

**IN THE UNITED STATES DISTRICT COURT
EASTERN DISTRICT OF ARKANSAS
CENTRAL DIVISION**

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DYLAN BRANDT, et al.,	:	
	:	
Plaintiff,	:	
v.	:	Case No. 4:21-CV-00450-JM
TIM GRIFFIN, et al.,	:	
	:	
Defendant.	:	
	:	
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PLAINTIFFS’ REDACTED PROPOSED FINDINGS OF FACT

The evidence presented to the Court during the trial of this matter included live testimony from the following witnesses:

Plaintiffs’ fact witnesses—Plaintiffs Joanna Brandt, Dylan Brandt, Aaron Jennen, Donnie Ray Saxton, Amanda Dennis, and Dr. Kathryn Stambough; and Dr. Michele Hutchison;

Plaintiffs’ expert witnesses—Dr. Dan Karasic, Dr. Deanna Adkins, Dr. Jack Turban, and Dr. Armand Antommaria;

Defendants’ fact witnesses—Dr. Stephanie Ho, Dr. Janet Cathey, Cathy Campbell, Dr. Roger Hiatt, Laura Smalts, and Clifton Francis “Billy” Burleigh Jr.; and

Defendants’ expert witnesses—Dr. Stephen Levine, Prof. Mark Regnerus, Dr. Patrick Lappert, and Dr. Paul Hruz.

The Court’s assessment of the expert witnesses is discussed in section VII, *infra*.

The Court also received exhibits from both parties, as well as testimony from Plaintiffs from the following witnesses by deposition designation—Amy Embry (the rule 30(b)(6) designee

of Defendant Arkansas State Medical Board), Dr. Rhys Branman, and Representative Robin Lundstrum.

The Court now makes the following findings of fact based on the evidence presented at trial:

I. PLAINTIFFS

A. The Brandt Family

1. Plaintiff Dylan Brandt is 17 years old. Vol. 3, at 658:8-12 (Joanna Brandt); Vol. 3, at 688:14-15 (Dylan Brandt).
2. Plaintiff Joanna Brandt is Dylan's mother. Vol. 3, at 658:6-9 (J. Brandt).
3. The Brandts live in Greenwood, Arkansas. Vol. 3, at 658:4-5 (J. Brandt); Vol. 3, at 688:10-11 (D. Brandt).
4. Dylan was assigned female at birth, but his gender identity is male. Vol. 3, at 659:10-15 (J. Brandt); Vol. 3, at 688:16-20 (D. Brandt).
5. Dylan had distress related to his gender from a young age. When others saw him as a girl, it caused him a lot of stress and anxiety. Vol. 3, at 688:21-689:12 (D. Brandt). And when he was younger, he did not like getting his picture taken. Dylan explained that it is hard to find photos with Dylan in them from that time, and he is rarely seen smiling in those photos. Vol. 3, at 689:25-690:8 (D. Brandt).
6. Dylan's distress around his gender worsened when puberty started, and it was hard for him to look at himself in the mirror. Vol. 3, at 689:13-24 (D. Brandt).
7. Dylan came out as transgender to his mother through a letter he gave her in June 2019, when he was 13 years old. He told her that he was her son and had been feeling that way for a long time. Vol. 3, at 659:16-18, 660:11-23 (J. Brandt); Vol. 3, at 690:9-14 (D. Brandt).
8. After reading the letter, Joanna and Dylan talked about how he was feeling. He expressed distress about his body, particularly his chest and period. He had been hiding the physical changes to his body under the clothes he chose to wear. Vol. 3, at 661:7-13, 661:24-662:13 (J. Brandt).
9. After he came out to his mother, Dylan started socially transitioning—using he/him pronouns and the name Dylan. Vol. 3, at 691:4-10 (D. Brandt); Vol. 3, at 662:14-19 (J. Brandt). He already had short hair but cut his hair shorter and in more typically masculine ways. Vol. 3, at 663:10-19 (J. Brandt). He also began to shop in the boys' section of stores. Vol. 3, at 663:20-664:4 (J. Brandt). Through these

- steps, Dylan began to be recognized as a boy more in public. Vol. 3, at 664:5-7 (J. Brandt).
10. Dylan's mood improved after he started to be recognized as a boy. Vol. 3, at 664:8-23 (J. Brandt). But the distress remained, particularly around his chest, his period, and the ways he felt different from other boys. Vol. 3, at 689:13-24, 690:21-691:3 (D. Brandt); Vol. 3, at 661:24-662:13, 664:24-665:8 (J. Brandt).
 11. Dylan has been diagnosed with gender dysphoria. Vol. 3, at 665:9-10 (J. Brandt).
 12. Dylan was referred to the Arkansas Children's Hospital ("ACH") gender clinic by his pediatrician. Vol. 3, at 665:11-16 (J. Brandt).
 13. Dylan's first visit to the ACH gender clinic was in January 2020. Vol. 3, at 666:22-25 (J. Brandt). At that visit, he and his mother met with Dr. Michele Hutchison—the director of the gender clinic at the time—and the clinic's social worker. Vol. 3, at 514:25-515:4, 517:14 (Hutchison); Vol. 3, at 667:1-7 (J. Brandt). Dr. Hutchison explained the possible treatment options for adolescents with gender dysphoria and the risks and benefits of those treatments. Vol. 3, at 667:8-18, 668:6-11 (J. Brandt).
 14. During his first visit to the ACH gender clinic, Dylan and his mother and Dr. Hutchison discussed mental health therapy. Dylan had been in therapy prior to that visit, but he was between therapists at the time and the gender clinic referred him to a therapist near where he lived. Vol. 3, at 667:19-668:3 (J. Brandt).
 15. Because Dylan's periods were causing him great distress, Dr. Hutchison prescribed menstrual suppression medication at that January 2020 visit. Vol. 3, at 668:16-669:5 (J. Brandt).
 16. Menstrual suppression did not alleviate Dylan's gender dysphoria. Vol. 3, at 669:8-10 (J. Brandt).
 17. At several points after he came out, Dylan and his mother discussed the possibility of testosterone therapy. Dylan expressed a desire to start testosterone therapy early in their conversations, but Joanna needed more time to do due diligence about this medical decision. Vol. 3, at 669:17-25 (J. Brandt).
 18. Eventually, Dylan began testosterone therapy in August 2020 after he, his mother, a clinic psychologist who evaluated him, his therapist, and Dr. Hutchison all agreed it was appropriate for him. Vol. 3, at 670:22-671:6 (J. Brandt);¹ Vol. 3, at 693:14-15 (D. Brandt).
 19. Dr. Hutchison had informed Dylan and Joanna of the potential risks of treatment more than once. Joanna asked a lot of questions at the clinic and had done research

¹ The trial transcript appears to contain a typographical error. The visit was in August 2020, not August 2002, which is the date included in the trial transcript of Joanna Brandt's testimony.

herself to make sure she was making the best medical decision for her child. Vol. 3, at 661:14-23, 662:20-663:7, 667:8-18, 668:6-15, 669:11-25, 670:1-21, 671:7-19 (J. Brandt).

20. As a parent, Joanna routinely makes medical decisions for her minor children. Vol. 3, at 658:13-21 (J. Brandt).
21. Dylan has now been on hormone therapy for over two and a half years. Vol. 3, at 672:9-10 (J. Brandt).
22. Since starting testosterone, Dylan's voice has deepened, he has grown facial hair and more body hair, his body fat has shifted, and his face shape has changed. Vol. 3, at 672:13-673:2 (J. Brandt).
23. Testosterone treatment has significantly alleviated Dylan's gender dysphoria. Emotionally, Dylan has been able to relax for the first time in years. Vol. 3, at 673:3-25 (J. Brandt). Dylan is more confident and comfortable with himself. He is now okay with people taking pictures of him and he even takes pictures of himself. He is proud of his yearbook photos. He feels comfortable going out and having others see him. Vol. 3, at 693:18-694:13 (D. Brandt). If he had to describe the impact of the treatment in one word, it would be "hopeful." Vol. 3, at 696:25-697:3 (D. Brandt).
24. Joanna explained that, for Dylan, the impact of testosterone treatment was like "he had been holding his breath for years and he was finally able to exhale and relax." She explained: "The changes that I have seen in him have been quite remarkable. The deeper the voice got, the thicker the beard got, the more his external appearance came into alignment with who he knows himself to be, he just lit up. I noticed it. Everybody else around him noticed it." Vol. 3, at 673:5-11 (J. Brandt).
25. Dylan has not experienced any negative side effects from testosterone therapy. Vol. 3, at 672:11-12 (J. Brandt); Vol. 3, at 694:14-19 (D. Brandt).
26. Dylan has continued regular therapy with a counselor. Vol. 3, at 695:6-7 (D. Brandt).
27. Sometimes Dylan fears for his safety as a transgender person in the South. Vol. 3, at 695:14-696:2 (D. Brandt).
28. If Act 626 were to go into effect, medically detransitioning is not an option for Dylan. Vol. 3, at 696:3-10 (D. Brandt). His mother Joanna fears that stopping treatment would negatively affect his mental health and he would "lose all" of "who he has become." Vol. 3, at 675:4-14 (J. Brandt).
29. Dylan and Joanna have discussed moving out of state or traveling out of state regularly for treatment if, because of Act 626, he cannot continue receiving treatment in Arkansas. Vol. 3, at 675:15-676:9 (J. Brandt); Vol. 3, at 696:11-12 (D. Brandt).

30. Leaving Arkansas would be logistically, financially, and emotionally difficult for the family. Vol. 3, at 675:15-677:5 (J. Brandt); Vol. 3, at 696:13-24 (D. Brandt). They have lived in Greenwood since 2009. Vol. 3, at 674:3-5 (J. Brandt). Dylan and his brother go to school in Greenwood. Vol. 3, at 674:17-18 (J. Brandt). The family has friends and is engaged in the community in Greenwood. Vol. 3, at 674:10-12, 19-22 (J. Brandt). The Brandts have established a life in Greenwood. Vol. 3, at 696:13-24 (D. Brandt). And they have extended family in Arkansas, including Dylan's grandmother. Vol. 3, at 674:13-16 (J. Brandt). In addition, Joanna owns a shop in Greenwood and moving would mean having to figure out how to support her family, which is "scary" for her. Vol. 3, at 674:6-9, 676:10-18 (J. Brandt). Traveling out of state regularly for medical care would similarly be very difficult. Vol. 3 at 675:19-23 (J. Brandt).

B. The Jennen Family

31. Plaintiff Sabrina Jennen is 17 years old. Vol. 2, at 447:18-20 (Jennen).
32. Plaintiffs Lacey and Aaron Jennen are her parents. Vol. 2, at 447:8-21 (Jennen).
33. Sabrina has two younger sisters. Vol. 2, at 447:18-21 (Jennen).
34. The Jennens live in Fayetteville, Arkansas. Vol. 2, at 459:25-460:1 (Jennen).
35. Sabrina was assigned male at birth but her gender identity is female. Vol. 2, at 448:15-20 (Jennen).
36. Sabrina came out to her parents as transgender in July 2020, when she was 15. Vol. 2, at 448:21-449:23. By that point, she had known something was different about her gender for years. Vol. 2, at 449:24-450:2 (Jennen); *see also* Vol. 4A, at 73:7-10 (Campbell).
37. After coming out to her parents, Sabrina started to see a counselor, Cathy Campbell. Vol. 2, at 452:3-10, 454:1-2 (Jennen); *see also* Vol. 4A, at 72:16-18 (Campbell). Sabrina continues to see Ms. Campbell regularly. Vol. 2, at 454:3-8 (Jennen).
38. Ms. Campbell diagnosed Sabrina with gender dysphoria. Vol. 2 at 453:15-25 (Jennen); *see also* Vol. 4A, at 77:12-78:2 (Campbell).
39. Aaron Jennen was at first surprised when Sabrina came out to him as transgender. But looking back, he said there were longstanding signs of Sabrina's gender dysphoria. She insisted on wearing a shirt when swimming, covering her body even though she was athletic and fit. She had "extreme anxiety" about using public bathrooms such that, even if she were in the middle of something, she would insist on going home to use the bathroom, and her family would accommodate. She also hated having her picture taken and would become "visibly anxious" about it. Vol. 2, at 450:8-451:3 (Jennen).

40. After Sabrina came out in the Summer of 2020, she started socially transitioning—she began to go by the name Sabrina and use she/her pronouns while at home. At the time, she and her family had just moved to Fayetteville, so she prepared to start the new school year as Sabrina. Vol. 2, at 452:3-13 (Jennen). She also grew out her hair and first began dressing more androgynously and adding some more feminine accessories. Vol. 2, at 452:18-453:8 (Jennen). Eventually, her father helped her legally change her name to Sabrina. Vol. 2, at 453:9-12 (Jennen).
41. [REDACTED]
42. Sabrina’s parents wanted to do more research and better understand the potential risks and benefits of hormone therapy before consenting to Sabrina beginning treatment. Vol. 2 at 455:7-17 (Jennen).
43. [REDACTED] *see also*
Vol. 2, at 454:11-20 (Jennen).
44. Sabrina’s parents wanted to do more research and better understand the potential risks and benefits of hormone therapy before consenting to Sabrina beginning treatment. Vol. 2, at 454:21-455:17, 456:10-17 (Jennen).
45. Sabrina and her parents visited Dr. Ho’s office in December 2020. Vol. 2, at 455:18-22 (Jennen). [REDACTED]
[REDACTED] Dr. Ho’s staff also provided verbal and written information to the Jennens about hormone therapy, including the risks and benefits and information related to fertility preservation, and answered the Jennens’ questions. Vol. 2, at 455:23-456:7 (Jennen).
46. Before starting hormone therapy, Sabrina had therapy sessions with Ms. Campbell every other week for several months. Vol. 2, at 454:5-18 (Jennen); *see also* Vol. 4A, at 75:1-4 (Campbell). During that time, Sabrina’s parents participated in some joint family sessions with Ms. Campbell. Vol. 2, at 453:18-23 (Jennen); *see also* Vol. 4A, at 75:5-14 (Campbell).
47. Sabrina and her parents discussed and researched hormone therapy. They “took a lot of time, thought and prayer” about whether Sabrina should undergo hormone treatment for her gender dysphoria, and they made the decision as a family to move forward with exploring hormone treatment. Vol. 2, at 456:10-17, 457:15-19 (Jennen).

48. Sabrina and her parents returned to Dr. Ho's office in January 2021 after discussing the treatment further as a family. Vol. 2, at 456:18-24 (Jennen). Dr. Ho did her own assessment and diagnosed Sabrina with gender dysphoria. Vol. 4, at 749:14-16 (Ho). She also reviewed with the family how hormone therapy works and the potential risks and benefits of the treatment. Vol. 2, at 456:25-457:11 (Jennen). Sabrina, Aaron, and Lacey all consented to Sabrina receiving hormone therapy and Dr. Ho prescribed a testosterone blocker and estrogen. Vol. 2, at 457:15-19, 458:1-5 (Jennen).
49. Aaron and Lacey Jennen routinely make medical decisions for their children. Vol. 2, at 457:12-14 (Jennen).
50. [REDACTED]
51. Sabrina has regularly visited Dr. Ho for monitoring and treatment since January 2021. Approximately every three months, Dr. Ho reviews lab tests to monitor Sabrina's hormone levels and check in about Sabrina's dysphoria. Vol. 2, at 458:6-16 (Jennen).
52. Although Sabrina's parents were initially hesitant about hormone therapy when they made the decision to consent to treatment, they thought that it was the best thing to do for their daughter. Looking back on that decision, they now know that it was the right decision for Sabrina. Vol. 2, at 459:15-21 (Jennen).
53. According to her father, Sabrina's dysphoria seems almost entirely alleviated after starting hormone therapy. She is doing well and generally happy, though she still struggles with her depression and school stress. Sabrina is also more confident compared to herself before transitioning and is now happy to have her picture taken and smiles; "she takes selfies all the time." Vol. 2, at 458:17-459:11 (Jennen).
54. [REDACTED]
55. [REDACTED]
56. The Jennens have been very concerned about the impact Act 626 would have on Sabrina. Vol. 2, at 461:18-23 (Jennen). For Aaron Jennen, Sabrina not receiving gender-affirming medical care is "not an option." Vol. 2, at 462:5-8, 462:20-463:11 (Jennen). He would "worry about her withdrawing back into the person that she was before she started it, a person that was unhappy, that said things to her mother and I like, what's the point of life. Saying things like, I don't see a future

for myself, which is difficult because how amazing she is.” Vol. 2, at 463:12-20 (Jennen). Aaron testified that if Act 626 went into effect, they would either move or travel out of state to get treatment for Sabrina. Vol. 2, at 462:5-19 (Jennen).

57. Moving would be logistically, financially, and emotionally difficult for the Jennens. They have deep roots in Arkansas. Sabrina and her two sisters attend school in Fayetteville. Vol. 2, at 461:8-9 (Jennen). Aaron is a government attorney in the Western District of Arkansas. Vol. 2, at 460:2-8 (Jennen). The Jennens have all lived in Arkansas their entire lives. Vol. 2, at 459:22-24 (Jennen). Their entire extended family is all in Arkansas as well. Vol. 2, at 460:19-461:7 (Jennen). Similarly, traveling out of state to get treatment would be difficult because the Jennens are a single-income family and traveling out of state regularly involves a “great expense of both money and time.” Vol. 2, at 462:5-21 (Jennen).

C. The Saxton Family

58. Parker Saxton was 17 years old at the start of trial. Vol. 2, at 430:14-15 (Saxton).
59. Donnie Ray Saxton is Parker’s father. Vol. 2, at 430:9-19 (Saxton).
60. The Saxtons live in Vilonia, Arkansas. Vol. 2, at 444:15-16 (Saxton).
61. Parker was assigned female at birth, but his gender identity is male. Vol. 2, at 431:15-20 (Saxton).
62. Parker began to experience distress related to his gender during early childhood. He wouldn’t use public restrooms since preschool. Vol. 2, at 433:21-22 (Saxton). When the family would go on car trips for more than four hours, they would have to stay overnight to make sure Parker had a place to go to the bathroom. Vol. 2, at 433:23-434:4 (Saxton).
63. Puberty caused significant distress for Parker. He would wear baggy clothes and multiple sports bras to hide his body and he covered the bathroom mirror with a towel to avoid seeing his reflection when he got out of the shower. Vol. 2, at 433:11-20 (Saxton). He suffered from anxiety and depression and would not socialize or answer his phone even with his closest friends. Vol. 2, at 432:12-15, 433:2-20 (Saxton). It was “troubling” for Donnie to watch. Vol. 2, at 433:2-7 (Saxton).
64. Donnie took Parker to see a therapist and psychiatrist who treated him for anxiety and depression. Vol. 2 at 434:7-18 (Saxton).
65. Parker was aware of his gender identity since around age 9. Vol. 3, at 557:21-22 (Hutchison). He came out as transgender to his father in a letter in 2019. Vol. 2, at 431:24-432:4, 434:7-10 (Saxton).
66. At the time Donnie read Parker’s letter, he “didn’t have a clue what transgender meant outside of what we see in the news and everything.” But Donnie let Parker

know that he loved him and would be there for him and they would figure it out. Vol. 2, at 434:19-435:2 (Saxton).

67. In June 2020, when Parker was 15, Parker's psychiatrist referred him to the gender clinic at ACH. Vol. 2, at 435:11-14, 25 (Saxton).
68. At the ACH gender clinic, Parker initially was prescribed Depo-Provera as a menstrual suppressant to alleviate the distress caused by his period. Vol. 2, at 437:18-21 (Saxton). The Saxtons were not considering testosterone at that time. Vol. 2, at 437:9-15 (Saxton).
69. The menstrual suppression helped alleviate some of Parker's gender dysphoria but did not fully address it. Parker still had depression, social anxiety, compulsive bathing, and an aversion to his reflection. Vol. 2, at 437:22-438:9 (Saxton).
70. Parker went to follow-up visits at the ACH gender clinic regularly. Vol. 2, at 438:14, 439:8 (Saxton).
71. About three or four months after his first visit, Parker expressed that he thought testosterone might be helpful for him. Vol. 2, at 439:9-12 (Saxton). Eventually, Donnie called Dr. Hutchison; it was the height of COVID and she told him they could discuss testosterone treatment the next time they came in. Vol. 2, at 439:23-440:1 (Saxton).
72. When House Bill 1570 (which later passed as Act 626) was being considered by the legislature, Parker and Donnie understood that it would "shut down" any gender-affirming medical care that Parker could receive. Vol. 2, at 441:10-16 (Saxton). Parker went "back to the deep, dark place he had been." Vol. 2, at 441:22-24; 442:2-3 (Saxton). Donnie testified that Parker was "broken." Vol. 2, at 441:17-442:3 (Saxton). Donnie began to sleep on the couch to be close to Parker because he was concerned Parker would hurt himself—he testified: "I started sleeping on the couch, you know, as close to him as I could." Vol. 2, at 442:4-14 (Saxton).
73. On May 27, 2021, Parker began testosterone therapy. Vol. 2, at 442:21-25 (Saxton). Before starting treatment, Parker was evaluated by an ACH psychologist who confirmed the gender dysphoria diagnosis and conducted a psychological evaluation of Parker. Vol. 2, at 440:4-19 (Saxton). At the May 27th appointment, Parker, Donnie, and Dr. Hutchison extensively discussed the risks and benefits of treatment—including the potential impact on Parker's fertility—and they ultimately decided to move forward. Vol. 2, at 439:11-441:3, 442:25-443:15 (Saxton).
74. As a parent, Donnie routinely makes medical decisions for his children. Vol. 2, at 430:21-25 (Saxton).
75. Testosterone therapy has significantly alleviated Parker's gender dysphoria. As his father observed, after starting treatment, Parker was a "new person, a completely—

a complete turnaround of the broken, depressed, anxious, shell that he was before testosterone. It's amazing. Truly amazing." Vol. 2, at 443:18-20 (Saxton).

76. After starting testosterone therapy, Parker had significantly more confidence than he did before. Vol. 2, at 443:22 (Saxton). He chose to volunteer and was selected to publicly read the names of fallen first responders at the 9/11 memorial in September 2022; this was something he never would have been able to do before treatment. Vol. 2, at 444:4-10 (Saxton).
77. Donnie related to Dr. Stambough that "before [testosterone therapy] there was no future. There was no goal planning. There was no next. And now Parker has all these goals and things that he wants to do and what he's thinking about, and that is a world away from where we started." Vol. 3, at 620:2-5 (Stambough).
78. Parker's doctors also observed the positive impact of testosterone therapy on Parker's gender dysphoria. Vol. 3, at 559:9-23 (Hutchison), 619:13-15 (Stambough).
79. Before Parker turned 18 in November 2022, the Saxton family talked about what they would do if Act 626 were to take effect and Parker could no longer receive testosterone therapy in Arkansas. It was a "hard talk," and they concluded that they'd "have to pick up and leave." Vol. 2, at 445:21-446:17 (Saxton).
80. Donnie was prepared to uproot his family to continue Parker's medical care if necessary, even though doing so would be logistically, financially, and emotionally difficult. Vol. 2, at 445:21-446:3 (Saxton).
81. The Saxtons have lived in Vilonia their entire lives and have deep ties to the community. Vol. 2, at 444:16-19 (Saxton). Parker and his siblings attend school in Vilonia, and have friends there. Vol. 2, at 445:11-15 (Saxton). Donnie and his parents own a small plumbing company there, which was founded 31 years ago. Vol. 2, at 444:25-445:3 (Saxton).
82. Donnie would struggle to financially support his family if they had to move somewhere else. Vol. 2, at 446:7-9 (Saxton). And Donnie's parents would not be able to operate their business if Donnie left the state. Vol. 2, at 446:4-6 (Saxton).
83. In addition, as Donnie put it, "[t]his is home," where everyone knows Parker and "transitioned with us." Vol. 2, at 446:10-14 (Saxton).
84. But stopping treatment was not an option. When asked what he thinks would happen to Parker if he had to discontinue treatment, Donnie emotionally said "I'm not going to think about that. I just won't." Vol. 2, at 446:18-20 (Saxton).

D. The Dennis family

85. Plaintiff Brooke Dennis is 10 years old and is in fifth grade. Vol. 3, at 638:18-21 (Dennis).

86. Plaintiffs Amanda and Shayne Dennis are her parents. Vol. 3, at 638:5-12 (Dennis).
87. Brooke has an older brother and a younger sister. Vol. 3, at 638:17-18 (Dennis).
88. The Dennises live in Bentonville, Arkansas. Vol. 3, at 650:3-10 (Dennis).
89. Brooke was assigned male at birth but her gender identity is female. Vol. 3, at 639:11-15 (Dennis).
90. Brooke started identifying as a girl in second grade. Vol. 3, at 639:16-19 (Dennis). During a family photo session, Amanda noticed the photographer referring to Brooke with female pronouns and Brooke did not correct her. Vol. 3, at 639:23-640:2, 642:24-643:3 (Dennis). Afterward, Amanda asked Brooke how that made her feel, and Brooke expressed that she felt it was right, and it made her happy. Vol. 3, at 639:16-640:6, 642:21-24 (Dennis). Brooke explained, "I liked to use she/her. I am a girl. That's how I feel and that's how I feel on the inside." Vol. 3, at 643:4-6 (Dennis). Amanda and Shayne asked her what she wanted to be called and she said she wanted to be called Brooke. Vol. 3, at 643:7-10 (Dennis).
91. Amanda and Shayne were not surprised when Brooke told them that she identified as female. Vol. 3, at 640:14-16 (Dennis). From a young age, Brooke gravitated toward more traditionally feminine clothing, play, and toys. Vol. 3, at 640:18-20 (Dennis). During make-believe play, she would always play princesses. Vol. 3, at 640:21-23 (Dennis). Brooke would wrap t-shirts and towels and other things around her head to act as a ponytail. Vol. 3, at 641:1-10 (Dennis). And she had started asking not to shop in the boys' clothing section, and expressed that she wanted girls' clothing. Vol. 3, at 641:11-16 (Dennis).
92. Brooke would often become upset and distressed when she was not recognized as who she felt like on the inside. Vol. 3, at 641:17-23 (Dennis). For example, at school she would get distressed doing gendered activities, such as standing in bathroom lines. Vol. 3, at 641:23-642:3 (Dennis). Her parents observed that Brooke was not experiencing the joy in her daily life that kids should be able to experience. Vol. 3, at 642:16-20 (Dennis).
93. In second grade, after Brooke started to be called Brooke and be referred to with female pronouns, her father observed that "Brooke got her smile back." Vol. 3, at 643:10-11 (Dennis).
94. Although being able to express her female gender has helped Brooke, she continues to have fear, anxiety, and distress about the fact she could go through a typically male puberty. Vol. 3, at 620:21-621:6 (Stambough); 648:17-649:2 (Dennis).
95. Shortly after Brooke expressed her female gender identity to her mother in April 2020, the Dennises made an appointment for Brooke to see a therapist. Vol. 3, at 644:3-10 (Dennis). The Dennises wanted to have "as much information as possible to be able to make a good decision" on "how to move forward." Vol. 3, at 643:22-24; *see also* Vol. 3, at 649:24-650:2.

96. After Brooke saw the therapist for a while, the therapist diagnosed Brooke with gender dysphoria. Vol. 3, at 644:13-17 (Dennis).
97. After the Dennises discussed Brooke's gender with her pediatrician, the pediatrician referred them to the ACH gender clinic. Vol. 3, at 644:18-645:6 (Dennis).
98. In October 2020, the Dennises had their first visit at the ACH gender clinic and met with Dr. Hutchison and other staff. Vol. 3, at 645:7-12 (Dennis). The purpose of the first visit was to help the family learn about the clinic and the care they provided, and get information about gender dysphoria and what they should be learning more about. Vol. 3, at 645:7-646:15 (Dennis). They discussed Brooke's history and childhood. Vol. 3, at 645:22-25 (Dennis). No medical treatments for gender dysphoria were indicated for Brooke because she has not yet started puberty. Vol. 3, at 645:7-648:16 (Dennis); 620:18-20 (Stambough). Dr. Hutchison advised them to watch for signs of puberty, what those signs would be, and that they could possibly begin around age 9 or 10. Vol. 3, at 646:22-25 (Dennis).
99. In early September 2022, the Dennises brought Brooke for a check-in appointment at the ACH gender clinic because Brooke was 10 and knew puberty was getting closer, which was making her anxious. Vol. 3, at 647:9-23 (Dennis). Brooke's doctor, Dr. Stambough, believes Brooke is close to starting puberty. Vol. 3, at 620:24-621:6 (Stambough).
100. Since her September 2022 visit to the ACH gender clinic, Brooke has started to see signs of puberty, and her parents made another appointment to see Dr. Stambough. Vol. 3, at 648:10-16 (Dennis).
101. Brooke continues to express "a lot" of distress about her body related to her gender. She is specifically anxious about going through puberty. Vol. 3, at 620:18-621:6 (Stambough); Vol. 3, at 647:9-23, 648:7-649:11 (Dennis). She worries about getting an Adam's apple, and seeing her older brother and dad makes Brooke distressed and anxious about her body developing more. Vol. 3, at 648:21-649:2 (Dennis). Brooke will not change her clothes in front of other people, not even her mother. Vol. 3, at 649:3-5 (Dennis).
102. Brooke is still receiving counseling related to her gender dysphoria. Vol. 3, at 649:12-14 (Dennis).
103. Because of Brooke's distress, once it is clear that puberty is happening, Amanda and Shayne intend to do whatever is medically needed to continue to affirm Brooke's gender. Vol. 3, at 649:18-24 (Dennis).
104. As parents, Amanda and Shayne routinely make medical decisions for their three children. Vol. 3, at 649:15-17 (Dennis).
105. Act 626 is causing great anxiety for the Dennis family. Amanda and Shayne have discussed what they would do if Act 626 takes effect and Brooke is not able to get

gender affirming medical treatment in Arkansas. They would need to regularly travel out of state or move out of state to get Brooke care, and either scenario would be logistically, financially, and emotionally difficult. Vol. 3, at 652:11-22 (Dennis).

106. Regular travel out of state with Brooke would be difficult for the Dennises given Amanda's job, the fact that they have two other children, and Brooke would have to miss school. It would also be expensive. Vol. 3, at 652:22-653:25 (Dennis).
107. Moving would mean leaving behind the Dennises' home, the children's schools and friends, and their extended family. Shayne's father has advanced Parkinson's and they provide him with support. Moving him and Shayne's mother with them to another state would be very difficult, but so would be managing his care if they left them behind. Arkansas has been home to Shayne and the children their whole lives, and to Amanda since she was a child. Vol. 3, at 650:7-10, 654:3-21 (Dennis).
108. If the family were to move away, Amanda might have to give up her job as head of business operations for the digital ad platform at Sam's Club within the Walmart Enterprise, which would cause financial hardship for the family. Vol. 3, at 650:11-14, 651:17-652:1, 654:3-656:18, 653:2-655:22 (Dennis).

E. Dr. Kathryn Stambough

109. Plaintiff Dr. Kathryn Stambough earned her medical degree from Washington University School of Medicine in St. Louis and completed a fellowship in pediatric and adolescent gynecology at Baylor College of Medicine Texas Children's Hospital in Houston. Vol. 3, at 598:2-9 (Stambough).
110. Dr. Stambough is an assistant professor at the University of Arkansas for Medical Services ("UAMS") and a member of the division of pediatric and adolescent gynecology. Vol. 3, at 598:20-599:3 (Stambough).
111. Dr. Stambough has a clinical appointment at ACH where she practices in multiple clinics: the gender clinic; the general gynecology clinic; the In-STEP Clinic, which cares for patients with differences of sexual development; and the Spinal Cord Disorders Clinic. She also has a clinical appointment and serves as a member of the team at UAMS in the adult gender clinic. Vol. 3, at 599:14-600:22 (Stambough).
112. Dr. Stambough has been practicing in the ACH gender clinic since August 2020. She has been the clinic's medical director since July 2022. Vol. 3, at 601:10-24 (Stambough).
113. Currently, 248 patients are being actively seen in the ACH gender clinic. Vol. 3, at 601:25-602:6 (Stambough).
114. The clinic currently is providing hormone therapy to 81 patients. Vol. 3, at 602:21-603:4 (Stambough).

115. Dr. Stambough treats patients in the gender clinic, including with puberty blockers and hormone therapy. Vol. 3, at 604:2-20, 619:7-12 (Stambough).
116. Dr. Stambough has seen the distress of gender dysphoria experienced by her adolescent patients and how gender-affirming medical care alleviates that distress and improves her patients' health. Vol. 3, at 606:23-607:22 (Stambough).
117. If Act 626 takes effect, Dr. Stambough would be unable to provide medically necessary care to patients and would be forced to leave them to needlessly suffer. Vol. 3, at 610:2-21, 612:3-613:15 (Stambough).
118. In the course of her practice, Dr. Stambough sometimes refers patients to another healthcare provider, which involves discussions with the patients and their families. Vol. 3, at 615:13-17 (Stambough). In making a referral, Dr. Stambough's discussion with her patients includes options for where to obtain the care. Vol. 3, at 615:18-25 (Stambough).
119. If Act 626 were to go into effect, Dr. Stambough would be unable to make all the referrals necessary to care appropriately for her gender clinic patients. Vol. 3, at 616:1-5 (Stambough).
120. Dr. Stambough has a close relationship with her patients at the gender clinic. She testified that she "get[s] to be on a journey" with each patient, which involves learning about them and "understanding their social support and who they have around them." Patients share a lot about things that have been happening in their lives before they came into clinic. And they often share important developments in their life, like achievements, or a piece of art, or even just regularly checking in to share how they are doing. Vol. 3, at 616:11-617:4 (Stambough).
121. Many of Dr. Stambough's patients do not disclose that they are transgender in all aspects of their lives. Vol. 3, at 617:5-7 (Stambough). Some patients have not disclosed their gender identity to extended family. Vol. 3, at 617:11-13 (Stambough).
122. Some of Dr. Stambough's gender-clinic patients are concerned for their safety. Some have been harassed because they are transgender. Vol. 3, at 617:22-618:16 (Stambough). For example, one patient had kids chalk hateful things on the sidewalk that the patient would have to see on the way to school. Vol. 3, at 618:12-16 (Stambough).
123. Some of Dr. Stambough's gender dysphoria patients would not be in a position to bring a lawsuit on their own behalf to challenge Act 626 for various reasons, including not being out to members of their extended family or keeping their gender identity private in certain other contexts. Vol. 3, at 618:20-25 (Stambough).

II. THE TREATMENT OF ADOLESCENTS² WITH GENDER DYSPHORIA

A. Background on gender identity

124. “Gender identity” refers to a person’s deeply felt internal sense of belonging to a particular gender. Vol. 1, at 24:11-15 (Karasic). It is a “core part of who you are.” Vol. 1, at 266:6-11, 267:11-15 (Adkins).
125. Most people have a gender identity that aligns with their sex assigned at birth—the sex placed on their birth certificate at birth based on their external genitalia. Vol. 1, at 24:16-20 (Karasic). The term “cisgender” is used to refer to such individuals.
126. Transgender people have a gender identity that does not align with their birth-assigned sex. Vol. 1, at 24:21-23 (Karasic).
127. What causes a person to have a particular gender identity is not fully understood, but there is evidence suggesting there may be a biological component. Vol. 1, at 100:20-101:7 (Karasic).
128. There is no evidence that gender incongruence is the result of a dysfunctional family life, and many transgender people come from healthy, supportive families. Vol. 1, at 100:4-16 (Karasic).
129. Whatever its origin, gender identity is not something that an individual can control or voluntarily change. Vol. 1, at 29:13-15 (Karasic); Vol. 1, at 267:11-15 (Adkins).
130. Efforts to change a person’s gender identity to become congruent with their birth-assigned sex have been attempted in the past without success and with harmful effects. Vol. 1, at 29:16-20, 30:3-24 (Karasic).³
131. Efforts to change an individual’s gender identity can harm individuals by increasing feelings of shame and creating an expectation that change is possible when it is not, which can increase a sense of failure. Vol. 1, at 30:12-19 (Karasic).
132. Because efforts to change an individual’s gender identity through therapy are ineffective and harmful, such efforts are now considered unethical by many mental health organizations including the American Psychological Association. Vol. 1, at 30:3-11 (Karasic); Vol. 2, at 325:18-326:4 (Turban).

² The term “adolescent” is used in these Proposed Findings of Fact to refer to an individual from the time they begin puberty up until they reach adulthood—their 18th birthday.

³ The State’s expert Dr. Levine agrees that “there is no credible scientific evidence beyond anecdotal reports that psychotherapy can enable a return to male identification for genetically male boys, adolescents, and men, or return to female identification for genetically female girls, adolescents and women.”“ Vol. 5, at 920:18-24 (Levine).

133. Although people cannot voluntarily change their gender identity, a person's understanding of their gender identity can change over time. Vol. 1, at 30:25-31:9, (Karasic); Vol. 1, at 266:12-267:15, 270:24-271:1 (Adkins); Vol. 2, at 331:9-15 (Turban).
134. Research and clinical experience show that when gender incongruence continues after the onset of puberty, it is very unlikely that the individual will come to identify with their sex assigned at birth later in life. Vol. 2 at 310:16-25 (Turban); Vol. 1, at 267:25-268:7, 271:2-15 (Adkins); Vol. 1, at 98:7-25, 173:2-9 (Karasic).

B. Gender dysphoria

135. The lack of alignment between one's gender identity and their sex assigned at birth can cause significant distress. The medical term for this distress is gender dysphoria. Vol. 1, at 24:7-10 (Karasic).
136. Gender dysphoria can increase with the onset of puberty and the development of secondary sex characteristics that do not align with one's gender identity. Vol. 1, at 37:14-22 (Karasic).
137. The American Psychiatric Association's Diagnostic and Statistical Manual of Mental Disorders-5 ("DSM")⁴ has two diagnoses related to gender dysphoria, one for prepubertal children and one for adolescents and adults. Vol. 1, at 25:7-15 (Karasic).⁵
138. The diagnostic criteria for gender dysphoria in adolescents and adults include incongruence between an individual's experienced or expressed gender and their sex assigned at birth lasting for at least six months and accompanied by clinically significant distress or impairment in social or occupational function. Vol. 1, at 26:20-27:3 (Karasic).
139. The diagnosis of gender dysphoria is made based on a clinician's assessment of whether a patient meets criteria based on a clinical interview, as well as the clinician's observations of the patient and, with minors, parents' reports. Vol. 1, at 27:7-28:1 (Karasic). This is how diagnoses of other mental health conditions are generally made. Vol. 1, at 28:2-5 (Karasic); Vol. 5, at 894:23-895:6 (Levine).
140. Gender dysphoria is a serious condition that, if left untreated, can result in psychological comorbidities including depression, anxiety, self-harm, suicidality,

⁴ The DSM is a list of mental health disorders put out by the American Psychiatric Association and updated periodically. Vol. 1, at 25:16-20 (Karasic). It compiles criteria for psychiatric diagnoses that are generally relied on by practitioners in the psychiatric profession. Vol. 1, at 142:10-15 (Karasic).

⁵ In the past, the DSM had different diagnoses related to gender incongruence, including Gender Identity Disorder. Vol. 1, at 152:1-6 (Karasic).

and impairment in functioning. Vol. 1, at 28:17-21 (Karasic); Vol. 1, at 236:11-19 (Adkins).

141. In his 30 years of clinical experience treating thousands of patients with gender dysphoria, Dr. Karasic has had many patients, including adolescents, who were profoundly impaired by gender dysphoria. He has had patients who were withdrawn from school or social interaction, patients who were suicidal or made suicide attempts, and patients who engaged in other forms of self-harm such as cutting their breasts or genitals, prior to getting treatment. Vol. 1, at 28:6-16, 29:9-12 (Karasic).
142. Drs. Hutchison and Stambough similarly observed great distress in their gender dysphoric adolescent patients at the ACH gender clinic. Patients would cover mirrors to avoid seeing themselves undressed and shower without looking down to avoid seeing their genitals. Suicidal ideation and self-harm were common; some patients had attempted suicide, sometimes multiple times. Vol. 3, at 542:6-543:2 (Hutchison); Vol. 3, at 609:5-17 (Stambough).

C. Widely accepted protocols for treating adolescents with gender dysphoria

143. Today, it is widely recognized in the medical and mental health fields that, for many people with gender dysphoria, the clinically significant distress caused by the condition can be relieved only by living in accordance with their gender identity, which is referred to as gender transition. This can include social transition—e.g., dressing, grooming, and using a name and pronouns consistent with one’s gender identity—and, for adolescents and adults, may also include gender-affirming medical care—i.e., medical treatments to align the body with one’s gender identity. Vol. 1, at 111:1-18 (Karasic); Vol. 1, at 197:16-20, 232:23-233:5 (Adkins); Vol. 2, at 324:18-325:3 (Turban).
144. Gender transition is a process that only transgender people undergo. *See* Vol. 1, at 24:21-23, 26:20-27:3, 111:1-18 (Karasic).
145. Psychotherapy can be important for individuals with gender dysphoria to address and alleviate comorbidities such as depression and anxiety, but it does not alleviate the underlying distress due to the incongruence between a person’s gender identity and birth-assigned sex. Vol. 1, at 29:16-20, 64:1-7 (Karasic). There are no psychotherapeutic interventions that have been demonstrated to be effective at alleviating the gender dysphoria itself. Vol. 1, at 99:22-100:3 (Karasic).
146. Two professional associations, the World Professional Association for Transgender Health (WPATH) and the Endocrine Society, have published widely accepted clinical practice guidelines for the treatment of gender dysphoria. Vol. 1, at 31:11-22, 33:22-34:1 (Karasic).
147. Clinical practice guidelines are summaries of evidence and recommendations for treatment developed by professional organizations to guide clinicians based on the best available evidence. Vol. 2, at 369:2-10 (Antommara).

148. WPATH is a professional association that develops treatment recommendations through a committee of well-renowned experts in transgender health. Vol. 1, at 31:23-25, 32:13-18 (Karasic). WPATH has been publishing guidelines for the treatment of gender dysphoria and prior diagnoses related to gender incongruence since 1979. Its current version—the WPATH Standards of Care for the Treatment of Transgender and Gender Diverse People, version 8—was published in 2022. Vol. 1, at 31:17-22 (Karasic).
149. The Endocrine Society is a professional society of over 15,000 endocrinologists and endocrinology researchers. Vol. 2, at 383:11-14 (Antommara).
150. The Endocrine Society first published guidelines for the treatment of gender dysphoria in 2011 and a second edition in 2017. They are called Endocrine Treatment of Gender-Dysphoric/Gender-Incongruent Persons: An Endocrine Society Guideline. *See* Vol. 1, at 31:17-22, 33:12-17 (Karasic).
151. The Endocrine Society guideline for treatment of gender dysphoria is similar to other clinical practice guidelines published by the Endocrine Society concerning other medical treatments. Vol. 1, at 198:10-16 (Adkins).
152. Like other clinical practice guidelines, the WPATH and Endocrine Society guidelines were developed by experts in the field, including clinicians and researchers, who used systematic processes for collecting and reviewing scientific evidence. Vol. 1, at 32:13-18, 102:14-103:2 (Karasic).
153. Both WPATH and the Endocrine Society, like other large medical and mental health associations such as the American Psychiatric Association, develop guidelines for treatment as well as advocate for policies relevant to their patient populations. Vol. 1, at 104:25-105:21 (Karasic).
154. The WPATH and Endocrine Society guidelines for the treatment of gender dysphoria are recognized as best practices by the major medical and mental health professional associations in the United States, including the American Academy of Pediatrics, the American Psychiatric Association, the American Psychological Association, the American Medical Association, and the American Academy of Child and Adolescent Psychology. Vol. 1, at 34:2-12 (Karasic).
155. The WPATH and Endocrine Society guidelines are widely followed by clinicians. Vol. 1, at 34:13-19 (Karasic); Vol. 1, at 197:24-198:20, 273:5-8 (Adkins).
156. Under the WPATH and Endocrine Society guidelines, treatment for gender dysphoria differs depending on whether the patient is a prepubertal child, an adolescent, or an adult. Vol. 1, at 35:20-37:13 (Karasic).
157. Under the WPATH and Endocrine Society guidelines, before puberty, treatment is focused on support for the child and family. Some prepubertal children may socially transition. No medical interventions are indicated or provided for the

treatment of gender dysphoria in prepubertal children. Vol. 1, at 36:5-10 (Karasic); Vol. 1, at 198:21-199:2 (Adkins).

158. Under the WPATH and Endocrine Society guidelines, for youth who experience distress after the onset of puberty (i.e., during adolescence), in addition to social transition, medical interventions such as medications to delay puberty (“puberty blockers” or “pubertal suppression”), hormone therapy, and in some more rare instances, surgery, may become medically indicated. Vol. 1, at 36:11-37:13; 38:19-39:1 (Karasic); Vol 1, at 199:3-12 (Adkins).
159. Under the WPATH and Endocrine Society guidelines, treatment decisions for adolescents with gender dysphoria are individualized based on the needs of the patient, and gender-affirming medical treatments are not indicated or appropriate for all adolescents with gender dysphoria. Vol. 1, at 43:9-12 (Karasic); Vol. 1, at 200:18-24 (Adkins).⁶
160. The use of gender-affirming medical treatments to treat adolescents suffering from gender dysphoria is not limited to the United States. Some countries, such as Sweden, Finland, and the United Kingdom, have practice guidelines that differ in some ways from the WPATH and Endocrine Society guidelines, but puberty blockers and hormone therapy are treatments that are provided to adolescents with gender dysphoria when indicated under these countries’ guidelines. Vol. 2, at 405:19-406:6 (Antommara); Vol. 2, at 323:11-12 (Turban); Vol. 5, at 938:14-939:3, 942:17-944:1, 945:6-25, 960:1-17, 961:11-25 (Levine).

The role of mental healthcare providers under the guidelines

161. Under the WPATH and Endocrine Society guidelines, mental health professionals work with adolescent patients to help them explore and understand their gender identity. WPATH’s guideline specifies: “We recommend health care professionals working with gender diverse adolescents facilitate the exploration and expression of gender openly and respectfully so that no one particular identity is favored.” Vol. 1, at 40:1-9 (Karasic).⁷
162. The WPATH and Endocrine Society guidelines provide for a comprehensive mental health assessment and diagnosis before an adolescent is provided gender affirming medical treatment. Vol. 1, at 43:13-44:13, 155:17-22 (Karasic); Vol. 2, at 322:10-19 (Turban).

⁶ As with clinical practice guidelines in other areas of medicine, the WPATH guideline recognizes that it may be appropriate for doctors to deviate from the guidelines in individual cases where, in the clinician’s judgment, such deviation is appropriate. Vol. 1, at 35:11-19, 187:5-188:15 (Karasic).

⁷ Quotes from the WPATH guideline refer to version 8, the current edition.

163. The WPATH guideline spells out that the comprehensive mental health assessment prior to medical treatments for adolescents should include a thorough history of the person's gender identity and the stability of that identity; an assessment of other conditions that could affect presentation like a co-occurring psychiatric disorder; and the adolescent's cognitive maturity to make decisions and understand the future consequences of those decisions and their capacity to participate in care. Vol. 1, at 43:13-45:2 (Karasic).
164. The WPATH guideline provides that any co-occurring mental health conditions should be addressed. Vol. 1, at 48:17-21 (Karasic); Vol 1, at 199:21-24 (Adkins).
165. The WPATH guideline recognizes that autism spectrum disorder is present in higher rates among youth with gender dysphoria and that this needs to be considered when diagnosing and assessing a patient for treatment. WPATH's guideline recommends that when assessing patients who have autism spectrum disorder, more time may be needed and differences in communication should be taken into account. Vol. 1, at 48:6-16 (Karasic).
166. The WPATH and Endocrine Society guidelines recommend that mental health professionals should be involved in decisions about whether medical treatments are indicated and appropriate for a given adolescent. Vol. 1, at 45:23-46:9; 47:1-7 (Karasic); Vol. 2, at 307:13-22 (Turban). WPATH's guideline specifically recommends that "health care professionals involve relevant disciplines, including mental health and medical professionals, to reach a decision about whether [medical interventions] are appropriate and remain indicated throughout the course of treatment until the transition is made to adult care." Vol. 1, at 45:23-46:9 (Karasic).

Guidelines concerning specific medical interventions

Puberty blockers

167. GnRH agonists (often referred to as puberty blockers) pause puberty at the stage it was in when treatment started. Vol. 1, at 202:23-203:16; 233:6-14 (Adkins).
168. Under the WPATH and Endocrine Society guidelines, puberty blockers may be indicated as treatment for gender dysphoria for youth who have been confirmed to have started puberty, which is referred to as Tanner stage 2. Vol. 1, at 205:3-15 (Adkins). The age at which youth begin puberty varies significantly but typically starts between the ages of eight and fourteen for those assigned female at birth and between the ages of nine and fourteen for those assigned male at birth. Vol. 1, at 211:8-21 (Adkins).
169. The purpose of puberty blockers is to alleviate or prevent the worsening of the distress of gender dysphoria by pausing the physical changes that come with puberty. This treatment also provides the patient time to further understand their gender identity before initiating any irreversible medical treatments. Vol. 1, at 233:9-22 (Adkins); Vol. 2, at 318:7-22 (Turban).

Hormone therapy

170. Under the WPATH and Endocrine Society guidelines, hormone therapy—estrogen and anti-androgens for transgender girls, and testosterone for transgender boys—may be indicated for some adolescents with gender dysphoria. Vol. 1, at 36:11-21 (Karasic).
171. The purpose of hormone therapy is to alleviate the distress of gender dysphoria by aligning the body to be more congruent with the individual’s gender identity. Vol. 1, at 37:23-38:2 (Karasic); Vol. 1, at 234:3-8 (Adkins); Vol. 2, at 417:21-418:9 (Antommara).
172. Transgender males⁸ treated with testosterone will go through hormonal puberty like their cisgender male counterparts. They will develop typically male secondary sex characteristics such as facial and body hair, a deeper voice, greater ability to develop muscle, and body fat distribution typical of males. Vol. 1, at 214:25-215:10 (Adkins).
173. Transgender females treated with estrogen and anti-androgens will go through hormonal puberty like their cisgender female counterparts. They will develop typically female secondary sex characteristics such as breasts, softened skin, and fat distribution typical of females. Vol. 1, at 215:11-18 (Adkins).
174. The WPATH and Endocrine Society guidelines do not recommend hormone therapy for adolescents with gender dysphoria unless the patient’s articulation of their gender identity has been long-lasting and stable. The WPATH guideline specifically provides that hormone therapy should be recommended to adolescents only if the experience of gender incongruence has lasted for years. Vol. 1, at 50:20-51:4 (Karasic).
175. The WPATH and Endocrine Society guidelines also require that, before providing hormone therapy, adolescents should demonstrate the emotional and cognitive maturity to understand the risks and be able to think into the future and appreciate the long-term consequences. Vol. 1, at 52:19-53:6 (Karasic); *see also* Vol. 2, at 400:22-401:15 (Antommara).
176. The WPATH guideline provides detailed guidance to clinicians about how to assess adolescents’ maturity. Vol. 1, at 58:17-59:8 (Karasic).

Chest masculinization surgery

177. The WPATH and Endocrine Society guidelines provide that chest masculinization surgery may be appropriate for some transgender male adolescents prior to age 18

⁸ “Transgender male” refers to a person who was assigned female at birth who has a male gender identity. “Transgender female” refers to a person who was assigned male at birth who has a female gender identity.

to help align the body with the individual's gender identity to alleviate gender dysphoria. There are no specific age requirements but, like the requirements for hormone therapy, the gender incongruence must be long-standing and the patient must be deemed to have the cognitive maturity to understand the risks and effects of this treatment. Vol. 1, at 158:11-23 (Karasic).

178. The overwhelming majority of surgeries for adolescents with gender dysphoria are chest surgeries for adolescent transgender males. Vol. 1, at 36:18-20 (Karasic).
179. With respect to genital surgeries for minors, the Endocrine Society guideline does not recommend any such surgeries until after age 18. Vol. 1, at 38:19-39:9 (Karasic). The WPATH guideline does not have an age threshold for vaginoplasty but recommends that it should be offered only to patients under 18 with great caution after a thorough assessment of the patient's maturity. It does not recommend phalloplasty for anyone under 18. Vol. 1, at 36:22-37:7, 38:8-18 (Karasic).
180. Genital surgeries for adolescents are extremely rare. Vol. 1, at 36:11-21, 55:10-16 (Karasic); Vol. 5, at 820:23-24 (Levine). In their many years of treating adolescents with gender dysphoria, neither Dr. Karasic nor Dr. Adkins has ever referred a minor patient for genital surgery. Vol. 1, at 186:23-25, 189:21-190:5 (Karasic); Vol. 1, at 231:17-19 (Adkins).

Informed consent

181. The WPATH and Endocrine Society guidelines have provisions for informed consent for treatment that are consistent with principles of informed consent used throughout the field of medicine. Vol. 2, at 401:4-15 (Antommara).
182. In general, before any medical treatment is provided to a patient, the health care provider must obtain informed consent. Informed consent means patients—and in the case of minors, their parents or guardians—are informed of the potential risks, benefits, and alternatives to treatment so they can weigh them and decide whether to pursue treatment. Vol. 1, at 53:7-13 (Karasic); Vol. 2, at 380:10-19 (Antommara).
183. In general, adolescents are able to understand the risks, benefits, and alternatives to a medical intervention. Vol. 2, at 381:1-8, 381:18-22 (Antommara). The assent of adolescents—meaning their agreement with the proposed course of treatment—should be obtained. Vol. 2, at 380:20-381:8 (Antommara).
184. Even when adolescents are able to understand the risks, benefits, and alternatives to treatment and assent to treatment, their parents or guardians must still provide informed consent. Vol. 2, at 380:1-9 (Antommara).
185. The WPATH and Endocrine Society guidelines provide that, before gender-affirming medical treatments are provided to adolescent patients, the patient and their parents or guardians must be informed of the potential risks, benefits and

alternatives to treatment and consent must be provided by the parents or guardians. Vol. 2, at 400:11-401:3 (Antommara); *see also* Vol. 1, at 274:7-275:19 (Adkins).

186. For hormonal therapy, the WPATH and Endocrine Society guidelines specifically provide that patients and their parents or guardians must be informed of the potential impact of treatment on fertility and counseled on options for preserving fertility. Vol. 2, at 400:11-21 (Antommara); Vol. 1, at 53:25-54:12 (Karasic).
187. The WPATH guideline also provides that clinicians should inform families about the nature and limits of the evidence base regarding gender-affirming medical treatment for adolescents as part of the informed consent process. Vol. 1, at 55:7-16 (Karasic).
188. The WPATH guideline provides that, before any potentially irreversible medical treatments, families should be informed that some individuals may come to feel gender-affirming medical care is not a good fit for them as their feelings about their gender identity could change. Vol. 1, at 54:13-55:6 (Karasic).
189. In some cases, a mental health diagnosis may impair an individual's medical decision-making capacity, in which case treatment would be delayed. Vol. 2, at 382:7-11 (Antommara); Vol. 2, at 321:12-322:3 (Turban). Having a mental health diagnosis does not necessarily mean that an individual lacks medical decision-making capacity. Vol. 2, at 382:12-14 (Antommara). If a patient suffers from depression or anxiety, that does not mean they cannot consent to treatment. Vol. 2, at 414:2-11 (Antommara); Vol. 6, at 1056:3-22 (Lappert).

D. How gender-affirming medical care is provided to adolescents in Arkansas

190. The ACH gender clinic is the primary provider of gender-affirming medical care for adolescents with gender dysphoria in Arkansas. It has seen more than 300 patients since it opened in 2018. Vol. 3, at 516:13-517:1, 520:19-21 (Hutchison).
191. The ACH gender clinic's protocols⁹ are aligned with the WPATH and Endocrine Society guidelines. Vol. 3, at 518:20-23 (Hutchison); *see* Vol. 3, at 602:21-604:20 (Stambough).

⁹ In February 2022, leadership at ACH changed the protocols of the gender clinic to stop initiating gender-affirming medical care for patients under 18 who were not already receiving such treatment, while continuing such treatment for patients who were already receiving such care. Vol. 3, at 551:13-552:4 (Hutchison). The hospital sent a letter to patients' families informing them that the change was due to concern that Act 626 might go into effect in the near future and disrupt patients' care. Vol. 3, at 552:5-17 (Hutchison); Vol. 3, at 602:10-20 (Stambough). The clinic continues to provide hormone therapy to 81 patients under age 18. Vol. 3, at 602:21-603:4 (Stambough). Because the change in protocol was based on Act 626, Dr. Stambough expects that, if the law is permanently enjoined, the gender clinic will resume providing gender-affirming medical care for new patients. Vol. 3, at 603:5-10 (Stambough).

192. Gender-affirming medical treatments that may be provided to adolescents at the ACH gender clinic include puberty blockers, estrogen, testosterone blockers, and testosterone. Vol. 3, at 518:24-519:15 (Hutchison).
193. The ACH gender clinic creates individualized treatment plans tailored to the particular needs of each patient. Vol. 3, at 521:1-9 (Hutchison); Vol. 3, at 604:2-6 (Stambough).
194. At the ACH gender clinic, patients' parents are involved throughout the assessment process. Vol. 3, at 524:10-12 (Hutchison); *see* Vol. 3, at 604:12-20 (Stambough).
195. Not every adolescent patient seen at the ACH gender clinic requests or receives gender-affirming medical interventions. Vol. 3, at 522:4-11 (Hutchison); *see also* Vol. 3, at 604:21-606:19 (Stambough).
196. ACH gender clinic patients work with clinic staff and their therapists to explore their gender identity. Some patients who have come to the clinic with issues related to their gender identity eventually came to identify with their birth-assigned sex. Those patients did not receive medical interventions. Vol. 3, at 548:10-20 (Hutchison); Vol. 3, at 605:18-606:19 (Stambough).
197. Sometimes, ACH gender clinic staff do not feel some adolescent patients are ready for gender-affirming medical interventions and treatment will not be provided. Vol. 3, at 522:16-25, 539:18-22 (Hutchison).
198. Under the applicable WPATH and Endocrine Society Guidelines—with which the ACH protocols are aligned—pubertal delay would be considered for patients with gender dysphoria after they reach the Tanner 2 stage of puberty. Vol. 1, at 156:12-15 (Karasic).
199. Only four ACH gender clinic patients have been treated with puberty blockers. That is because most patients come to the clinic at older ages when such treatment would not be indicated. Vol. 3, at 519:12-15; 521:10-19 (Hutchison).¹⁰
200. The ACH gender clinic protocols provide that the following criteria must be met before initiating hormone therapy (estrogen and testosterone blockers for transgender girls, or testosterone for transgender boys) for adolescents:
 - a) the patient must be assessed by the clinic's psychologist;

The references to ACH gender clinic protocols throughout these findings of fact, unless otherwise specified, refer to the protocols in place prior to the February 2022 change.

¹⁰ Dr. Adkins' experience at the Duke gender clinic is similar—very few patients are treated with pubertal suppression because most patients are not seen at the clinic until they are older. Vol. 1, at 204:1-10 (Adkins).

- b) the patient must meet the DSM-5 criteria for gender dysphoria;
- c) the patient must have a consistent and persistent gender identity;
- d) the patient must be in counseling with a therapist;
- e) the patient's therapist must be consulted and must not identify any concerns about starting treatment;
- f) the patient must have the cognitive maturity to understand and weigh the risks and benefits of treatment;
- g) the patient's parent must provide informed consent;
- h) The patient must receive a medical assessment including baseline lab work;
- i) the patient must be 14 years of age or older.

Vol. 3, at 524:16-526:9, 529:25-530:14, 531:7-9 (Hutchison).

- 201. The psychological evaluation conducted by the ACH gender clinic psychologist is comprehensive and includes an assessment for gender dysphoria, the patient's degree of dysphoria and the specific sources of distress, and other psychological assessments (*e.g.*, for depression or anxiety) tailored to the patient's mental health needs. Vol. 3, at 526:18-527:12 (Hutchison).
- 202. The ACH gender clinic determines whether a patient's gender identity is persistent and consistent through information collected from the patient, the patient's parents, the patient's therapist, the clinic psychologist, and the clinic physician. Vol. 3, at 528:5-19 (Hutchison).
- 203. At the ACH gender clinic, it is common for clinic patients to have a long-standing transgender identity by the time they come to the clinic. The average length of time between when clinic patients first identify as transgender and when they first tell a parent is 6.5 years. Vol. 3, at 528:20-25 (Hutchison).
- 204. The ACH gender clinic has very rarely had patients who only recently discovered their gender incongruence. In those cases, the patient would not be considered for hormone therapy for some time because there would be a need to see if the patient's gender identity remained consistent and persistent over time. Vol. 3, at 529:1-13 (Hutchison).
- 205. At the ACH gender clinic, the assessment of the patient's maturity is based on information from the parents, the clinic psychologist, the clinic physician, and the patient's therapist. Vol. 3, at 539:4-17 (Hutchison).

206. Where patients do not demonstrate the maturity to understand the potential risks and benefits of treatment, the ACH gender clinic will defer medical treatment. Vol. 3, at 539:18-540:1 (Hutchison).
207. In cases in which an ACH gender clinic patient's therapist has expressed concerns about beginning hormone therapy, e.g., if they had concerns about the patient's maturity or mood stability, treatment was delayed. Vol. 3, at 530:15-531:6 (Hutchison).
208. At the ACH gender clinic, no minor is provided hormone therapy unless the patient, their parents, their doctor, the clinic psychologist, and the patient's therapist all approve treatment. Vol. 3, at 522:16-25, 530:15-531:14 (Hutchison).
209. At the ACH gender clinic, for those patients who are treated with hormone therapy, the average length of time between a patient's first visit to the clinic and the start of hormone therapy is about 10.5 months. Vol. 3, 529:18-24 (Hutchison).
210. The average age of beginning hormone therapy for ACH gender clinic patients is 16. Vol. 3, at 526:10-17 (Hutchison).
211. In the ACH gender clinic's informed consent process, the information provided to patients and their parents includes information about the possible risks and side effects of treatment, including potential risks to fertility related to hormone therapy and discussion of fertility preservation options. Vol. 3, at 531:15-532:18, 537:21-538:14 (Hutchison); Vol. 3, at 613:20-614:3 (Stambough).
212. The ACH gender clinic's informed consent process includes informing families about the limitations on what is known about the effects and risks of treatments. Vol. 3, at 533:3-11 (Hutchison); *see also* Vol. 3, at 604:12-19 (Stambough).
213. The ACH gender clinic's informed consent process is not just one conversation with patients and their parents but an ongoing process, starting at the first visit, of educating families about the potential treatments and providing opportunities for patients and their parents to ask questions. Vol. 3, at 533:12-23 (Hutchison).
214. For hormone therapy, the ACH gender clinic's informed consent process culminates in the doctor reviewing with the patient and their parents a document identifying the risks and other information about the treatment, and the patient and parents signing the document. Vol. 3, at 533:24-534:13, 574:15-17 (Hutchison).
215. Apart from ACH's gender clinic, the only two other Arkansas doctors known to provide any type of gender-affirming medical care to minors with gender dysphoria have provided hormone therapy to smaller numbers of minors. One of those doctors testified that she sees very few minor patients because once ACH's gender clinic opened, most minors were referred there for care. Vol. 4, at 773:6-19 (Cathey). Neither of these two providers has prescribed puberty blockers to treat gender dysphoria. Vol. 4, at 754:16-17 (Cathey); Vol. 4, at 749:3-5 (Ho).

216. The ACH gender clinic does not provide surgical treatments to patients. Vol. 3, at 605:8-11 (Stambough); Vol. 3, at 520:14-18 (Hutchison).

E. Efficacy of the treatments prohibited by Act 626

217. Decades of clinical experience have shown that adolescents with gender dysphoria experience significant positive benefits to their health and well-being from gender-affirming medical care. Vol. 1, at 67:8-12 (Karasic); Vol. 1, at 233:15-22 (Adkins); Vol. 2, at 298:7-18, 305:2-19 (Turban); Vol. 3, at 543:3-544:11 (Hutchison); Vol. 3, at 606:20-608:6, 609:22-610:1 (Stambough).
218. Clinical experience has shown that for many adolescents, gender-affirming medical care provides dramatic relief in gender dysphoria as well as decreased depression, anxiety, suicidality, and thoughts of self-harm. Vol. 1, at 62:9-20, 63:7-19 (Karasic).
219. Clinical experience has shown that some adolescents with gender dysphoria are able to come off of antidepressants and anti-anxiety medications after receiving gender-affirming medical care. Vol. 1, at 231:23-232:7 (Adkins).
220. Clinical experience has shown that many adolescents with gender dysphoria who had been withdrawn and unable to attend school or develop interpersonal relationships were able, after treatment, to return to school and flourish academically and socially. Vol. 1, at 62:21-63:6 (Karasic); Vol. 1, at 231:20-232:7 (Adkins); Vol. 3, at 543:3-544:11 (Hutchison); Vol. 3, at 606:20-608:6, 609:22-610:1 (Stambough). As Dr. Hutchison explained, after receiving gender-affirming medical care, she would see her adolescent patients start smiling and talking about the future for the first time. Vol. 3, at 543:3-20 (Hutchison).
221. Dr. Karasic has observed that his patients in psychotherapy have had less distress after starting gender-affirming medical care. He has also observed that his patients who have halted gender-affirming medical care but continue psychotherapy see an increase in symptoms of gender dysphoria. Vol. 1, at 63:20-64:7 (Karasic).
222. Clinical experience shows the long-term effectiveness of gender-affirming medical care. Vol. 1, at 64:8-65:19 (Karasic) (discussing patients he has seen for decades); Vol. 3, at 544:22-546:18 (Hutchison) (discussing reports from former patients who are now in their 20s).
223. In addition to substantial clinical experience, there is also a body of scientific research demonstrating the effectiveness of gender-affirming medical care in treating adolescents with gender dysphoria. Vol. 2, at 295:16-18, 298:7-18, 300:24-301:2, 301:5-17, 302:20-303:8, 303:22-305:1 (Turban); Vol. 1, at 68:15-69:14 (Karasic).
224. There are 16 scientific studies assessing the use of puberty blockers and hormone therapy to treat adolescents with gender dysphoria and this body of research has found these treatments are effective at alleviating gender dysphoria and improving

a variety of mental health outcomes including anxiety, depression and suicidality. Vol. 2, at 295:16-18, 298:7-18, 300:24-301:2, 301:5-17, 302:20-303:8, 303:22-305:1 (Turban); Vol. 1, at 68:15-69:14 (Karasic).

225. The studies evaluating the use of puberty blockers to treat gender dysphoria saw improvements in mental health or that patients did not experience worsening of mental health as is typically the case when children with gender dysphoria go through puberty. Vol. 2, at 299:5-301:2, 318:5-22 (Turban).
226. The studies evaluating the use of hormone therapy to treat adolescents with gender dysphoria had findings similar to the results of dozens of studies of gender-affirming hormones for adults—both sets of studies found significant improvements in mental health. Vol. 2, at 302:20-303:21 (Turban).
227. There have been fewer studies of adolescents who have received chest masculinization surgery, which is not common. The studies that have been done found that this intervention improved patients’ mental health and well-being. Vol. 2, at 295:11-21, 304:22-305:1 (Turban).¹¹
228. Conclusions cannot be drawn from any single study (in any area of medical research), but the body of medical research as a whole shows that gender-affirming medical treatments are effective at improving mental health outcomes for adolescents with gender dysphoria. Vol. 2, at 300:21-301:2 (Turban).
229. While both clinical experience and research demonstrate that gender-affirming medical care can significantly improve the mental health of patients, that care does not necessarily fully resolve all psychological comorbidities, which may persist due to years of suffering from gender dysphoria and/or the stigma and discrimination experienced by transgender people in society, referred to in the scientific literature as “minority stress.” Vol. 1, at 47:16-25 (Karasic); Vol. 3, at 544:12-21 (Hutchison). Thus, studies comparing the mental health of transgender people treated with gender-affirming medical care to the general population of non-transgender people show that the transgender group continues to have higher rates of mental health issues. Vol. 3, at 582:2-6, 583:20-25 (Hutchison).
230. The evidence base supporting gender-affirming medical care for adolescents is comparable to the evidence base supporting other medical treatments for minors. Vol. 2, at 389:25-390:3; 409:9-15 (Antommara).
231. The quality of the evidence supporting gender-affirming medical interventions for adolescents with gender dysphoria is comparable to the quality of evidence supporting many other medical treatments. Vol. 2, at 303:16-21 (Turban); Vol. 2, at 378:13-21, 394:19-395:1, 409:16-22 (Antommara).

¹¹ There are no studies on genital surgeries on minors with gender dysphoria since such treatment is rare. Vol. 1, at 36:11-21, 55:7-16 (Karasic).

232. In medical treatment guidelines such as the Endocrine Society guideline, evidence may be graded, with randomized controlled clinical trials (studies where participants are randomly assigned to either an intervention group or a control group) generally constituting the highest quality of evidence. Vol. 2, at 360:8-22, 363:6-9 (Antommara). All other types of evidence, including cross-sectional studies (studies evaluating individuals who received treatment and those who did not at one point in time) and longitudinal studies (studies that evaluate participants both before and after treatment over time), are generally categorized as “low quality” evidence. Vol. 2, at 373:8-10 (Antommara), Vol. 8, at 1272:17-1273:19 (Hruz). Individual case reports of clinicians fall within the category of “very low” quality evidence. Vol. 2, at 373:11-13 (Antommara); Vol. 8, at 1272:17-273:13 (Hruz).¹²
233. The evidence supporting gender-affirming medical care for adolescents with gender dysphoria includes scientific studies that are cross-sectional and longitudinal as well as clinical experience. Vol. 2, at 295:22-296:8, 299:5-14, 305:2-19 (Turban).
234. There are no randomized controlled clinical trials evaluating the efficacy of gender-affirming medical care for adolescents. Vol. 2, at 296:9-13 (Turban). Such research is not possible because it would not be ethical or feasible to have a study in which a control group is not provided treatment that is known from clinical experience and research to benefit patients. Vol. 2, at 296:14-297:3 (Turban); Vol. 2, at 363:13-364:5, 385:23-386:7 (Antommara). Additionally, it would not be possible to blind the studies to researchers and participants given the obvious physical effects of the treatments. Vol. 2, at 365:1-24, 387:16-388:2 (Antommara); Vol. 2, at 296:14-297:11 (Turban); Vol. 1, at 67:19-68:14 (Karasic).
235. It is common for clinical practice guidelines in medicine to make recommendations based on low or very low-quality evidence such as cross-sectional and longitudinal studies. Vol. 2, at 377:24-378:2 (Antommara); Vol. 8, at 1269:12-17 (Hruz).
236. The majority of the recommendations in all of the Endocrine Society’s clinical practice guidelines for pediatric conditions are based on low or very low-quality

¹² The Endocrine Society uses the GRADE system to evaluate the quality of evidence. This is a widely used system in medicine. Low-quality evidence under the GRADE system means further research is very likely to have an impact on the magnitude and confidence of the estimated effect of treatment. It does not mean that the treatment is likely to be determined to be ineffective or unsafe in the future. Vol. 2, at 374:25-376:14 (Antommara). Under the GRADE system, strong recommendations mean that individuals receiving care will, on average, derive more benefit than harm from the treatment, and weak recommendations mean more careful consideration of a person’s circumstances, values, and preferences is needed to determine the best course of action. A weak recommendation does not mean that the benefits do not outweigh the harms of treatment. Vol. 2, at 384:13-385:8 (Antommara).

evidence or are ungraded good practice statements. Vol. 2, at 378:13-379:1 (Antommaria).

237. In medicine, clinicians frequently rely on low-quality evidence in making treatment decisions because it is the best or most appropriate type of evidence. Vol. 2, at 363:13-18, 366:21-367:13 (Antommaria).
238. Randomized controlled clinical trials often are not appropriate for the type of research question, or not possible due to costs, ethical constraints, and limited availability of participants. Additionally, in some cases it is not possible to mask researchers and participants to whether they are in the group receiving the treatment being tested. Vol. 2, at 363:13-368:4, 378:13-21, 385:14-15 (Antommaria).¹³
239. Limiting medical treatment to only those supported by randomized controlled trials would significantly limit treatments that are routinely administered and have a substantial negative effect on patient welfare. Vol. 2, at 368:11-20 (Antommaria).
240. Expert witnesses on both sides agreed that in medicine, clinicians do not always have the evidence they would like, but when patients are suffering, it is necessary to make treatment decisions based on the available evidence. Patients who are suffering cannot wait until more evidence is accumulated. Vol. 2, at 404:13-405:3 (Antommaria); Vol. 8, at 1270:7-10 (Hruz).
241. The treatments banned by Act 626 are widely recognized in the medical community, including by the major professional medical associations, as effective treatments for adolescents suffering from gender dysphoria, based on the clinical experience and scientific research. Vol. 1, at 34:2-12, 102:3-103:12 (Karasic).
242. There are no other evidence-based treatments besides those prohibited by Act 626 that are known to alleviate gender dysphoria. Vol. 2, at 326:16-327:5 (Turban).

F. Potential risks and side effects of the prohibited treatments

243. All medications have risks and benefits. Vol. 8, at 1259:15-18 (Hruz); Vol. 2, at 401:4-15, 421:7-17 (Antommaria).
244. As with other medical treatments, gender-affirming medical treatments can have potential risks and side effects that must be weighed by patients and their parents after being informed of those risks and side effects by their doctors. Vol. 2, at 390:4-392:4, 394:24-395:3, 400:11-21, 401:4-15 (Antommaria).

¹³ For example, one of the State's experts, Dr. Lappert, performs surgeries on patients that are supported only by his own anecdotal experience of the treatment being effective, which he recognizes is the lowest-level evidence, whereas longitudinal studies can provide greater confidence. Vol. 6, at 1054:12-1055:1 (Lappert).

245. The risks of gender-affirming medical care are not categorically different than the types of risks that other types of pediatric healthcare pose. Vol. 2, at 390:24-391:6 (Antommara).

Puberty blockers

246. GnRH agonists that are used to delay puberty as treatment for gender dysphoria are also used to treat other conditions, including central precocious puberty. Central precocious puberty is puberty that starts earlier than the typical age for the start of puberty. Vol. 1, at 204:11-18 (Adkins); Vol. 8, at 1223:6-10 (Hruz).
247. Decades of clinical experience and research on the use of puberty blockers, both for treatment of central precocious puberty and gender dysphoria, have shown this treatment to be safe. Vol. 1, at 212:25-213:2 (Adkins).
248. Patients on puberty blockers for precocious puberty are, on average, treated for a longer period of time than gender dysphoria patients. Vol. 1, at 210:19-211:7 (Adkins). Precocious puberty can occur when a child is as young as two, requiring treatment to sometimes last nine years, and typically, six or seven years. For gender dysphoria, pubertal suppression treatment typically does not last for more than three or four years. This is the case at the ACH gender clinic. Vol. 2, at 210:19-211:7 (Adkins); Vol. 3, at 540:2-542:5 (Hutchison).
249. An expected effect of puberty blockers is the delay of rapid accrual of bone mineralization that occurs during puberty.¹⁴ Vol. 1, at 205:16-207:12 (Adkins); Vol. 2, at 390:8-16 (Antommara). Once puberty blockers are stopped and puberty resumes—either the person’s endogenous puberty or an exogenous puberty prompted by hormone therapy—the accrual of bone mineralization increases at the usual pubertal rate. Vol. 1, at 209:2-210:1 (Adkins).
250. Generally, a patient will reach the normal range of bone density within “two to three years after [a patient is] on either gender-affirming hormones or go[es] through [endogenous] puberty.” Vol. 1, at 210:2-7 (Adkins).
251. There have been some patients who do not achieve full bone density after treatment with puberty blockers. These patients tend to have had low bone density and risk factors for low bone density to begin with. Such risk factors include a family history of osteoporosis, low Vitamin D status, low physical activity, poor nutritional status, or low weight. Vol. 1, at 210:8-18 (Adkins).

¹⁴ While patients are on puberty blockers, they continue to accrue bone mineralization at prepubertal rate. Vol. 1, at 209:2-13 (Adkins).

252. Puberty blockers are fully reversible.¹⁵ If an adolescent discontinues such treatment, endogenous puberty will resume. *See* Vol. 1, at 206:13-17, 208:21-209:1 (Adkins).¹⁶
253. If a patient treated with puberty blockers stops treatment and resumes their endogenous puberty, the medication has no impact on fertility. Vol. 1, at 208:21-209:1, 222:25-223:1 (Adkins).

Hormone therapy

Masculinizing hormone therapy

254. Testosterone is used to treat cisgender adolescent male patients for a number of conditions including delayed puberty, hypogonadism (where the brain does not tell the body to go through puberty), and micropenis. Vol. 1, at 213:11-19 (Adkins); Vol. 8, at 1248:19-1249:2 (Hruz).
255. Risks associated with taking testosterone, regardless of the condition for which it is used or the birth-assigned sex of the patient, include changes in cholesterol profile and blood thickness (hematocrit) to the typical male range. Vol. 1, at 215:19-216:20, 217:4-9, 221:10-222:2, 278:8-12 (Adkins); Vol. 2, at 390:20-23 (Antommara); Vol. 8, at 1249:23-1250:8 (Hruz).
256. When treatment is monitored by a doctor to ensure appropriate therapeutic levels, adverse health effects are rare. Vol. 1, at 220:25-221:9 (Adkins).
257. When birth-assigned females are treated with testosterone, it can impact fertility. Vol. 1, at 216:21-217:3 (Adkins).
258. Treatment with testosterone does not necessarily cause infertility. Some transgender men conceive children while taking testosterone and patients are therefore advised by doctors that they should not consider testosterone to be

¹⁵ For transgender female patients, starting puberty blockers at Tanner 2, by limiting genital growth, could limit the types of genital surgery available to them if they seek such treatment later in life. But there are options available to address this issue and it is something to be discussed with patients and parents before treatment. Vol. 1, at 230:17-231:9 (Adkins).

¹⁶ The State's expert witness, Dr. Levine, asserts that there are potential psychosocial harms of delaying puberty beyond when their peers are going through puberty. Vol. 5, at 826:19-827:19 (Levine). But Dr. Adkins, the only expert witness who has treated gender dysphoria patients with puberty blockers, testified that when blockers are used to treat gender dysphoria, patients go through puberty within the normal age range, albeit within the latter part of that range. Vol. 1, at 211:8-21 (Adkins). At the ACH gender clinic, puberty blockers are provided in the same way and patients go through puberty within the same age range as their peers. Vol. 3, at 538:15-19 (Hutchison).

contraception. And many transgender men are able to conceive after temporarily stopping hormone therapy. Vol. 1, at 216:14-20, 223:2-20 (Adkins).

259. Because testosterone may impair fertility for some individuals, patients and their parents are advised of the risks and fertility preservation options are discussed. Vol. 1, at 226:5-22 (Adkins).
260. If testosterone therapy follows treatment with puberty blockers at Tanner 2 such that the ovaries never develop, it can cause infertility. This is discussed with patients and parents prior to initiating treatment. If maintaining fertility is important to the family, there are ways to manage treatment to preserve fertility, for example, by delaying the start of puberty blockers until a later stage of puberty or temporarily stopping blockers to allow ovaries to develop. Vol. 1, at 225:12-226:4; 226:5-22. (Adkins).
261. Testosterone does not have any adverse impact on sexual function. Vol. 1, at 230:3-5 (Adkins); Vol. 8, at 1263:8-13 (Hruz). In fact, it is sometimes provided to cisgender women to stimulate sexual desire. Vol. 8, at 1263:8-13 (Hruz).

Feminizing hormone therapy

262. Hormone treatments used to treat transgender females with gender dysphoria—estrogen and anti-androgens—are used to treat many other conditions. Vol. 1, at 203:1-25 (Adkins).
263. Estrogen is used to treat cisgender adolescent girls for a number of conditions including delayed puberty, ovarian failure, and Turner Syndrome (a congenital condition that prevents puberty from occurring). Vol. 1, at 214:3-11 (Adkins); Vol. 3, at 632:10-13 (Stambough); Vol. 8, at 1257:22-1258:10 (Hruz).
264. Anti-androgens are used to treat cisgender adolescent girls and women with polycystic ovarian syndrome and hirsutism. Vol. 1, at 213:20-214:2 (Adkins); Vol. 8, at 1245 10-25 (Hruz).
265. The risks of estrogen, regardless of the condition it is being used for and whether used on birth-assigned females or birth-assigned males, include blood clots (increasing stroke risk), lower hemoglobin levels, and increase in prolactin. Vol. 1, at 218:1-219:16 (Adkins); Vol. 8, at 1259:15-24, 1261:18-21. (Hruz).
266. The risks and side effects of anti-androgens, regardless of the condition it is being used for and whether used to treat birth-assigned females or birth-assigned males, include increase in potassium levels. Vol. 1, at 217:10-25 (Adkins).
267. When treatment with estrogen or anti-androgens is monitored by a doctor to ensure appropriate therapeutic levels, adverse health effects are rare. Vol. 1, at 218:1-219:16; 220:6-21 (Adkins).

268. Adverse health effects of feminizing hormone therapy tend to present only among those who use excessive and unmonitored amounts of estrogen. Vol. 1, at 278:13-279:8 (Adkins).
269. When estrogen is used to treat birth-assigned males, it can impact fertility. This is therefore discussed with patients and parents prior to initiating treatment and fertility preservation options are discussed. Vol. 1, at 219:17-220:12 (Adkins).
270. If feminizing treatment follows treatment with puberty blockers at Tanner 2 such that the testicles never developed, it can cause infertility. This is discussed with patients and parents prior to initiating treatment. If maintaining fertility is important to the family, there are ways to manage treatment to preserve fertility, for example, by delaying the start of puberty blockers until a later stage of puberty or temporarily stopping blockers to allow the testicles to develop. Vol. 1, at 225:12-226:22 (Adkins).
271. While feminizing hormone therapy for transgender females can increase sexual satisfaction, the use of estrogen and anti-androgens on birth-assigned males can limit sexual arousal. This is discussed with patients and parents prior to initiating treatment. For some transgender females with gender dysphoria, erections can cause significant distress and are not desired. For those patients for whom maintaining this type of sexual function is important, treatment can be managed to maintain that. Vol. 1, at 227:20-230:16 (Adkins).¹⁷

Chest masculinization surgery

272. The surgical risks of chest masculinization surgery are comparable to the risks related to other chest surgeries adolescents may undergo, including mastectomy or breast reduction for cisgender girls and gynecomastia surgery for cisgender boys. Vol. 2, at 391:10-392:16 (Antommara).¹⁸

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273. It is not uncommon for adolescents to undergo medical treatments that carry comparable or greater risks than gender-affirming medical care. Vol. 2, at 389:25-390:3, 394:20-395:3 (Antommara).

¹⁷ Puberty blockers started at Tanner 2 followed by feminizing hormones could affect ability to orgasm, but treatment can be provided to avoid or address that. Vol. 1, at 229:17-230:2 (Adkins).

¹⁸ Generally, patients are not able to breastfeed after chest masculinization surgery, which is not something most patients seek to be able to do. For those for whom breastfeeding is important, that is discussed and they can choose to delay surgery until after they have children. Vol. 1, at 232:13-22 (Adkins). Breastfeeding can also be impaired by other types of chest surgery cisgender adolescent girls may undergo. Vol. 2, at 391:10-392:10 (Antommara).

274. There are treatments for conditions other than gender dysphoria that can impair a minor's fertility, *e.g.*, treatments for certain rheumatologic conditions, kidney diseases, and cancers. Vol. 2, at 391:6-9; 417:8-12 (Antommara); Vol. 1, at 222:23:19-24 (Dr. Adkins). Some of these treatments are provided at ACH, when appropriate for the particular patient. Vol. 3, at 615:10-12 (Stambough). Patients and families are similarly informed of the risk and weigh it in deciding whether to undergo the medical treatment. Vol. 1, at 222:19-24, 227:2-5 (Adkins); Vol. 3, at 615:13-25 (Stambough).
275. With the exception of the potential risk to fertility, the risks associated with puberty blockers, testosterone, estrogen and anti-androgens are the same regardless of the condition for which they are being used and whether they are used to treat birth-assigned males or birth-assigned females. Vol. 2, at 206:18-21, 217:4-25, 219:13-220:2 (Adkins).
276. There is nothing about gender-affirming medical care for adolescents that makes the informed consent process inadequate to enable minor patients and their parents to make decisions about medical treatment. Vol. 2, at 401:6-15 (Antommara).

III. REGULATION OF MEDICINE IN ARKANSAS

A. The Arkansas State Medical Board Regulates the Practice of Medicine in Arkansas

277. The Arkansas State Medical Board (the "Board") is the state entity charged with regulating the practice of medicine in Arkansas. PX 9, at 42:7-11 (Embry). The Board's structure and functions are governed by the Arkansas Medical Practices Act ("AMPA"). PX 11, at Subchapter 3, pp. 21-25.
278. The Board's mission is "to protect the public and act as their advocate by effectively regulating the practices of medical doctors, osteopathic medical directors, physician assistants, medical corporations, respiratory therapists, occupational therapists, occupational therapy assistants, radiology practitioner assistants and radiologist assistants." PX 12; PX 9, at 45:9-25 (Embry). The Board regulates all of the roughly 19-20,000 healthcare professionals whom it licenses. PX 9, at 42:20-22, 43:19-25 (Embry).
279. The Board is authorized "to promulgate and put into effect such rules and regulations as are necessary to carry out the purposes of the Arkansas Medical Practices Act." PX 9, at 46:2-6 (Embry); PX 11, at Section 17-95-303(2), p. 23. While the Board typically enacts regulations pursuant to explicit statutory requirements or requests made by legislators, if the Board has a concern about how medical care is being provided in a particular field, it can also draft a rule regarding that subject and submit it to the legislature for approval. PX 9, at 46:15-47:21, 49:4-10, 49:20-505, 54:15-20, 62:25-63:19 (Embry).
280. The Board tries to enact regulations that are consistent with best practices in a particular field. PX 9, at 60:22-61:3 (Embry). The Board has worked with professional associations such as the Arkansas Medical Society in drafting rules,

reviewing their best practice guidelines and soliciting their expertise as professionals within their field. PX 9, at 59:8-60:21 (Embry). The Board may also look to national groups like the American Medical Association for information. PX 9, at 63:20-64:10 (Embry).

B. The Board Investigates and Disciplines Medical Providers for Unprofessional Conduct

281. The Board is authorized to investigate and discipline the medical practitioners whom it licenses for unprofessional conduct, including ethical violations as determined by the Board.¹⁹ PX 9, at 93:22-24, 96:6-976, 101:9-102:5 (Embry); PX 11, at Section 17-95-409(a)(1)-(a)(2), pp. 28-29. Investigations are often based on complaints filed with the Board. Sometimes issues come to the Board's attention through other means, such as the news. PX 9, at 43:9-18, 44:8-9, 72:21-74:18 (Embry).
282. The Board may, and does, investigate whether doctors are practicing their profession in a way that could endanger the public health or welfare. PX 9, at 72:6-18 (Embry); PX 11, at 17-80-106(c)(2), p. 2.
283. Failure to follow accepted medical practice can be a reason for investigation, and the Board considers accepted standards in a field of medicine when assessing whether there has been a violation of the AMPA. PX 9 at 81:16-19, 83:17-23 (Embry).
284. The penalties that the Board may impose for unprofessional conduct include revoking or suspending licenses, issuing reprimands, imposing probation under terms and conditions found to be in the best interest of the accused and the general public, and levying fines. PX 9 at 109:17-113:6, 114:3-115:3 (Embry); PX 11, at 17-95-410(e)(3), p. 29.

C. When issues arise concerning medical care, the Legislature and Board regulate care to protect the public; they do not prohibit care

285. When issues concerning particular medical care arise, the Legislature and the Board pass laws and regulations to address how care is provided; they do not prohibit medical treatments. PX 9, at 137:11-20 (Embry). For example:
 - a) When over-prescription of opioids resulted in the opioid epidemic and caused harm to the public in Arkansas, the Legislature passed the Chronic Intractable Pain Treatment Act. PX 9, at 126:8-127:11 (Embry); PX 11, at Section 17-95-701, pp. 34-35. Rather than categorically banning opioids, the law provides a system of incremental sanctions for doctors who

¹⁹ All states have medical boards that safeguard the practice of medicine by evaluating accusations of unprofessional conduct and taking disciplinary action against providers, including withdrawing their license. Vol. 2, at 402:17-20 (Dr. Antommaria).

overprescribe opioids, beginning with monitoring prescribing habits, then voluntarily surrendering a DEA license for a period of time, then suspending the physician's license, and finally revoking the license. PX 11, at 704(c)(1), p. 35.

- b) Doctors have faced discipline for improper prescription of opioids under this section, including monitoring and the surrender of their DEA licenses. PX 9 at 130:5-8, 130:20-131:18 (Embry).
- c) This system of incremental sanctions for improper prescription of opioids serves to effectively protect the public from harmful conduct. PX 9 at 131:19-22 (Embry).
- d) Because of serious risks related to gastric bypass surgery, the Legislature and Board established informed consent requirements before a doctor can perform gastric bypass surgery. PX 9, at 132:13-133:2 (Embry); PX 11 p. 95. Subsections A through M of Rule 27 mandate a lengthy list of various complications and information that the informed consent process must address. PX 9, at 133:23-134:6 (Embry). This includes 33 potential surgical complications, nutritional complications, psychiatric complications, eight pregnancy complications, and 22 additional complications. PX 9, at 134:7-135:20 (Embry). The rule further requires that licensees inform patients that there is no guarantee of weight loss or long-term weight management as a result of getting surgery, and that a lifetime of follow-up medical care is required. PX 9, at 135:4-20 (Embry).
- e) The informed consent provisions in the Board's regulation related to gastric bypass surgery effectively protect the public from harm. PX 9, at 136:6-14 (Embry).
- f) After the FDA concluded that it was "no longer reasonable to believe that oral formulations of [hydroxychloroquine] and [chloroquine] may be effective in treating COVID-19, nor [was] it reasonable to believe that the known and potential benefits of these products outweigh their known and potential risks," PX 15. the Arkansas Department of Health updated its guidance to indicate that this use "should be avoided" in hospital and outpatient settings. But the guidance noted that "Unapproved use (i.e. 'off label use') of these medications is left to the discretion of individual clinicians and their patients." PX 15.
- g) The Board has not considered passing a regulation prohibiting the use of hydroxychloroquine to treat COVID. PX 9, at 143:21-24 (Embry).
- h) The Board has received several complaints about a doctor inappropriately prescribing ivermectin to treat incarcerated people with COVID at a county jail. PX 9, at 78:8-79:14, 144:14-23 (Embry). The Board has not considered passing a rule prohibiting the use of ivermectin to treat

COVID-19. PX 9, at 148:13-16 (Embry); PX 18, at 81:21-82:21 (Branman).

- 286. Arkansas does not ban medical treatments for lack of randomized controlled clinical trials supporting their use. PX 9, at 206:23-207:4 (Embry).
- 287. Arkansas does not ban medical treatments with a limited evidence base. PX 9, at 205:9-206:6 (Embry).
- 288. Even where there are known risks of a treatment and no evidence of effectiveness, the Board leaves treatment decisions to patients and their physicians. PX 9, at 208:10-16 (Embry).
- 289. Arkansas does not ban medical treatments on the rationale that minors cannot provide informed assent. In Arkansas, parents usually have to consent to medical treatment for their minor children, and the decision about whether to undergo care is between the physician and the parent and the minor patient. PX 9, at 174:2-15 (Embry).

D. The Board Has Never Received Complaints Regarding Gender-Affirming Medical Care, and It Had Never Considered Regulating Gender-Affirming Medical Care

- 290. The Board is not aware of any minors in Arkansas who have been harmed by gender-affirming care. PX 9, at 227:17-22 (Embry).
- 291. The Board has never received a complaint regarding gender affirming medical care for minors or adults. PX 9, at 152:3-16 (Embry); PX 18, at 103:7-10 (Branman).
- 292. Since Embry became Executive Director in 2018, there has not been discussion about gender-affirming medical care for adults or minors at any Board meeting. PX 9, at 152:25-153:25, 217:2-6 (Embry).
- 293. Since Embry has been director, the Board has not considered passing a regulation concerning gender-affirming medical care. PX 9, at 154:2-6 (Embry). No one at the Board ever suggested to Embry that they saw a need for a regulation concerning gender-affirming medical care. PX 9, at 154:7-11 (Embry).

E. Any concerns about how individual doctors provide gender-affirming medical care to minors could be addressed by the Board's pre-existing mechanisms for investigating and disciplining doctors for unprofessional conduct

- 294. If doctors providing gender-affirming medical care to minors did not follow accepted standards in the field, the Board already had the ability to investigate and discipline a licensee for that conduct independent of Act 626. PX 9, at 210:10-20 (Embry). That is true whether the issue came to the Board's attention by a formal complaint or other means. PX 9, at 210:21-24 (Embry).

295. If there is an issue regarding the over-prescription of gender-affirming medical treatment, the Board can propose a regulation to address that, as it did for the over-prescription of opioids. PX 9, at 210:25-211:11, 211:25-212:10 (Embry).
296. If there are doctors providing gender-affirming medical treatments to adolescents without adequately informing them of the risks of those treatments, the Board could propose an informed consent regulation, as it did for gastric bypass surgeries. PX 9, at 212:11-21, 213:20-25 (Embry).

IV. ACT 626

A. The Text of Act 626

297. Act 626 provides that “A physician or other healthcare professional shall not provide gender transition procedures to any individual under eighteen (18) years of age,” PX 16, at Section 20-9-1502(a), and that “A physician, or other healthcare professional shall not refer any individual under eighteen (18) years of age to any healthcare professional for gender transition procedures.” PX 16, at Section 20-9-1502(b).
298. Act 626 defines “gender transition” as “the process in which a person goes from identifying with and living as a gender that corresponds to his or her biological sex to identifying with and living as a gender different from his or her biological sex.” PX 16, at 20-9-1501(5).
299. The Act defines “gender transition procedures” to include “any medical or surgical service, including without limitation physician’s services, inpatient and outpatient hospital services, or prescribed drugs related to gender transition that seeks to: (i) Alter or remove physical or anatomical characteristics or features that are typical for the individual’s biological sex; or (ii) Instill or create physiological or anatomical characteristics that resemble a sex different from the individual’s biological sex, including without limitation medical services that provide puberty-blocking drugs, cross-sex hormones, or other mechanisms to promote the development of feminizing or masculinizing features in the opposite biological sex, or genital or nongenital gender reassignment surgery performed for the purpose of assisting an individual with a gender transition.” PX 16, at 20-9-1501(6)(A).
300. Act 626 excludes services provided to individuals with disorders of sex development from its definition of “gender transition procedures.” Vol. 2, at 393:9-17 (Antommara); PX 16, at 20-9-1501(6)(B), 20-9-1502(c).²⁰

²⁰ Act 626 thus allows for procedures like feminizing genitoplasty, an irreversible procedure that is performed on infants and young children with differences of sexual development to make their genitals conform in appearance to typical genitals of their assigned sex. Vol. 2, at 393:11-394:1 (Antommara); Vol. 8, at 1319:14-19 (Hruz). The evidence supporting feminizing genitoplasty is characterized as very low-quality under the GRADE methodology. Vol. 2, at

301. Act 626 prohibits coverage of the banned medical care through the Arkansas Medicaid Program (PX 16, at 20-9-1503(d)) or private insurance. PX 16 at 23-79-164.
302. Section 20-9-1504 of Act 626 provides that “Any referral for or provision of gender transition procedures to an individual under eighteen (18) year of age is unprofessional conduct and is subject to discipline by the appropriate licensing entity or disciplinary review board with competent jurisdiction in this state.” PX 16, at 20-9-1504(a). The same section also authorizes the Attorney General to bring actions to enforce compliance with the Act. PX 16, at 20-9-1504(f)(1).

B. Background on the Passage of Act 626

303. HB1570 was first introduced for legislative consideration on March 9, 2021, and both houses of the Legislature passed the bill within less than a month. *See* PX 22; PX 23; PX 24; PX 25.
304. Arkansas Governor Asa Hutchinson vetoed HB1570 because he believed it created “new standards of legislative interference with physicians and parents as they deal with some of the most complex and sensitive matters concerning our youths.” He explained his concern that HB1570 “put[] the state as the definitive oracle of medical care, overriding parents, patients and health-care experts” and described the bill as a “vast government overreach.” The Governor added that “The leading Arkansas medical associations, the American Academy of Pediatrics and medical experts across the country all” opposed the bill, voicing concerns that “denying best practice medical care to transgender youth can lead to significant harm to the young person.”²¹ He also noted that HB1570 “does not grandfather in those young people who are currently under hormone treatment,” and that those adolescents would “be left without treatment” when Act 626 went into effect. PX 17.

394:2-6 (Antommara). There are many individuals who report harm as a result of feminizing genitoplasty, including a loss of sensation. Vol. 2, at 394:7-11 (Antommara). There is disagreement within the medical profession about whether feminizing genitoplasty should be done on individuals who cannot consent or assent. Vol. 2, at 394:12-18 (Antommara).

²¹ As noted by Governor Hutchinson, the Arkansas chapter of the American Academy of Pediatrics, the Arkansas Academy of Pediatrics, the American College of OB/GYN, the American Academy of Child Adolescent Psychologists, the American Academy of Child and Adolescent Psychiatry, the Arkansas Psychological Association, and other scientific and medical organizations all recognized the effectiveness and safety of gender-affirming medical care. PX 24, at 30:20-31:17, 32:4-19; PX 25 at 40:19-42:16. They opined that HB1570 would penalize medical providers for “simply following best medical practices to provide or even refer for appropriate effective care that is based in science and evidence,” cause immediate and irreversible harm to adolescents receiving care in-state, and limit physicians’ ability to refer youth to care supported by medical experts. PX 23, at 25:25-27:10, 27:11-21.

305. HB1570 was enacted into law as Act 626 on April 6, 2021, following the Legislature's override of Governor Hutchinson's veto. *See* PX 16, at 10; PX 26; PX 27. A simple majority of the Arkansas General Assembly overrode the Governor's veto within 24 hours.
306. During legislative consideration of HB 1570, legislators expressed their personal disapproval of gender transition. While HB 1570 was in the General Assembly, majorities in both chambers passed resolutions expressing their view that "gender reassignment medical treatments" are not "natural." HR 1018, 2021 Gen. Assemb., Reg. Sess. (Ark. 2021); SR 7, 2021 Gen. Assemb., Reg. Sess. (Ark. 2021).
307. Some proponents of HB1570 made additional statements indicating their personal opposition to gender transition. One legislator invoked the Bible to support the ban, quoting it for the propositions that "God created man in his own image, in the image of God he created them male and female," and that "a woman shall not wear anything that pertains to a man, nor a man put on a woman's garments. For all who do so are an abomination to the Lord your God." PX 22, at 12:9-21. Another asked "what if your child comes to you and says, 'I want to be a cow'?" PX 22, at 17:17-18. He added that "God made you like you are. . . . This is absolutely ridiculous. Change from a man to a woman? It'll never work." PX 22, at 18:4-10.
308. Arkansas State Representative Robin Lundstrum, the primary sponsor and architect of Act 626 (PX 28, at 253:25-254:1 (Lundstrum)), believes that gender transition is "always wrong." PX 28, at 158:5-9 (Lundstrum).²²
309. HB 1570 was just one of many bills in the Arkansas General Assembly targeting transgender people during the 2021 legislative session. Senate Bill 347 would have made it a felony for a healthcare provider to provide "gender reassignment services" to anyone under 18 years of age. Senate Bill 354 and Senate Bill 450, both of which passed and were signed into law, ban transgender students from participating in school sports in accordance with their gender identity. Another bill—HB 1749—would have provided that employees of public schools and colleges are not "required to use a pronoun, title, or other word to identify a student . . . as male or female that is inconsistent with the . . . student's biological sex." There were also bills aimed at shielding students from hearing about transgender people. Senate Bill 389 requires public schools to give parents notice and a right to opt their children out of any curriculum or school materials related to sexual orientation or gender identity. SR 7 included a provision that "every child deserves

²² Rep. Lundstrum has also made clear that she believes gender-affirming medical care is inconsistent with her personal faith (PX 28, at 157:22-25, 190:24-191:6 (Lundstrum); PX 32), and she believes that individuals can choose to stop being transgender (PX 28, at 154:11-25, 158:1-5 (Lundstrum)). Additionally, she has described gender-affirming medical care as "a joke and waste of time." PX 28, at 28:15-29:5, 225:12-19 (Lundstrum). And she has expressed animosity towards the LGBTQ community, agreeing with another Arkansas legislator's view that "LGBTQABCXYZ people are always the worst." PX 28, at 205:12-22, 205:25-206:7 (Lundstrum).

an education . . . free of . . . politicized ideas about sexual orientation and gender identity.” Other bills would have barred transgender people from using restrooms or other facilities that accord with their gender identity in schools and other public buildings. *See* HB 1882, HB 1905, *and* HB 1951.

C. Enforcement of Act 626

310. The Board is the licensing entity for physicians who are providing procedures prohibited by Act 626. PX 9, at 179:25-180:6, 180:11-14 (Embry). The Board is ready to field any complaints alleging violations of Act 626 as those arise. PX 9, at 182:13-19 (Embry).

311. If the Board receives a complaint that a doctor was providing gender-affirming medical care to an adolescent, the Board would follow the same general process that it uses for other complaints to determine whether the Act was violated. PX 9, at 182:4-12, 182:20-183:14 (Embry); PX18, at 108:3-110:3 (Branman).

312. Under the Act, the referral for or provision of gender transition procedures to a minor constitutes unprofessional conduct. PX 9, at 178:20-179:6 (Embry). If a doctor provided gender-affirming care prohibited by Act 626, the Board would have to make a finding of unprofessional conduct under the statute. PX 9, at 184:25-185:6 (Embry). The doctor would then be subject to discipline by the Board, including the potential revocation of their license to practice. PX 9, at 185:7-9, 185:22-186:2 (Embry).

V. THE HARMS TO PLAINTIFFS AND OTHERS SHOULD ACT 626 TAKE EFFECT

313. If Act 626 takes effect, adolescents whose parents and doctors agree that gender-affirming medical care is appropriate treatment for their gender dysphoria will be unable to receive that care in their home state and unable to get referrals from their doctors to receive care in other states.

A. Harms to adolescents with gender dysphoria who are unable to access gender-affirming medical care

314. For adolescents with gender dysphoria who need but are unable to access gender-affirming medical care, the harms are severe and irreparable.

315. Denying gender-affirming medical care to adolescents with gender dysphoria until they reach age 18 means their bodies would go through irreversible pubertal changes inconsistent with their gender identity. Vol. 1, at 234:18-235:7 (Adkins).

316. Delaying gender-affirming medical care when indicated puts patients at risk of worsening anxiety, depression, hospitalization, and suicidality. Vol. 1, at 236:11-19, 237:1-5 (Adkins); Vol. 1, at 111:19-112:3 (Karasic) (discussing patients who self-harmed, cut breasts or genitals, or attempted suicide when care was needed but delayed); Vol. 3, at 550:25-551:12 (Hutchison) (“I think forcing a child to have to

wait until 18, I just worry that some of these kids are going to hurt themselves.”). Requiring adolescents to wait until they reach age 18 to get care would subject these youth to additional years of preventable psychological distress. Vol. 3, at 550:25-551:12 (Hutchison).

317. Prohibiting gender-affirming medical care would leave adolescents with gender dysphoria and no evidence-based treatment options. Dr. Turban testified that:

It would be emotional to think about [gender-affirming medical care no longer being available to adolescents]. Because the reality is that we frequently in clinic have families that are coming to us with these young people who are really struggling with severe anxiety, depression, sometimes suicidal thoughts, sometimes their mental health is declining so dramatically that they can't go to school, and it's my job to tell families what the evidence-based approaches are to help their child. So if these treatments were not an option, I'd be left without any evidence-based approaches to treat this young person's gender dysphoria. Vol. 2, at 326:16-327:5 (Turban).

318. Dr. Stambough has clinically observed the impact on Arkansas adolescents with gender dysphoria who need but are unable to access care. After ACH changed its policy in February 2022 to stop initiating gender-affirming medical care for new patients given the possibility of Act 626 taking effect, she has had many patients for whom puberty blockers or hormone therapy are indicated who have been unable to access care elsewhere. Vol. 3, at 611:10-20 (Stambough). These patients are not handling the situation well and are experiencing anxiety and distress. Vol. 3, at 611:21-612:6 (Stambough). Some patients put sheets over their mirrors so they do not see themselves. They've become withdrawn. Vol. 3, at 612:20-613:5 (Stambough).
319. Some of Dr. Stambough's patients who need but are unable to access gender-affirming medical care have already socially transitioned and had legal name changes, and their peers do not know they are transgender. Thus, in addition to their concerns about not being able to get the treatment they need, they have safety concerns about the changes to their body outing them as transgender. Vol. 3, at 612:7-19 (Stambough).
320. Not all adolescents with gender dysphoria will make it to age 18 if they are unable to get gender-affirming medical treatment. Vol. 1, at 28:22-25 (Karasic) (testifying about adolescent patients with gender dysphoria who made suicide attempts); Vol. 1, at 236:14-25 (Adkins) (testifying about losing a patient to suicide); Vol. 3 at 612:20-613:15 (Stambough) (“I am not hyperbolic when I say that I have concerns that not every patient would be able to make it to 18.”); Vol. 3, at 549:12-18 (Hutchison) (testifying that she is “worried that we're going to lose some kids” if the law takes effect).

321. For those adolescents who are already being treated with puberty blockers or hormone therapy and who would be forced to discontinue treatment, experts on both sides agree that the harms are severe.
322. The State's expert, Dr. Levine, described the psychological impact of cutting off gender affirming medical care for those currently receiving it as "shocking" and "devastating". He went so far as to say he would expect doctors to "find a way" to help those patients, even providing treatment in violation of the law. Vol. 5, at 913:6-914:4, 914:24-915:12 (Levine) (suggesting doctors would provide care "privately . . . that you don't know about," "under the radar").
323. Adolescent patients whose hormone therapy is interrupted (e.g., due to family or other circumstances) experience great distress and sometimes self-harming or suicidal behavior. Vol. 1, at 110:6-25 (Karasic).
324. Discontinuing puberty blockers without providing gender-affirming hormone therapy would cause the patient to go through pubertal changes congruent with their sex assigned at birth (and incongruent with their gender identity), which would be permanent. Vol. 1, at 234:18-235:7 (Adkins).
325. Discontinuing testosterone in transgender males would cause a decrease in facial and body hair growth, a return to a more typically feminine body shape, and lower muscle mass, resulting in the body not being well-aligned with their gender identity. Vol. 1, at 235:8-17 (Adkins).
326. Discontinuing testosterone suppression and estrogen in transgender females would result in the patient's beard coming back, and shifts in body fat—less hips and chest—that do not align with their gender identity. Vol. 1, at 235:20-236:10 (Adkins).
327. For transgender youth in Arkansas, even the prospect of losing gender-affirming medical care has caused severe harms. *E.g.*, Vol. 3, at 549:4-11, 549:23-550:24 (Hutchison); Vol. 3, at 610:2-21 (Stambough); Vol. 2 at 441:15-24, 442:2-14 (Saxton).
328. After HB 1570 was introduced but before it was enacted into law, six or seven of the ACH gender clinic's patients were hospitalized for attempted suicide and additional patients were hospitalized at mental health facilities for suicidal ideation. Vol. 3, at 549:23-550:7 (Hutchison). Parents and patients reached out to clinic staff, panicked at the prospect of losing care, and clinic patients experienced an increase in anxiety scores. Vol. 3, at 549:4-11, 549:23-550:24 (Hutchison); Vol. 3, at 610:2-21 (Stambough).
329. After HB 1570 was introduced, the possibility of care being prohibited resulted in Parker Saxton going to such a "dark place" that his father started sleeping near him because of concern he might hurt himself. Vol. 2 at 441:15-24, 442:2-14 (Saxton).

330. If adolescents with gender dysphoria who need gender-affirming medical care are unable to receive that care from doctors, there is a risk they will resort to other means of accessing hormones and self-treat without the supervision of a doctor. This would put them at risk of serious adverse health consequences. Vol. 3, at 549:12-17 (Hutchison).
331. In addition to the immediate impact on transgender adolescents and their families in Arkansas, Act 626 would also affect youth by preventing further clinical trials from being conducted on gender-affirming medical care for adolescents, which defendants' experts agree is needed. Vol. 8, at 1318:12-1319:1 (Hruz); Vol. 5, at 916:15-23. (Levine).

B. Harms to families if adolescents cannot access gender-affirming medical care in Arkansas

332. Families of Arkansas adolescents who have seen the significant benefits of gender-affirming medical care to their children's well-being cannot bear the thought of them discontinuing care. *E.g.*, Vol. 2, at 463:12-20 (Jennen) (Without treatment, worries Sabrina would "withdraw[] back into the person that she was before she started [treatment], a person that was unhappy, that said things to her mother and I like, what's the point of life [and] I don't see a future for myself."). When Donnie Ray Saxton was asked how it would affect his son Parker if he had to stop care, he answered: "I'm not going to think about that. I just won't." Vol. 2, at 446:18-20 (Saxton).
333. Accessing care out of state is a considerable challenge with significant financial costs, and it is not something all families have the resources to do. Having to regularly travel out of state to take a child to doctor visits can be a great financial and logistical challenge to families. Vol. 3, at 675:15-677:5, 696:13-24 (Brandt); Vol. 2, at 462:20-463:11 (Jennen); Vol. 2, at 445:21-446:17 (Saxton); Vol. 3, at 652:11-657:11 (Dennis).
334. Amanda Dennis testified about the financial impact on the family, as well as the impact on the care of her other two children and an aging relative, her job, and Brooke's attendance at school if she and Brooke had to regularly travel out of state for medical care. Vol. 3, at 652:11-657:11 (Dennis).
335. Moving out of state can come at great personal cost—leaving jobs, schools, friends, extended families, and communities. *supra* § I(A)-(D). For some, like the Dennises, it would have significant implications for the care of an aging relative. Vol. 3, at 653:25-654:12 (Dennis). Lifelong Arkansans like the Jennens would have to leave the only state they have ever called home and start over somewhere new. Vol. 2, at 459:22-24; 460:19-461:7, 461:8-15; 462:5-19 (Jennen). For some, like Joanna Brandt, it would mean giving up her business and trying to figure out a way to make a living elsewhere. Vol. 3, at 676:10-18 (Brandt).

336. All of the plaintiff-parents regularly make medical decisions for all of their children. *Supra* § I(A)-(D). Act 626 takes this parental decision away from them with respect to gender-affirming medical care. Vol. 3, at 658:6-17 (J. Brandt); Vol. 2, at 457:12-14 (Jennen); Vol. 2, at 430:23-25 (Saxton); Vol. 3 at 649:15-17 (Dennis).

C. **Harms to doctors if they cannot provide or refer adolescent patients for gender-affirming medical care**

337. By requiring doctors to deny necessary gender-affirming medical care to adolescent patients, Act 626 would force them to watch their patients needlessly experience suffering that they have the ability to prevent. Vol. 3, at 548:25-549:18, 561:3-6 (Hutchison) (testifying about her fear about how Act 626 would affect her patients if it went into effect); Vol. 3, at 610:2-21, 612:3-613:15 (Stambough) (same); *see also* Vol. 2, at 326:16-327:5 (Turban). It would also prevent Arkansas doctors from making the referrals they need to appropriately care for their patients. *E.g.*, Vol. 3, at 616:1-5 (Stambough).
338. By stating that doctors who provide gender-affirming medical care are engaging in unprofessional conduct, Act 626 provides that doctors who provide such care may lose their medical license. PX 16, at 20-9-1504(a).
339. Dr. Levine, the State's expert, expressed concern about the possibility of doctors losing their licenses for continuing to provide gender-affirming medical care. He testified that would be "[d]raconian" and a loss of a community resource. Vol. 5, at 915:13-916:7, 917:16-918:11 (Levine).
340. Requiring doctors to discontinue gender-affirming medical care that they are currently providing to adolescent patients—and prohibiting them from referring those patients to obtain care elsewhere—is in conflict with their ethical obligation not to abandon patients under the AMPA. PX 14, at 20-6-202(a)(2); PX 9, at 244:2, 19-22; 244:23-24; 236:17-237:4 (Embry).
341. The AMPA provides that "healthcare providers are prohibited legally and ethically from abandoning a patient before treatment has been concluded." PX 14, at 20-6-202(a)(2); PX 9, at 244:2, 19-22; 244:23-24; 236:17-237:4 (Embry). Under this provision, if a doctor who is treating a patient has to stop care before treatment is concluded, the doctor has an ethical obligation to help the patient find care from another doctor. PX 9, at 199:13-20 (Embry).
342. Doctors can be disciplined by the Board for abandoning a patient in violation of 20-6-202. PX 9, at 201:5-9 (Embry). The Board recognizes the harms of abandoning patients prior to the completion of treatment. PX 9, at 237:23-238:3, 283:13-17 (Embry); PX18, at 130:18-19 (Branman).
343. Physicians currently providing gender-affirming medical care to adolescents in Arkansas are placed in an untenable position: engaging in unprofessional conduct by providing that care or referring their patients to other doctors, or engaging in

unethical conduct by abandoning their patients. *See* PX 9, at 236:12-237:4, 244:2-24 (Embry); PX 18, at 111:10-19, 113:16-114:9, 114:10-20, 120:13-23 (Branman).

344. Act 626’s prohibition of referrals for gender-affirming medical care also burdens doctors’ ability to provide information to their patients and their families. *See supra* § IV.A.

* * *

345. If Act 626 were to take effect, it would cause grave and irreparable harms to Arkansas adolescents with gender dysphoria, their parents who love them, and the doctors who dedicate their careers to taking care of them.

VI. ARGUMENTS MADE IN SUPPORT OF ACT 626

A number of reasons have been offered to justify prohibiting gender affirming medical care for adolescents, but none are supported by the evidence.

A. The assertion that there is a lack of evidence demonstrating efficacy of gender affirming medical care for adolescents

346. The legislative findings in Act 626 assert that there is insufficient evidence of the efficacy of gender affirming medical care for minors.²³ Some of the state’s expert witnesses—Dr. Levine and Dr. Hruz—offered opinions to that effect. *See, e.g.*, Vol. 5, at 833:12-16 (Levine); Vol. 8, at 1274:15-25 (Hruz). The Court does not credit these opinions because it finds that the evidence showed that decades of clinical experience in addition to a body of scientific research demonstrate the effectiveness of these treatments. For the same reason, the Court finds that the treatments banned by Act 626 are not “experimentation” on youth, as suggested by the Act’s title. ARK. CODE ANN. § 20-9-1501 (2021) (“Arkansas Save Adolescents from Experimentation (SAFE) Act”); Vol. 2, at 382:25-383:4 (Antommara); *see supra* § II.E.²⁴

²³ *See* PX 16, at 2:20-23 (legislative findings referencing a “lack of any long-term longitudinal studies evaluating the risks and benefits of using these drugs for the treatment of such distress or gender transition”); *id.* at 2:26-28 (stating that “no randomized clinical trials have been conducted on the efficacy or safety of the use of cross-sex hormones in adults or children for the purpose of treating such distress or gender transition”).

²⁴ The fact that use of medications to treat gender dysphoria is off-label—meaning not FDA-approved for this specific indication—does not mean the drugs are experimental. Vol. 5, at 930:14-17 (Levine); Vol. 2, at 399:14-19 (Antommara). Experts for both sides agreed that off-label use is commonplace in medicine and have themselves prescribed off-label medication to patients. Vol. 2, at 398:15-399:1, 399:14-19, 427:20-428:2 (Antommara); Vol. 5, at 929:22-

347. Dr. Hruz suggested that the Court should disregard the body of research showing benefits of gender affirming medical care for adolescents because it is low-quality research and the studies have methodological limitations such as lack of a control group or cross-sectional design. Vol. 8, at 1275:20-1277:4, 1277:18-1278:21, 1279:7-1280:22, 1291:14-1292:8 (Hruz).²⁵ The Court declines to do that. The Court finds that the quality of the evidence supporting gender affirming medical interventions for adolescents with gender dysphoria is comparable to the quality of evidence supporting many other medical treatments minors and their families may pursue, *see supra* § II.E. And while the Court recognizes that the studies on gender-affirming medical care for adolescents, like studies in all areas of medical research, have strengths and weaknesses, it does not credit Dr. Hruz's assessment that the entire body of research is therefore meaningless. That is because the Court finds that the body of research, taken as a whole, shows these treatments provide significant benefits to adolescents with gender dysphoria.²⁶

B. The assertion that the risks of gender-affirming medical treatments outweigh the benefits

348. The legislative findings in Act 626 stated that the “risks of gender transition procedures far outweigh any benefit at this stage of clinical study on these procedures.” PX 16, at 5:10-11. Some of the State's experts offered opinions to that effect. Vol. 5, at 844:20-845:12 (Levine); Vol. 8, at 1301:16-22 (Hruz). The Court does not credit this testimony, because it finds that this is refuted by the evidence presented at trial.
349. The evidence showed that for many adolescents the benefits of treatment greatly outweigh the risks. *See supra* §§ II.E and II.F.
350. The evidence showed that for many adolescents, gender-affirming medical care significantly alleviates the distress of gender dysphoria, improves their mental health, and enables them to engage in school and social activities. *See supra* § II.E.
351. The evidence showed that adverse health effects from gender-affirming medical care are rare when treatment is provided under the supervision of a doctor. *See supra* § II.E.
352. The evidence showed that the risks associated with the treatments prohibited by Act 626 are comparable to the risks associated with many other medical treatments

930:17 (Levine); Vol. 8, at 1319:2-4 (Hruz). Indeed, off-label use of drugs is both permitted and common in Arkansas. PX 9, at 137:21-25 (Embry).

²⁵ Dr. Hruz asserts that the rationale for the acceptance of gender affirming medical care for adolescents with gender dysphoria is a 2011 Dutch study which, like other studies, he critiques on methodological grounds. Vol. 8, at 1275:20-1277:17. But the evidence showed that support for these treatments comes from multiple studies and broad clinical experience. *See supra* § II.E.

²⁶ The Court also notes that Dr. Hruz was willing to rely on one of the studies he critiqued on methodological grounds in order to support his opinion. *See* Vol. 8, at 1296:25-1297:19 (Hruz).

that parents are free to choose for their adolescent children after weighing the risks and benefits. *See supra* § II.F.

353. There is nothing unique about the risks of gender-affirming medical care for adolescents that warrants taking this medical decision out of the hands of adolescent patients, their parents, and their doctors. *See supra* § II.F.

C. The assertion that adolescents should not be provided gender affirming medical care because transgender adults face challenges in life

354. Dr. Levine testified that gender-affirming medical care puts adolescents on a pathway to “a community of problems” including physical and mental health issues, social exclusion and discrimination experienced by transgender adults. Vol. 5, at 791:1-794:1, 830:2-831:8 (Levine). But the Court does not credit that opinion because it is not supported by the evidence presented at trial.
355. The premise of Dr. Levine’s opinion appears to be that being transgender can be prevented by denying adolescents gender-affirming medical care. To the contrary, the evidence showed that providing treatment for gender dysphoria does not cause a person to be or remain transgender and there is no treatment that can change a person’s gender identity. Vol. 1, at 29:13-20, 98:7-99:21 (Karasic).
356. The fact that transgender adults face elevated rates of physical and mental health issues due to stigma, discrimination, and having lived with gender dysphoria (Vol. 1, at 47:16-25 (Karasic)) is not a reason to deny treatment to adolescents with gender dysphoria; if anything, it supports the need for access to treatment.

D. The assertion that gender-affirming medical care is unnecessary because youth will naturally come to identify with their birth-assigned sex

357. The legislative findings in Act 626 state that most medical treatments for youth with gender dysphoria are “unnecessary” because studies “consistently demonstrate that the majority come to identify with their biological sex in adolescence or adulthood.” PX 16, at 2:2-6. The State’s expert witness, Dr. Levine, similarly asserted that studies show that the majority of children who are cross-gender identified who do not socially transition or receive hormones will, by adolescence, desist in their gender incongruence and return to living in accordance with their assigned sex. Vol. 5, at 803:16-804:12 (Levine). The Court does not credit this opinion because it finds that the evidence presented at trial shows that the youth affected by Act 626—those already in adolescence—are unlikely to come to identify with their birth-assigned sex.
358. The desistance studies relied on by Defendants to assert that gender incongruence will naturally desist for most youth were focused on prepubertal children and say nothing about the likelihood of gender incongruence desisting among adolescents, the group affected by Act 626. Vol. 2, at 311:1-11 (Turban); Vol. 1, at 88:2-89:6, 93:2-17 (Karasic).

359. The desistance studies relied on by Defendants do not even allow for the conclusion that most prepubertal children's gender incongruence will desist because those studies included gender non-conforming children who never identified as a sex different than their birth-assigned sex in the first place. In other words, they included children who were never transgender. That is because the diagnosis at the time the studies were conducted—Gender Identity Disorder in Childhood—did not include a cross-gender identification requirement for the diagnosis. Vol. 1, at 88:2-22 (Karasic). A child could be diagnosed if they exhibited strong cross-gender behavior without a transgender identity (i.e., feminine boys). *Id.* Most of these youth were gender non-conforming boys who grew up to be gay.²⁷ The current diagnosis for Gender Dysphoria in Children requires that the child show “a strong desire or insistence that they are the other sex.” Vol. 1, at 93:18-94:8 (Karasic); Vol. 2, at 312:1-11 (Turban).
360. “Watchful waiting” is an approach used by some health care providers with prepubertal children with gender dysphoria. It entails following prepubertal children with gender dysphoria and not encouraging social transition prior to puberty. It is not a recognized approach for adolescents with gender dysphoria because it is understood that, at that point, gender incongruence is unlikely to desist. Gender clinics that have used the “watchful waiting” approach for prepubertal children provided gender affirming medical care to patients whose gender dysphoria persisted past the onset of puberty. Vol. 1, at 96:21-98:6 (Karasic).
361. There is no evidence supporting the State's experts' suggestion that providing gender-affirming medical care causes youth to persist rather than desist in their gender incongruence. Adolescents with gender dysphoria are unlikely to desist whether or not they receive gender-affirming medical care. And youth do not receive medical treatment unless their gender incongruence has persisted into adolescence. Vol. 1, at 96:16-20, 99:4-25 (Karasic).
362. Defendants offered the testimony of a fact witness, Dr. Roger Hiatt, who testified that about 6 to 10 of the more than 200 youth with gender dysphoria who have been committed to the residential psychiatric facility where he works came to identify with their birth-assigned sex. Vol. 7, at 1095:24-1096:2, 1109:25-1110:8 (Hiatt). Because Dr. Hiatt did not treat their gender dysphoria—he only treated the other mental health conditions that prompted their hospitalization (Vol. 7, at 1112:18-1113:6 (Hiatt))—and did not offer context that would allow conclusions to be

²⁷ Dr. Levine, noting that many of the children in the desistance studies were “gender atypical children” who grew up to be gay, argued that supporting transition in youth is “trying to get rid of homosexual people.” Vol. 5, at 806:11-23 (Levine). The court does not credit this claim and, instead, credits the testimony of Dr. Karasic that to be diagnosed with gender dysphoria in childhood today, it requires more than gender nonconformity and that gender nonconforming children who grow up to be gay adults are not the same population as youth whose gender identity differs from their birth-assigned sex. Vol. 1, at 86:6-19, 88:2-89:6 (Karasic).

drawn about this group of patients, the Court does not find that this testimony supports the notion that desistance among adolescents with gender dysphoria is common. Dr. Hiatt's testimony was ultimately not relevant.

E. The assertion that youth are seeking gender-affirming medical care because of social influence

363. In declarations submitted to the Court in opposition to Plaintiffs' motion for a preliminary injunction, some of Defendants' expert witnesses suggested that youth are seeking gender affirming medical care as a result of social influence of peers and social media.²⁸ To support this assertion they pointed to (i) the increase in numbers of gender clinic patients, (ii) changes in sex ratios of clinic patients from predominantly birth-assigned boys to an increase in birth-assigned girls, and (iii) an article finding that some parents believed that their children were socially influenced to adopt a transgender identity. The Court finds that the evidence presented at trial does not support the conclusion that youth are accessing gender-affirming medical care because of social influence. The State's expert, Dr. Levine, testified that such a conclusion would be based on speculation, not science. Vol. 5, at 797:8-19 (Levine).
364. The increase in gender clinic patients is not surprising given the undisputed testimony that there is an increase in awareness of gender dysphoria and an increase in the number of gender clinics and insurance coverage for treatment, making such care available when it previously was not. Vol. 1, at 77:17-78:15, 79:3-79:10 (Karasic).²⁹
365. With respect to shifts in patient sex ratios, the predominance of birth-assigned males seen in gender clinics in decades past was a result of parents bringing feminine boys to gender clinics out of concern that they would grow up to be gay, whereas gender non-conforming girls did not raise such concerns in parents. Today, parents do not have the same reactions to feminine behaving sons, and the sex ratio of gender clinics is less skewed. Vol. 1, at 84:20-86:19 (Karasic).
366. The article referenced by the State's experts to support their claim of social influence is a paper by Dr. Lisa Littman in which she reports that parents of transgender-identified teenagers recruited from online communities opposed to gender transition say their children's transition was sudden and the result of social

²⁸ Defendants did not present evidence at trial to support the social contagion theory. But because Defendants maintain the position that rational basis review applies—which allows for consideration of rationales outside of the record, and because an appeal is anticipated, the Court makes findings of fact as to any justifications that have been advanced by the State as part of the litigation where there is record evidence from plaintiffs permitting such findings.

²⁹ There has also been an increase in the percentage of youth who identify as transgender or something other than cisgender on surveys. But the number of people who seek treatment for gender dysphoria is a small percentage of those who identify as non-cisgender on surveys. Vol. 1, at 82:25-83:12 (Karasic).

influence by peers or social media. However, the study did not interview the youth themselves. And as with lesbian and gay youth, many transgender youth take some time to disclose their gender identity to their parents, and seek support from LGBT friends and social media. Vol. 2, at 320:7-321:11 (Turban). Thus, while the parents' awareness of their child's gender transition may have been sudden, that does not mean it was a sudden development for the youth.

- 367. If any adolescents are seeking care at gender clinics because of social influence, they would not meet the criteria of gender dysphoria or be considered for gender affirming medical treatment unless they had a longstanding gender identity and clinically significant distress. Vol. 1, at 87:6-88:1 (Karasic).
- 368. There is no evidence supporting the claim that youth are receiving gender affirming medical care due to social influence.

F. The assertion that health care providers who provide gender-affirming medical care encourage youth to be transgender and provide medical treatment without appropriate assessment

- 369. The State's expert Dr. Levine testified that doctors who provide gender-affirming medical care to adolescents with gender dysphoria encourage patients to identify as transgender and provide hormones immediately without assessing patients and addressing other mental health conditions or informing patients and their parents of the risks and the limitations of the evidence regarding treatments. Vol. 5, at 809:18-810:4; 811:21-812:10; 824:5-14 (Levine). But he offered no evidence that treatment was being provided this way in Arkansas or anywhere in the United States. Such an approach would be in conflict with the WPATH and Endocrine Society guidelines and it is not how care is provided at ACH's gender clinic, the main provider of gender affirming medical care to gender dysphoric adolescents in Arkansas. *See supra* § II.D.³⁰
- 370. If there are individual doctors in Arkansas who are providing gender affirming medical care to adolescents in the way Dr. Levine describes, that can be addressed through existing legal mechanisms that regulate the practice of medicine without prohibiting all doctors from providing this care. *See supra* § III.B.

G. The assertion that adolescents will come to regret irreversible medical treatments

- 371. The State argues that adolescents who receive gender-affirming medical treatment will come to regret irreversible treatments. But the evidence shows that regret is rare.

³⁰ Dr. Levine admits that he has no knowledge of how most gender clinics provide care and, thus, does not know how common it is for care to be provided in the way he described. Vol. 5, at 887:19-888:25 (Levine). He also admitted that he does not know how care is provided by doctors in Arkansas. Vol. 5, at 888:24-891:16 (Levine).

372. There are some individuals who undergo gender-affirming medical treatment who later come to regret that treatment and, for some, it was because they came to identify with their birth-assigned sex (sometimes referred to as detransitioning). This can happen with individuals who medically transitioned as adolescents or as adults.³¹
373. Clinical experience shows that it is rare for individuals who have received gender-affirming medical care to regret treatment because they have come to identify as their birth-assigned sex. Vol. 1, at 72:11-18 (Karasic); Vol. 3, at 547:21-548:24 (Hutchison); Vol. 3, at 604:21-605:4 (Stambough); Vol. 5, at 920:25-921:5 (Levine).
374. In Dr. Karasic's clinical experience treating thousands of patients with gender dysphoria over 30 years, none of his patients came to identify with their sex assigned at birth after medically transitioning. Vol. 1, at 72:11-18 (Karasic). Some of Dr. Karasic's patients have halted their medical transition for other reasons such as lack of insurance coverage or fear of losing family support. Some of these patients later resumed their medical transition. None of his patients who stopped or paused medical transition did so because they came to identify with their sex assigned at birth. Vol. 1, at 72:19-73:17 (Karasic).
375. There have been no patients at the ACH gender clinic who received gender-affirming medical care and later indicated that they regretted treatment or detransitioned. This is true for both current patients and former patients who were contacted by the clinic years after treatment. Vol. 3, at 547:21-548:24 (Hutchison); Vol. 3, at 604:21-605:4 (Stambough).
376. In his more than 50 years seeing patients with gender dysphoria, the State's expert, Dr. Levine, was aware of only two patients who detransitioned. Vol. 5, at 920:25-921:5 (Levine).
377. There are few studies on rates of regret among those who received gender-affirming medical care, but the studies that exist show very low rates in the one to two percent range. Vol. 2, at 315:8-20 (Turban); Vol. 1, at 73:18-74:15 (Karasic).³²
378. There are few studies looking at rates of "detransition." That term does not have a consistent definition in the research and sometimes refers to discontinuing a gender-affirming medical treatment, which can occur for a variety of reasons such as lack

³¹ Detransition is taken seriously by WPATH and providers of care, and parents and patients are advised of the potential that patients may ultimately come to a different understanding about their gender later in life. Vol. 1, at 75:13-24 (Karasic).

³² Research shows that when an individual regrets receiving gender-affirming medical treatment, it does not necessarily mean that they no longer identify as transgender. For example, they could regret their medical transition because they have faced discrimination. Vol. 2, at 314:1-315:7, 315:21-316:7 (Turban).

of insurance coverage, harassment for being transgender, or coming to identify as one's birth-assigned sex. Vol. 2, at 312:20-313:7, 313:17-314:11 (Turban). A person may meet a study's definition of detransitioning but still identify as transgender. Vol. 2, at 314:12-20 (Turban).³³ These studies show that very few individuals came to identify as their birth-assigned sex. Vol. 1, at 94:9-23 (Karasic); Vol. 2, at 315:15-20 (Turban).³⁴ There is no data looking at changes in rates of detransition over time. Vol. 1, at 74:23-75:9 (Karasic).

379. Defendants presented the testimony of two fact witnesses—Billy Burleigh and Laura Smalts—who testified about their experiences transitioning as adults and subsequently detransitioning, and the regret they feel about their medical transitions. The Court finds these anecdotal experiences to be irrelevant to the issues to be decided.³⁵

380. That some patients will come to regret treatment is not unique to gender-affirming medical care and is common in medicine. Vol. 1, at 77:1-16 (Karasic).

H. The assertion that Act 626 is consistent with the approach to care of European countries

381. Defendants suggest that Act 626 is consistent with medical guidelines issued by “nations around the world.” *See* Defs.’ Trial Br. 21. Their experts referenced guidelines issued by government health authorities in Sweden, Finland and the United Kingdom. But the Court finds that the evidence showed that none of these guidelines have prohibited gender-affirming medical care for minors. Vol. 2, at 405:19-406:6, 406:20-407:24 (Antommara).

³³ For example, a study of 27,000 transgender people found that about 10% had detransitioned for some portion of their lives (and later retransitioned), and most said that they did so because of external factors such as discrimination. Vol. 2, at 315:21-316:7 (Turban).

³⁴ Dr. Levine initially testified that a study showed that 30% of participants who received gender-affirming medical treatments had detransitioned in the sense of coming to identify as their birth-assigned sex. Vol. 5, at 804:13-23 (Levine). On cross-examination, when confronted with the study he referenced, showing significantly lower numbers, he acknowledged that his testimony may be erroneous. Vol. 5, at 921:21-922:7, 924:12-25, 949:24-954:22 (Levine).

³⁵ The anecdotal experiences of any two individuals cannot refute the substantial clinical experience and research supporting the benefits of gender-affirming medical care to many adolescents. And these specific witnesses’ experiences are especially irrelevant to this case given that (i) they both transitioned as adults (Vol. 7, at 1156:13-21 (Smalts); Vol. 7, at 1199:3-17, 1200:9-14 (Burleigh)); (ii) neither was treated in Arkansas (Vol. 7, at 1157:2-11 (Smalts), Vol. 7, at 1210:15-23 (Burleigh)); and (iii) they both detransitioned as a result of a religious experience and continued to struggle with living consistently with their birth-assigned sex after deciding to detransition (Vol. 7, at 1158:2-13, 1159:2-1160:2 (Smalts); Vol. 7, at 1203:10-1206:3, 1206:16-1207:1, 1207:8-13, 1207:22-25 (Burleigh)).

382. In Sweden, Finland and the United Kingdom, gender-affirming medical care is provided to adolescents with gender dysphoria when indicated under their guidelines. For example, in Finland, the guidelines provide that hormone therapy can be provided to minors based on a thorough case-by-case consideration if it can be ascertained that the identity as the other sex is of a permanent nature and causes severe dysphoria. Vol. 5, at 938:23-939:3 (Levine). And in the United Kingdom, the National Health Service has expanded care from one central clinic to regional clinics to broaden access to care. Vol. 2, at 406:20-407:19 (Antommara).

I. The assertion that the medical support of gender-affirming medical care for adolescents with gender dysphoria is grounded in ideology rather than science

383. Defendants attempted to show, through the testimony of expert witness Prof. Mark Regnerus, that all of the major professional medical groups' support for gender-affirming medical care for adolescents with gender dysphoria is grounded in ideology rather than science. See Vol. 6, at 994:22-996:10, 1000:17-1001:1 (Regnerus). Prof. Regnerus' testimony did not offer any support for his conclusion and the Court finds that there is no evidence to support this assertion.³⁶

VII. ASSESSMENT OF EXPERT WITNESSES

A. Assessment of Plaintiffs' expert witnesses

Plaintiffs presented testimony of four expert witnesses—Dr. Dan Karasic, Dr. Deanna Adkins, Dr. Jack Turban, and Dr. Armand Antommara. Defendants did not challenge the qualifications of any of Plaintiffs' experts. The following is a summary of their qualifications:

384. Dr. Dan Karasic is a psychiatrist with over 30 years of experience treating thousands of patients with gender dysphoria, including hundreds of adolescents. He is a professor emeritus of psychiatry at the University of California-San Francisco, where he has been on the faculty since 1991. Dr. Karasic received his

³⁶ Dr. Levine also asserted that WPATH has become a political organization rather than a scientific organization because it does advocacy, stating that you can't be both a scientific organization and an advocacy group. Vol. 5, at 837:17-838:1 (Levine). But as other experts testified, it is common among professional medical organizations in the United States, such as the American Psychiatric Association, to advocate for the care that their patient populations need. Vol. 1, at 104:25-105:21 (Karasic). Additionally, the Court does not credit Dr. Levine's assertion that dissenting views about gender affirming medical care for minors are suppressed in the field. Vol. 5, at 839:1-17 (Levine). Dr. Karasic testified about the diversity of views presented at WPATH conferences. Vol. 1, 105:22-106:20 (Karasic). And Dr. Levine himself recently presented, alongside other presenters who have dissenting views, at an American Psychiatric Association conference in 2022. Vol. 5, at 925:16-926:23 (Levine).

medical degree from Yale Medical School and completed his residency at UCLA. Dr. Karasic was a co-author of the current and previous versions of the WPATH Standards of Care and was on the committee to revise the categories of gender identity disorders for DSM-V. He has trained over 1,000 health care providers in transgender health care, served as an expert consultant to organizations including the United Nations Development Programme, and given invited presentations around the world. Dr. Karasic has also published several books and scholarly articles on transgender health. In 2006, Dr. Karasic was given the honor of being named a Distinguished Fellow of the American Psychiatric Association. PX 2; Vol. 1, at 23:11-20 (Karasic).

385. Dr. Deanna Adkins is a pediatric endocrinologist with 22 years of experience since completing medical school at the Medical College of Georgia and her residency at the University of North Carolina Hospitals. Dr. Adkins is an associate professor of pediatrics at Duke University, where she has been on the faculty since 2004. She is the director of the Duke University Child and Adolescent Gender Care clinic. She has treated approximately 600 adolescent patients with gender dysphoria. Dr. Adkins also treats patients for a variety of other conditions requiring hormonal therapies, including differences of sexual development. PX 3; Vol. 1, at 195:25-196:21, 213:3-214:17 (Adkins).
386. Dr. Jack Turban is a child and adolescent psychiatrist whose work has focused on the treatment of patients with gender dysphoria. After completing medical school at Yale and his residency at Massachusetts General Hospital and McLean Hospital in Boston, Dr. Turban completed a fellowship in Child and Adolescent Psychiatry at Stanford University School of Medicine. Dr. Turban is an associate professor of child and adolescent psychiatry at the University of California, San Francisco School of Medicine where he treats adolescents and children with gender dysphoria. He also conducts scientific research on the mental health and treatment of adolescents with gender dysphoria and has published over 20 peer reviewed articles on the subject. PX 1; Vol. 2, at 292:10-293:6, 293:13-294:1 (Turban).
387. Dr. Armand Antommara is a pediatrician, pediatric hospitalist and bioethicist. He completed medical school at the Washington University School of Medicine and his residency at the University of Utah. He is currently the director of the Ethics Center at Cincinnati Children's Hospital Medical Center and a professor at the University of Cincinnati School of Medicine. As director of the Ethics Center, Dr. Antommara provides clinical ethics consultation and works with a variety of medical teams to address ethical issues that arise in the care that they provide, including the transgender clinic and the differences of sex development clinic. He has also published numerous scholarly articles on the subject of medical ethics. PX 4; Vol. 2, at 357:19-359: 11 (Antommara).

* * *

388. Having considered their extensive experience, heard their testimony in court, and observed their demeanor and responsiveness to questions asked by both sides and

the Court, the Court finds that all four of Plaintiffs' expert witnesses have deep knowledge of the subject matter of their testimony and are fully qualified to provide the opinion testimony they offered, and that they have provided credible and reliable testimony relevant to core issues in this case.

B. Assessment of Defendants' expert witnesses

Defendants presented testimony of four expert witnesses—Dr. Stephen Levine, Prof. Mark Regnerus, Dr. Patrick Lappert, and Dr. Paul Hruz. Plaintiffs challenged the qualifications of Prof. Regnerus and Dr. Lappert through *Daubert* motions and *voir dire* of the experts at trial. In addition, Plaintiffs raised issues relating to the reliability of the testimony of all of Defendants' expert witnesses. The Court makes the following findings concerning the Defendants' expert witnesses:

Dr. Stephen Levine

389. While Dr. Levine—a psychiatrist—was offered as an expert witness by Defendants, his testimony made clear that he does not support Act 626 and, to the contrary, he has concerns about the law. Vol. 5, at 911:15-912:2 (Levine).
390. Dr. Levine testified that he was concerned that requiring adolescents who are receiving hormone therapy for gender dysphoria to discontinue treatment would have “shocking” and “devastating” psychological consequences for them. He went so far as to suggest that doctors would violate the law to continue providing care for their patients under the radar. Vol. 5, at 912:3-913:5, 914:20-915:12 (Levine).
391. Dr. Levine opposed the idea of taking away doctors' licenses for providing the care prohibited by Act 626, saying that would be “draconian.” Vol. 5, at 915:13-916:7 (Levine).
392. Dr. Levine himself has written letters of authorization for hormone therapy for some patients under 18 and, going forward, would consider doing so on a case-by-case basis. Vol. 5, at 897:1-898:18, 900:21-902:15, 902:25-903:6 (Levine).
393. Dr. Levine offered opinions about how gender-affirming medical care is provided to minors, the WPATH guideline, and the risk of treatment regret. His central point that he seemed to try to make through his testimony is that he has concerns about the manner in which care is provided. However, the Court did not find these opinions to be reliable and does not credit them because Dr. Levine was unable to support them on cross-examination. Specifically:
 - a) Dr. Levine made repeated assertions about how gender-affirming medical care is provided to minors, testifying that doctors who provide gender-

affirming medical care to adolescents with gender dysphoria encourage patients to identify as transgender and provide hormones without assessing patients and addressing other mental health conditions or informing patients and their parents of the risks and the limitations of the evidence regarding treatments. Vol. 5, at 809:18-810:4, 811:21-812:4, 824:5-7; 842:13-843:13, 932:18-933:7 (Levine). But Dr. Levine admitted on cross-examination that he does not know how common it is for doctors to provide care the way he described, which is contrary to WPATH and Endocrine Society guidelines, and he has no idea how care is provided in Arkansas. Vol. 5, at 888:22-890:24, 933:2-7 (Levine).

- b) Dr. Levine testified that the WPATH Standards of Care issued about 10 years ago stated psychiatric assessment did not need to be done prior to medical interventions. Vol. 5, at 816:23-817:11 (Levine). But when asked on cross-examination if that was only the case with adult care because the WPATH guideline continues to require a mental health assessment for minors seeking hormone therapy,³⁷ Dr. Levine's response was "I hope so" but he said he "can't remember." Vol. 5, at 931:20-932:4. He then pivoted to once again suggest clinicians are not following the guidelines and asserting, without support, that clinicians who provide care lack the requisite credentials to do a mental health assessment. Vol. 5, at 931:20-932:22 (Levine) ("these are words that I read, but it's the translation of words into action is the issue. And who is a mental health professional and what credentials and what level of experience and what understanding of this disorder do they have, and how much do they know about the state of science?").
- c) Dr. Levine testified that a study found that 30% of participants detransitioned after receiving gender-affirming medical care. Vol. 5, at 804:13-23 (Levine). But on cross-examination, when confronted with the study (which showed that the figure was under 10%), he acknowledged that his testimony may have been incorrect. Vol. 5 at 921:21-922:7, 924:12-25, 949:24-954:22 (Levine).

Prof. Mark Regnerus

- 394. Prof. Regnerus, a sociologist whose work has focused on sexual relationship behavior and religion, has no training or experience related to the fields of medicine or mental health care, or the treatment of gender dysphoria. Vol. 6, at 974:5-977:22 (Regnerus). He has never worked in a medical or mental health clinical setting. Vol. 6, at 977:1-22 (Regnerus).
- 395. Prof. Regnerus opined that the professional medical organizations in the United States support gender-affirming medical care for adolescents with gender dysphoria

³⁷ The testimony showed that the WPATH guideline requires a comprehensive psychological evaluation prior to initiating medical interventions for adolescents. *See supra* § II.C.

because of ideological influence rather than evidence. Vol. 6, at 994:22-996:10, 1000:17-1001:1 (Regnerus). However, he was unable to identify how these groups were influenced by ideology. *See* Vol. 6, at 1013:16-1016:8 (Regnerus). Nor would he be qualified to do so since he has no expertise that qualifies him to assess the scientific evidence on this subject.

396. The Court does not credit the testimony of Prof. Regnerus and gives it no weight because the Court finds that he lacks the qualifications to offer his opinions and failed to support them.
397. The Court finds Prof. Regnerus not to be a credible witness because he was willing to offer expert opinions on a subject matter about which he has no training or experience.

Dr. Patrick Lappert

398. Dr. Lappert is a plastic and reconstructive surgeon. He has no training or professional experience in mental health or gender dysphoria and has never provided gender-affirming surgery. He acknowledges that he is not an expert in the treatment of gender dysphoria. Vol. 6, at 1040:16-1042:18 (Lappert).
399. Dr. Lappert offered opinions regarding the circumstances under which he believes cosmetic or aesthetic surgeries are ethically appropriate in adults and minors and the potential risks of various surgeries outside of the context of gender transition. The relevance of Dr. Lappert's testimony was unclear, but he appeared to be suggesting that gender transition surgeries—which he considers cosmetic³⁸—are not ethically appropriate for minors. The Court finds that he is not qualified to offer such opinions given his lack of experience related to gender dysphoria.
400. Dr. Lappert did not offer any opinions related to hormonal treatments for gender dysphoria.

Dr. Paul Hruz

401. Dr. Hruz is a pediatric endocrinologist. He has never treated a patient for gender dysphoria. Vol. 8, at 1317:21-23 (Hruz).
402. Dr. Hruz opined that there is a lack of evidence that gender-affirming medical care for adolescents is effective. He asserts that all of the studies showing benefits of such treatment have methodological weaknesses that make the entire body of research meaningless. Vol. 8, at 1296:1-12 (Hruz). The Court does not credit his

³⁸ Dr. Lappert acknowledged that his view that gender-affirming surgeries are cosmetic is at odds with the view of the American Society of Plastic Surgeons, an organization he cited as an authority. Vol. 6, at 1062:17-23, 1080:5-9 (Lappert).

rebutal of an entire body of scientific research by a variety of researchers. Instead, the Court credits the testimony of Plaintiffs' experts, which recognize that the studies in this area, like all medical research, have limitations but that the body of research as a whole demonstrates the effectiveness of the treatment. *See supra* § II.E.

403. The Court does not find Dr. Hruz's opinions about the evidence of efficacy of gender-affirming medical care credible for the following additional reasons:
 - a) Dr. Hruz was willing to rely on at least one of these same studies when useful to support his own opinion. Vol. 8, at 1296:17-1297:19 (Hruz).
 - b) Dr. Hruz ignores the clinical evidence of the effectiveness of gender affirming medical care. *See supra* § II.E.
404. Dr. Hruz also testified about risks of puberty blockers, testosterone, anti-androgens, and estrogen, suggesting this is a basis to prohibit gender-affirming medical care for adolescents. Vol. 8, at 1247:4-10; 1257:11-20, 1261:18-25; 1262:1-1263:13 (Hruz). But, like Plaintiffs' experts, Dr. Hruz recognized that apart from the potential impact on fertility, the risks of these treatments also exist when these medications are provided to treat other conditions, and whether provided to birth-assigned males or birth-assigned females. *Compare id. with* Vol. 8, at 1229:24-1230:22, 1249:14-1250:8, 1259:15-1260:3 (Hruz). And these risks have not prevented Dr. Hruz from providing these medications to non-transgender patients in his pediatric endocrine practice. Vol. 8, at 1222:22-24, 1244:11-17, 1248:16-18, 1257:21-24 (Hruz). Thus, Dr. Hruz's testimony about the risks of treatments does not support banning these treatments for adolescents with gender dysphoria.
405. In addition to the issues with Dr. Hruz's testimony discussed above, which rendered his testimony of little assistance to the Court, Dr. Hruz submitted a number of amicus briefs in other litigations that reflect strong personal views about transgender people that call into question his ability to provide an impartial assessment of the science. For example, in a case involving transgender students' use of single-sex facilities at school, Dr. Hruz's brief said that school policies that allow transgender students to use facilities that accord with their gender identity "maintain [the child's] delusion" by "requiring others in the child's life to go along with the charade." Vol. 8, at 1326:2-21 (Hruz).³⁹

* * *

³⁹ Additionally, an organization from which Dr. Hruz received a certification in healthcare ethics and that published most of his publications related to gender dysphoria—the National Catholic Bioethics Center—has a "statement on transgenderism" that provides that "[g]ender transitioning insists on affirming a false identity and, in many cases, mutilating the body in support of that falsehood." Vol. 8, at 1322:10-1324:16 (Hruz).

406. In sum, the Defendants' only expert witness who has experience treating patients with gender dysphoria, Dr. Levine,⁴⁰ does not himself support banning gender-affirming medical care for adolescents with gender dysphoria, has concerns about Act 626's impact on youth, and has himself enabled minor patients with gender dysphoria to access hormone therapy. The Defendants' remaining expert witnesses are unqualified to offer expert testimony relevant to this case, offered unreliable testimony, or both.

⁴⁰ While Dr. Levine has experience treating patients with gender dysphoria, his experience with minors is limited. He has seen only about 50 minor patients in over 50 years of practice. Vol. 5, at 886:19-887:2 (Levine).

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