)

The report also indicated:

> [I]t is important that it is not assumed that outcomes for, and side effects in, children treated for precocious puberty will necessarily be the same in children or young people with gender dysphoria. (Cass 2022 at 63.)

65. Finland's review repeated the observation of greatly (20 times) increased numbers, an entirely different demographic of cases, and increased proportions of psychiatric co-morbidities. (Finnish Palko Preparation Memo at 4-6.) The Swedish review highlighted "the uncertainty that follows from the yet unexplained increase in the number of care seekers, an increase particularly large among adolescents registered as females at birth." (Swedish Socialstyrelsen Support 2022 at 11.)

66. It is well known that males and females differ dramatically in the incidence of many mental health conditions and in their responses to treatments for mental health conditions. Thus, research from male-to-female transitioners (the predominant population until recent years) cannot be extrapolated to female-to-male transitioners (the predominant population presenting at clinics today). Outcomes from patients who experienced clear pre-pubertal childhood gender

dysphoria cannot be extrapolated to patients who first manifest diagnosable gender dysphoria well into puberty. Outcomes from clinics employing rigorous and openly reported gate-keeping procedures cannot be extrapolated to clinics or clinicians employing only minimal or perfunctory assessments without external review. Developmental trajectories and outcomes from before the social media era cannot be assumed to apply to those of the current era or the future. Research from youth with formal diagnoses and attending clinics cannot be extrapolated to self-identifying youth and those responding to surveys advertised on social media sites.

67. Further, treatment of gender dysphoria in children and adolescents presents novel-use cases very dissimilar to the contexts in which puberty blockers and cross-sex hormones have previously been studied. Whereas use of puberty blockers to treat precocious puberty *avoids* the medical risks caused by undergoing puberty growth before the body is ready (thus outweighing other risks), use of blockers to treat gender dysphoria in patients already at their natural puberty pushes them *away* from the mean age of the healthy population. Instead of avoiding an objective problem, one is created: Among other things, patients become subject to the issues and risks associated with being late-bloomers, *very* late-bloomers. This transforms the risk:benefit balance, where the offsetting benefit is primarily (however validly) cosmetic.

68. Similarly, administering testosterone to an adult male to treat testosterone deficiency addresses both a different condition and a different population than administration of that same drug to an adolescent female to treat gender dysphoria; the benefits and harms observed in the first case cannot be extrapolated to the second.

E. Mental health assessment used for gate-keeping medicalized transition establishes a *selection bias,* creating a statistical illusion of mental health improvement among the selected.

69. Importantly, clinics are expected to conduct mental health assessments of applicants

in minors.

73. In fact, as I also review below, after conducting systematic reviews, the English, Finnish, and Swedish national health care institutions all concluded that there is insufficient evidence to determine that hormonal interventions as treatments for gender dysphoria in minors are safe. Reasons for these consistent conclusions include lack of research, insufficient research quality among the existing investigations, and insufficient investigation of long-term safety.

74. To understand the uniform conclusions of these national health care bodies, it is important to understand that—at least where there is *prima facie* reason to be concerned that certain harms may result—when the research has not been done, the absence of evidence cannot be taken as evidence of the absence of such harms. "We don't know" does not permit the conclusion "It is safe." Plaintiffs' experts and many advocates in the field of transgender medicine make this error.

B. The McMaster University systematic review of systematic reviews.

75. McMaster University is recognized as a center of expertise in the performance of methodologically sound systematic reviews. In 2022, authors associated with that McMaster University team (Dr. Romina Brignardello-Petersen and Dr. Wojtek Wiercioch) conducted a systematic review, "Effects of gender affirming therapies in people with gender dysphoria: evaluation of the best available evidence," spanning all the available systematic reviews in this area, including their methodological strength, the evidence they cited, and the conclusions they reached. (Brignardello-Petersen & Wiercioch 2022.) Applying carefully disclosed criteria and methods, they identified on-point systematic reviews, and graded the methodological quality of each on-point review as high, moderate, low, or critically low. With regard to systematic reviews relating to the effects of puberty blockers or cross-sex hormones, the authors included in their

analysis all reviews that achieved at least a "low" rating of methodological quality, while excluding those rated as "very low." No systematic reviews earned a "high" methodological rating, except a review performed by the highly respected Cochrane Library of the effects of cross-sex hormones on transitioning natal males (Haupt 2020), but that most careful review in turn found *no* published studies on this topic of sufficient methodological soundness to satisfy its inclusion criteria and thus merit review. After this careful review of the data and analysis contained in available systematic reviews, the McMaster authors concluded:

> Due to important limitations in the body of evidence, there is great uncertainty about the effects of puberty blockers, cross-sex hormones, and surgeries in young people with gender dysphoria. This evidence alone is not sufficient to support whether using or not using these treatments. (Brignardello-Petersen & Wiercioch 2022 at 5.)

C. The quality of the systematic reviews from governmental bodies and professional associations.

76. To ensure consideration of all available evidence, I compiled into a single table all the cohort studies of safety and effectiveness included by any of the systematic reviews from the international health care systems and (although they were incomplete) by the U.S.-based clinical associations issuing guidelines or standards. I discuss their specific findings in the following sections.

77. New studies continue to be conducted and published. I have identified two additional studies that were published after these reviews were released, but that meet their inclusion criteria: Tordoff, *et al.,* 2022, and Chen, *et al.,* 2023. The findings from both these studies are consistent with those already included and are noted here for completeness.

Table 1. Cohort studies of effectiveness and safety of puberty-blockers and cross-sex hormones in minors.

	Finland (2019)	NICE (2020a,b)	Sweden (2022)	E.S. (2017)	AAP (2018)	Baker (2021) (WPATH)
Effectiveness GnRHa	Costa et al, 2015 de Vries et al, 2011	Costa et al, 2015 de Vries et al, 2011	Becker-Hebly et al, 2020 Carmichael et al, 2021 Costa et al, 2015 *** Hisle-Gorman et al, 2021			de Vries et al, 2011
Effectiveness Sex Hormones	de Vries et al, 2014*	Achille et al, 2020 Allen et al, 2019 Kaltiala et al, 2020 Lopez de Lara et al, 2020	*** *** Cantu et al, 2020* de Vries et al, 2014* ***			Achille et al, 2020 de Vries et al, 2014* López de Lara et al, 2020
Safety (Bones) GnRHa		Brik et al, 2020 Joseph et al, 2019 Khatchadourian et al, 2014 Klink et al, 2015 Vlot et al, 2017	Joseph et al, 2019 Klink et al, 2015 Navabi et al, 2021 Schagen et al, 2020 Stoffers et al, 2019 Vlot et al, 2017 Lee et al, 2020 van der Loos et al, 2021			
Safety (Bloods) GnRHa		Klaver et al, 2020 Schagen et al, 2016	Klaver et al, 2018 Klaver et al, 2020 Nokoff et al, 2020 Perl et al, 2020 Schagen et al, 2016 Schulmeister et al, 2021			
Safety (Bones) Sex Hormones	****	Khatchadourian et al, 2014 Klaver et al, 2020 Klink et al, 2015 Kuper et al, 2020 Stoffers et al, 2019 Vlot et al, 2017		Klink et al, 2015		
Safety (Bloods) Sex Hormones			Jarin, 2017 Mullins et al, 2021 Tack et al, 2016			

D. United Kingdom

78. The National Health Service (NHS) of the United Kingdom conducted an independent review of its services for minors with gender dysphoria. (Cass 2022.) Included in that process were two systematic, comprehensive reviews of the research literature, conducted by England's National Institute for Health Care Excellence (NICE) in 2020. One regarded the efficacy, safety, and cost-effectiveness of Gonadotrophin-Releasing Hormone (GnRH) analogs (or "puberty blockers") in minors. (NICE 2020a.) The other regarded the efficacy, safety, and cost-effectiveness of cross-sex hormones, or "gender-affirming hormones," in minors. (NICE 2020b.) (Only efficacy and safety are relevant to the present report.)

79. The puberty-blocker review was tasked with reviewing the research on two relevant questions. For one:

> *In children and adolescents with gender dysphoria, what is the clinical effectiveness of treatment with GnRH analogues compared with one or a combination of psychological support, social transitioning to the desired gender or no intervention?* (NICE 2020a at 4.)

Clinical effectiveness of puberty-blockers was composed of three factors deemed "critical outcomes": impact on gender dysphoria, impact on mental health, and impact on quality of life. The second question addressed in the review was:

> *In children and adolescents with gender dysphoria, what is the short-term and long-term safety of GnRH analogues compared with one or a combination of psychological support, social transitioning to the desired gender or no intervention?* (NICE 2020a at 6.)

Puberty-blocker safety was assessed as its effect on three categories of health: bone density, cognitive development or functioning, and "other."

80. The second review, for cross-sex hormone treatment, was tasked with the corresponding questions. For one:

> *In children and adolescents with gender dysphoria, what is the clinical effectiveness of treatment with gender-affirming hormones compared with one or a combination of psychological support, social transitioning to the desired gender or no intervention?* (NICE 2020b at 4.)

The critical outcomes were again deemed to be impact on gender dysphoria, on mental health, and on quality of life. The impact on mental health was composed of indicators of depression, anxiety, and suicidality and self-injury. The second question was:

> *In children and adolescents with gender dysphoria, what is the short-term and long-term safety of gender-affirming hormones compared with one or a combination of psychological support, social transitioning to the desired gender or no intervention?* (NICE 2020b at 7.)

Cross-sex hormone treatment safety was assessed as its effect on bone density and on "clinical parameters," which included insulin, cholesterol, and blood pressure levels.

81. These two reviews included a systematic consolidation of all the research evidence, following established procedures for preventing the "cherry-picking" or selective citation favoring or down-playing any one conclusion, carefully setting out the criteria for including or excluding specific studies from the review, and providing detailed analyses of each included study. The whole was made publicly available, consistent with good practice.

82. The reviews' results were unambiguous: For both puberty blockers and cross-sex hormones, "The critical outcomes for decision making are the impact on gender dysphoria, mental health and quality of life." The quality of evidence for these outcomes was assessed as "very low" using the established GRADE procedures for assessing clinical research evidence. (NICE 2020a at 4; NICE 2020b at 4.) The reviews also assessed as "very low" the quality of evidence regarding "body image, psychosocial impact, engagement with health care services, impact on extent of satisfaction with surgery and stopping treatment" or (in the case of cross-sex hormones) of "detransition." (NICE 2020a at 5; NICE 2020b at 6.) The review of puberty blockers concluded that of the existing research, "The studies included in this evidence review

are all small, uncontrolled observational studies, which are subject to bias and confounding," "They suggest little change with GnRH analogues [puberty blockers] from baseline to follow-up." (NICE 2020a at 13.) The cross-sex hormone review likewise reported a lengthy list of methodological defects or limitations affecting all available studies. (NICE 2020b at 13-14.)

83. The NHS changed the language on its website describing puberty blockers and cross sex hormones. It removed the statement that "The effects of treatment with GnRH analogues are considered to be fully reversible,"[2] replacing that text with:[3]

> Little is known about the long-term side effects of hormone or puberty blockers in children with gender dysphoria. . . . [I]t 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.

84. As mentioned in the McMaster review, the highly respected Cochrane Library, based in England, undertook a systematic review of studies of the safety and efficacy of the administration of cross-sex hormones to natal males. That review focused primarily on adults (age 16 and older). The results, including a detailed explanation of methodology and inclusion criteria, were published in 2020. Unfortunately, but importantly, the Cochrane review found *zero* studies, globally, that were sufficiently reliable to meet the inclusion criteria even at a "very low" level of evidentiary quality. The authors reported:

> Despite more than four decades of ongoing efforts to improve the quality of hormone therapy for women in transition, we found that no RCTs or suitable cohort studies have yet been conducted to investigate the efficacy and safety of hormonal treatment approaches for transgender women in transition….We found insufficient evidence to determine the efficacy or safety of hormonal treatment approaches…for transgender women in transition. The evidence is very incomplete, demonstrating a gap between current clinical practice and clinical research. (Haupt 2020 at 10-11.)

The authors' frustration at the total lack of reliable research was evident: "The lack of reliable

[2] BBC. Retrieved from https://www.bbc.co.uk/sounds/play/m000kgsj; Kurkup, J. (2020, June 4). *The Spectator*. Available from https://www.spectator.co.uk/article/the-nhs-has-quietly-changed-its-trans-guidance-to-reflect-reality/
[3] NHS. Retrieved from https://www.nhs.uk/conditions/gender-dysphoria/treatment/

data on hormone therapy for transitioning transgender women should encourage the development of well-planned RCTs and cohort studies to evaluate widespread empirical practice in the treatment of gender dysphoria." (Haupt 2020 at 10.)

E. Sweden

85. Sweden similarly commissioned a systematic review, published in 2022 and charged with addressing these three questions:

> *Are there any scientific studies explaining the increase in numbers seeking for gender dysphoria?*
>
> *Are there any scientific studies on long-term effects of treatment for gender dysphoria?*
>
> *What scientific papers on diagnosis and treatment of gender dysphoria has been published after the National Board of Health and Welfare in Sweden issued its national support for managing children and adolescents with gender dysphoria in 2015?* (SBU Scoping Review Summary 2019.)

The databases searched included CINAHL (EBSCO), Cochrane Library (Wiley), EMBASE (Embase.com), PsychINFO (EBSCO), PubMed (NLM), Scopus (Elsevier), and SocINDEX (EBSCO). A total of 8,867 abstracts were identified, from which 315 full text articles were assessed for eligibility. The review concluded that "literature on management and long-term effects in children and adolescents is sparse," that no RCTs have been conducted, and that there remains no explanation for the recent and dramatic increases in numbers of minors presenting with gender dysphoria. (SBU Scoping Review Summary 2019.) I have quoted other conclusions from the Swedish systematic review in Section II above.

F. Finland

86. Finland's Ministry of Social Affairs and Health commissioned a systematic review, completed in 2019, of the effectiveness and safety of medicalized transition. (COHERE Recommendation 2020.) The review spanned both minors and adults and included both puberty

its content. Statements in this report do not necessarily reflect the official views of or imply endorsement by WPATH." (Baker 2021 at 14.)

94. The literature search was completed in June 2020, and spanned 13 questions. Two questions related to the effectiveness of medicalized transition of minors: Question #10 was "[W]hat are the effects of suppressing puberty with GnRH agonists on quality of life?", and question #11 was "[W]hat are the psychological effects (including quality of life) associated with hormone therapy?" (Sharma 2018; Baker 2021.) That is, the review included studies of the effectiveness of puberty blockers and cross-sex hormones, but, remarkably, did not include any effort to determine the *safety* of either.

95. Baker (2021) identified that among all experimental evidence published on medicalized transition, a total of "Three studies focused on adolescents." (Baker 2021 at 1.) These were Achille, *et al.* (2020), López de Lara, *et al.* (2020), and de Vries, *et al.* (2011, 2014). (Baker 2021 considered the two de Vries articles as a single study, because the later one included the subset of patients from the earlier one who continued in treatment. I will refer to this set as four studies, however, to be consistent with the other reviews.) Notably, in contrast with WPATH's review, the Swedish review entirely excluded Achille *et al.* (2020), López de Lara *et al.* (2020), and de Vries *et al.* (2011) due to their high risks of bias. (SBU Scoping Review Appendix 2.) The Baker team did not use the GRADE system for assessing the quality of evidence, instead using the Methods Guide for Conducting Comparative Effectiveness Reviews.

96. The Baker team noted "no study reported separate results by gender identity for transgender youth." (Baker 2021 at 3.) They also found that "No study reported on hormone therapy among nonbinary people." (at 3.) (Despite this finding, WPATH SOC-8 now includes recommendations for people who identify as nonbinary.)

97. My assessment of the Baker review revealed that there were substantial discrepancies and misleading ambiguities in their reporting: Baker, *et al.* indicated in the abstract that "Hormone therapy was associated with increased QOL [quality of life], decreased depression, and decreased anxiety" (Baker 2021 at 1,) and that "Associations were similar across gender identity and age" (Baker 2021 at 12). This is not what its actual data tables showed, however. Table 2 presented the only study of QOL specifically among adolescents included in the review and indicated that "Mean QOL scores did *not* change." (Baker 2021 at 7, italics added.)

98. The review, however, did not rate the quality of the studies of adolescents on their own, instead combining them with the studies of adults. (at 10, italics added.) Table 4 of that study presented three analyses of anxiety: One showed a decrease, and on the other two, "Mean anxiety score did *not* change." (at 11, italics added.) Finally, the review also concluded, "It was impossible to draw conclusions about the effects of hormone therapy on death by suicide." (at 12.) Even for the combined set, the review read the strength of evidence to be "low" for each of QOL, depression, and anxiety, and to be "insufficient" for death by suicide. (Baker 2021 at 13, Table 6.) Specifically, the review indicated, "There is insufficient evidence to draw a conclusion about the effect of hormone therapy on death by suicide among transgender people." (at 13, Table 6.) Overall, "The strength of evidence for these conclusions is low due to methodological limitations." (at 12.) Of particular concern was that "Uncontrolled confounding was a major limitation in this literature." (at 12.)

99. Additionally, although WPATH commissioned the Baker review, WPATH did not follow its results. Baker 2021 indicated the use of two systematic quality assessment methods, called RoB 2 and ROBINS-I (Baker 2021 at 3); however, WPATH modified the conclusions that that process yielded. WPATH SOC-8 states, "This evidence is not only based on the published

literature (direct as well as background evidence) but also on consensus-based expert opinion." (Coleman 2022 at S8.) Moreover:

> Recommendations in the SOC-8 are based on available evidence supporting interventions, a discussion of risks and harms, as well as feasibility and acceptability within different contexts and country settings. Consensus on the final recommendations was attained using the Delphi process that included all members of the guidelines committee and required that recommendation statements were approved by at least 75% of members. (Coleman 2022 at S8.)

100. By allowing "consensus-based expert opinion" to modify or overrule conclusions supported by systematic reviews that apply accepted criteria of evidentiary strength, WPATH has explicitly abandoned evidence-based medicine. As indicated already by the Pyramid of Evidence, "expert opinion" represents the *lowest* level of evidence in science, whereas systematic review, the highest. (Also, it is unclear what the authors mean by "background evidence.") To modify systematic results according to committee opinion is to re-introduce the very biases that the systematic process is meant to overcome. The WPATH document attempts to claim the authority of a systematic review, while reserving the ability to "overrule" results that WPATH members did not like.

101. As to evidence supporting hormonal interventions in minors, WPATH asserted that "a systematic review regarding outcomes of [hormonal] treatment in adolescents is not possible" due to the lack of "outcome studies that follow youth into adulthood." (Coleman 2022 at S46.) WPATH is correct that essential outcome studies have not been done, but incorrect that this authorizes issuance of guidelines or standards in the absence of a systematic review. As Dr. Guyatt has stated, "systematic reviews are always possible"—and indeed an important conclusion from such a review may be (as here) that insufficient evidence exists to support any evidence-based guideline. As Dr. Guyatt further elaborated, if an organization issues recommendations without performing an on-point systematic review, "they'd be violating

standards of trustworthy guidelines." (Block, Dysphoria Rising, 2023 at 3.)

102. Finally, the WPATH SOC-8 were revised immediately after their release, removing all age minimums to all recommendations. None of these studies and none of these reviews support such a change, and WPATH cites no studies or other document in support of the change.

103. In sum, the WPATH SOC8 cannot be called evidence-based guidelines under any accepted meaning of that term.

C. The American Academy of Pediatrics did not conduct a systematic review either of safety or effectiveness.

104. While the AAP policy statement is often referenced, the AAP did not report conducting any systematic review of any aspect of transgender care in producing its policy statement on gender-diverse children and adolescents. (Rafferty 2018.) Further, the AAP policy statement on its face is the work of a single author rather than of any committee or the membership more broadly (Dr. Rafferty "conceptualized," "drafted," "reviewed," "revised," and "approved" the statement), and the statement explicitly states that it does not "indicate an exclusive course of treatment" nor "serve as a standard of medical care." (Rafferty 2018 at 1.)

VIII. Gender Dysphoria is a mental health diagnosis.

109. Gender Dysphoria is a mental health condition identified by diagnostic criteria set out in the *Diagnostic and Statistical Manual of Mental Disorders* ("DSM") 5-TR. (American Psychiatric Ass'n 2022.) While the criteria contain multiple components and vary modestly for children, adolescents, and adults, all cases are characterized by a strong and lasting desire to be the opposite sex, and "clinically significant" distress of sufficient severity to impair the individuals' ability to function in their daily life setting. Gender dysphoria is nowhere defined as a medical (as opposed to mental health) diagnosis, and it is not characterized by any disability or impairment or ill health affecting any part of the physical body.

115. In total, there have been 11 cohort studies showing the outcomes for these children, listed in Table 2. I first published this comprehensive list of studies in my own peer-reviewed article on the topic. (Cantor 2019.)

Table 2. Cohort studies of gender dysphoric, prepubescent children.

Count	Group	Study
2/16 4/16 10/16	gay trans-/crossdress straight/uncertain	Lebovitz, P. S. (1972). Feminine behavior in boys: Aspects of its outcome. *American Journal of Psychiatry, 128,* 1283–1289.
2/16 2/16 12/16	trans- uncertain gay	Zuger, B. (1978). Effeminate behavior present in boys from childhood: Ten additional years of follow-up. *Comprehensive Psychiatry, 19,* 363–369.
0/9 9/9	trans- gay	Money, J., & Russo, A. J. (1979). Homosexual outcome of discordant gender identity/role: Longitudinal follow-up. *Journal of Pediatric Psychology, 4,* 29–41.
2/45 10/45 33/45	trans-/crossdress uncertain gay	Zuger, B. (1984). Early effeminate behavior in boys: Outcome and significance for homosexuality. *Journal of Nervous and Mental Disease, 172,* 90–97.
1/10 2/10 3/10 4/10	trans- gay uncertain straight	Davenport, C. W. (1986). A follow-up study of 10 feminine boys. *Archives of Sexual Behavior, 15,* 511–517.
1/44 43/44	trans- cis-	Green, R. (1987). The "sissy boy syndrome" and the development of homosexuality. New Haven, CT: Yale University Press.
0/8 8/8	trans- cis-	Kosky, R. J. (1987). Gender-disordered children: Does inpatient treatment help? *Medical Journal of Australia, 146,* 565–569.
21/54 33/54	trans- cis-	Wallien, M. S. C., & Cohen-Kettenis, P. T. (2008). Psychosexual outcome of gender-dysphoric children. *Journal of the American Academy of Child and Adolescent Psychiatry, 47,* 1413–1423.
3/25 6/25 16/25	trans- lesbian/bi- straight	Drummond, K. D., Bradley, S. J., Badali-Peterson, M., & Zucker, K. J. (2008). A follow-up study of girls with gender identity disorder. *Developmental Psychology, 44*, 34–45.
47/127 80/127	trans- cis-	Steensma, T. D., McGuire, J. K., Kreukels, B. P. C., Beekman, A. J., & Cohen-Kettenis, P. T. (2013). Factors associated with desistence and persistence of childhood gender dysphoria: A quantitative follow-up study. *Journal of the American Academy of Child and Adolescent Psychiatry, 52,* 582–590.

17/139 122/139	trans- cis-	Singh, D., Bradley, S. J., Zucker, K. J. (2021). A follow-up study of boys with Gender Identity Disorder. *Frontiers in Psychiatry*, 12:632784.

*For brevity, the list uses "gay" for "gay and cis-", "straight" for "straight and cis-", etc.

116. The children in these studies were receiving professional mental health support during the study period, but did not "socially transition." In sum, despite coming from a variety of countries, conducted by a variety of labs, using a variety of methods, at various times across four decades, every study without exception has come to the identical conclusion: among prepubescent children who feel gender dysphoric, the majority cease to want to be the other gender over the course of puberty—ranging from 61–88% desistance across the large, prospective studies. Such cases are often referred to as "desisters," whereas children who continue to feel gender dysphoric are often called "persisters."

117. This interpretation of these studies is widely accepted, including by the Endocrine Society, which concluded:

> In most children diagnosed with GD/gender incongruence, it did not persist into adolescence. . . . [T]he large majority (about 85%) of prepubertal children with a childhood diagnosis did not remain GD/gender incongruent in adolescence. (Hembree 2017 at 3879.)

The developers of the Dutch Protocol, at the Vrije University gender clinic, likewise concluded based on these studies that "Although the persistence rates differed between the various studies…the results unequivocally showed that the gender dysphoria remitted after puberty in the vast majority of children." (Steensma & Cohen-Kettenis 2011 at 2.)

118. The consistent observation of high rates of desistance among pre-pubertal children who present with gender dysphoria demonstrates a pivotally important—yet often overlooked—feature: because gender dysphoria so often desists on its own, clinical researchers cannot assume that therapeutic intervention cannot facilitate or speed desistance for at least some patients. That

is, it cannot be assumed that gender identity is immune to influence such as from psychotherapy. Such is an empirical question, and there has not yet been any such research.

119. These same studies are often vaguely cited to assert that the high desistance rates uniformly reported in these 11 studies do not apply to children who have persisted until "the start of puberty" (which is taken to mean Tanner Stage 2), or in an alternative phrasing, that children "who persist until the start of puberty" are likely to continue to persist into adulthood. But these studies taken together do not support that degree of precision. Rather, the studies do not specify at exactly what developmental stage the reported desistance occurred—what they report is that the subjects had desisted by late adolescence or early adulthood. I am aware of no systematic study that establishes that—in the absence of social and/or medical transition—children who experience gender dysphoria are unlikely to desist if they have not desisted by the start of Tanner Stage 2.

2. One cohort study followed children who were permitted social transition. In contrast with children not permitted to transition socially, most persisted in expressing gender dysphoria.

120. In contrast, Olson et al. have now published a single cohort study of prepubescent children, ages 3–12 (average of 8), who had already made a complete, binary (rather than intermediate) social transition, including a change of pronouns. (Olson 2022.) The study did not employ DSM-5 diagnosis, as "Many parents in this study did not believe that such diagnoses were either ethical or useful and some children did not experience the required distress criterion." (Olson 2022.) Unlike the prior research studies, only 7.3% of these (socially transitioned) children ceased to feel gender dysphoric.

121. Although the team publishing this cohort study did not discuss it, their finding matches the prediction of other researchers, that social transition itself represents an active

intervention, such that social transition may *cause* the persistence of gender dysphoria when it would have otherwise resolved, avoiding any need for subsequent medicalization and its attendant risks. Conversely stated, social transition seems to prevent desistance. (Singh 2021; Zucker 2018, 2020.)

122. As recognized by multiple authors, the potential impact of social transition on rates of desistance is pivotal. The Endocrine Society cautions that "social transition...has been found to contribute to the likelihood of persistence." (Hembree 2017 at 3879.) WPATH has stated that after social transition, "A change back to the original gender role can be highly distressing and [social transition can] even result in postponement of this second transition on the child's part." (Coleman 2012 at 176.) In 2013, prominent Vrije University researchers observed:

> Childhood social transitions were important predictors of persistence, especially among natal boys. Social transitions were associated with more intense GD in childhood, but have never been independently studied regarding the possible impact of the social transition itself on cognitive representation of gender identity or persistence. [Social transition] may, with the hypothesized link between social transitioning and the cognitive representation of the self, influence the future rates of persistence. (Steensma 2013 at 588-589.)

3. There is no reliable method for predicting for which children who present with gender dysphoria will persist versus desist.

123. The Endocrine Society Guidelines stated in 2017 that "With current knowledge, we cannot predict the psychosexual outcome for any specific child" (Hembree 2017 at 3876), and this remains true today. Research has not yet identified any reliable procedure for discerning which children who present with gender dysphoria will persist, as against the large majority who will desist, absent transition and "affirmation." Such a method would be valuable, as the more accurately that potential persisters can be distinguished from desisters, the better the risks and benefits of options can be weighted. Such "risk prediction" and "test construction" are standard components of applied statistics in the behavioral sciences. Multiple research teams have

reported that, on average, groups of persisters are somewhat more gender non-conforming than desisters, but not so different as to usefully predict the course of any particular child. (Singh 2021; Steensma 2013.)

124. In contrast, one research team (the aforementioned Olson group) claimed the opposite, asserting that they developed a method of distinguishing persisters from desisters, using a single composite score representing a combination of children's "peer preference, toy preference, clothing preference, gender similarity, and gender identity." (Rae 2019 at 671.) They reported a statistical association (mathematically equivalent to a correlation) between that composite score and the probability of persistence. As they indicated, "Our model predicted that a child with a gender-nonconformity score of .50 would have roughly a .30 probability . . . of socially transitioning. By contrast, a child with gender-nonconformity score of .75 would have roughly a .48 probability." (Rae 2019 at 673.) Although the Olson team declared that "social transitions may be predictable from gender identification and preferences" (Rae 2019 at 669), their actual results suggest the opposite: the gender-nonconforming group who went on to transition (socially) had a mean composite score of .73 (which is less than .75), and the gender-nonconforming group who did not transition had a mean composite score of .61, also less than .75. (Rae 2019, Supplemental material at 6, Table S1.) Both of those are lower than the value of .75, so both of those would be more likely than not to desist, rather than to proceed to transition. That is, Olson's model does not distinguish likely from unlikely to transition; rather, it distinguishes unlikely from even less likely to transition.

125. Further, in the absence of long-term follow-up, it cannot be known what proportion of those who transition and persist through the early stages of puberty will later (for example as young adults) come to regret having transitioned and then *de*transition. Because only a minority

131. In the science process, one cannot merely continue to retain a desired hypothesis, rejecting all counter-evidence until a perfect study emerges. This is especially important in clinical science, when the hypothesis relates to physical interventions, in children, with the potential to affect them for their entire lives. Rather, the scientific process proceeds by successive approximation, with results from the best available research replacing lesser quality research, increasing in confidence, but always with the possibility of changes imposed by future evidence.

132. By involving only a few of the full set of cohort studies, the Temple Newhook commentary removes one of the most compelling implications of the existing (cohort) studies: Their results are unanimous. However unlikely it might be for four studies to produce the same result randomly, it is even more unlikely for eleven studies all to come to the same result randomly.

133. Temple Newhook emphasized that gender identity issues differ across times and contexts/political environments, hypothesizing that children attending her clinic might differ from children attending the Toronto and the Amsterdam clinics. Returning once again to the full set of all studies, however, the evidence shows the very opposite: All studies yielded the same result, whether from the 1970s, 80s, 90s, 2000s, 2010s, and wherever in the world any clinic was. Acknowledging the possibility that future studies may lead to a different conclusion, the existing evidence shows majority desistance, constantly and across all time periods.

134. Consideration of the full set of studies also indicates that the contrast is not Toronto and Amsterdam versus whatever "reality" Temple Newhook perceives. Rather, they show the contrast is between Temple Newhook and every facility in every country ever reporting desistance data on childhood-onset gender dysphoria. Moreover, despite Temple Newhook's

mention of influences of political cultures, that commentary does not point out that Canada and the Netherlands are much more politically liberal than the U.S. Although the commentary offers the hypothesis that the Canadian and Dutch contexts might decrease persistence, the commentary does not include the inverse possibility: that these liberal environments might be *"iatrogenic"*—that is, causing dysphoria to continue when it might otherwise remit.

135. Also, the very evidence suggesting that gender dysphoria can be influenced by local environmental factors is itself evidence that gender identity is not, in fact, an innate and immutable feature, potentially amenable to change.

C. Adolescent-Onset Gender Dysphoria, the predominant clinical population today, is a distinct and largely unstudied phenomenon.

136. Concurrent with the advent of social media, a third profile began appearing clinically and socially, characteristically distinct from the two previously identified profiles. (Kaltiala-Heino 2015; Littman 2018.) Despite lacking any history before the current generation, this profile has now numerically overwhelmed the previously known and better characterized types in clinics and on Internet surveys. Unlike adult-onset or childhood-onset gender dysphoria, this group is predominately biologically female. This group typically presents in adolescence, but lacks the history of cross-gender behavior in childhood like the childhood-onset cases have. It is that feature which led to the term Rapid Onset Gender Dysphoria (ROGD). (Littman 2018.)[5] Cases commonly appear to occur within clusters of peers in association with increased social media use (Littman 2018), and among people with autism or other mental health issues. (Kaltiala-Heino 2015; Littman 2018; Warrier 2020.) (See section XI on Mental Health.)

137. There do not yet exist any cohort studies of people with adolescent-onset gender

[5] After initial criticism, the publishing journal conducted a reassessment of the article. The article was expanded with additional detail and republished. The relevant results were unchanged. Littman's paper as revised has been widely cited.

dysphoria undergoing medicalized transition. Current studies are limited to surveys typically of volunteers from activist and support groups on the Internet.

138. Moreover, no study has yet been organized in such a way as to allow for a distinct analysis of the adolescent-onset group, as distinct from childhood-onset or adult-onset cases. Many published studies fail to distinguish between people who had childhood-onset gender dysphoria and have aged into adolescence versus people whose onset was not until adolescence. (Analogously, there are reports failing to distinguish people who had adolescent-onset gender dysphoria and aged into adulthood from adult-onset gender dysphoria.) Studies selecting groups according to their current age instead of their ages of onset produces confounded results, representing unclear mixes according to how many of each type of case wound up in the final sample.

2021 at 1, italics added.)

181. The need to disentangle the roles of these two treatments has been largely ignored despite that several issues depend upon them. If medicalized transition does not show mental health improvement superior to that of mental health treatment, it cannot readily be called "medically necessary" for insurance purposes or other institutional needs. Clinicians may be subjecting minors to known and potential (but unstudied) harms without any scientific justification.

182. Moreover, without a control group for comparison (i.e., another group of similar age, sex, and mental health status), these studies are also unable to identify when and if any changes are due to regression to the mean or maturation over time.

A. Of the cohort studies, five found little to no improvement in mental health.

183. Cantu, *et al.* (2020) studied 80 youth, 11–18 years of age (average of 15.1 years), measuring patients' levels of anxiety, depression, and suicidality. This sample was 18.75% male-to-female, 72.5% female-to-male, and 8.75% nonbinary, but the report did not include the patients' ages of onset. The study authors compared youth according to those receiving puberty blockers only, cross-sex hormones only, both treatments, or neither. No significant differences in mental health were detected on any of these variables. Of the 27 youth reporting suicidality before medicalized treatment, 81% continued to report suicidality after medicalized treatment. Remarkably, although the authors reported that "the results of this study suggest that no clinically significant changes in mood symptoms occur" (Cantu 2020 at 199), they did not convey the logical interpretation that transition failed to help these youth. Instead, they emphasized that "findings suggest changes may actually take longer to occur." (Cantu 2020 at 196.)

184. Kaltiala, *et al.* (2020) similarly reported that after cross-sex hormone treatment, "Those who had psychiatric treatment needs or problems in school, peer relationships and managing everyday matters outside of home continued to have problems during real-life." (Kaltiala 2020 at 213.) They concluded:

> Medical gender reassignment is not enough to improve functioning and relieve psychiatric comorbidities among adolescents with gender dysphoria. Appropriate interventions are warranted for psychiatric comorbidities and problems in adolescent development. (Kaltiala 2020 at 213.)

185. Carmichael, *et al.* (2021) released their findings from the Tavistock and Portman clinic in the U.K. (Carmichael 2021.) Study participants were ages 12–15 (Tanner stage 3 and above for natal males, Tanner stage 2 and above for natal females) and were repeatedly tested before beginning puberty-blocking medications and then every six months thereafter. Cases exhibiting serious mental illnesses (*e.g.*, psychosis, bipolar disorder, anorexia nervosa, severe body-dysmorphic disorder unrelated to gender dysphoria) were excluded. Relative to the time point before beginning puberty suppression, there were *no* significant changes in any psychological measure, from either the patients' or their parents' perspective.

186. Hisle-Gorman, *et al.* (2021) analyzed military families' healthcare data to compare 963 transgender and gender-diverse youth before versus after hormonal treatment, using their non-gender dysphoric siblings as a control group. The study participants included youth undergoing puberty-blocking as well as those undergoing cross-sex hormone treatment, but these subgroups did not differ from each other. Study participants had a mean age of 18 years when beginning hormonal treatments, but their initial clinical contacts and diagnoses occurred at a mean age of 10 years. According to the study, "mental health care visits overall did not significantly change following gender-affirming pharmaceutical care" (Hisle-Gorman 2021 at 1448), yet, "psychotropic medication use *increased*," (Hisle-Gorman 2021 at 1448, italics added)

XIV. Known and potential harms associated with administration of puberty blockers and cross-sex hormones to children and adolescents.

201. As I have explained, any conclusion about safety requires knowledge about and balancing of both risks and benefits.

202. In concluding that safety has not been established (see Section V above), national health authorities, authors of systematic reviews, and researchers have identified a number of harms which are either known to result from administration of puberty blockers and cross-sex hormones to children and adolescents, or can be reasonably anticipated but have not been sufficiently studied to reach any conclusion as to the likelihood or severity of harm.

203. When applying research regarding harms to clinical policy, several considerations need to be included: (1) The harms of medicalized transition of gender does or may differ between male-to-female and female-to-male cases, differ between ages of transition, and differ according to age-of-onset of the gender dysphoria. Evidence and conclusions about harms (and safety) cannot be generalized or extrapolated across such cases. (2) The evidence has strongly shown that after social transition of gender, minors are much more likely than otherwise to undergo medicalized transition of gender. Thus, the appropriate assessment of the risk:benefit ratio for social transition must include the increased risks posed by the medicalized path to which it is likely to lead. (3) The evidence has shown strongly that youth who undergo puberty blocking are highly likely to undergo cross-sex hormone treatment. Thus, the appropriate risk:benefit evaluation must also consider its potential implications over the full lifespan.

204. Systematic reviews of the evidence have identified fewer than 10 studies investigating potential harms of medicalized transition of minors at all, (NICE 2020a at 6) and most of these have been limited to bone and skeletal health. As concluded by the NICE systematic review, “A key limitation to identifying the effectiveness and safety of GnRH

analogues for children and adolescents with gender dysphoria is the lack of reliable comparative studies." (NICE 2020a at 40.) With that said, numerous harms are either known, or reasonably anticipated by respected health authorities but thus far unmeasured.

A. Sterilization without proven fertility preservation options.

205. Clinical guidelines for the medical transition of gender among children include the need to caution and counsel patients and parents about what are euphemistically called "options for fertility preservation." (e.g., Endocrine Society Guidelines, Hembree 2017 at 3872.) For children who are placed on puberty blockers at Tanner Stage 2, however, because most continue onto cross-sex hormones once they begin a medicalized approach to their dysphoria, no viable fertility preservation options exist. The decision to undergo medicalized transition also represents the decision never to have biological children of one's own.

206. For the large new population of young people who are first being put on puberty blockers and/or cross-sex hormones at a somewhat later stage of puberty, no studies at all have been done of when, whether, or with what probability either males or females can achieve healthy fertility if they later regret their transition decision and cease taking puberty blockers and/or cross-sex hormones. Much less has this been studied as a function of the stage of development at which they began puberty blockers and/or cross-sex hormones, and how long their gonads were subjected to cross-sex hormones.

B. Permanent loss of capacity for breast-feeding in adulthood.

207. While the removal of the breasts of a biological female adolescent or young adult may be cosmetically revised, it is functionally irreversible; even if the person later regrets and detransitions before or during adulthood, breast-feeding a child will never be possible. To the adolescent determined to transition, this may seem no cost at all. To the future adult mother, it

may be a very severe harm indeed.

C. Lifetime lack of orgasm and sexual function.

208. There has not been systematic investigation of the effects on adult sexuality among people medically transitioned at an early stage of puberty. Notably, Dr. Marci Bowers, current President of WPATH, and surgeon with substantial experience conducting penis-to-vagina operations, opined, "If you've never had an orgasm pre-surgery, and then your puberty's blocked, it's very difficult to achieve that afterwards.…I consider that a big problem, actually. It's kind of an overlooked problem that in our 'informed consent' of children undergoing puberty blockers, we've in some respects overlooked that a little bit." (Shrier 2021.) In my opinion as a psychologist and sex and couple's therapist, this represents a large potential harm to future relationships and mental health to "overlook," and must be taken into consideration in any serious risk:benefit analysis of "safety."

D. Hormonal treatments during puberty interfere with neurodevelopment and cognitive development.

209. It is well known that pubertal hormone levels drive important stages of neural development and resulting capabilities, although the mechanisms are not yet well understood. Dr. John Strang (Research Director of the Gender Development Program at Children's National Hospital in Washington, D.C.) (Terhune 2022), the Cass Report from the U.K., and the systematic review from Finland all reiterated the central importance and unknown effects of GnRH-agonists on windows, or "sensitive periods," in brain development, notably including adolescence. As Dr. Cass put it:

> 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. (Cass Review Letter 2022 at 6.)

210. In a meta-analysis (a highly rigorous type of systematic review) of studies of neuropsychological performance, non-transsexual males undergoing puberty earlier show a different cognitive profile than those underdoing puberty later. The association of brain development with age of pubertal onset exists in humans as well as non-human animals. (Shirazi 2022.)

211. Even in adults, neuroscience studies employing MRI and other methods have shown that the blockade of normal levels of hormones associated with puberty and adulthood degrade brain performance. Thus, when GnRH-agonists are administered to adult biological women, several brain networks decrease in activity, and cognitive performance, such as working memory, declines. (Craig 2007; Grigorova 2006.)

212. In light of this science, multiple voices have expressed concern that blocking the process of puberty during its natural time could have a negative and potentially permanent impact on brain development (Cass 2022 at 38–39; Chen 2020; Hembree 2017 at 3874.) As Chen *et al.* (2020) observed:

> [I]t is possible these effects are temporary, with youth 'catching up'…However, pubertal suppression may prevent key aspects of development during a sensitive period of brain organization. Neurodevelopmental impacts might emerge over time, akin to the 'late effects' cognitive findings associated with certain [other] oncology treatments. (Chen 2020 at 249.)

Chen et al. (2020) noted that no substantial studies have been conducted to identify such impacts outside "two small studies" (at 248) with conflicting results. I have not identified any systematic review of neurodevelopment or cognitive capacity.

213. A related concern is that by slowing or preventing stages of neural development,

puberty blockers may impair precisely the mature cognitive capabilities that would be necessary to evaluation of, and meaningful informed consent to, the type of life-changing impacts that accompany cross-sex hormones. (See Section XV.)

E. Substantially delayed puberty is associated with medical harms.

214. The research cited by the WPATH Standards of Care includes the evidence that children whose natural puberty started very late (top 2.3% in age) have elevated risks of multiple health issues in adulthood. (Zhu & Chan 2017.) These include elevations in metabolic and cardiovascular disease, lower height, and decreased bone mineral density. It has not been studied whether these correlations also occur in children whose puberty is chemically delayed. Undergoing puberty much later than one's peers is also associated with poorer psychosocial functioning and lesser educational achievement. (Koerselman & Pekkarinen 2018.)

F. Elevated risk of Parkinsonism in adult females.

215. Epidemiological research has shown adult women without gender dysphoria, undergoing surgical removal of both ovaries for other reasons, to have substantially elevated odds of developing parkinsonism, including Parkinson's Disease, relative to age-matched women randomly selected from the local population in an on-going epidemiological study. (Rocca 2022.) The effect was greater among younger women, showing 7–8 times greater odds among women under 43. The observed delay between removal of ovaries and the onset of parkinsonism was 26.5 years. Whether chemically suppressing the ovaries of a biological female via puberty blockers during adolescence followed by cross-sex hormones will cause a similar increase in parkinsonism, or when, remains unknown.

G. Reduced bone density.

216. The systematic reviews by Sweden, Finland, and England all included bone health as

an outcome. *The New York Times* also recently commissioned its own independent review of the available studies. (Twohey & Jewett 2022.) These reviews all identified subsets of the same group of eight studies of bone health. (Carmichael 2021; Joseph 2019; Klink 2015; Navabi 2021; Schagen 2020; Stoffers 2019; van der Loos 2021; Vlot 2017.) These studies repeatedly arrived at the same conclusion. As described by *The New York Times* review:

> [I]t's increasingly clear that the drugs are associated with deficits in bone development. During the teen years, bone density typically surges by about 8 to 12 percent a year. The analysis commissioned by *The Times* examined seven studies from the Netherlands, Canada and England involving about 500 transgender teens from 1998 through 2021. Researchers observed that while on blockers, the teens did not gain any bone density, on average—and lost significant ground compared to their peers.[7] (Twohey & Jewett 2022.)

217. There is some evidence that some of these losses of bone health are regained in some of these youth when cross-sex hormones are later administered. The rebounding appears to be limited to female-to-male cases, while bone development remains deficient among male-to-female cases.

218. The long-term effects of the deficient bone growth of people who undergo hormonal interventions at puberty remain unstudied. The trajectory of bone quality over the human lifetime includes decreases during aging in later adulthood. Because these individuals may enter their senior years with already deficient bone health, greater risks of fracture and other issues are expectable in the long term. As the *New York Times'* analysts summarized, "That could lead to heightened risk of debilitating fractures earlier than would be expected from normal aging—in their 50s instead of 60s." Such harms, should they occur, would not be manifest during the youth and younger adulthood of these individuals. This distinction also represents one of the differences between adult transitioners and childhood transitioners and why their experiences

[7] The eighth study was Lee, *et al.,* 2020, which reported the same deficient bone development.

cannot be extrapolated between them.

219. There does not exist an evidence-based method demonstrated to prevent these outcomes. The recommendations offered by groups endorsing puberty blockers are quite limited. As summarized by *The Times:*

> A full accounting of blockers' risk to bones is not possible. While the Endocrine Society recommends baseline bone scans and then repeat scans every one to two years for trans youths, WPATH and the American Academy of Pediatrics provide little guidance about whether to do so. Some doctors require regular scans and recommend calcium and exercise to help to protect bones; others do not. Because most treatment is provided outside of research studies, there's little public documentation of outcomes. (Twohey & Jewett 2022.)

H. Short-term/Immediate side-effects of puberty blockers include sterile abscesses, leg pain, headache, mood swings, and weight gain.

220. The Cass Report summarized that "In the short-term, puberty blockers may have a range of side effects such as headaches, hot flushes, weight gain, tiredness, low mood and anxiety, all of which may make day-to-day functioning more difficult for a child or young person who is already experiencing distress." (Cass 2022 at 38.)

221. In 2016, the U.S. FDA began requiring drug manufacturers to add a warning about the psychiatric side effects, after reports of suicidal ideation and a suicide attempt began to emerge among children prescribed GnRH-agonists (for precocious puberty).[8] The warning label on Lupron reads that "Psychiatric events have been reported in patients…such as crying, irritability, impatience, anger and aggression."

222. Other than the suicide attempt, such adverse effects may seem minor relative to the major health and developmental risks I have reviewed above, and they may be dismissed by children and by parents confronted by fears of suicidality and an urgent hope that transition will

[8] Reuters Special Report; 2022, Oct. 6. Retrieved from https://www.reuters.com/investigates/special-report/usa-transyouth-care/

resolve the child's unhappiness and mental health issues. However, when assessing risk:benefit ratio for "safety" against the undemonstrated benefits claimed for hormonal interventions, these observed harms should not be ignored.

I. Long-term use of cross-sex hormones in adults with gender dysphoria is associated with unfavorable lipid profiles (cholesterol and triglycerides) and other issues.

223. As the Cass Report correctly and succinctly indicated, "Sex hormones have been prescribed for transgender adults for several decades, and the long-term risks and side effects are well understood. These include increased cardiovascular risk, osteoporosis, and hormone-dependent cancers." (Cass 2022 at 36.)

224. Minors who begin puberty blockers and proceed to cross-sex hormones—as almost all do—will require continuing treatment with cross-sex hormones for life, unless they go through the very difficult process of detransition. Because a lifetime dependence on cross-sex hormones is the expected course, the known adverse effects of cross-sex hormones on adults must also be part of the risk:benefit analysis of the "safety" of putting a minor on cross-sex hormones (and indeed, of the initial decision to put a child on puberty blockers).

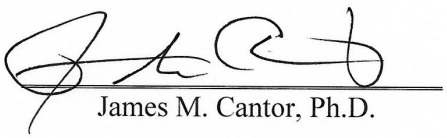
225. Systematic review identified 29 studies of the effects of cross-sex hormone treatment on cardiovascular health in adults. (Maraka 2017.) By the two-year follow-up mark among female-to-male transitioners, hormone administration was associated with increased serum triglycerides (indicating poorer health), increased low-density-lipid (LDL) cholesterol (indicating poorer health), and decreased high-density-lipid (HDL) cholesterol (indicating poorer health). Among male-to-female transitioners at the two-year mark, cross-sex hormone treatment was associated with increased serum triglycerides (indicating poorer health).

Remarkably, where Dr. Brady did cite that study, it was to support of her claim that "Studies have demonstrated improvements in mental health following gender-affirming *medical* interventions" (Brady decl ¶39, italics added). That is, while Costa was entirely explicit that *both* psychotherapy and puberty suppression were effective in improving mental health, Dr. Brady instead related the half of that the finding for medical intervention, yet outright denied the very same conclusion for psychotherapy from the very same study that provided it in the very same sentence. Additionally, as already detailed within the present report (see Section XIII.B), six of the fourteen follow up studies of adolescent medicalized transition provided *both* psychotherapy *and* medicalized interventions, making it impossible to ascertain which might be responsible for any changes (or in what proportions). This same problem pertains to the other cohort studies Dr. Brady cited in claiming medicalized transition to improve mental health.[10]

291. The distinction between psychotherapy and medicalized transition is not merely an equivalent alternative, however: Because psychotherapy poses no objective risk of harm, whereas medicalized transition of gender poses substantial risk to objectively healthy and functioning tissue, the risk-to-benefit ratio imposed by medical ethics rejects medicalized transition until and unless it demonstrates proportionately greater evidence of benefit to outweigh its greater risks.

I declare under penalty of perjury that the foregoing is true and correct.

Executed on 2 Sept 2023.



James M. Cantor, Ph.D.

[10] In her footnote 16, Dr. Brady cited de Vries et al. (2011) and de Vries et al. (2014), both of which included both psychotherapy and medical intervention, and she cited Chen et al. (2023), which did not mention or account for concurrent psychotherapy. The remaining two citations in footnote 16—Green et al. (2022) and Turban et al. (2020)—are survey studies. (Indeed, they are the same survey.) As emphasized already in the present report, surveys are not scientifically capable of demonstrating treatment effects.

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UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF IDAHO

PAM POE, by and through her parents and next friends, Penny and Peter Poe; **PENNY POE**; **PETER POE**; **JANE DOE**, by and through her parents and next friends, Joan and John Doe; **JOAN DOE**; **JOHN DOE**,

Plaintiffs,

v.

RAÚL LABRADOR, in his official capacity as Attorney General of the State of Idaho; **JAN M. BENNETTS**, in her official capacity as County Prosecuting Attorney for Ada, Idaho; and the **INDIVIDUAL MEMBERS OF THE IDAHO CODE COMMISSION**, in their official capacities,

Defendants.

Case No. 1:23-cv-00269-CWD

EXPERT DECLARATION OF CHRISTINE BRADY, PhD

10. Further information about my professional background and experience is outlined in my curriculum vitae, a true and accurate copy of which is attached as **Exhibit A** to this report.

11. I am being compensated at an hourly rate of $250 per hour for preparation of expert declarations and reports, and $400 per hour for time spent preparing for or giving deposition or trial testimony. My compensation does not depend on the outcome of this litigation, the opinions I express, or the testimony I provide.

EXPERT OPINIONS

A. Gender Identity

12. A person's sex is typically assigned at birth based upon the external genitalia observed. A person's assigned or designated sex may or may not align with their gender identity. Transgender or gender diverse individuals have a gender identity that does not align with their assigned sex. Cisgender individuals have a gender identity that does align with their assigned sex.

13. Gender identity is a person's core, internal sense of gender, such as male or female. Every person has a gender identity.

14. Gender identity is not a choice. It is an essential part of one's identity and being. Moreover, gender identity is not something that can be voluntarily changed.

15. Efforts to try to change a person's gender identity through therapy have been shown to be ineffective and harmful. For example, in a survey of transgender adults, those who reported receiving talk therapy aimed at changing their gender identity to match their sex assigned at birth (sometimes referred to as conversion therapy) indicated a lack of effectiveness

of that treatment, higher psychological distress, and increased odds of suicide attempts.[1] The survey found that conversion efforts in children under the age of 10 correlated with a 4-fold increase in attempted suicides.[2] Major U.S. professional medical organizations have therefore published statements warning against the dangers of conversion therapy and their recommendations that it should not be used with transgender individuals (e.g., American Psychological Association, American Medical Association, and American Academy of Child and Adolescent Psychiatry).[3]

B. Diagnosing Gender Dysphoria

16. Gender dysphoria is a clinical diagnosis given to an individual who is experiencing significant symptoms and impairment of function due to the incongruence between their assigned sex and their gender identity. Gender dysphoria (and past iterations of gender dysphoria) was added to the Diagnostic and Statistical Manual of Mental Disorders (DSM) in the 1980s (version 3). The diagnosis and its criteria have changed over time to reflect the most current research regarding the presentation of this diagnosis.

17. The current version of the DSM (DSM-5 published in 2013 and DSM-5-TR published in 2022) define gender dysphoria as a "marked difference between the individual's

[1] Jack L. Turban et al., *Association Between Recalled Exposure to Gender Identity Conversion Efforts and Psychological Distress and Suicide Attempts Among Transgender Adults*, 77 JAMA PSYCHIATRY 68, 69 (2019).
[2] *Id*. at 68.
[3] AMERICAN PSYCHOLOGICAL ASSOCIATION, APA RESOLUTION ON GENDER IDENTITY CHANGE EFFORTS 1-2 (2021), https://www.apa.org/about/policy/resolution-gender-identity-change-efforts.pdf; AMERICAN MEDICAL ASSOCIATION & GLMA: HEALTH PROFESSIONALS ADVANCING LGBTQ EQUALITY, SEXUAL ORIENTATION AND GENDER IDENTITY CHANGE EFFORTS (SO-CALLED "CONVERSION THERAPY") 4 (2022), https://www.ama-assn.org/system/files/conversion-therapy-issue-brief.pdf; American Academy of Child & Adolescent Psychiatry, *Conversion Therapy Policy Statement* (Feb. 2018), https://www.aacap.org/AACAP/Policy_Statements/2018/Conversion_Therapy.aspx.

expressed/experienced gender and the gender others would assign him or her." Symptoms must be present for at least six months, be verbalized externally, and be causing significant impairment in various domains of functioning such as peer relationships, school, or home life. There are different diagnostic criteria for children than there are for adolescents and adults.

18. For pre-pubertal children, DSM-5 diagnostic criteria are as follows:

A. A marked incongruence between one's experienced/expressed gender and assigned gender, of at least 6 months duration, as manifested by at least six of the following (one of which must be Criterion A1):

1. A strong desire to be of the other gender or insistence that one is the other gender (or some alternative gender different from one's assigned gender).

2. In boys (assigned gender), a strong preference for cross-dressing or simulating female attire, or in girls (assigned gender), a strong preference for wearing only typical masculine clothing and a strong resistance to the wearing of typical feminine clothing.

3. A strong preference for cross-gender roles in make-believe play or fantasy play.

4. A strong preference for the toys, games, or activities stereotypically used or engaged in by the other gender.

5. A strong preference for playmates of the other gender.

6. In boys (assigned gender), a strong rejection of typically masculine toys, games, and activities and a strong avoidance of rough-and-tumble play; or in girls (assigned gender), a strong rejection of typically feminine toys, game and activities.

7. A strong dislike of one's sexual anatomy.

8. A strong desire for the primary and/or secondary sex characteristics that match one's experienced gender.

B. The condition is associated with clinically significant distress or impairment in social circles, school, or other important areas of functioning.

19. For adolescents and adults, DSM-5 diagnostic criteria are as follows:

A. A marked incongruence between one's experienced/expressed gender and assigned gender, of at least 6 months duration, as manifested by at least two of the following:

1. A marked incongruence between one's experienced/expressed gender and primary or secondary sex characteristics (or in young adolescents, the anticipated secondary sex characteristics).

2. A strong desire to be rid of one's primary and/or secondary sex characteristics because of a marked incongruence with one's experienced/expressed gender (or in young adolescents, a desire to prevent the development of the anticipated secondary sex characteristics).

3. A strong desire for the primary and/or secondary sex characteristics of the other gender.

4. A strong desire to be of the other gender (or some alternative gender different from one's assigned gender).

5. A strong desire to be treated as the other gender (or some alternative gender different from one's assigned gender).

6. A strong conviction that one has the typical feelings and reactions of the other gender (or some alternative gender different from one's assigned gender).

B. The condition is associated with clinically significant distress or impairment in social, occupational, or other important areas of functioning.

20. For adolescents and adults whose gender identity differs from their sex assigned at birth, it is very unlikely that they will later come to identify with their birth-assigned sex. In my experience with over 900 transgender adolescent patients who met the criteria for gender dysphoria, only 6 have later come to identify with their sex assigned at birth (4 had not engaged in medical interventions; 2 had received puberty delaying medications, stopped those medications, and their endogenous puberty resumed; none expressed regret around their gender exploration or care).

avoiding physical activity due to body discomfort, as well as discomfort leaving the house in general. Delays in treatment can exacerbate symptoms, creating more impairment and psychological distress. A recent study of adults showed that longer wait times to establish care at a gender clinic resulted in low mood, worsening suicidal ideation and poorer quality of life.[9]

26. The World Professional Association for Transgender Health (WPATH) Standards of Care for the Health of Transgender and Gender Diverse People are the most widely adopted clinical practice guidelines for the treatment of transgender and gender diverse individuals. The Standards of Care (SOC) were first published in 1979 and the most recent iteration (SOC 8) was published in 2022.[10] Per the methodology described by WPATH "SOC-8 is based on the best available science and expert professional consensus in transgender health. International professionals and stakeholders were selected to serve on the SOC-8 committee. Recommendation statements were developed based on data derived from independent systematic literature reviews, where available, background reviews and expert opinions."[11] SOC 8 provides detailed guidance for evaluation of gender dysphoria and criteria for medical intervention, as well as procedures for hormone treatment and surgery when indicated.[12]

27. The Endocrine Society has also published a widely adopted clinical practice guideline for the treatment of gender dysphoria (Endocrine Society Guideline) to help guide

[9] N. Henderson et al., *The Impact of Gender Identity Clinic Waiting Times on the Mental Health of Transitioning Individuals*, 65 EUR. PSYCHIATRY S851 (2022)
[10] E. Coleman et al., *Standards of Care for the Health of Transgender and Gender Diverse People, Version 8*, 23 INT'L J. TRANSGENDER HEALTH S1 (2022).
[11] *Id.* at S3.
[12] *Id.*

providers working with gender diverse adolescents and adults.[13] The SOC 8 and Endocrine Society Guideline have a high degree of overlap and consensus regarding best practices.

28. The American Psychological Association (APA) also released guidelines specific to the provision of mental health care to gender diverse individuals.[14] The APA defines gender affirming care to be "care that is respectful, aware, and supportive of the identities and life experiences of [transgender and gender non-conforming] people."[15] Gender affirming care is creating a safe, therapeutic space where individuals can grow, evolve and understand themselves more completely, wherever their path may lead.

29. As stated above, these guidelines are widely accepted in the professional community. They have analyzed all available scientific research, and are widely referenced and endorsed by all major U.S. medical and mental health associations.

30. The SOC 8 and Endocrine Society Guideline described above emphasize the importance of mental health assessments and evaluations in the treatment of gender diverse adolescents. Beyond assessing eligibility criteria for medical interventions (puberty-delay, hormones, or surgery), which will be discussed below, mental health providers can facilitate exploration and deepen understanding of an individual's gender, help manage anxiety/depression or other mental health diagnoses related to gender dysphoria, provide support related to social transition (e.g. dressing and using names and pronouns that accord with one's gender identity), provide education to caregivers to increase support and positive communication, and enhance

[13] Wylie C. Hembree et al., *Endocrine Treatment of Gender-Dysphoric/Gender-Incongruent Persons: An Endocrine Society Clinical Practice Guideline*, 102 J. CLINICAL ENDOCRINOLOGY & METABOLISM 3869 (2017).
[14] American Psychological Association, *Guidelines for Psychological Practice with Transgender and Gender Nonconforming People*, AM. PSYCH. 832 (2015).
[15] *Id.* at 832-33.

coping skills to manage discrimination/minority stress. For some, non-medical interventions such as social transition, creating gender congruent expression, and getting social support of their identity is sufficient to manage gender dysphoria. For many others, medical intervention is clinically indicated.

31. Under the WPATH SOC 8 and the Endocrine Society Guideline, no medical interventions are recommended or indicated for the treatment of gender dysphoria prior to the onset of puberty (otherwise referred to as Tanner Stage 2). Prior to Tanner Stage 2, the recommended care is to help youth in their gender exploration, and provide support to youth and families as described above.

32. Once puberty begins, many adolescents with gender dysphoria will experience great distress related to the changes in their bodies that do not match their gender identity. For some of these youth, medical interventions may be deemed necessary. They may include puberty blockers (GnRH agonists) to pause puberty, hormone therapy in accordance with one's gender identity (e.g. testosterone for transgender boys and estrogen and anti-androgens for transgender girls), and sometimes surgery. Pausing puberty with blockers can help prevent the distress associated with physical changes inconsistent with an adolescent's gender identity and also provide the adolescent more time to understand their gender identity before considering less reversible treatments. Hormone therapy and surgery can alleviate the distress of gender dysphoria by helping align the adolescent's body with their gender identity.

33. The WPATH SOC and the Endocrine Society Guideline outline criteria for eligibility for medical interventions for adolescents with gender dysphoria including a) significant duration of gender incongruity, b) the diagnostic criteria for gender dysphoria are met, c) the adolescent has the emotional and cognitive capacity to provide informed consent

leave the house to attend school, participate in extra-curricular activities, or continue working or obtain employment. Those who are forced to wait can decompensate. I have had several cases where depression related to gender dysphoria increased to such a degree that inpatient hospitalization was needed for stabilization following significant self-harm, suicidal ideation or a suicide attempt. In some cases, adolescent patients become desperate and have explored or obtained hormones online or from other countries. Doing so without appropriate dosing and monitoring places them at risk for physical harm.

45. Our clinic has recently had around ten families come to us from other states where bans on gender-affirming medical care for minors have been enacted. With some families, they come to us every 3-6 months for follow-up. This places significant financial strain on families as well as disrupts daily life every 3-6 months. Some families have made the difficult decision to move to California, leaving a state that they loved and leaving their support systems behind in order to care for their child.

I declare under penalty of perjury that the foregoing is true and correct.

Executed on: 7/19/2023

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UNITED STATES DISTRICT COURT
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SOUTHERN DIVISION

PAM POE, by and through her parents and next friends, Penny and Peter Poe; **PENNY POE**; **PETER POE**; **JANE DOE**, by and through her parents and next friends, Joan and John Doe; **JOAN DOE**; **JOHN DOE**,

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Case No. 1:23-cv-00269-CWD

EXPERT DECLARATION OF KARA CONNELLY, MD

12. I have published research on a variety of pediatric endocrine issues, including the treatment of gender dysphoria, in peer-reviewed scholarly journals. I also serve as a reviewer for scholarly journals in my field.

13. I am an active member of the Oregon Pediatric Society, American Academy of Pediatrics, Pediatric Endocrine Society, World Professional Association of Transgender Health (WPATH), and the United States Association of Transgender Health. I've also served as a faculty member for WPATH's General Education Initiative and have been an invited speaker on gender-affirming care for the Pediatric Endocrine Society. I have given numerous lectures on the treatment of gender dysphoria and other endocrine issues at meetings of medical professional associations.

14. Further information about my professional background and experience is outlined in my curriculum vitae, a true and accurate copy of which is attached as **Exhibit A** to this declaration.

II. TREATMENT PROTOCOLS FOR GENDER DYSPHORIA

15. The Endocrine Society, in partnership with the Pediatric Endocrine Society, and WPATH have published clinical practice guidelines for the treatment of gender dysphoria that are based on systematic reviews of research and the expert opinions of clinicians in the field. The first version of the WPATH guidelines, known as the Standards of Care, was published in 1979, and the most recent version—version 8—was released in 2022.[1] The first clinical practice

[1] Coleman, E., et al. (2022). Standards of Care for Health of Transgender and Gender Diverse People, Version 8. *Int J Transgender Health*. 23:S1–S258. *Available at* https://doi.org/10.1080/26895269.2022.2100644 (hereinafter, "WPATH guideline").

guideline for the treatment of gender dysphoria issued by the Endocrine Society was published in 2009, and the most recent update was released in 2017.[2]

16. Like other clinical practice guidelines issued by the Endocrine Society and other professional medical organizations regarding the treatment of other medical conditions, the WPATH and Endocrine Society guidelines on the treatment of gender dysphoria provide recommendations to healthcare providers about how to approach treatment of a condition based on the best available evidence.

17. Under the WPATH and Endocrine Society guidelines, prior to onset of puberty, there are no medical interventions that are indicated or recommended for children with gender dysphoria.

18. For adolescents—youth who have started puberty—and adults, medical interventions may be appropriate to treat gender dysphoria depending on the patient's individual needs. These interventions may include medication to delay puberty, hormone therapy (e.g., testosterone for transgender boys and testosterone suppression and estrogen for transgender girls), and surgeries. These interventions are often collectively referred to as gender-affirming medical care.

19. The WPATH and Endocrine Society guidelines on the treatment of gender dysphoria are recognized as authoritative by the major medical and mental health professional organizations in the United States, including the American Academy of Pediatrics, the American Medical Association, the American Psychiatric Association, the American Psychological Association, the American Academy of Child & Adolescent Psychiatry, the American Academy

[2] Hembree, W.C., et al. (2017). Endocrine Treatment of Gender-Dysphoric/Gender-Incongruent Persons: An Endocrine Society Clinical Practice Guideline. *JCEM*. 102(11):3869–3903. *Available at* https://doi.org/10.1210/jc.2017-01658 (hereinafter, "Endocrine Society Guideline").

23. Hormone therapy—testosterone for transgender males and estrogen and anti-androgens (to suppress testosterone) for transgender females—can be used to initiate puberty consistent with a patient's gender identity.

24. Under the Endocrine Society Guideline, adolescents may be eligible for gender-affirming hormone therapy if they meet the following criteria:

1. A qualified mental health professional has confirmed:
    a. the persistence of gender dysphoria,
    b. any coexisting psychological, medical, or social problems that could interfere with treatment (e.g., that may compromise treatment adherence) have been addressed, such that the adolescent's situation and functioning are stable enough to start sex hormone treatment,
    c. the adolescent has sufficient mental capacity to estimate the consequences of this (partly) irreversible treatment, weigh the benefits and risks, and give informed consent to this (partly) irreversible treatment,
2. And the adolescent:
    a. has been informed of the (irreversible) effects and side effects of treatment (including potential loss of fertility and options to preserve fertility),
    b. has given informed consent and (particularly when the adolescent has not reached the age of legal medical consent, depending on applicable legislation) the parents or other caretakers or guardians have consented to the treatment and are involved in supporting the adolescent throughout the treatment process,
3. And a pediatric endocrinologist or other clinician experienced in pubertal induction:

a. agrees with the indication for sex hormone treatment, and

b. has confirmed that there are no medical contraindications to sex hormone treatment.[5]

25. The WPATH standards of care have similar recommendations concerning eligibility of adolescents for pubertal suppression and gender-affirming hormone therapy.

26. Surgical care for gender dysphoria is rarely provided to youth under 18. If surgical services are offered, they are almost always gender-affirming chest surgeries for youth assigned female at birth—also known as gender-affirming mastectomy.[6] Under the Endocrine Society Guideline, genital surgery is not recommended to patients under age 18. The WPATH standards of care do not provide an age delineation for vaginoplasty, but strongly caution about the need to ensure that the patient has the maturity to make this decision.

27. Both the WPATH and Endocrine Society guidelines emphasize the importance of a comprehensive mental health evaluation prior to the initiation of gender-affirming medical care for adolescents. This evaluation should include an assessment of the youth's gender identity development; the presence of any co-occurring mental health conditions and whether symptoms may interfere with diagnosis or functioning to the extent that decision-making is compromised; and emotional maturity and decision-making capacity.

28. Gender-affirming medical interventions are not indicated for all individuals who present for care. Overall, about one-third of our patient population continues to see our team for support without accessing medical interventions.

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[5] *Id.*

[6] Surgery is not offered before an individual has reached their final adult height, and only after other attempts to relieve dysphoria are pursued.

29. The WPATH and Endocrine Society guidelines also highlight the importance of informing the patient and their parents of the potential risks and benefits of treatment, including the potential risk to fertility and options for fertility preservation, and obtaining informed consent from the parents or legal guardians. The WPATH guideline also recommends that doctors inform families of the limitations of the research and the possibility that some patients will come to experience their gender differently.

III. GENDER-AFFIRMING MEDICAL CARE FOR ADOLESCENTS IS EFFECTIVE

30. Gender-affirming medical care has been provided to adolescents for decades, and clinicians have seen the significant benefits of such treatment to patients.

31. In our clinic, when adolescents present for care, they often present with high degrees of anxiety, depression, and suicidal ideation. Most of our patients also come in experiencing challenges with social isolation, school attendance, and lack of desire to engage in relationships with family and peers. Most of these mental health and social challenges are linked to gender dysphoria and experiences of minority stress. While the social and political environment may continue to negatively impact a patient's mental health, we see dramatic improvements in our patients after they begin gender-affirming medical care. Depression, anxiety, self-harm, and suicidal ideation are significantly reduced, based on the screening tools, PHQ-9 and GAD-7, which patients complete at every visit. Patients routinely comment about finally feeling like themselves and being able to engage with the rest of their world. Parents regularly tell our clinical team that gender-affirming medical care has resulted in great improvement in their children's psychological well-being, school performance, and relationships. As treatment helps address their gender dysphoria, our patients feel motivated to apply for

medication has been approved by the FDA. For example, Gabapentin has an FDA indication for treating seizures and fibromyalgia, but is often (more than 80% of the time) used off-label to treat bipolar disorder, subacute low back pain, neuropathy, as migraine prophylaxis, and for additional indications.[14] Some of the same medications used off-label in gender-affirming medical care are also widely used off-label for other purposes. Spironolactone, which was approved by the FDA for controlling blood pressure, is used in cisgender women and girls off-label to control side effects of PCOS. And GnRHa medications have been approved for the treatment of precocious puberty but not for many other indications for which they are commonly used, including ovarian cancer, premenstrual syndrome, fertility preservation in women and adolescent girls with cancer, and as an adjunct to growth hormone therapy in youth with idiopathic short stature.

VI. HARM TO ADOLESCENTS WITH GENDER DYSPHORIA AND THEIR FAMILIES IF THE BAN TAKES EFFECT

60. We know from clinical experience and research that delaying or denying patients gender-affirming medical care when needed comes with an increase in emotional harm. Social transition can offer many benefits, but social transition alone does not prevent an adolescent from experiencing the trauma of seeing their body change in ways that do not align with their gender identity. Additionally, many of these body changes would require major surgical interventions in the future to address, and some are not fully treatable by future medical intervention. For example, once vocal cords are exposed to testosterone, only vocal training can potentially shift the deepening of the voice, but this treatment has mixed success. Pubertal

[14] *See* Fukada C., et al. (2012). Prescribing gabapentin off label: perspectives from psychiatry, pain and neurology specialists. *Can Pharm J (Ott)*. 145:280–284.e1.

suppression prevents this psychological trauma and the need for more invasive medical interventions in the future.

61. As previously discussed, clinical experience and research have shown that gender-affirming medical care improves mental health outcomes; the converse is also true—that being unable to access care increases mental health distress. We see a marked difference in the social functioning, emotional wellness, and psychological stability of our patients after they are able to access pubertal suppression and hormone therapy when indicated.

62. Additionally, our older adolescent patients who have experienced at least some secondary sex characteristics not aligned with their identity report higher levels of depression and anxiety, lower participation in school, and less ability to engage in social relationships.

63. Adolescents in Idaho who are already receiving gender-affirming medical care will be forced to medically detransition by the Ban. Abruptly discontinuing hormone therapy can result in emotional instability and dysregulation as well as adverse medical outcomes such as profound fatigue, hot flashes, and difficulty concentrating.

64. If this Ban takes effect, patients who have had the benefit of pubertal suppression and/or hormone therapy will see their bodies change in ways that will cause profound distress. And for some, discontinuing care will not return their body to match their assigned sex but will leave them with a mix of typically male and female phenotype. Adolescents assigned male at birth who have been treated with pubertal suppression and estrogen will have had permanent breast development from the estrogen and suppression of testosterone. Once these medications are stopped, endogenous testosterone becomes the dominant hormone, leading to masculinizing physical changes. Patients assigned female at birth who have taken testosterone may have experienced permanent voice deepening, masculinized facial structure, and facial and body hair

growth. Discontinuing care would be followed by breast development and resumption of menses, which often cause significant distress.

65. Psychologically, adolescents who have been receiving care for years and have to discontinue treatment will see a return of, or dramatic increase in, distress related to gender dysphoria. Based on what we know about patients' experiences prior to receiving care, if care is cut off or denied, we will see increased rates of depression, anxiety, suicidal ideation, and hospitalizations for suicide attempts. We also will likely see the tragedy of lives ended by suicide.

66. Patients may be the most directly and seriously harmed by these care bans, but their families are also suffering. At our clinic in Oregon, we are already seeing the impact on families who have already or are planning to leave their states because of healthcare bans; there are also families deciding to attempt to seek care in states where the care is available. Our clinic has already received inquiries from Idaho families wanting to travel for care. We do not yet have a clear answer of whether or how we will have the capacity to be able to meet the care needs of these patients. Idaho parents and providers are calling in states of desperation and hopelessness, unable to confirm that they will have access to care in Oregon.

67. Parents are having to make the difficult decision to relocate the family so that their children can continue to access care. In some cases, it is more financially viable to relocate, rather than to regularly travel. In others, the families are afraid that traveling for care and bringing medications back to a state with a ban may put their providers or their family at risk. The need to relocate removes patients and families from their support systems at a time when direct emotional and material support is most needed. Financial resources are drained and family units are split up. For example, in one family from another state that we see in the clinic, one

calls and emails requesting care from families and providers in Idaho and other states who are desperate to continue the care their adolescents need. Providers are distraught because they will be forced to abandon their patients and/or force them to medically detransition, which directly violates their code of medical ethics—to do no harm.

72. It is often the most well-connected and resourced families that are able to relocate. If the Ban goes into effect, Idaho families will feel the pain more deeply and Idaho will continue to lose medical providers and other front-line healthcare staff, business owners, teachers, first responders, and individuals in the hospitality industry, to name a few of the occupations held by parents who are seeking to relocate.

73. For those families that are less resourced and unable to move or travel out of state for care, they will have to watch as their children are withdrawn from treatment that has enabled them to flourish and see them return to the suffering that brought them to care. We know that gender diverse people from communities of color and families living in poverty have significantly worse mental health outcomes than their white and financially resourced peers.[16]

I declare under penalty of perjury that the foregoing is true and correct.

Executed on: _7/14/2023_

Kara Connelly MD

Kara Connelly, MD

[16] James, S.E., et al. (2016). The Report of the 2015 U.S. Transgender Survey. Washington, DC: National Center for Transgender Equality.

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IN THE UNITED STATES DISTRICT COURT FOR THE DISTRICT OF IDAHO

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v.

Plaintiffs,

RAÚL LABRADOR, *in his official capacity as Attorney General of Idaho, et al.*,

Defendants.

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DECLARATION OF PAM POE IN SUPPORT OF PLAINTIFFS' MOTION FOR A PRELIMINARY INJUNCTION

DECLARATION OF PAM POE IN SUPPORT OF PLAINTIFFS' MOTION FOR A PRELIMINARY INJUNCTION

I, Pam Poe, hereby declare as follows:

1. I am a fifteen-year-old transgender girl, living with my mom, dad, and sibling in Meridian, Idaho. I am a Plaintiff in this lawsuit and call myself "Pam Poe." Our counsel have explained to me and my family what a preliminary injunction is, and we eagerly join the other Plaintiffs in seeking an injunction. Our lawyers have helped me prepare this Declaration, but the story below is mine. I have personal knowledge of the facts I explain below, and I would testify to them if called as a witness.

2. I have lived in Meridian, Idaho my entire life. I will be a sophomore in high school beginning in August 2023. I am interested in engineering, programming, and math. During the summer, I have a part-time job. This year is my second year working there.

3. While I am a girl, I was designated male at birth. Growing up, I always felt different, like I was not really a boy, but I did not know how to describe those feelings. I also did not know how to describe the mental and emotional distress I began experiencing as I got older because I knew that my gender was wrong. I know that I am a girl, not a boy. I just want to live and be treated like any other girl.

4. Around the time I was in 7th grade, as I began to experience puberty, I noticed how heavily I was struggling with depression, anxiety, and thoughts of self-harm. I started engaging in acts of self-injury. I did not really understand why exactly, but I was in a very dark place. During that time, there were times I felt like I did not want to exist anymore because I was so unhappy with what was happening to my body, feeling trapped and not like myself, and because people saw me as a boy and addressed me as one.

treatment and the risks. I also had blood drawn to figure out where my body was, in terms of puberty. I remember leaving that first appointment with a huge smile and feeling just overwhelmed with relief . Learning that puberty blockers were possible and that they would stop the changes happening to my body took a huge weight off my shoulders and helped my mental health.

14. At my next visit with the doctor, after again discussing everything we discussed at the first meeting, my parents and I, along with the doctor, decided that puberty blockers were the right treatment for me. I began puberty blockers in June 2022. I just felt so happy and relieved because I knew that it was going to stop what was happening to me. My mental health started to improve and only continued to improve over the next few months.

15. A counselor had been recommended to us as someone with experience caring for people with gender dysphoria, and after several months on the waitlist, I began therapy with her in July 2022.

16. With my parents' support, I had begun socially transitioning after coming out to them. I started wearing more feminine clothing, wearing makeup, and dying my hair and growing it out. Making these changes made me feel more like myself. Seeing that that my family saw me, accepted me, and treated me as who I really am also made me feel more like myself.

17. Being able to be myself, because of the puberty blockers and socially transitioning, I became more confident. I was already out to my close friends and family, and I realized I was ready to reintroduce myself, my real self, to other people in my life. When I started high school in August 2022, I entered as a girl and have been treated as a girl since day one.

18. Socially transitioning helped me feel like I wasn't hiding when I was in public. I felt more confident that people were seeing *me*, not the masculine role I was assigned. It didn't alleviate all of my distress though. I still constantly worried about people seeing certain parts of

me that are not in line with my gender identity and expression. Puberty blockers paused more changes to my body that did not align with my gender identity, and I was still having a lot of gender dysphoria about the ways my body didn't align with my gender identity.

19. In April 2023, after being on puberty blockers for almost a year, my parents and I had a conversation with my doctor about starting estrogen therapy. My doctor performed more bloodwork, talked to us about the potential risks and benefits of estrogen therapy, discussed options for fertility preservation, and confirmed my ongoing therapy and mental health support. My parents and I, in talking with my doctor, decided that estrogen therapy was the best and appropriate treatment for my gender dysphoria. I started treatment and I have been on estrogen ever since. Just like with the puberty blockers, the estrogen therapy has made such a difference in my life. My mental health is the best it has ever been. I am feeling more confident, happy, and excited that I am developing as a girl.

20. Before I began gender-affirming medical treatment, I was in a very dark place. I struggled so hard, with anxiety, depression, hiding away by myself, thoughts of self-harm, and even harming myself to cope with it all. The changes because of male puberty were making me miserable and causing all of those bad symptoms. I could not see a future for myself and did not want to exist. Gender-affirming medical care saved my life. When I think back to that time, it makes me sad. I know it really scared my parents. It scared me too. I did not want to die, I just wanted to be myself, my true self. I am so glad that I told my parents about what I was struggling with. I wish I had told them sooner.

21. It is hard for me to find the words to explain the difference in my life now that I am receiving gender-affirming medical care and living as the girl that I know I am. I am happy and confident. I am excited about the future I see for myself.

22. That is also why I am incredibly anxious and scared about H.B. 71. My entire family is very scared. If H.B. 71 becomes law, I would have to stop receiving the medical treatment that has saved me. I have already lived through the extreme mental health symptoms of not receiving treatment and I never want to experience that again. I cannot go back to that.

23. If H.B. 71 becomes law, my parents have talked about moving out of Idaho when my sister graduates from high school next year. We also talked about traveling to get care, but that would be a significant financial burden for my family. If we move, I will leave the only home I have ever known, my close community of friends, and my healthcare providers, who I trust, who have supported me, and who have changed my life for the better. I do not want to leave. I want to stay in Idaho, in my home, and continue receiving the healthcare I need. Please, please do not let this law take effect.

I declare under penalty of perjury that the foregoing is true and correct.

Executed in Idaho, on this 18th day of July, 2023

Pam Poe

Pam Poe

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IN THE UNITED STATES DISTRICT COURT FOR THE DISTRICT OF IDAHO

PAM POE, *by and through her parents and next friends, Penny and Peter Poe*; **PENNY POE**; **PETER POE**, *et al.*,

v.

Plaintiffs,

RAÚL LABRADOR, *in his official capacity as Attorney General of Idaho*, *et al.*,

Defendants.

Case No. 1:23-cv-00269-CWD

DECLARATION OF JANE DOE IN SUPPORT OF PLAINTIFFS' MOTION FOR A PRELIMINARY INJUNCTION

DECLARATION OF JANE DOE IN SUPPORT OF
PLAINTIFFS' MOTION FOR PRELIMINARY INJUNCTION

I, Jane Doe, hereby declare as follows:

1. I am a Plaintiff in this action, and refer to myself here as "Jane Doe." I make this Declaration in support of my and the other Plaintiffs' Motion for a Preliminary Injunction. My lawyers have helped me prepare this Declaration because I am not a lawyer and I have no experience with Declarations. The facts I describe below are about my own experience, however. I have personal knowledge of them, and would testify competently to them if called as a witness.

2. I am a sixteen-year old girl. I live with my mom, dad, and siblings in Boise, Idaho, where I have lived my entire life. This fall, I will be a high school senior. After high school, I plan to attend college. I am in interested in majors related to computer coding, cybersecurity, or videogame development.

3. I am transgender. I have a female gender identity, but I was designated as male at birth.

4. I have gender dysphoria, and was diagnosed with gender dysphoria by my doctor in November 2020.

5. For as long as I can remember, I knew that something felt off about my being a boy. I have always naturally related to other girls, felt the most like myself around other girls, and had similar interests as other girls. When I was younger, I did not have the words to express my feelings related to my gender identity or being transgender. But I knew it even before I knew the words for it.

6. In school, when we would be divided into girls' teams and boys' teams, I always wanted to be and felt like I belonged on the girls' team. When I would play "make believe" with my friends, I was always a girl character. When I would play video games, I would almost always

10. In June 2020, my gender dysphoria had intensified so badly that I needed to tell someone. I told one friend in July and then a couple more in September. In late September 2020, I finally found the courage to tell my parents that I am transgender, that I am a girl, that I was suffering, and that I needed help. My parents did not hesitate. They told me they loved me, they would support me in anything, and they just wanted me to be happy and healthy.

11. With my parents' support, I began socially transitioning in October 2020. I began going by a female first name and using feminine pronouns. I wore a feminine hairstyle and I started wearing girls' clothes. I told my mom I wanted to wear makeup and, as part of all of the ways in which she supported me when I asked for her help, she taught me about makeup and how to apply it. All of this helped my gender dysphoria, but I was still experiencing male puberty, which was causing significant physical changes to my body that I could not hide or cover up with makeup or clothes. And I knew that some of these unwanted changes would be permanent. My gender dysphoria was still causing me significant pain.

12. In mid-October 2020, my parents and I had a visit with my pediatrician to discuss what I was experiencing. My pediatrician referred me to a doctor who specializes in the treatment of gender dysphoria. My parents also found a therapist for me.

13. We had our first visit with the doctor in November 2020. The doctor examined me, asked me about my experience regarding my gender over the years, took blood for tests, and talked to me about the options for treating gender dysphoria based on my age, the risks and benefits of treatment, and things we could do to preserve my ability to have children.

14. After several months of therapy, an additional visit with the doctor, and much discussion with my parents, we decided to start on puberty blockers. I began receiving that treatment in January 2021.

15. The puberty blockers stopped any new changes from happening to my body and prevented my gender dysphoria from getting worse. Knowing that further changes would not happen was a big relief to me and improved my mental health.

16. After a few successful months on puberty blockers, we began talking about starting gender-affirming estrogen therapy. I spoke to my parents about it and during one of our visits with my doctor, he talked to my parents and me about the risks and benefits of estrogen therapy and fertility preservation, and he drew more blood for tests. Eventually, my parents and I agreed that gender-affirming estrogen therapy was appropriate for me. The doctor agreed. In April 2021, at the age of 14, I began a low dose of gender-affirming estrogen therapy.

17. Since April 2021, I see my doctor regularly for lab work, so that he can make sure I remain healthy and so he can check my hormone levels and change my estrogen dosage if needed to remain in target ranges for my age.

18. Estrogen has been amazing. It has changed my body in more feminine ways that I am so happy with. Seeing these bodily changes has helped my gender dysphoria a lot, and I feel like my body more accurately reflects who I am.

19. With the help of my parents, I began legally transitioning in 2023. My parents and I first obtained a court-ordered name change in Idaho. We then had my Idaho birth certificate corrected with my new legal name and we corrected the gender marker, changing it from male to female. My parents also helped me update my information with the United States Social Security Office and helped me obtain a United States passport with my new legal name and a female gender marker.

20. My parents and I also spoke to the administrators at my school, who were great about everything. They readily corrected my name and gender marker in my digital school records,

so that my teachers and any substitute teachers would not use the wrong name for me or the wrong pronouns and gender. This is really important to me, and I am so glad that the administrators at my school are supportive of me.

21. Being able to medically transition and see myself, and be seen by others, as the girl I am absolutely saved my life. Before I told my parents I was transgender and about the feelings of my gender dysphoria, I was not me. I was isolating myself, depressed, anxious, and I felt trapped and scared almost daily. I could not see a future for myself and did not want to exist. I am so grateful that when I told my parents about what I was experiencing, they listened to me, trusted me, and took me to providers who could give me the gender-affirming health care that I needed to be who I am.

22. My whole life has turned around. I am confident in who I am. My academics have improved. My mental health has improved substantially. I no longer feel the need to isolate, and I can live my life more fully and authentically. I am excited about what comes next in my life and everything I hope to do in the future.

23. Now all of that is at risk because of H.B. 71 and I am really scared. My parents and siblings are scared, and the others who love and care about me are scared, too. The anxiety from H.B. 71 and the possibility of my healthcare being taken away and having to go back to life as it was before I began receiving gender-affirming medical care is very stressful and harmful to my mental health. It caused me to miss a lot of school while the law was being debated. As a result, my grades suffered last semester.

24. If H.B. 71 becomes law, I would no longer be able to receive the estrogen therapy that I have been on for over two years that treats my gender dysphoria. I fear what would happen

to my mental, emotional, and physical health if my medication is cut off because of H.B. 71 and I have to resume male puberty. I have already lived that pain.

25. My parents have talked to my siblings and me about trying to find care for me out of state or selling our house and leaving Idaho—the only home I've ever known—because of H.B. 71. I don't know if we can find care out of state or what it would look like to have to regularly travel for healthcare. Having to move would mean losing my friends, my family, my home, my community, my school, and everything that I have always known. It would mean the same for my parents and siblings. My oldest sibling is starting college in Idaho in the fall. I worry about what impact moving will have on him, his college plans, and our relationship. I do not want to move to a different state far away from him. I do not want any of this. I just want to stay in Idaho, my home, and continue receiving the healthcare I have been receiving that has made the life I am now living possible. But if H.B. 71 goes into effect, my family understands that this healthcare is so central to my wellbeing that we will likely have no other choice but to move out of Idaho.

26. I ask that the Court please help me. Please do not let my healthcare be taken away.

I declare under penalty of perjury that the foregoing is true and correct.

Executed in Idaho, on this 18th day of July, 2023

Jane Doe

Jane Doe

RAÚL R. LABRADOR
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IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF IDAHO

PAM POE, by and through her parents and next friends, et al.

Plaintiffs,

v.

RAÚL LABRADOR, in his official capacity as Attorney General of the State of Idaho, et al.

Defendants.

Case No. 1:23-cv-00269-BLW

COMBINED MEMORANDUM OF LAW IN OPPOSITION TO MOTION FOR PRELIMINARY INJUNCTION AND IN SUPPORT OF MOTION TO DISMISS

Plaintiffs disagree about how best to treat gender dysphoria in minors, but Idaho's "elected representatives made these precise cost-benefit decisions" in adopting the Act. *L.W.*, 73 F.4th at 421. Finally, timing does not favor Plaintiffs because the Act does not go into effect until January 1, 2024. That provides Plaintiffs time to draw down their medication, which "'lessens the harm' to minors 'who wish to continue receiving treatment.'" *Doe 1 v. Thornbury*, 75 F.4th 655, 657 (6th Cir. 2023) (per curiam) (quoting *L.W.*, 73 F.4th at 421).

"When the government is a party," the balance of equities and public-interest "factors merge." *Drakes Bay Oyster Co. v. Jewell*, 747 F.3d 1073, 1092 (9th Cir. 2014). Here, Idaho's "interests in applying the law to its residents and in being permitted to protect its children from health risks weigh heavily in favor of the State at this juncture." *L.W.*, 73 F.4th at 421–22. If the Act is enjoined, untold numbers of children in Idaho will face lasting harm and irreversible damage to their bodies. Plaintiffs have not shown they are entitled to an injunction imposing that harm to the public.

IV. The scope of Plaintiffs' requested relief is inappropriate.

Even if this Court concludes that Plaintiffs are entitled to injunctive relief, Plaintiffs have failed to demonstrate that the scope of relief they request is appropriate. As an initial matter, Plaintiffs' remedial argument seemingly conflates two distinct questions—whether Plaintiffs are entitled to a *statewide* injunction and whether Plaintiffs are entitled to an injunction against enforcement of the statute in *all*

applications. This conflation is ultimately irrelevant, however, because Plaintiffs have failed to demonstrate an entitlement to either form of relief.

With respect to the question of statewide relief, an "injunction must be narrowly tailored to remedy the specific harm shown." *East Bay Sanctuary Covenant v. Barr*, 934 F.3d 1026, 1029 (9th Cir. 2019) (quotations omitted). Plaintiffs would be entitled to an injunction throughout the State of Idaho only if "such breadth was necessary to remedy" Plaintiffs' "harm." *Id.* To obtain an injunction of that scope, Plaintiffs' request must be "supported by the record as it stands." *Id.* at 1028. The relief they seek is access to particular medical interventions, which could be provided by an injunction prohibiting enforcement of the Act against Plaintiffs and their providers. And the two premises of their request for that relief are flawed.

First, Plaintiffs speculate that providers would not know who the Plaintiffs are. Dkt. 32-1 at 28. But Plaintiffs provide no support for this speculation, and the Court's grant of leave for *them* to proceed anonymously cannot be used to leverage relief for non-parties. Moreover, the injunction runs against *Defendants*, and the Court could enter a protective order disclosing the identity of Plaintiffs and their Providers to ensure Defendants comply, so a statewide injunction is not "necessary." Second, Plaintiffs worry that "the institutions where" providers "work may implement policies prohibiting" the relevant care. Dkt. 32-1 at 28. But institutions may *already* prohibit the relevant care, which has nothing to do with any injunctive relief from this Court. Plaintiffs' speculative assertions are not "supported by the record" and come woefully short of showing a statewide injunction is "necessary to remedy" Plaintiffs' harm. *East Bay Sanctuary Covenant*, 934 F.3d at 1028–29.

With respect to whether Plaintiffs are entitled to facial, as opposed to as-applied relief, "litigants mounting a facial challenge to a statute normally must establish that *no set of circumstances* exists under which the statute would be valid." *United States v. Hansen*, 143 S. Ct. 1932, 1939 (2023) (cleaned up). Plaintiffs do not argue the Act is unconstitutional in *every* circumstance. Nor could they, since the substance of their constitutional claims turn entirely on WPATH and Endocrine Society guidelines. Even the guidelines that Plaintiffs champion impose limitations on gender-affirming medical and surgical interventions. *See* Dkt. 32-1 at 3–5**.**

Thus, even under Plaintiffs' theory, the Legislature may clearly regulate the provision of interventions not in accordance with those guidelines. This regulation would include prohibiting the provision of any medical or surgical interventions to any child before puberty, Dkt. 32-1 at 3; providing any interventions to individuals who are not formally diagnosed with gender dysphoria under the DSM-V, *id.*; or providing interventions when an individual's co-occuring mental-health issues may interfere with diagnostic clarity or the ability to provide informed consent, *id.* at 4–5. And the concern that providers may not strictly follow the guidelines is not merely hypothetical: Plaintiffs' own expert stated that, in her opinion, "there may be extenuating circumstances" where "different care may be provided that may not be included in the guidelines." Ex. A 103:25–104:14. Plaintiffs are entitled to neither statewide relief nor an injunction against the Act in all applications.

CONCLUSION

The Court should deny an injunction and dismiss the Complaint.

DATED: September 5, 2023.

STATE OF IDAHO
OFFICE OF THE ATTORNEY GENERAL

By: /s/ *Lincoln D. Wilson*
LINCOLN DAVIS WILSON
Chief, Civil Litigation and
Constitutional Defense

REVISED

STATEMENT OF PURPOSE

RS29985C2 / H0071

The Vulnerable Child Protective Act would prohibit puberty blockers, cross-sex hormones, and sex reassignment surgeries for children under the age of 18 when administered or performed for the purpose of changing the appearance of a child's sex. These medical and surgical interventions can cause irreversible physical alterations; and some render the patient sterile or with lifelong sexual dysfunction, while others mutilate healthy body organs. This legislation also provides for exemptions for medically necessary uses of these drugs and procedures.

FISCAL NOTE

There is no anticipated fiscal impact on the general fund because it requires no expenditure of State funds nor is there an impact on local governments.

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DISCLAIMER: This statement of purpose and fiscal note are a mere attachment to this bill and prepared by a proponent of the bill. It is neither intended as an expression of legislative intent nor intended for any use outside of the legislative process, including judicial review (Joint Rule 18).