COMMONWEALTH OF PENNSYLVANIA
HOUSE OF REPRESENTATIVES

HEALTH COMMITTEE
SUBCOMMITTEE ON HEALTH CARE
PUBLIC HEARING

STATE CAPITOL
HARRISBURG, PA

IRVIS OFFICE BUILDING
ROOM G-50

THURSDAY, MARCH 12, 2020
10:00 A.M.

PRESENTATION ON
HEALTHCARE MODELS FOR TRANSGENDER ADOLESCENTS

BEFORE:
HONORABLE PAUL SCHEMEL, MAJORITY CHAIRMAN
HONORABLE JIM COX
HONORABLE DAWN W. KEEFER
HONORABLE KATHY L. RAPP, EX OFFICIO
HONORABLE PAMELA A. DELISSIO, DEMOCRATIC CHAIRWOMAN

* * * * *

Pennsylvania House of Representatives
Commonwealth of Pennsylvania

ALSO PRESENT:

REPRESENTATIVE DAVID H. ZIMMERMAN

COMMITTEE STAFF PRESENT:

WHITNEY METZLER
MAJORITY EXECUTIVE DIRECTOR
MAUREEN BEREZNAK
MAJORITY RESEARCH ANALYST
LORI CLARK
MAJORITY LEGISLATIVE ADMINISTRATIVE ASSISTANT

DYLAN LINDBERG
DEMOCRATIC RESEARCH ANALYST

I N D E X

TESTIFIERS

* * *

SUBMITTED WRITTEN TESTIMONY

* * *

(See submitted written testimony and handouts online.)

P R O C E E D I N G S

* * *

REPRESENTATIVE RAPP: I'm Representative Kathy Rapp. I am the Chairman of the Health Committee. And this is the first of a Subcommittee hearing that we will be having as part of our Committee. And Representative Paul Schemel is the Subcommittee Chair on Health Care.

And at this time, as Chairman of the Committee, I will be turning the duties of this hearing over to our Subcommittee Chair, Representative Paul Schemel. And Representative Schemel can have folks introduce themselves and introduce our testifiers.

But I would like to say thank you for your attendance today in the midst of everything going on health-wise. Just to let members of the public know -- and thank you for attending as well -- the closest restroom if you need to wash your hands or Kleenex, paper towel, is if you go out the door to your left and up the stairs and then to your left again it's marked "Media Center." There are restrooms right there, so they are in very close proximity.

Thank you again for attending. Representative Schemel.

MAJORITY CHAIRMAN SCHEMEL: Thank you, Chairman Rapp. Is it appropriate to call the role on an informational hearing?

REPRESENTATIVE RAPP: Just have the Members introduce themselves.

MAJORITY CHAIRMAN SCHEMEL: Okay. And we'll have the Members introduce themselves. I'm Representative Paul Schemel from Franklin County. Pam?

DEMOCRATIC CHAIRWOMAN DELISSIO: Pam DeLissio. I represent parts of Philadelphia and Montgomery Counties, the 194th Legislative District.

REPRESENTATIVE RAPP: Representative Kathy Rapp, and I represent Warren, Forest, part of Forest and part of Crawford County in the great northwest.

REPRESENTATIVE ZIMMERMAN: Representative Dave Zimmerman. I represent the northeast part of Lancaster County.

MS. METZLER: I'm Whitney Metzler, the Executive Director of the House Health Committee.

REPRESENTATIVE COX: And I am Jim Cox. I represent the 129th District, which is part of Berks and part of Lancaster County.

MAJORITY CHAIRMAN SCHEMEL: Thank you all. Thank you, testifiers, for being here today.

The genus of this hearing began in 2017 with the reauthorization of CHIP. CHIP is Pennsylvania's Medicaid program, which serves I believe a majority, over 50 percent of children in Pennsylvania. At the time in 2017 Governor

Wolf had expanded CHIP coverage to include what we would term gender-affirming services such as counseling, puberty-blocking drugs, and cross-sex hormones. At the time that we went to reauthorize CHIP, there was a Senate bill that would have stripped those from the CHIP reauthorization. At the time, Members of the House, my colleagues really didn't know what gender affirmation protocols were. There was a great deal of confusion. And we thought it might be a good idea at some point to your testimony on that.

I'm gracious to have been appointed the Chair of the Subcommittee. We thought this would be a good opportunity to hear testimony on this, especially now when we're at a point where we don't have any legislation that I'm aware of that's pending in regard to any of these services. I think it's good to just sort of have a body of knowledge.

As Subcommittee Chair, I decided on an informational hearing, which would be in order. The first thing I did was I met with Secretary Rachel Levine, our Secretary of Health, who expressed a willingness to testify, and recommended Dr. Nadia Dowshen at the Children's Hospital of Philadelphia as an additional testifier. Both represent the gender-affirming model, as advocated by flagship professional associations such as the American Academy of Pediatrics.

As our counterpoint, the Committee invited two noted critics of this approach, Dr. Stephen Levine, who is a clinical psychiatrist and faculty member at Case Western Reserve University in Ohio; and Dr. Quentin Van Meter, who is a pediatric endocrinologist and faculty member at Emory University. All four testifiers speak widely on this subject.

Unfortunately, Secretary Levine and Dr. Dowshen had to cancel their appearance today. Secretary Levine notified us late last Friday. Dr. Dowshen notified us a day and a half ago for understandable reasons, particularly in regard to the Secretary. There's a lot going on at the Department of Health right now that make the Secretary's time, you know, very much at a premium.

Dr. Dowshen is also I believe the Director or Co-Director of Infectious Disease for one of the departments at CHOP in Philadelphia and I think is equally taken up with COVID-19 matters. So, we look forward to hearing their testimony at a later date.

As Drs. Stephen Levine and Van Meter were already in route and scheduled and taken time away from their practice, we decided as a Committee that we would go ahead with their testimony today.

So, this hearing is about children and the manner in which we love and care for them. Opinions on this may

vary, and we may not always agree, but I would never deny we are all motivated, first and foremost, by our love of children. The Commonwealth's concern is heightened as we currently pay for and thereby promote gender-affirming medical interventions. The number of gender clinics offering these services has grown exponentially in a relatively short period of time, and the number of children we're serving gender-affirming care has increased as well.

Children are a unique class, as they have no agency. They depend on adults. Although they may express their desires, only adults can make decisions and perform treatments. Children are not allowed to get tattoos or cigarettes because of the long-term impact on their bodies. We should note what happens with gender affirmation treatment and what the long-term impact is. That's simply the responsibility of legislators in our oversight capacity.

Today is the beginning point in this Committee's quest to understand this issue better and to evaluate what is safe and appropriate for the children whose well-being is entrusted to our care.

I'm delighted today to be joined by our Co-Chair and a dear friend and a very thoughtful legislator, the gentlelady from Philadelphia, Representative Pam DeLissio. And, Representative, if you have any opening remarks, we'd

certainly welcome them.

DEMOCRATIC CHAIRWOMAN DELISSIO: Thank you, Rep Schemel. I appreciate it and appreciate being with you here this morning.

Like yourself, I was very disappointed but very understanding that Dr. Dowshen and Dr. Rachel Levine were unavailable today attending to -- just got yet another email about COVID-19, and it is clearly a situation that's escalating in Pennsylvania. And they are doing what their responsibilities require them to do today.

We had asked for a postponement, as you know, because I think the best opportunity to learn is when there's this opportunity for dialogue particularly among divergent viewpoints. So, I'm looking forward to hearing from those physicians at a point to be determined and don't know how we may be able to work in the viewpoints we're going to hear today, but I would urge us to continue with that concept of ensuring to the best of our ability that folks could be in the same room at the same time because I think the experience is much more robust and much more informing to our citizenry.

I see that in fact this is going out via the Pennsylvania cable network, and I think it's just very important for our citizens to know that this morning, due to the COVID-19, we're hearing one viewpoint this morning,

but we will also be scheduling that other viewpoint at a date to be determined. Thank you.

MAJORITY CHAIRMAN SCHEMEL: Very well. Thank you, Chairperson.

We have two testifiers with us today. I understand that Dr. Stephen Levine has a plane to catch, so, Dr. Stephen Levine, we will ask you to testify first. Depending on the length of your testimony, ideally, I think since the two of you represent a similar viewpoint, we would have you answer questions at the same time. So, what we might do is ask you to testify and then Dr. Van Meter to testify, and then you can answer questions together. But if you are very long-winded, then we will take your questions first. Very well. Dr. Levine, you may proceed. Thank you.

DR. LEVINE: Thank you. I'll try not to be very long-winded.

Chairpersons and Members of the Committee, my name is Stephen Levine. I am clinical professor of psychiatry at Case Western Reserve University in Cleveland, Ohio. I received my medical degree from Case Western Reserve University in 1967 and completed a psychiatric residency at the University Hospitals of Cleveland in 1973. I became then assistant professor of psychiatry in that department, and 12 years later, I became full professor of

psychiatry.

Since July of 1973, my specialties have included psychological problems and conditions relating to human sexuality, sexual relations, therapies for sexual problems, and the relationship between love and intimate relationships and wider mental health. I have received the Masters and Johnson's lifetime achievement award from the Society of Sex Therapy and Research. I'm a Distinguished Fellow of the American Psychiatric Association. I have provided this Committee with my curriculum vitae already.

I first encountered a patient suffering from what we now call gender dysphoria in July 1973. In 1974 I founded the Case Western Reserve University Gender Identity Clinic. Twenty years later, that clinic became independent of Case Western Reserve University, but I've continued to be the Co-Director of that clinic. It's just housed elsewhere it currently exists.

As Co-Director, I was the primary psychiatric caregiver for dozens of patients suffering from gender dysphoria over the years. I supervised and consulted about the work of other therapists on my team with approximately 350 individuals.

I was an early member of the Harry Benjamin International Gender Dysphoria Association, which today is known as WPATH. I served as the Chairman of the Standards

of Care Committee for WPATH as we developed the fifth version of the standards of care. I have been retained by the Massachusetts Department of Corrections as a consultant on the treatment of transgender prisoners for more than a decade, and I continue in that role as consultant.

I have taught about gender dysphoria and its prudent management in many States, at conferences and workshops, and I hope the information I'm about to impart to you will be helpful to your Committee. I have provided additional details and citations to relevant scientific publications to you.

Let me start first with biologic sex and the formation of gender identity, which are very important to have a distinction between these two concepts. The sex of an individual at its core structures the individual's biologic reproductive capacities. Females produce ova and have the capacity to bear children as a mother. Males produce semen and beget children as a father. All of us have learned that a long time ago.

Sex determination occurs at the instant of conception depending on whether a sperm's X or Y chromosome fertilizes the egg. In fact, from the moment of conception, every nucleated cell in the embryo's body is chromosomally identified male or female, that is XY chromosome or XX chromosome. Thus, when it is said that a

doctor assigns the sex of a child at birth, the physician is only announcing what has been biologically true for the previous nine months.

A child's self-perception of gender, on the other hand, develops gradually over time. Children acquire a gender self-identification long before they understand anything about sex and anything about gender. This perception arises in part from how others label and speak of the infant. "I love you, son; I love you daughter." Children hear these designations spoken to themselves and to others thousands of times in the first two years of their lives.

More than 99 percent of children comfortably accept the gender designation corresponding to the child's genetic sex. So, the rare discomfort or conviction that one is or should be a member of the opposite sex cries out for some understanding.

Science does not as of yet have a secure answer to four questions. Does this disconnect, this discordance have a biologic cause? Does this disconnect, is it a product of how the child was regarded and/or treated in early childhood? And third, does it stem from some trauma-based rejection of maleness or femaleness that occurred later in childhood? And finally, does it stem from an individual adolescent's discomfort with his or her changing

body at puberty and that young person's misunderstanding of the widespread hidden discomforts of their peers? In other words, can this come about because an individual child finds great discomfort with their body at puberty and feels hopeless about the bearing of that discomfort and seeks a solution and an explanation for the discomfort.

Well, these four questions are really not scientifically known. The answers are not known with certainty. We are all very familiar with the sex-specific differences between male and female bodies. Some of these, including different reproductive organs, develop before birth. Many other differences develop during puberty. Using hormones and surgery, doctors are increasingly able to reconfigure some male bodies to visually pass as female and vice versa.

However, medical science cannot change the fundamental biology of that person as it remains defined by their XY or XX chromosomes. This includes not just reproductive potential but many other aspects of the body, including cellular, anatomic, and physiologic characteristics and sex-specific disease vulnerabilities.

Contrary to hopes that medicine and society can fulfill the aspiration of the trans individual to become a complete man or a complete woman, this is not biologically attainable. Indeed, the aspiration to become a complete

man or woman is not even attainable in the trans person's private subjective self.

So, let's talk about gender dysphoria, the diagnosis and incidence of this problem. Specialists have used various terms over time to identify and speak about the distressing incongruence between an individual's sex as determined by their genes and gender with which they subjectively identify and desire to become. Today's American Psychiatric Association's Diagnostic and Statistical Manual, often referred to as the DSM-V, uses the term gender dysphoria. The criteria used in the DSM-V to identify the diagnosis of gender dysphoria includes a number of signs of discomfort with one's natal sex.

In addition to other factors, a diagnosis requires clinically significant distress or impairment in other areas of functioning such as social life, vocation, school, and interpersonal relationships. So, there might be human beings who cross-gender identify who are not distressed about it, and they do not have a diagnosis of gender dysphoria. They're just referred to as trans individuals.

I believe this Committee should be aware that, today, certain groups of children are being diagnosed with or claiming transgender identities in very disproportionate numbers. These include children of color, children

residing in foster homes, children who are adopted at the rate of about three times greater incidence of transgenderism, children with a prior history of psychiatric illness, children with mental developmental disturbances, children on the autistic spectrum, which are identified as transgender at a rate demonstrated on two continents at sevenfold the incidence of non-autistic children want to be transgender people or claim to be transgender people.

And while 20 years ago the large majority of individuals identifying as transgender were biologic males, a recent large study has found that adolescent girls are identifying as transgender today at the rate of more than two times that of boys. So, in the last several decades there has been a dramatic incidence in girls at puberty declaring themselves to be transboys, transmen.

In my judgment, as we think about puberty-blocking agents, cross-sex hormone, and breast, genital, and cosmetic surgical alterations for young people who are very uncomfortable with being identified as members of their biologic sex, it is important that we as doctors and as society keep in mind who is it that these things are being done to, what developmental circumstances have given rise to gender dysphoria in their lives, and what is the basis for certainty? I want to emphasize that. What is

the basis for certainty that changing the body of a child before or during puberty is the correct thing to do in the long run, and what contemporary forces are driving the dramatic increase in individuals wanting to change their gender presentation in the last 20 years?

Now, there are several models of gender dysphoria that I think all of us need to clearly understand because the discussions about appropriate responses to this diagnosis are complicated by the fact that various advocates view transgenderism through at least three different lenses, three distinct perspectives on this matter. First perspective, some speak of gender dysphoria as though it were a curable physical mental illness that causes endless suffering. Those who think of gender dysphoria this way assert that whatever aspects of the body are causing distress should simply be removed to reduce that distress. So, this could include performing surgery or administering hormones, cross-sex hormones to change facial hair, nose, and jaw shape, and the presence or absence of breasts or removing sex organs like the testes, the penis, the ovaries, the uterus, and the vagina.

It should be noted, however, that gender dysphoria is not a medical disease; it's a psychiatric illness. There is no physical or biological or specific abnormality of the sex organs or the brain at this point in

our knowledge among these individuals. And since doctors gave up performing lobotomies to treat psychiatric disorders many decades ago, gender dysphoria is the only psychiatric diagnosis which doctors are attempting to treat by surgery.

The second way of looking at gender dysphoria is in developmental terms. We could call that a developmental model. This developmental paradigm starts from the premise that all human lives are influenced by the past. I like to say that all human beings' past influences their present, no exceptions. We all bring our past to our present. Trans lives are not exceptions to this axiom. Mental health professionals who think gender dysphoria through this paradigm will work to identify and address the causes of the basic problem of a deeply uncomfortable self, whether it arose early in childhood or it arose at puberty. At the same time, they will also work to ameliorate suffering when the underlying problem cannot be resolved.

If one has a developmental paradigm, it doesn't mean that we would not support certain individuals in their aspiration, but it does mean that we would look at what causes the repudiation of one's gender. What is in this person's past that might be influencing this very life-changing identification.

In a young child, we would view attraction to a

transgender identity likely as an adaptation to a psychological problem that was first manifested as a failure to establish a comfortable conventional sense of self in early childhood. This makes clinicians interested in the parental bonds to the child and in the interpersonal familial environment in the early years of a child's life. A developmental perspective does not exclude temperament. For example, some boys do not prefer rough-and-tumble play. Some girls are action-oriented from a very early age. In an adolescent, clinicians would look for fear or a sense of failure associated with the roles that the individual associates with his or her biologic sex.

In other words, we're very thoughtful about the things that a child may misunderstand, may not have lived long enough to grasp yet. Many young children, trans-identified boys, think that males can only exist in this range of behavior, whereas when they're older, they will understand you can be a man in any one of these ways, and similarly for girls. This is a child's thinking, not a grown-up's thinking.

Some strident advocates oppose the developmental view asserting that trans identity is biologically caused, and it's unchangeable, but this is not supported by science. On the dramatic controversy, recent sudden changes in the numbers and make up of those experiencing

gender dysphoria strongly suggest a cultural or a sociologic rather than a biologic cause because the genetic makeup of our species does not change over a 20-year period. The number of patients experiencing gender dysphoria has spiked rapidly in both Europe and North America in recent years, shifting the previous three-to-one ratio of boys who want to be girls to girls who want to be boys towards now one-to-one. So, 30 years ago it was three-to-one, and today in most clinics it's close to one-to-one. A recent study has documented a clustering of new presentations in specific schools among specific friends groups. All these observations point to a social influence on the construction of gender identity or transgender identity.

Now, the third paradigm through which to view these phenomenon is the language of sexual minority rights. That is, this is not a developmental issue. This is not a biologic issue. This is a civil rights issue. Under this paradigm if a patient claims to be the opposite gender, any response other than agreement and affirmation by society and the medical profession is a violation of the individual's civil rights to self-expression. They even at times suggested a cautionary approach that lacks immediate and sustained support and affirmation is unethical, a violation of the individual's civil rights and a sign of

clinical incompetence of doctors who may ask for caution and time to consider things from a developmental perspective: unethical, incompetent.

The civil-rights paradigm is not interested in the question of the causes of this pattern, just the rights to self-expression and the freedom from discrimination. This is a very loud voice today in our public discourse on this subject.

Now, about the treatment of gender dysphoria, given these underlying different views about how to conceptualize gender dysphoria, it is not surprising that trained professionals disagree widely about appropriate therapies for patients experiencing gender-related distress. I will summarize the leading approaches to children and offer a few observations about these approaches.

The first approach we would call watchful waiting. We have a six-year-old, an eight-year-old who is cross-gender-identified and gender nonconforming. This model is particularly relevant to those before puberty. The scientific basis of this approach is the fact documented by 11 of 11 prospective follow-up studies performed by different research groups at different times in different countries. Eleven of eleven studies have demonstrated that the large majority of young children who

present with gender dysphoria, if left untreated, uninvolved with will evolve to a gender identity continent with their biological sex by the end of adolescence. Every study has demonstrated that desistance rates from childhood onset of cross-gender identifications will desist.

A watchful waiting approach cooperates with this fluid, changeable nature of gender identity in children, the fluid changeable nature of gender identity, and seeks to allow time, safety, and support for the process to happen. In the meantime, the professional will often seek to treat any associated mental illness in the child or symptoms in the child but without focusing on gender at all, separation anxiety, compulsivity, compulsions, and so forth. So, that's watchful waiting.

And the second model we might call standard psychotherapeutic approaches to distressed children. The second model is a psychotherapy model. The basic principle of psychotherapy is to work with the patient to identify the causes of his or her psychological distress, and then the professional will work with the patient and the family to address those causes in order to reduce or eliminate the distress.

I and many practitioners who actually have clinical experience with young patients with gender dysphoria believe that this makes sense to employ these

long-standing tools of therapy to these particular patients. We ask questions as to what factors in the patient's life are prompting the patient to repudiate his or her natal sex. I and others have reported success in alleviating the stress in this way for some patients.

To explain what this can look like in practice, the psychotherapist who is applying traditional methods of psychotherapy may help the male patient, for example, to appreciate the wide range of legitimate or normal masculine emotional and behavioral patterns that actually exist in culture. I refer you to my hands this way and hands this way previous remark. The therapist may discuss with the patient that one does not have to be or become a woman in order to be kind, sensitive, caring, noncompetitive, musical, or devoted to the feelings and needs of other people. Boys and men can wear pink happily, easily, and still think of themselves as a man.

A large proportion of gender nonconforming children and adolescents in recent years derive from minority and vulnerable groups who have reasons to feel isolated or to have an uncomfortable sense of self. Here the clinician who uses traditional methods of psychotherapy may not focus on their gender identity at all but instead work to help them address the underlying sources of their social isolation and their discomfort. Success in this

effort may remove or reduce the desire to redefine their gender identities.

To my knowledge there have been no carefully designed studies measuring whether or when psychotherapy can enable patients to regain or recover a more comfortable identification with their biologic sex. On the other hand, anecdotal evidence of such positive outcomes does exist. I myself and other clinicians have witnessed reinvestment in patient's biologic sex as some individual patients who are undergoing psychotherapy. I have published a paper recently on one patient who sought my therapeutic assistance to reclaim his male gender identity 30 years after living as a woman and who is in fact today living as a man. I have seen children desist even before puberty in response to thoughtful parental interactions and just a few meetings with a therapist.

The third way of approaching this is called affirmation therapy. This approach in patients of any age is the affirmation therapy model that says from the beginning one has to support and affirm and be optimistic about transgender identifications. Most clinicians know that it is counterproductive to directly challenge a claimed trans identity in a child or adolescent. However, practitioners employing the affirmation model assert that any expression of trans identity should be immediately

affirmed by all those around the child by means of consistent use of clothing, toys, pronouns, school accommodations associated with their aspired-to and preferred identity. They assume that observed psychological difficulties in children are unrelated to gender identity formation, are unrelated to gender identity formation and evolution and will get better with transition and need not be addressed by the mental health professional prior to deciding to affirm the child's apparent gender identity.

In my opinion in the case of children prompt and thorough affirmation of a claimed transgender identity disregards the principles of child development and family dynamics and is not supported by science. Rather, the mental health professional should focus attention on the child's underlying internal -- that is intrapsychic -- and familial issues. Unfortunately, many trans care facilities are staffed by mental health professionals who have very limited experience with recognizing and treating psychiatric problems that often accompany gender dysphoria.

As a result of the downgrading of the role of psychiatric assessment and treatment of patients, new gender-affirming clinics have arisen in many urban settings and recommend transition with remarkable, indeed distressingly remarkable speed, sometimes after a single

one-hour session. In my opinion, this cannot be reconciled with responsible mental health care.

After years of working in this arena with children and their families, I can also testify that many parents are horrified by the lack of interest in and the lack of knowledge of their individual children's lives and their own worried mature sensibilities. To these parents, the declaration of a trans identity in their child or adolescence is a call for a thorough psychological evaluation over time, not hormones. To the parents watching the child develop over 12, 13, 14 years, the fact that the child declares a trans identity means, Doctor, would you please investigate this and find out what's going on in my child? That's the approach that many parents who come to me want, not a prescription for hormones and affirmation.

So, desistance in the effective affirmation, let's talk about those topics. A distinctive and critical characteristic of juvenile gender dysphoria is that multiple studies from separate research groups at different times on different continents have reported that in the large majority of patients, unless the child is subjected to substantial interventions such as social transition and hormonal therapy, the dysphoria does not persist throughout adolescence. It is not yet known how to distinguish those

children who will desist from those who will persist. This is a very crucial idea. Those of us taking care of children who are gender-dysphoric do not know which ones are going to give it up and which ones are not.

Desistance within a relatively short period may also be a common outcome for post-pubertal youths who exhibit recently described rapid onset gender identity disorder. I observed an increasingly vocal online community of young women who have reclaimed the female identity after claiming a male gender identity at some point during their teen years. It's all over the internet, people giving their life stories. Unfortunately, meaningful data on outcomes for this age group with and without therapeutic interventions is not yet available to my knowledge at least.

In contrast, there are now data that suggests that a therapy that encourages social transition dramatically changes outcomes for young children who experience gender dysphoria. A prominent group of generally pro-trans authors have written that the gender identity affirmed during puberty appears to predict gender identity that will persist in adult life. Similarly, a comparison of recent and older studies suggest that when affirming methodology is used with children, a substantial proportion of those children who would otherwise have

desisted if left alone persist in their gender identity. In other words, gender-affirming of children leads to a very high incidence of trans identity at puberty and the failure to desist, whereas if you leave the children alone, many of them will desist. If you treat them young and intervene and support, they are going to have a transgender identity in adolescence. So, we have to ask ourselves the question what does that mean for the long run of the child?

Specifically, studies conducted before the widespread use of gender affirmation have demonstrated between 80 and 90 percent of the children desist. Those are the boys studies. In contrast, a more recent study reported that fewer than 20 percent of children desist if they're affirmed during grade school years. So, this is a very important finding. It suggests that today the increasingly widespread use of social transition for children is locking a large number of children into a trans identity in life who would otherwise become comfortable with their gender of their biologic sex before reaching adulthood.

In the light of this data, I must agree with the noted researcher from Toronto, Dr. Ken Zucker. He's written that social transition of children must be considered a form of treatment. As I said before, it's the third model of treatment. We should all seriously consider

that the drive to block puberty derives from the experience of trans-identified adults who recall personal discomfort about their subjective gender discomfort in childhood and adolescence. It does not consider all those children and teenagers who outgrew their discomfort. In other words, the idea of giving puberty blockers is based upon adults who are not doing well recalling that they were uncomfortable with their body and so that suffering, say, among 40-year-olds have led some researchers to think we could prevent this suffering if we only block their puberty. But that does not consider those people who outgrew it and are not talking at age 40 about their discomfort.

While I cannot give you numerical data on the outcome of all children who had significant subjective discomfort, there's a distinct possibility that the numbers are very small. I offer this idea because the outcome studies that I've summarized are based on gender-dysphoric children. The vast majority of trans adults may have had some subjective discomfort as children but were not recognized as having gender dysphoria of childhood. Gender dysphoria of childhood is a relatively recent phenomenon, so 40-year-olds and 50-year-olds who formed the basis of why we must treat these children to prevent the misery of 50-year-olds, you see, they weren't even trans-identified

children because that was a rarity 50 years ago. Not surprisingly, given these facts, encouraging social transition of children should be and remains a controversial matter.

In sum, therapy for young children that encourages transition cannot be considered to be neutral but instead an experimental procedure that has a high likelihood of changing the life path of the child with potential effects on mental and physical health, suicidality, and life expectancy. Unlike respectable scientific studies initiated after careful planning, the affirmation model is being advocated without knowledge of long-term outcomes. Affirmation therapy began on faith, a belief that it would prevent the well-known problematic lives of young and middle-aged trans adults. Such faith is accompanied by much passion but does not allow much room for scientific skepticism.

Claims that a civil right is at stake do not change the fact that what is proposed is a social and medical experiment whose outcomes are not known and will be difficult and perhaps impossible to establish without scientific confidence. In my view, then, medical ethics require that social transition should be undertaken only subject to careful standards, careful protocols, and reviews appropriate to such experimentation. I do not

think that is what is currently happening in our culture where in many urban centers children are being processed very quickly towards transition.

So, health implications of transgender identity and transgender lives was the next thing I want to discuss. Certain advocates and advocacy organizations make statements that would give the impression that science has already established that prompt affirmation is the best for all patients, including children who present the indicators of trans identity. This belief is not based on good science. It ignores both what is known and what is unknown about health outcomes for transgender people.

Prominent voices in the field have emphasized the severe lack of much-needed scientific knowledge. The American Psychological Association has stated, and I'm quoting, "Because no approach to working with transgender and gender-nonconforming children has been adequately empirically validated, consensus does not exist regarding the best practice with prepubertal children," end quotes. So, we must start by recognizing that large gaps exist in the medical community's knowledge regarding the long-term effects of sex reassignment surgery and other gender identity disorder treatments. What is known, however, is not encouraging.

First, let me comment on the risk of suicide, the

most dramatic of the unknown outcomes. Advocates of immediate and unquestioning affirmation of social transition sometimes assert that any other course will result in a high risk of suicide in affected children and youngsters, teenagers. Leaving aside young children who very rarely commit suicide for any reason, it is certainly true that individuals with gender dysphoria are well-known to commit suicide at elevated rates, but this is true both before and after social transition and before and after gender-conforming surgery, which it used to be called sex reassignment surgery. No studies show that affirmation of children or adolescents reduces completed suicide rates, prevents suicidal ideation, or improves long-term outcomes as compared to either watchful waiting or a psychotherapeutic model of approach to these children.

Claims that affirmation will reduce the risk of suicide for children and adolescents is not based on firmly established science. There are vital differences between suicidal ideation, that is, thoughts about self-destruction, suicide attempts that are exploratory gestures, suicide attempts that are determined efforts to die, and completed suicide. Those four dimensions of suicide are often linked together, and they're quite different phenomenon.

While 4 percent of the general population may

have suicidal ideation in the last year, 44 percent of trans individuals have similar thoughts. I draw these distinctions because while the rate of completed suicide is unknown among trans youth, fearmongering articles in the general press would have the general population believe that untreated trans identities lead to completed suicide. What we know is that even hormonally and surgically treated trans identities exhibit high levels of suicide ideation. These data suggest that trans lives carry a high risk of continued unhappiness. Thus, transition of any sort must be justified if at all as a life-enhancing measure, not a lifesaving measure.

But what is life-enhancing is a long-term question. When we begin to think in long term, it is important to understand in terms of mental and physical health or social and romantic happiness that there are no studies that show the affirmation of a trans identity in prepubescent children leads to more positive outcomes, say, by age 25 or 30 than does watchful waiting or ordinary psychotherapeutic approaches.

On the other hand, what is known is that there are numerous known, likely, and possible long-term downside risks associated with living life as a transgender individual. A casual assumption that transition will improve a child's life is not justified based on numerous

scientific snapshots of cohorts of trans adults and teenagers. Stories from a few happy transgender individuals cannot change this extensively documented picture of the trans population of adults is a marginalized and vulnerable to mental illness and substance abuse groups.

Let me detail several classes of predictable, likely, or possible harms to patients associated with transitioning to live as a transgender individual. The first one I want to mention is sterilization. Obviously, sex reassignment surgeries that remove penis, testes, ovaries, vagina, and uterus are inevitably sterilizing, but medical professions also believe that we should assume that cross-sex hormones, which are increasingly administered to older minors, may also be permanently sterilizing. As a result, we must consider the loss of reproductive capacity, sterilization, to be one of the major risks of starting down the road to a transsexual life. Does any 11-year-old, even one who has parental consent, have the capacity to consider the implications of personal sterility that may show up in his or her life 20 years later?

Given the disproportionate representation of minority and other vulnerable groups among children representing to gender-identity clinics today, who is to speak for their future in terms of their reproductive

capacities?

Second, the loss of sexual response. Puberty-blocking prevent maturation of the sex organs and sexual physiological responses. Some and perhaps many transgender individuals who transitioned as children and thus do not go through puberty consistent with their sex face significantly diminished sexual response as they now enter into young adult life and are unable to ever experience orgasm. Children of course cannot imagine what this will mean for their future lives and psyches. Go try to explain to a 10- and 11-year-old that if I give you estrogens, your ability to have orgasm when you're 25 or 18 is going to be impaired. What's orgasm?

The health risk of puberty blockers, it is commonly said that the effects of puberty blockers are reversible. Actually, it's often said they are putatively reversible. That word I look up and it means "maybe," putatively reversible. No one's quite sure whether they're completely reversible, and anyone claiming they're completely reversible doesn't seem to have the data. In fact, controlled studies have not been done about how completely this is true and when they are used to prevent puberty from occurring at its natural time. Because hormones associated with puberty are well known to affect the development of the brain as well as the body, this

should cause careful professionals to pause.

The outcome on subsequent bone health because of demineralization effects of puberty blockers is also a significant worry for the long term. Growth spurts during adolescence are influenced by hormone secretions that block puberty events. In terms of mental health, however, in my opinion individuals in whom puberty is delayed multiple years are likely to suffer negative psychosocial and self-confident effects as they stand on the sidelines while their peers undergo pubertal changes and get involved in social interactions that cause them anxiety but help them to learn how to manage their sexual feelings and to conduct interpersonal relationships. Thus, if you block a kid's puberty for three, four years, he remains looking like a child and feeling like a child while his peers are into a whole different phase.

So, there are health risks of cross-gender hormones as well. Certainly, it is well-known the many effects of cross-sex hormones cannot be reversed should the patient later regret having transitioned. Irreversible changes include voice changes, facial hair in the female-to-male patients. And patients who persist will in most cases have to take cross-sex hormones for the rest of their lives.

The long-term health risks of this major

alteration of hormone levels has not yet been systemically studied. However, a recent study found greatly elevated level of strokes and other acute cardiovascular events among male-to-female transgender people taking estrogen. Even short-term studies have demonstrated increased obesity and increased blood pressure in people taking cross-gender hormones, which may not have caused stroke at age 22 but may in fact increase their risk of later cardiovascular events.

So, there are health risks also in terms of complex surgeries that they're going to have. Sex reassignment surgery affecting the reproductive and urinary tract is extremely complex, and every such surgery can go wrong. Complications in surgery affecting the urinary tract can have significant lifelong negative impact on a patient's quality of life.

There are risks to family's social and romantic relationships, which tend to get overlooked. Gender transition routinely leads to isolation in adulthood from siblings and their children. By adulthood, the friendships of transgender individuals tend to be confined to other transgender individuals who are very supportive but is a limited set of others who are comfortable interacting with transgender individuals. And after adolescence, transgender individuals find the pool of individuals

willing to develop romantic and intimate relationships with them greatly reduce. So, a cisgender, that is a person without transgender identity, has a huge pool of potential mates. The trans individual has a much limited pool of potential mates.

Suicide, mortality, and mental health generally are so intertwined among humans that it's often impossible to separate those three concepts, suicide thinking, premature mortality, and mental health. Stepping back from some big-picture indicators over well-being, this Committee should be aware of the wide sweep of strongly negative physical and mental health outcomes among transgender individuals, as we've known from looking at this for 45, 50 years.

In the United States, the death rates of trans veterans are 20 years earlier than the general population. A Swedish follow-up study tracked almost all individuals in that country who underwent sex reassignment surgery over a 30-year period and found the suicide rate -- I am not exaggerating, ladies and gentlemen -- the suicide rate in Sweden among people who are operated on for this problem was 19 times the general population. Both studies found elevated mortality rates from medical and psychiatric conditions. The Swedish researchers concluded that transgender individuals require, should have lifelong

psychiatric care.

A cohort study based in Boston found a greatly elevated risk of depression, anxiety, and hospitalization for psychiatric illness and suicidal ideation among transgender youth compared to a control group. That's just repeating what has been observed before.

Now, let's talk about regret because you will hear a lot about the absence of regret. Studies of postsurgical regret done in the latter part of the previous century generated that only 2 percent of people who had sex reassignment surgery had any regret. Regret, however, is a far more nuanced matter than the answer to one or two questions on a large questionnaire. More importantly, regret is possible after transition, after hormones, and after surgery not simply because of adverse medical outcomes but because of the social, psychological, educational, vocational, and family consequences of transitioning. I need to repeat that to you. The consequences of transitioning present as social, psychological, educational, vocational, and familial problems.

These dimensions of regret are not infrequent. Those who have desisted must represent as having had regret. At least some of the high rates of suicidal thoughts -- 44 percent in cross-sectional studies -- that

must represent some form of regret. The phenomenon of desistance or regret experienced later than adolescence or young adulthood has to my knowledge not been well-established, but what keeps getting repeated is only 2 percent of people who have had sex reassignment surgery have regret.

However, regret is real. I have worked with multiple individuals who have abandoned trans female identity after inhabiting that identity for years who expressed regret. There are people who have regret and yet don't have regret. That is, regret is not either/or. Regret is I regret this, I regret this, but I don't regret that, you see. So, when we summarize regret as only 2 percent, it's a vast oversimplification of the complex phenomenon.

A surgical group prominently active in sex reassignment surgery has published a report on a series of seven male-to-female patients requesting surgery to transform their surgically constructed female genitalia back to their original male form. They cannot surgically be returned to their previous normal genital anatomy. The trans person of either sex who requests having their body return to the original sex appearance should worry all professionals. In other words, when people don't do well in adult life, we need to think about more carefully what

we're doing to the youth as we push them in the direction of a whole group of people who have repeatedly been described as marginalized, discriminated against, and vulnerable to psychiatric illness, physical illness, and suicide. Thank you for your attention.

MAJORITY CHAIRMAN SCHEMEL: Thank you, Doctor. In the interest of time, Dr. Levine, what we'll do is at this point take questions from the Committee for you particularly in light of the fact that your testimony was largely psychiatric. We're presuming Dr. Van Meter's will be maybe more physical medicine. So, with that, Chairwoman DeLissio, do you have any opening questions?

DEMOCRATIC CHAIRWOMAN DELISSIO: I do, thank you. I appreciate it.

As far as I know, no one in this General Assembly has a medical degree, and this is -- I want to just share with you the filter through which I am looking at this. So, I've done some reading in preparation for this. I generally do reading to prepare for any Committee meeting, read legislation, et cetera. What I do think I know is that science evolves. There are often differences of opinion as to how science is and can be applied. But in this particular instance this discussion came about as a result of last session, a piece of legislation indicating whether or not the CHIP program, which is supported by

taxpayer dollars, should include treatment for transgender children.

So, I'm just curious, sir, that if this were private insurance, this discussion probably would not be happening in the General Assembly. I'm very sensitive to the fact that, legislatively, no elected body, whether it's the Commonwealth of Pennsylvania or the U.S. Congress, should be dictating to a licensed healthcare practitioner as to how they should practice medicine within their scope of authority, within generally accepted, you know, medical standards of care, et cetera.

I share that with you as that's the context and the lens through which I am both listening and, you know, have some questions.

So, when you had mentioned that it was rare, you know, 40 or 50 or 60 years ago for this to be identified, perhaps it was just not discussed in any meaningful way. And now people are more comfortable about discussing these issues, these feelings, et cetera. They were the same situations that we've experienced in any number of areas.

So, do you think that there is another reason that it was rare then and is discussed more frequently now? I almost heard you say, Dr. Levine, that perhaps we're suggesting that the situation is real; therefore, it is. And perhaps I've misunderstood your comments along those

lines. I mean, I'm grateful for all the science that can treat us and make us a better and healthier society.

DR. LEVINE: I don't think you misheard me. I think what I was emphasizing to the Committee is that in recent years there has appeared in the public sensibilities that there is a real phenomenon called a trans person and a trans life and that one can transform one's maleness into femaleness and femaleness into maleness and live happily ever after. You see, I don't think that was in the public's mind 50 years ago. That was not part of our general consensus or understanding.

So, today, when a child is cross-gender-identified, we used to call those children 50 years ago gender-nonconforming children. We recognized 50 years ago that gender-nonconforming children were likely to grow up to be a sexual minority member, generally a homosexual male or a lesbian woman. But today, that same phenomenon is existing, you see, but culture has a different concept about it. These are not necessarily pre-homosexual individuals. These are trans individuals. So, trans individuals, if we look at the snapshot of the adult outcomes, are much less healthy than homosexual individuals, you see?

So, what we have done is we have created a new option for teenagers and for parents to think about their

gender-nonconforming child. Instead of saying, oh, I have a pre-homosexual child, boy or girl, I have a trans child boy or girl. I don't think the genes have changed. We've had this phenomenon forever. We just haven't had it in as high a prevalence.

And so the great new prevalence is not in gender-nonconforming children. The great new high prevalence is from teenage girls who are feeling their internal subjective discomfort, looking on the internet, listening to culture, and saying, oh, I recognize me. I'm trans. I should be a boy. I'm going to live as a boy. That was not the outcome, you see, 50 years ago, 100 years ago. Those people became hidden sexual minority people, but they were identified as lesbians in the past. And so, today, we have this confusion between lesbianism and transgender male stuff.

DEMOCRATIC CHAIRWOMAN DELISSIO: So, Dr. Levine, I don't disagree that information is available very, very differently, literally at our fingertips --

DR. LEVINE: Yes.

DEMOCRATIC CHAIRWOMAN DELISSIO: -- for anybody who has one of these. And information is absorbed in a variety of ways. And in fact it's not unusual for folks to seek out information that confirm their own personal beliefs on a particular issue. We're all humans. That

happens.

The part of it that does kind of give me pause is some of the words that you're choosing to use that make it to me sound like your colleagues, other medical providers, licensed medical providers, are having children walk into their office and say, hey, you know, my goal is to be a boy because I'm feeling it that way and that your colleagues are, you know, as you said, pushing these things through or acknowledging that.

You know, I know in any sector of any industry there are those folks who carry out their responsibilities with a great deal of integrity, with a great deal of professionalism, et cetera, and it is the minority of folks that are folks that we commonly refer to as kind of bad actors. I cannot believe that the majority of the medical profession is responding to this situation as you describe.

And you've particularly called out urban centers. I'm not sure why. Most medical centers are located in urban areas, workforce issues, more population to serve, et cetera. I live in the Philadelphia area where we are very rich with resources in terms of universities and medical centers and medical schools type of thing. I can't imagine that any one of those systems would stand up a clinic because it was, you know, the cool thing to do.

And so if transgender clinics have come online,

they're there to serve a population, and they're there to serve a need. The trustees and the folks who run these organizations didn't do that lightly and say, you know, how might we generate some new revenue or some new income? They are there to serve.

And in fact did I hear that your clinic -- you used the word independent -- is or is not affiliated with Case Western?

DR. LEVINE: Is no longer affiliated.

DEMOCRATIC CHAIRWOMAN DELISSIO: Is no longer affiliated --

DR. LEVINE: Right.

DEMOCRATIC CHAIRWOMAN DELISSIO: -- with Case Western.

DR. LEVINE: Right.

DEMOCRATIC CHAIRWOMAN DELISSIO: And when did that split happen?

DR. LEVINE: 1993.

DEMOCRATIC CHAIRWOMAN DELISSIO: Okay. Was that a business decision, may I inquire, or what --

DR. LEVINE: It had nothing to do with gender identity. In fact, we kept the name Case Western Reserve Gender Identity Clinic for another 5 years until a lawyer decided that wasn't a good idea. I don't think you want to know all the details --

DEMOCRATIC CHAIRWOMAN DELISSIO: No. I --

DR. LEVINE: -- you know --

DEMOCRATIC CHAIRWOMAN DELISSIO: But it is an independent clinic, not currently --

DR. LEVINE: And in the last --

DEMOCRATIC CHAIRWOMAN DELISSIO: -- it has not been affiliated --

DR. LEVINE: In the last three years in my metropolitan area, each hospital has a clinic devoted to this. The one at University Hospitals does not have a psychiatrist associated with it. And the parents that I get to see who've had their children interviewed at one of those three clinics come to me with great distress about the rapidity with which the child has been affirmed. And what I said to you in my remarks is really a summary of perhaps 10 different sets of parents, you know, educated and uneducated parents alike. This is not what I expect from medical professionals.

When you have a clinic that has a high throughput of many, many patients, they cannot possibly provide the kind of care, evaluation over a long period of time with sophisticated clinicians. There is in fact an economic motive behind many of these clinics. I know the individual professionals want to give care and they're as wonderful as you described them, but, you know, this is a process that

leads to surgery and hospital revenues. It's been a good idea to have three new clinics within three years only because it's economically useful to the larger issues.

I'm just saying to you if this were my child, and I guess I could say if this were your child, you would want a thorough investigation of why this is happening, why my child is repudiating their gender. I think you would object to the rapidity with which your child is being pushed along.

So, these clinics are often called gender-affirming clinics. The name of the clinic tells you that there is not a careful psychiatric extended evaluation of this stuff.

Now, all this work, all this new phenomenon is based upon what is called the Dutch experiment that was begun in 1999 in Amsterdam, and they demonstrated a long-term follow-up that was positive for cross-gender-identity children who were given puberty blockers, but those children had constant family and individual psychotherapy throughout the process. And I challenge you to find a clinic that sees children and their parents regularly, frequently during the process. Once every three months is not regular, frequent. The original clinic that demonstrated without a control group, by the way, that most of these children do very, very well, had extensive

psychiatric and psychological help throughout the process.

That is not happening anywhere in the United States. What is happening in the United States is affirmation, affirmation, affirmation and no consequence, no thought given to the long-term consequences based upon 50 years of cross-sectional studies showing that this is marginalized, vulnerable, psychiatric and drug-impaired groups of people. And if you're very poor and if you're African-American coming from poverty, your rates of dying or having AIDS is 17-fold than more advantaged children. So, there are all kinds of problems that come with this adaptation.

And if there is a minimal psychiatric involvement, which is typically a minimal psychiatric involvement, I don't think we're improving the child's coping capacities to deal with all the problems that are going to come throughout the rest of their lives. And please remember the careful studies done in Sweden. The recommendation was that these individuals should have lifetime psychiatric care.

This phenomenon of affirmation is based upon the professionals' idea that this is a cure for gender dysphoria. It may be a cure for genital dysphoria. It may be a cure for the discomfort with the body, but it's not a cure for the psychiatric problems that are going to follow.

And that doesn't mean that there aren't people who do very well and don't have any psychiatric needs, but when you have a phenomenon where a high number of people, a high percentage of people have significant ongoing psychiatric needs, it seems to me that all of us should have some pause about what we do when we say if this is a clinic for your gender-disturbed child, this is an affirming clinic because there's a belief that affirmation helps in the short run. And I think affirmation does help in the short run. Children are happy when they're treated the way they want to be treated. But my concern is not two months', three months', two years' happiness. My concern is long-term happiness, long-term health, physical health and long-term mental health. That's really I think the gist of my testimony today.

DEMOCRATIC CHAIRWOMAN DELISSIO: Thank you, Chairman.

MAJORITY CHAIRMAN SCHEMEL: Thank you, Chair. Any other questions?

And I should recognize the presence of Representative Keefer. Representative Keefer.

MS. METZLER: This is just a reminder that it's not allowed for the general public to record during these meetings. We are publishing this via PCN, but you cannot record. Thank you.

REPRESENTATIVE KEEFER: Thank you for your testimony. I did a lot of reading prior to this as well in trying to understand it, and my concern is that we're dealing with children, prepubescent, and we've made all these measures in the General Assembly lately as far as smoking, you know, vaping, pushing the age out to 21 from 18. But I wonder what those long-term consequences are going to be in the children growing.

So, I tell this story nonstop. My child at five years old thought he was a dog and wanted to be a dog, would only eat out of bowls off the floor, would throw pencils and fetch the pencils. For Christmas he wanted a tail. That's what he asked Santa Claus for for his birthday. He asked me for a tail. It was nonstop. And finally about 18 months into this he says to me, "Mommy, I decided I don't want a tail anymore." He goes, "First of all, I don't have fur." He goes, "And second of all, it'd be really hard to sit down." And he just kind of evolved out of it, but it was nonstop. My husband would say when is this going to end? His dog name was Donut. He wouldn't answer if you didn't call him Donut. This went on and on. You know, and we let it run its course, right?

But then on a more serious side of things we have an adult family member who had this phobia of being alone, thought somebody was in the house nonstop, and until we

could get them into psychiatric counseling, somebody was staying with them nonstop, reaffirming, okay, nobody's in the house. For while initially they were like saying, "Okay, we checked" -- because the person they thought was in the house was Bob. "We checked Bob is outside. We've got him outside. He's not in the house." What other conditions, psychiatric conditions do we affirm, do we say, okay, we're just going to go along with this, you know, thought process, you know, for the long term? Are there any other psychiatric conditions where we say, okay, we're just doing an affirmative type of psychotherapy or medical treatment for it? Or surgeries rather.

DR. LEVINE: Just parenthetically, I've had a patient who wanted to be a bear and thought he was a bear for about 18 months. We are charmed by such stories in young children, right? We are alarmed by those stories the older the child becomes.

I think the answer to your question is no, I don't think we affirm; I think we investigate. I think we wonder. I think we form a relationship with the child and the family that is based upon our concern of the meaning of this. And we try to not say, well, you're not a dog, right? You're not a girl or a boy, but we say what might be troubling this? What's behind this creative sense of self? You see? What's behind it? I think these are

questions that all of us respect and expect from the mental health professional.

And I don't think that the concept of we have a six-year-old who's non-gender-conforming and that we ought to affirm that child and leave that child to believe that she can be a boy or she can be a girl. I don't think that's helping with what psychiatrists call the reality testing of the child.

Now, your wonderful son outgrew it. His reality testing caught up with him, with his young child fantasy. This is what we want. We want what we call the sense of reality to descend upon. But, see, now culture has a new reality, so the trans adolescent believes and knows there are -- and I agree there are entities called transgenderism. It is possible to live your life as a trans person. The only question I've been testifying to here is is that a healthy -- that puts the child to me or the adolescent or the adult at risk for the things I've outlined. But what you're bringing up is what we call reality testing.

MAJORITY CHAIRMAN SCHEMEL: Representative Cox.

REPRESENTATIVE COX: Thank you, Chairman.

Dr. Levine, you mentioned a couple times that you had family members, parents who came in after going to these --

DR. LEVINE: Yes.

REPRESENTATIVE COX: -- gender-affirmation clinics --

DR. LEVINE: Right.

REPRESENTATIVE COX: -- and they were distressed by the direction that their child was being pushed if you will. It brings to mind a consent discussion of, you know, who is consenting in that realm? Is it the parent ultimately? My assumption is the parent is ultimately still put in the position of having to provide consent for that surgery or treatment or whatever is being done, and that's why they're seeking perhaps that second opinion from you and your professional opinion. Is that what you're experiencing in your opinion is the desire to have more information as parents before they make that decision?

DR. LEVINE: Well, I don't think I have to tell the Committee that an 11-year-old, a 12-year-old, a 15-year-old cannot give consent to sterilization and to hormones in any of the treatments, and so of course the parents are responsible legally, ethically, morally for the health and the future of their children. So, informed consent to me is a vital ethical requirement, and so making a diagnosis may be the first step of the psychiatric evaluation, but investigating how this came to be is the second step. And, you see, if we say this is a gender-

affirming clinic and if you come here and you're going to get affirmed and you're going to be on the track for endocrine treatment very quickly without the second step, to me, we've bypassed the informed consent.

We haven't said to the parents, do you know this is going to lead to sterilization? Do you know this is going to lead to sexual impairment? Do you know this is going to lead to educational, vocational, mental health problems in the future? Do you know this is going to lead to the possibility of premature death? Why would you say that if you want to have a gender-affirming clinic?

So, they all say that we give informed consent, but I doubt very much that they review the 12 dimensions of things that need to be informed about, you know.

REPRESENTATIVE COX: When the parents are sitting there, they're obviously feeling torn about what their child is telling them and about what they as an adult might have otherwise experienced. You know, they do have more information already even prior to walking into the gender-affirming clinic. They have more information, life experience, et cetera. They perhaps have interacted with friends who might have desisted at one point, you know, so they're bringing a lot more to the table. Is there a common thread in why the parents are feeling torn?

You mentioned in your testimony the higher

incidence of suicide for children and individuals who don't transition and so forth. Are parents expressing that concern that if I don't do something, I'm at risk of losing my child to suicide? Is that a concern you're hearing or --

DR. LEVINE: Mr. Cox, let me try to correct something embedded in your question. We do not know that kids who do not transition have a higher risk of suicide. We do not know that. That is not an established fact. But what many people believe that unless I transition my kid, they're going to be dead. And what happens oftentimes is the trusted mental health -- the trusted pediatrician or the mental health counselor or the psychiatric evaluator or the nurse dealing with them has said to their parents -- that's a manipulative, coercive, terrifying thing, you see?

Now, we in the medical profession want our patients to trust us that we know the science of things. And if we summarize that your kid is going to be dead unless you transition them, they either trust that and, oh my God, we better do this and let me put aside all my intuitive worries about the wisdom of this, you see, or they get another opinion.

REPRESENTATIVE COX: And I guess that was -- I apologize for embedding what I knew not to be a fact and making a sound like that was my understanding of it. I

heard your testimony and you saying that there was no evidence of that being the case. My question really ultimately lies then in are you hearing parents coming in saying to you I'm torn because they're telling me that -- in other words, are the medical professionals that are at these gender-affirming clinics, are they perpetuating this idea consistently that they believe there's a higher suicide rate, et cetera? Are you seeing that in your setting?

DR. LEVINE: I hear that story. I don't work in those clinics, so I can't tell you that's what we tell the parents. But I hear from parents and other people that that goes on. But please don't -- I'm not accusing every one of those doctors --

REPRESENTATIVE COX: I understand.

DR. LEVINE: -- every one of those staff members of saying that. I just think that's a common belief. I mean, I've heard an endocrinologist testify that what he does by giving puberty blocking is he's saving children's lives from suicide.

REPRESENTATIVE COX: And if I might, Mr. Chairman, we as a legislative body -- I had one colleague say that, you know, we as a legislative body shouldn't step in and tell the medical profession what their scope of practice is and all sorts of things. I've served on the

Health Committee for number of years now. I've served on the Professional Licensure Committee at one point. We vote on things all the time. We just recently said, you know, you have to be 21 for tobacco. So, we in fact do put boundaries and limitations in place.

And I understand if this is like stretching the boundaries of your expertise, but do you feel it's appropriate for us to perhaps step in and limit and say -- again, based purely on the science that you've described to us, do you feel it's appropriate for legislative bodies to step in and say we're going to limit and say these surgeries should not happen or should we put guidelines or other types of things in place requiring certain steps to occur?

DR. LEVINE: As far as I understand, which is limited, my understanding about this, legislative bodies in various States have done very different things about constraining or encouraging. There are some States that have made it a crime to do psychotherapy with kids and teenagers who are cross-gender-identified. So, the second approach to the treatment is illegal, for example, I think in California and in Ontario, Canada. So, I think legislatures all over the place have decided that it's appropriate to put restraints, but the interesting or ironic thing is that the constraints vary from State to

State.

I am not asking the Committee to outlaw sex reassignment surgery. I'm not asking the Committee to outlaw the judicious use of endocrine treatments. I'm just raising questions for you about the wisdom of encouraging puberty blocking the way I understand it happens in urban centers that process many, many kids, increasing numbers of children. And I think that you need to understand or at least my concept that I want to convey to you is that when a clinic gives a label of gender affirming, that generally means that they consider it to be unethical to investigate why the child is transgender. They see it as a civil rights issue and we can help this child to a happier life.

And I'm saying that would be wonderful. I would be very supportive of that if there were scientific evidence that we were helping these children to a happier life. But the *New England Journal of Medicine* within the last 12 months had two articles that refer to the transgender population as vulnerable and marginalized and then listed all the ways they were marginalized, including housing discrimination, high levels of disability, see. So, I say there are some individuals that I would affirm and I have affirmed, but it is not after I met them once, you see? That's my point. Is that an answer to your question?

REPRESENTATIVE COX: Absolutely. Thank you so much.

MAJORITY CHAIRMAN SCHEMEL: Thank you, Doctor. Representative Zimmerman.

REPRESENTATIVE ZIMMERMAN: Thank you, Mr. Chairman. And thank you, Dr. Levine, for your testimony.

You had mentioned that a high percent of these children with gender dysphoria would actually kind of grow out of it if left alone. Do you have any actual percents of what that might be is part of my question? And then kind of a second question not quite related, but when you start with puberty blockers, for example, is there any turning back, or does that start down a path that there's no coming back?

DR. LEVINE: Okay. So, the first part of your question is that there have been 11 studies of children following young children for up to 10 years into adolescence. All 11 of those studies have found that the majority of the children outgrow it, the majority. The highest one is like close to 90 percent, but there are some who've been in the 60 range, 60 percent range, you see.

REPRESENTATIVE ZIMMERMAN: It's still very high.

DR. LEVINE: So, that's very important for us to understand because it feels to me like there may be an ethical question here about intervening when children would

desist. It seems to me that why aren't we talking about the ethics of that?

The second part of your question, just give me a word, reminding me what --

REPRESENTATIVE ZIMMERMAN: Yes. If puberty blockers are started --

DR. LEVINE: Oh, reversible, yes, sorry. So, a child can take puberty blockers and stop them, and I would imagine that -- I think my colleague will have more expert opinions about this -- that the sooner you stop them, the more reversible they would be both psychosocially and medically. But, as I've said to you, in some of the articles, the more careful authors talk about putatively reversible meaning based on our knowledge, we think they're largely reversible but we don't really know what the long-term effects of any puberty-blocking agent for how long is. I don't think the specifics are very well-known.

But certainly the answer to your question is if I give a child a puberty blocker for one year and delay their puberty, when I stop that, the pubertal processes will return. I don't think we ruin the capacity to go into puberty. We just delay the capacity. Whether it's the same pubertal response that would have been naturally I would leave to my colleague to talk about. I don't know.

REPRESENTATIVE ZIMMERMAN: Thank you. Thank you,

Mr. Chairman.

MAJORITY CHAIRMAN SCHEMEL: Other questions? Very good. Dr. Levine, thank you so much for coming to testify today. I wish you good travels back, hopefully one flight rather than three will return you safely to Cleveland.

DR. LEVINE: Thank you.

MAJORITY CHAIRMAN SCHEMEL: I'm sorry. Chairwoman DeLissio, did you have -- oh, I'm sorry. Chairwoman Rapp.

REPRESENTATIVE RAPP: Representative Schemel, thank you. I just wanted to thank you for being here, Dr. Levine. I think it was very informative. And certainly you have the information that, as Representative DeLissio says, we are not medical professionals here, but certainly it is our responsibility I believe to look out for, as Representative Cox alluded to, our children in this State and making sure that we are protecting our children.

And I do believe that we will probably be hearing, you know, from the other side of this issue in the near future, but we certainly appreciate your input into this timely subject. So, thank you for being here.

DR. LEVINE: And I appreciate the opportunity of speaking with you as well.

MAJORITY CHAIRMAN SCHEMEL: Very well. Thank you

for your time.

I think in the interest of time we're going to press on, Dr. Van Meter, if that's all right with you. You can begin your testimony.

DR. VAN METER: I'm Quentin Van Meter. I'm a pediatric endocrinologist in private practice in Atlanta, Georgia. I am board-certified in pediatrics and also board-certified in the subspecialty of pediatric endocrinology. I received my medical degree at the Medical College of Virginia in Richmond and proceeded on to a Navy career of 20 years, during which time I completed my internship and residency at the Oakland Naval Hospital affiliated program of University of California San Francisco, and then I practiced as a pediatrician in the Navy for several years and then went to my fellowship at Johns Hopkins sponsored by the Navy as well and then decided to stay in for a 20-year career because of the teaching opportunities that I had as a staff pediatric endocrinologist in San Diego Naval Hospital and then as a Department Chairman and a Residency Program Chairman in pediatrics at the Naval Hospital in Oakland.

During all those years in the Navy, I had affiliations with my partner civilian teaching institutions in the community in San Diego and in San Francisco, briefly in New Orleans while I was stationed there as well, and

I've maintained those academic positions as clinical adjunct faculty. And today, I'm on the faculty of Emory University School of Medicine and Morehouse College in Atlanta, Georgia.

So, that's my background, though how I got into the issue of transgender is basically from my fellowship days back in the late 1970s. On the faculty at Johns Hopkins was a clinical psychologist of note in Dr. John Money, and he developed what was called the Psychohormonal Clinic. And that clinic was of interest to him because we had a number of patients, infants and toddlers who had disorders of sexual differentiation or who had precocious puberty.

And his idea was to evaluate the psychological basis of their adaptations to these issues and kind of come up with the theory if you will that he promoted about what happens to the gender of this child. He actually coined the term gender identity. Gender before that if you look back at medical textbooks didn't exist as a medical term but was a linguistics term. It referred to the nouns and pronouns in language in various languages around the world.

So, he looked at that, and, again, his personal opinion was that gender identity essentially is one's internal sexed self or how they view themselves in the world. And he thought that by age 18 to 2 years that the

gender identity became a bit more concrete and that it was, again, an interaction of the physical findings of the patient and their surroundings that brought that to fruition.

So, his problem in terms of science was that he was not a man of science. He was a man of I have an idea, I really firmly believe that this is a concept, and what I would like to do is to treat patients with my concepts and see what happens to them. These were before the days of committees that protected human subjects from experimentation, and so he did his theories. He applied them to infants and toddlers in terms of gender assignment based on ambiguity of the genitalia at birth, and he processed a number of patients, including patients with precocious puberty, and came up with outcomes that in retrospect were somewhat disastrous, including a very well-known case of one of twin boys who was reassigned the gender of female at birth after accidental amputation of the penis during a circumcision.

And that child grew up believing as a female, under the guidance of Dr. Money was instructed to play sexually with the anatomy of the brother, the other twin throughout young childhood and then subsequently to -- in adolescence this child was morbidly depressed and anxious and he was told that indeed he was not a girl but was born

a boy and that at that point in time he requested to have surgical reconstruction of what was left of his phallic stump. And so he became again in his young adolescence identified as a male, subsequently married and subsequently took his own life.

And this one particular case sort of closed the door on Dr. Money's career at Johns Hopkins. It occurred over the time that he was there. The Chairman of the Psychiatry Department at Johns Hopkins, a very notable worldwide well-published physician who writes extensively on human sexuality, Dr. Paul McHugh shut down the psycho-hormonal group because of that particular issue and others that had surfaced by that time.

Simultaneously, as a pediatric endocrinologist, we were charged with looking after the adult what were then called transsexual patients that Dr. Money had worked through his protocol with social affirmation, medical affirmation, and surgical manipulation. And we were asked to take care of those patients because the adult endocrine division refused to do so. So, we had exposure to those patients and their social circumstances. And that, again, was buried and put away as an experiment that failed, and that was the end of that as far as we knew it from the endocrine standpoint.

So, I finished my fellowship and had my naval

career, finished my naval career, and moved to Atlanta, Georgia, in 1991. And two years later, I was approached by a family who had just moved to the area, a military family from southern California, and they presented to me their son, who was cross-dressing and identifying as a female, who obviously had gender dysphoria, what is now described as gender dysphoria. They came to me to seek hormonal treatment.

And again in 1993 nowhere could I find among my endocrine colleagues and my mentors across the country any advice on what to do with hormonal treatment. It was unheard of. It had not happened as far as we knew in children. And I was advised to get an attorney to write a very specific kind of a protocol of informed consent and assent on the part of the patient, and I was advised that perhaps I should start this child on estrogen therapy, which I did.

The follow-up for this patient was lost because the family moved again six months after I began therapy. And that in 1993 was the only case I knew of, and none of my endocrine colleagues in and out of academia and clinical practice had ever experienced someone coming to them and asking for information on what to do.

So, to put that in the scope of things, that's where we were back then, and we fast forward from 1993 to

the year 2006 when Dr. Norman Spack from Boston came back from the Netherlands where he had sort of mentored in their Dutch protocol and opened up what was then the first transgender clinic in the United States. So, if you think about the timescale of where these kids were, wondering where they were in the woodwork, what was happening to them, it was an empty landscape at that point in time.

Dr. Spack's clinic was the first, and within two years he was on the committee of the Endocrine Society. The Endocrine Society is a professional group to which I belong, among other professional groups. The Endocrine Society had a committee that they put together. It was a special interest group so-called. The Endocrine Society is a national organization with some international ties, membership estimated to be somewhere around 20,000 members. It is predominantly an academic group. It is predominantly university-based and adult-oriented. There's not a pediatric subdivision of the Endocrine Society, but most of us in pediatric endocrinology belong to that organization because of the continuing medical education opportunities and mentoring with our colleagues on the adult side.

The Endocrine Society group -- there were nine of them initially -- on that group were only people who were WPATH members of the committee, half of them from Europe, half of them from the United States. Of the

endocrinologists on the board, that nine-member committee, there were only four endocrinologists. The rest were mental health providers, a general pediatrician from the Netherlands, mental health folks and adult endocrine people. These guidelines were made specifically for the treatment of transgendered kids, specifically guidelines what to do with children, and only a fraction of the committee that designed these guidelines were actually pediatric endocrinologists who would be knowing the ins and outs of what would happen with medication and subsequent surgical recommendations.

So, this committee convened. It put together its recommendations. There were 23 of them, and they are published in the *Journal of Clinical Endocrinology and Metabolism*. They rate these guidelines from one circle to four circles in terms of scientific basis, four circles being very strong scientific basis, one circle being none or very limited, and then graded in between. Two is a little bit of science but not much, three is moderate amount of science, and four.

So, each of these recommendations had what's called the grade system attached to them. Only three of those 23 recommendations had any moderate scientific basis, and those were we don't know what to do about cross-sex hormones and the safety of them; that needs to be studied.

We don't know about blocking puberty; that needs to be studied. Those recommendations had the scientific basis behind them saying there is no science. We know what's in the literature, and it's not there. It needs to be, and that should be looked into.

The remaining 19 of the guidelines -- 22 guidelines in the first -- were half no science whatsoever and half potentially a little bit of science. Not only did they grade those that way openly, then they put their recommendations, a strong recommendation or a mild recommendation to label each of these recommendations. For reasons that they openly admit and published in the guidelines, they recommended strongly without any scientific basis that these recommendations should go forward based on personal experience and beliefs, not science.

Now, you would wonder how would the Endocrine Society published a set of guidelines -- they're not standards of care at all; they're guidelines. How would they publish that without a consensus of the organization? They very subtly -- it's kind of like something that gets published in the Federal Register. Didn't you read, sir, that if you wanted to respond to a federal law, that it was published in there and you had an opportunity to say something?

We happened to catch, a number of us in the endocrine field, who were a bit dismayed at these guidelines and their iterations as they were being written, that these were not good guidelines or appropriately scientifically based guidelines, and we provided some input to the committee, none of which was used in the process of coming up with the conclusions that were published.

So, the Endocrine Society guidelines are essentially the opinions of nine people. There were no contrary opinions on the panel. Missing was Dr. Paul McHugh. Missing was Dr. Kenneth Zucker, who Dr. Levine mentioned who was really the pioneer if you will the study of what was then called gender identity disorder and then subsequently gender dysphoria.

Why those people were excluded from the committee is only up to speculation. I have not personally spoken to the individuals on that committee. I know some of them personally. But the guidelines were published and became -- this was within two or three years of Dr. Spack's opening his clinic, and he was one of those members of the committee. And that was when we began to see the exponential increase in the number of transgender treating clinics across the country.

So, to explain to you where was this hidden, it was not that it didn't exist. As Dr. Levine said, it was a

morbidity that was out there but it had been amplified by communication. And the internet, all the social websites, if you look at the incidence of transgenderism and the incidence of use or availability of Twitter and Facebook and whatnot, the rise parallels that. Now, that's an association, not a cause, but it is interesting that you wonder where this comes from. How did this happen? And the advent of these clinics, you know, showing up across the country, now upwards of 65 of them, they tend to be based in academic centers because the academic centers are very sensitive to being up to speed with the social aspects of medicine.

So, the impetus is not -- I would like to be optimistic and say it's not financially driven, but it is to become a sensitive person, somebody who recognizes the complexity of society and discrimination against individuals, it's almost an overreaction to be sure that you are the most up-to-date and the most appropriate and sensitive center. And to do that you need to have a transgender clinic to provide care for the patients in your geographic region.

There is an incentive that's sort of perverse. The *U.S. News and World Report* surveys every year of best hospitals has a pediatric endocrine section in it, and one of the questions in there that you get points for that

increases your score is whether or not you have a transgender clinic and whether or not you've increased the number of patients from year to year. If you do have both of those things, you get extra points and your hospital goes up in a rating. So, many academic centers are very interested, as Children's Healthcare of Atlanta consortium is in Atlanta. They want to have a higher rating for their endocrine division, and therefore, they quickly cobbled together a transgender clinic, which has been in operation in Atlanta for about four years now.

So, that's where this came from. You would say how is this accepted by the general medical community? We've got the Endocrine Society writing these guidelines. That says that 20,000 ostensibly members support that. Take it a step out further and the American Academy of Pediatrics, to which I belonged for a number of years, has 67,000 members, and they came up with a guideline written by one individual that was reviewed potentially by the executive board and a small committee. The best guesstimate of people who laid hands on that and edited those guidelines is maybe as many as 30 people in an organization of 67,000 members, none of whom -- obviously 35 potential members were able to review those records and give input. The rest was done behind closed curtain.

So, those guidelines are written, and they sound

very impressive, okay? The American Academy of Pediatrics recommends this. The Endocrine Society recommends this. The pediatric Endocrine Society guidelines came out as sort of a parallel set, and those are quoted often, and you will hear them quoted when you hear folks on the other side of this affirmation issue, that they recommended that the mainstream medical practice is that these guidelines should be followed.

These guidelines are written by activists in small committees who got into the power and made those guidelines published. Interestingly in the Endocrine Society guidelines they recommend the specific hormone manipulation from wrong-sex hormones and talk about levels to be achieved in the serum by giving estrogen to biologic males and testosterone to biologic females. At the same time, the Endocrine Society has published a set of guidelines which they paired with the international endocrine community saying that levels of testosterone above 100 in women should be avoided at all cost because of the side effects and the adverse outcomes in adult patients, women who are asking to be treated with low-dose testosterone. One Endocrine Society guideline says testosterone above 100 should be avoided. The endocrine guidelines for transgender say get that level of testosterone in females up to, 1,000. Now, same

organization, disconnect between the cross. The guidelines for testosterone treatment in adult women are very specific and have wide scientific validity behind them.

So, from the endocrine standpoint -- and I'm going to stick to the endocrine standpoint because Dr. Levine did such a great job of describing the mental health side of it -- why would we be concerned about puberty blockers as pediatric endocrinologists? Why would we be concerned about wrong-sex hormones? We're not doing surgery. I can tell you my opinion of that, but I'm not an expert in that field and I would defer to a plastic surgeon who could give you more information. I certainly have talked with colleagues, as Dr. Levine has, about the problems with the surgical issues.

But the medical issues and puberty -- puberty is not a disease state. Puberty is a manifestation of human physiology to take a nonreproductive individual and change them into a reproductive adult, either male or female. Sex is binary. It's established at conception. It's recognized at birth, and it exists for the lifetime of that patient.

People with disorders of sexual differentiation where their genitalia are looking abnormal or mixed at birth are not a third sex. They are either male or they are female. And that is the standard of endocrinology as

it's written in science and proven.

So, puberty is there on purpose, and to treat it as a disease state or say the problems that happen during puberty, if you go through puberty, you're going to experience anguish. Well, everybody here in the room I'm looking at I think went through puberty I'm assuming and had anguish over things that happened to your body. Acne in particular is such a devastating disorder to a number of people who are acne-prone. We would never in our life recommend stopping puberty to keep acne from happening. So, you know, it's a different kind of a concept, but there is lots of pain and agony about changing your physical body from a prepubertal body to an adult.

And so puberty has a purpose. It is often difficult. It has all the social aspects associated with it. In an endocrine practice we see large numbers of kids who are suffering from delayed puberty. It's the social aspects of it primarily but in some cases the hormonal aspects as well. So, we treat those kids. We watch them to go along. We help them move through puberty. We support them emotionally, and we get them to recognize that puberty will happen eventually and that we guide them through that and watch the outcome. It affects physical growth and stature in boys in particular. It's a very sensitive issue. So, you know, we know that puberty has a

purpose, and we know that hormones are necessary and appropriate. The biologically appropriate hormones guide you through that.

We also know from disease states where the opposite sex hormones are overproduced because of pathologic conditions, that those things are harmful. An absence of estrogen in a female who has no ovaries at birth, the estrogen must be replaced at the critical time of age 10, 11, and 12 to begin that and maintain that through young adulthood in order for their skeletal calcium deposit to be able to be created and avoid osteoporosis and severe bone disease as an adult. We know that from that particular -- and these are not transgendered individuals. These are not people with puberty blockers. These are females without estrogen. It is a devastation to their skeleton if they don't have estrogen. We aggressively treat to put it back in so that their bone health is appropriate.

So, we know from natural disease states that appropriate sex hormones are very critical for the development of that individual. Testosterone specifically increases hemoglobin levels, increases physical strength at a time when the body needs to gain that strength to do what the male body was designed to do, not what the male personality was supposed to do but what the physical body

was supposed to do.

So, those hormones are there on purpose, and to block those, we have no idea from puberty blockers in adolescence, in the adolescent age range, what the outcomes are. We do know in kids with precocious puberty for which these puberty-blocking drugs were developed, that we stop them, and within 18 months the motor gets running again after the last dose and they come back to essentially where they were before these drugs were introduced. So, that information we do have.

Yes, that is reversible, but we don't have any experience, no one has done a prospective controlled study to say if you block puberty and you get to 20 and if you don't block puberty and you get to 20 in the transgendered population, what's the difference? What's the health outcome? That study needs to be done in order for that drug to be approved by the FDA for use in the transgendered patient. And no such study is ongoing, and no such study has ever been done or published. That's the puberty blockers.

So, as Dr. Levine indicated, there are brain issues, as well as physical body issues that are related to going through puberty, and it is a giant experiment to do this to children. And then, as Dr. Money did back in the days, I have an idea, I have a theory, I have a goal, I

really mean well for these patients, I'm compassionate for them, and I'm going to try something on them and we're going to see where we are 20 years from now. And that's why children should not be experimented upon because it is a giant experiment. There are laws passed in States where puberty blockers cannot be used to sterilize pediatric patients. And so, again, that's where the law has stepped in in some States, to keep that from happening.

So, that is the issue with puberty blockers. The wrong-sex hormones, there's, again, disease states that the Endocrine Society, you know, gives guidelines to say testosterone levels in women that are elevated are toxic, that estrogen levels increased in males create stroke risk, hypercoagulable states, and therefore, we want to make sure that those disease states are eliminated with appropriate treatment so that the morbidities don't happen, okay? That's in the adult world. We do not know -- we can see the physical changes in the transgendered child who has been given the wrong-sex hormones, the physical changes, the things that become irreversible. And so we have experience to know that that is an issue.

Fertility clearly in a puberty blocker that's stopped early after a short time, fertility will come back. If you block the organizational development of the ovary and the testes in early adolescence and then on top of that

put in cross-sex hormones, you literally are guaranteeing the vast majority sterility for life. The final step with surgical removal of the organs is -- absolutely proves -- you eliminate fertility altogether unless there's been prior preservation of spermatozoa or oocytes before the whole process, which is a crazy expensive procedure that most of these disadvantaged families would never have access to.

So, we know that there are problems. There are disease states in adults. The big studies show that heart disease and stroke and cancers increase. The male breast tissue is highly vulnerable to exposure to estrogen, and breast cancer increases exponentially in adult males who are treated with estrogens.

So, this is something that we haven't done the control studies, but when we don't have a control study, we rely on nature and other disease states to look for parallels of what happens. And this is why it's so important for us not to do something -- if we want to pick, if we want to do a scientific study, we must have a control group. It must be an ethical study. And this is what brings up the scary thing is there's one multicenter study of transgender children in the United States, NIH-funded, which is coming close to its fifth and final year. It is not a study which has any controls in it. It's a study of

reviewing what happens to these kids in the transgender clinic environment, when they go in there, what the outcomes are at five years, not 10 years, not 20 years, not 30 years, which is what you need to know about because from Dr. Levine's standpoint and his treating the adult, transgender adults, the health morbidities and the psychiatric morbidities are large in scope at that time.

The study from NIH is not directing these clinics to have a specific protocol. It's just saying whatever you do within your organization -- and there are four centers in the U.S. that are collaborating for this -- let us know the outcomes, how things look at the end of five years. And that study will be published probably within a year or so, maybe sooner. And that is the only study that's been done. It is not a good study because it doesn't have control groups. It's not a good study because it doesn't have a protocol that's uniform in all centers.

So, it is going to be a study from which will be cherry-picked some data, and that's, again, you'll hear the trans affirmation advocates, they're going to cherry-pick information out of bold data and ignore the big picture, as they often do, and publish that. And it's sort of a self-affirmation publication situation where they'll pull something, write something from anecdotal experience and cherry-picking data from a study, publish that, then a year

or two later quote this study as the expert study that proved the point, quote that again and then requote and requote and requote.

And if you look at the bibliography of the WPATH guidelines, it is full of anecdotes and recurrently reported studies that have no valid science because no valid science in children has yet been done. So, the guidelines where they recommend these things have no scientific basis at this point in time, but they are WPATH's idea of what would be the purposefully compassionate appropriate thing to do for transgender children.

Now, the mental health issue I will tell you from my experience of having interviewed and discussed what goes on in these specific clinics that are -- not every clinic and not cherry-picked clinics, just the ones where we happen to have an access, discussion of what happens, is they are a conveyor belt. Very quickly, the clinic in the Children's Hospital of Orange County, Director of the transgender clinic Dr. Mark Daniels very kindly answered questions that were proposed to him about what goes on in the clinic, and he specifically stated that in the absence of obvious severe mental disorders, delusions, you know, schizophrenia, major depression, in the absence of those things, once they eliminate the patient and they clear them

past that, there is no further psychological evaluation provided as a routine.

And specifically, the families are completely left out of the evaluation of the family dynamics, proudly stated that, said we don't do that. We've got some folks on staff if we see that there's some problems, but it's not a routine. How in the world can that clinic process those kids through where they affirm socially, very quickly put them on puberty blockers, a year or two later put them on cross-sex hormones, and send them down where essentially almost every one of those children ends up affirming. It's a pathway that looks like a golden Valhalla, and the problem is that that conveyor belt ends and there's a drop and no one follows the people that dropped off the conveyor belt. We don't have the experience in children yet to do that.

So, from the endocrine standpoint I cannot, as a practicing physician, do harm to children. I cannot fathom that this study at NIH has an Institutional Review Board that possibly looked at the stopping criteria for adverse outcomes.

I do clinical research studies frequently. I'm involved in four or five at this point in time. The training I have to go through every two years for the protection of human subjects to understand exactly what

needs to be part of the research protocol to protect the patient from harm is absolutely absent in what's being done in the one study at NIH that says -- there's no way that an IRB that I have had contact with -- it's an independent review board. It's independent of the organization, independent of the finance. It's a cross-section of people in many, many disciplines, including economics and et cetera, et cetera. Those boards look at those protocols and design and approve the informed consent.

Now, if in the informed consent there's a mention that your child is going to be sterile, that would be the stopping criteria right at the beginning for any ethical study that I have ever had a part in. An exception would be for chemotherapy where you might damage the gonad in a developing child, but there is significant mortality that's well-known and well-documented to untreated cancers where they have to do the irradiation or adversely affect the gonads.

You'll hear comparison, well, these kids are going to kill themselves. That's death. You know, we're preventing a death in a child by going ahead and affirming medically and socially. And the answer, as Dr. Levine said, no, there is no science to show that at all. It's a threat, and it's hung over.

In addition, online these teenagers and families

know that if they want to proceed with this process of getting into the transgender clinic, initially, the Endocrine Society said you must have a letter from a mental health practitioner that says you have a risk of suicide. The way to get your letter is to tell your practitioner you want to kill yourself. That gets your ticket into the clinic. And you can Google it and find it on the internet. The teenagers have access to this. And it says this is how you get it. This is what you say. This is what you do.

Now, is it surprising then when you take a survey, a convenient survey of transgender kids who want to answer the survey and they say have you ever thought that you wanted to take your life, you bet. Of course. That's how I got here in the first place. That's what I was told to do. It got me in the door right away, and I'm on my way to where I want to be. So, the suicide threat is a manufactured one. It does exist, but it is promoted as a way to get into the system. And therefore, if you survey people in that system who are not all patients in the system but those who wish to answer a survey, you're going to get a convenient sample that's biased, and you're going to come up with data that looks really impressive to show that if we do not allow medical transition and social transition in these kids, we are going to have dead children as a result of that. And no parent can think

clearly if they're told that their child is going to take their life unless they move this direction.

So, that is the problem, and, you know, I deal with the patients that come into my office. I show them the compassion that they deserve. These are not happy children. These are not emotionally satisfied children. They are seeking something that I cannot give them as a medical practitioner without what I would say doing malpractice and causing harm. Thank you.

MAJORITY CHAIRMAN SCHEMEL: Very good. Thank you, Doctor.

Chairwoman DeLissio, do you have any initial questions?

DEMOCRATIC CHAIRWOMAN DELISSIO: I do, thank you. Just a quick housekeeping question. Whitney, you mentioned about no recording, and I note PCN lights are on, but is this also PCN to the right?

MS. METZLER: I know that there was one organization that was given prior permission to record and that they were the ones that were set up I was told ahead of time, beforehand, but no one of the general public is allowed to. That is our House rules.

DEMOCRATIC CHAIRWOMAN DELISSIO: And who is recording, please?

REPRESENTATIVE RAPP: The Chair has discretion.

If I am notified ahead of time, Representative, there was a request ahead of time for the Family Institute to do a recording. It'll be on my Facebook page. It's being live-streamed as well. There was a request. It was made ahead of time that is at the discretion of the Chair of the Committee.

DEMOCRATIC CHAIRWOMAN DELISSIO: Thank you, Chairwoman.

REPRESENTATIVE RAPP: You're welcome.

DEMOCRATIC CHAIRWOMAN DELISSIO: I wasn't aware of that, and thank you for the information. I just heard Whitney's thing, and then I noticed this gentleman.

Dr. Van Meter, the guidelines that you referenced and the process in this case that you described that the Endocrine Society went through to produce some guidelines, that vetting process if you will sounded a little light to me, but you had said that the guidelines in essence would then be boiled down to somebody's experience and beliefs as to how they would implement them, someone being practitioners. My notes are correct?

DR. VAN METER: Yes. And that's actually freely discussed when you actually open the 2017 revision guidelines, particularly as I've done, and read the commentary. They'll say we highly recommend this even though there is no scientific study to indicate this is

safe or effective, but we strongly believe this is the right thing to do.

DEMOCRATIC CHAIRWOMAN DELISSIO: So, sir, I just want to understand then that another practitioner would also be then practicing according to their experience and beliefs to the degree that beliefs factor into medical science, so then neither party would be faulted if you will?

DR. VAN METER: Well, the problem is that there's not a dialogue, you know. And that's the one thing that you mentioned upfront, which I'm really saddened that we don't have the other individuals being able to be here because of extenuating circumstances is that we have trouble finding dialogue. We ask for dialogue. I personally as a member of the American Association of Clinical Endocrinologists and the Pediatric Scientific Committee asked that we have a dialogue presentation on transgender health at the meeting in Houston about three or four years ago. The Pediatric Scientific Committee recommended that that dialogue happened, and things laid quiet, and the meeting brochure came out and there was a transgender presentation by Dr. Rosenthal from San Francisco on just his affirmation.

DEMOCRATIC CHAIRWOMAN DELISSIO: Well, I --

DR. VAN METER: We can't get our foot in the

door. And I didn't mean to speak over you and show --

DEMOCRATIC CHAIRWOMAN DELISSIO: No --

DR. VAN METER: -- disrespect --

DEMOCRATIC CHAIRWOMAN DELISSIO: Well, you're here, so -- but I do -- that was what was attractive to me and working with Rep Schemel on this was that opportunity for dialogue. I think we all wish COVID-19 hadn't happened to have provided that opportunity, and hopefully we can go forward somehow figuring out how that dialogue happens.

Some of the caveats that you have mentioned, about four years ago I happened to be diagnosed with breast cancer. Now, wake up one morning and all of a sudden your life is a little changed. Now, I assure you there was lots and lots and lots and lots of fine print in the paperwork that I had to execute in order to get treatment and have informed consent.

And it was interesting. About two years ago a staff person who worked unfortunately in this building had a diagnosis related to the chemotherapy from 10 years previously. It happens. And that diagnosis was very different than breast cancer but it was a direct cause and result of the chemotherapy. And it suggested that I confer with my oncologist and, you know, was I aware of it. And interestingly enough, when I, you know, said the oncologist, you know, holy crap, she said I guarantee it

was in the fine print and quite frankly would you have made another decision? And the answer was no. I was very fortunate to be able to withstand the protocol and today I'm here obviously.

But some of the caveats that you were mentioning kind of reminded me of an insert in, you know, something you get from the pharmacy, insert in a drug. If you ever look at those inserts, they warn against everything and anything and the kitchen sink. Now, whether the probability or the possibility of those events occurring vary. It varies on the individual. It varies on extenuating circumstances. It just varies on a ton of variables, and those inserts are there to both alert and advise, although if the print gets any smaller, I'm not sure how much alerting and advising we're doing well.

So, I can appreciate there are caveats with any medical procedure, with any medical course of treatment. There are. I'm not sure there's a practitioner out there that would say I guarantee this. I guarantee the outcome. So, I think when some of those caveats are mentioned and particularly one in particular it sounded like puberty blockers sterilize kids. That's what my notes said. There are a few steps in there -- I mean, is that -- so if somebody is given a puberty blocker, they are sterile?

DR. VAN METER: While they're on treatment,

they're gonadal function is shut down completely.

DEMOCRATIC CHAIRWOMAN DELISSIO: Well, if they're children, we're hoping they're not reproducing.

DR. VAN METER: Right.

DEMOCRATIC CHAIRWOMAN DELISSIO: So, if that is a temporary limited event for something that wouldn't even be occurring, most certainly the majority of us hope don't occur before somebody is well-prepared to have a family, is that what you were referring to is that just the fact that the child is on a puberty blocker would prevent them from reproducing, but that's neither the goal nor, you know --

DR. VAN METER: The goal is -- and, again, Dr. Levine stated it so eloquently. The adults who, looking backwards, said that for them the changes of puberty were the most difficult that they experienced, and it was based on that recommendation that puberty be blocked. We don't know. We have no idea about what happens to an adolescent who has puberty blocked. We know that if it's a short term and nothing else is done, the likelihood of return of gonadal function is good. And in that way it is reversible as if nothing happened pretty much, okay?

We know that in the experience of kids with precocious puberty who are -- these are children who are girls and boys who are five or six when they start going into full-blown puberty, socially it's very difficult for

them to handle. It shortens their growth potential significantly. So, that is the impetus for why we would offer stopping that for a short period of time until --

DEMOCRATIC CHAIRWOMAN DELISSIO: And that is a practice, sir, if I understand correctly from what I read that you --

DR. VAN METER: Yes.

DEMOCRATIC CHAIRWOMAN DELISSIO: -- do within your own practice?

DR. VAN METER: Right. And I'm actually involved in --

DEMOCRATIC CHAIRWOMAN DELISSIO: Yes.

DR. VAN METER: -- clinical research with the long-acting form of a puberty blocker with AbbVie Pharmaceuticals --

DEMOCRATIC CHAIRWOMAN DELISSIO: Okay.

DR. VAN METER: -- to look at its effectiveness. But it's indication is specifically for the very, very tight criteria -- and we're talking about one in 5,000, one in 10,000 kids who are treated with these medications. It's a very, very small niche market and outrageously expensive. But it's covered by insurance in most cases and certainly in the State of Georgia Medicaid covers it for kids appropriately. So, it allows us to actually pause puberty on purpose but then to let it come back to its

natural state.

That's the only science we have on that, okay? No one has done anything to look at whether or not when you get to the age of puberty, when the body is physically expecting to get ready, if you block puberty then and then let it go, how much do you recover? There is no study done. And that would need to be done for me to be able to recommend that, you know, puberty blockers are really okay because they are fully reversible. You know, let's just not even talk about going on the conveyor belt because I'm going to assume you're not going to be on that conveyor -- I would be optimistic that this is a phase where you needed to sort out your thoughts, and that's the guidelines. And from the Endocrine Society and from WPATH and from PES and the AAP say the purpose of this is to allow the child to settle and get their thoughts together and see whether or not they actually are indeed satisfied with where they're going or whether or not they want to go back and get back to where nature intended them to go in the first place.

But that's not what happens. But if that were the case and they could show we've studied this for 10 years and we've got data that shows that recovery of gonadal function is, you know, 85 percent, maybe 10 percent kind of iffy and maybe there's a small fraction that don't come back and we can control to show that that's the risk

you take, that would be something that would make me look differently at recommending against puberty blockers, but there's no study that's been done, and there's none that will be done likely. And we're just sort of explosively going in a direction and using the John Money theory of let's see what happens. Let's get out there and see what happens. And the problem with that is that 20 years later you look back and say what the hell was I thinking? I mean, wait a minute, you know, look what we've created.

DEMOCRATIC CHAIRWOMAN DELISSIO: But we can say that, sir, for any number of things. I remember when they used leeches and bloodletting and even in -- when I was born in the late 1950s, pregnancy was treated very -- just the very natural thing of delivery. And I'm not suggesting we use children for experiments at all, sir. I'm just suggesting that these types of things with this particular medical sector are not so much cyclical, but that's part of how we evolve.

DR. VAN METER: Certainly.

DEMOCRATIC CHAIRWOMAN DELISSIO: So, I look forward to hearing more in the future. I consider this my first foray into this.

DR. VAN METER: And I really appreciate your interest in the dialogue and anything we can do and you can help us with to get dialogue going would be really

appreciated. These kids need that. They really do.

DEMOCRATIC CHAIRWOMAN DELISSIO: Thank you, Mr. Chairman.

MAJORITY CHAIRMAN SCHEMEL: Thank you, Madam Chair.

Doctor, in response to that last question you were, you know, talking about no studies. I mean, in medical practice do you normally experiment on human subjects without knowing the outcome? You know, is that commonly how new procedures or new treatment protocols, you know, come about?

DR. VAN METER: No, it isn't. And I'll give you an example of the use of human growth hormone in adults to fight aging to sort of affirm the eternal youth if you will using actual human growth hormone, not mockups that don't really work. That is being done, you know, without any control. It's just the lure of, hey, you want to stay young forever, come to my antiaging clinic. And these clinics are -- our view of these clinics is that they are charlatans who are making a lot of money and experimenting on humans. And so in the medical community we look askance at those things and say I wouldn't go there. They exist. I don't know how they're regulated. Perhaps some lawsuits 10, 20, 30 years are going to come back at those folks that did this. But for right now we cannot recommend that.

That's not the standard of science. And so those things are roundly condemned by professional societies as a rule.

MAJORITY CHAIRMAN SCHEMEL: So, if I hear you right, you're saying that, you know, gender affirmation, using puberty blockers and cross-sex hormones, you know, that's done without the normal scientific study and analysis? I think I'm hearing you say that. And you're saying that that is unique to this, that you don't know of anything at least within your medical experience where we are treating large numbers of people with unanalyzed or properly analyzed science?

DR. VAN METER: I'm not aware of any other circumstance.

MAJORITY CHAIRMAN SCHEMEL: Okay. What age do children normally go through puberty?

DR. VAN METER: The average age for females is to start with breast development at age 10 1/2 and to sort of completely mature into fertility by age 15 1/2 to 16. In boys the average age is 11 1/2 for the beginning of puberty and completing that sort of by age 18.

MAJORITY CHAIRMAN SCHEMEL: So, I presume in the context of gender clinics, at least as you're familiar with them, the use of puberty-blocking drugs is always pre-puberty. I mean, there's no reason to give it post-puberty?

DR. VAN METER: No, no, actually, they wait until puberty starts, okay, and that makes sense. Actually, it's even off label and off protocol, there's a clinic in Los Angeles where they suggested giving puberty blockers extra early so that puberty never even gets started. That's not the general recommendation and certainly not the recommendation of the guidelines. They say wait until puberty starts, and at that point in time, as they move into true puberty, and you need to document they're there, not just a physical appearance but laboratory studies and other things, and then it's at that point in time that you offer that puberty blocker.

MAJORITY CHAIRMAN SCHEMEL: So, in gender-affirmation treatment, how long would the child then normally be on the puberty blocker?

DR. VAN METER: Probably a year or two because the push then is to be able to get the opposite sex hormones started in order to get the changes made that would normally happen in parallel to their peer group --

MAJORITY CHAIRMAN SCHEMEL: Okay.

DR. VAN METER: -- so that the female who wishes to be a male would want to go and have increased muscle mass, hair growth, et cetera, et cetera that looks like the age-matched males that they wish to be, okay, and likewise the same thing with the females.

MAJORITY CHAIRMAN SCHEMEL: So, if I'm putting the pieces from your testimony together and that of Dr. Levine as well, you know, some will say, well, the use of puberty blockers in gender-affirmation treatment, number one, it's a pause to give the individual a longer period of time to kind of sort out, you know, what issues they believe that they may have. And then cross-sex hormones would be administered later if they want to proceed.

Now, I'm hearing Dr. Levine say that actually what it does is it sets them on a path where they start with the puberty blockers and go right into cross-sex hormones. So, this decision, you know, to start down this path begins with a child at age 10 or 11. Does that sound correct?

DR. VAN METER: The medical treatment side begins at age 10 or 11. And it's interesting that the guidelines from the Endocrine Society specifically say cross-sex hormones at age 16, not before, and puberty blockers at the onset. That would give you the impression then in a female who starts puberty at 10 that there would be six years of puberty blocking, again, much longer than is actually really done in the clinics.

MAJORITY CHAIRMAN SCHEMEL: Sure. And your work with puberty blockers and extended periods on puberty blockers are for children that are younger, precocious

puberty --

DR. VAN METER: And --

MAJORITY CHAIRMAN SCHEMEL: -- so that would not be this age cohort.

DR. VAN METER: And rarely do they have six years of treatments. You know, the onset of puberty in kids that's non-pathologic -- there are circumstances that look like puberty in three-year-olds and two-year-olds, but it's from a pathologic production of a hormone from a tumor or a metabolic derangement, which can easily be treated not with puberty blockers but just correcting that, taking the tumor out or correcting the metabolic disorder by replacing other hormones that kind of put things back in normal working order.

So, true precocious puberty is really rare to be seen before age five or six in females and seven or eight in boys. And, therefore, you're limiting just by nature the window in which you treat to about three years, maybe the longest four years in cases of true precocious puberty that can be treated with those puberty blockers effectively.

MAJORITY CHAIRMAN SCHEMEL: But that still just pauses precocious puberty so the child is going through puberty at a time when his or her peers are. So, once again putting the pieces together from Dr. Levine's

testimony, we say that, well, puberty blockers are just being used as a pause to allow the child additional time to sort this out, and Dr. Levine testifies that, yes, an extended period of puberty blockers where a child is not going through puberty when his or her peers are results in other psychological issues, psychiatric problems, so there's a pressure then -- and maybe this is just a rhetorical question -- to go right to the cross-sex hormone, you know, after the one year, one and a half years of puberty blockers.

DR. VAN METER: Well, it's interesting. The iteration from 2009 of the endocrine guidelines and then the revision of them in 2017 specifically stated that age 16 still for cross-sex hormones except when there are extenuating circumstances where the delay in puberty might cause some social problems, which is a wide open door to say, you know, jump in, you know, at the regular time of puberty and what in truth is recommended by the people that run the clinics that are open enough to discuss it.

MAJORITY CHAIRMAN SCHEMEL: So, cross-sex hormones, once those are begun, that is a lifelong regimen. Is that correct?

DR. VAN METER: It can be stopped, but what happens is that if you are a biologic female and you take testosterone, your body changes physically in ways that it

cannot be undone, the same way it would be during puberty. So, my experience in meeting adult females who were trans males for a period of time and then came back and returned to their biologic sexual identity, their voices are down here and they have sort of square jaws and they have trouble feeling or looking like a female again because of what they did to their bodies with the cross-sex hormones. And so there are those changes that cannot be undone.

Certainly, we don't know about fertility. There are anecdotal case reports of trans males stopping testosterone therapy and being induced to ovulate because they have their uterus and ovaries remain. They did not have surgical excision of the vagina, the cervix, the uterus, and the fallopian tubes and the ovaries. They technically can become pregnant and have become pregnant in a couple of, you know, celebrity cases where this has been reported of trans man delivers baby. So, it clearly can happen. Fertility can be made to return with, you know, some significant machinations of medical treatment, but, you know, it's experimental again on that, and no one really knows.

MAJORITY CHAIRMAN SCHEMEL: Okay. So, one of the things we commonly read is that, well, these are reversible. Because we have to justify why we allow them to occur with children who, once again, don't have agency.

They might express a desire to be the other sex, but they are children. We don't let children make any other decisions, so adults are actually making those decisions and administering the treatment. So, these are decisions being made on behalf of someone else for someone else. And they're often justified by saying, well, that's okay because they are reversable later in life. If that individual, when they reach maturation, you know, desires to, you know, return to their biologic sex, these are reversible conditions. So, in your professional opinion, what do we know about the reversibility of them?

DR. VAN METER: We don't know. It's not been studied for us to know. We can only sort of look at sporadic cases that get reported and make assumptions.

MAJORITY CHAIRMAN SCHEMEL: Okay. Other questions? Representative Keefer.

REPRESENTATIVE KEEFER: I'm just going to ask an obvious question that we're going back-and-forth and kind of parlaying off of what Representative Schemel went on was we're adults making these decisions for children and what happens when we get that child and perhaps, you know, you or one of your colleagues participated in, you know, providing that medical service and then we have a plastic surgeon involved and this child, you know, is now an adult, 26 years old and says what happened? You know, why in the

world would you ever allow me -- you know, that's a case for malpractice. I mean, and then how long do they get to go back to say, hey, this was -- you know, once they discover that, you know, I didn't have the mental capacity to really make any of those decisions or agree to any of this? And what implications are there for all of us quite frankly?

DR. VAN METER: It's a scary prospect, and I think that will possibly be a catastrophic end to medical careers, to hospital healthcare systems and then, worst of all, for the patients that were involved and the suffering that they have for their lifetime. I mean, that's above all things -- I mean, the rest of that is gross inconvenience and makes a dent in society, but that one individual, that precious individual whose life was forever ruined has been ruined, and it's been done intentionally.

REPRESENTATIVE KEEFER: Right. And, again, I go back to the point, we're making these decisions -- this is children.

DR. VAN METER: Yes.

REPRESENTATIVE KEEFER: You know, once you're 18 and you're making these conscious decisions for yourself, that's a whole different, you know, story. We're not talking about them. We're talking about --

DR. VAN METER: And, as an endocrinologist --

REPRESENTATIVE KEEFER: -- children.

DR. VAN METER: -- I can look at the data and say I would not recommend that anybody over age 18 do this without, you know, knowing fully what's going on, but under no circumstances should a child beneath the age of consent ever be subjected to this.

REPRESENTATIVE KEEFER: Right. And that informed consent is another piece that's really to it because, you know, I go into my pediatrician's office and I ask a lot of questions. I'm one of those researchers, so he dreads when I come in, but at the end of the day, you know, I'll say to him would you recommend your child get this shot or would you recommend this? You know, and I have the relationship to trust my medical care provider, whoever that may be. So, you know, that's another component here we may be breaking down.

DR. VAN METER: Well, just the concept of assent of a minor in a clinical study, when we do clinical studies that involve children, which are the ones that I'm involved in, there is a very specific informed consent the parent signs, and it is that package insert that you are so familiar with with the tiny print. And it's like a mortgage contract. Do I have to really read every page of this? And we literally set the parents down and give them about three or four hours to digest every page of that.

And they sign it. Then the child is given an assent form, which basically in very simple language says, for instance, in the case of the puberty blockers, you went into puberty too early, this is a medicine that is going to be a shot that you're going to get every six months. You're going to have blood tests drawn, and the purpose of this study is to help us know whether or not this medication is effective and safe. And you and your parents are going to discuss this. And your opportunity here is to put your name down on the page to say that you understand what we're talking about.

The parents are given the consent. The kid is given do you understand? And I've not had a child, you know, rule the roost and say no, mom, I don't want to do this. Usually, they're kind of excited if they're old enough to understand before the age of 18, yes, I really want to -- this is really cool. I'm part of a study. And, you know, that's sort of the intrigue of getting an 11- or 12-year-old into something like that is that they understand. I don't have the big picture from the adult world, but my parents, I'm trusting in them, if they're going to, you know, consent to this and I'm happy with -- you know, it's going to screw up spring break because I have to have two visits in the middle of spring break, but I'm okay with that. You know, those are the kind of

decisions that kids will make.

But they have to understand that, and they're given the opportunity to voice -- ask any child, do you want a blood test, and the answer is going to be no. But if you get the blood test to help this particular -- and you're going to be getting treated anyway, this is just part of a study to see whether or not this new medication, which is a cousin of the one we know works and is safe, is just as good as the one that is commercially available. So, that's how it works.

REPRESENTATIVE KEEFER: And one more question for me. So, in the surgical part, what other surgeries for gender-affirming surgeries do you know are being conducted on children?

DR. VAN METER: What's called top surgery is basically bilateral mastectomies on female patients down as young as 13 in Los Angeles. And in the State of Oregon a girl can have her breasts removed without permission of her parents or knowledge of her parents once she reaches the age of 14. So, this removes an anatomically healthy organ that cannot be replaced.

Somewhat sarcastically, the doctor in Los Angeles who has these girls age 13, 14, and 15 have mastectomies has recommended them -- said, well, if they decide later they want breasts, they can buy them, and said that in a

public forum, just kind of, you know, hey, a breast, you can buy one and have one put in. The answer is it's not a lactating organ. It doesn't function the way it's supposed to. Its sensitivities are not there. It's a sham, and it doesn't work. And so you're mutilating a body, taking a perfectly healthy organ off because of the opinion of a child who's unhappy at the time.

MAJORITY CHAIRMAN SCHEMEL: Representative Rapp.

REPRESENTATIVE RAPP: Thank you, Chairman Schemel, and thank you, sir. I have a couple questions that hopefully you can answer. I'm quite surprised that the blocking drugs are not -- if I'm reading this correctly, they are not FDA-authorized. And also if you could answer for me the World Professional Association for Transgender Health and you also mentioned the NIH, the National Institute of Health. Does the World Professional Association for Transgender Health receive U.S. tax dollar --

DR. VAN METER: I do not know. I honestly don't.

REPRESENTATIVE RAPP: And the NIH --

DR. VAN METER: Sure.

REPRESENTATIVE RAPP: -- are they supporting these clinics and these -- are these clinics receiving grant money from NIH?

DR. VAN METER: The NIH has given a $5 million

grant to spread over the four centers, okay. And, interestingly, their caveat for this is that all we're doing is an observational study of outcomes at these four individual centers and what they do within their own protocols. The study is not trying a protocol and unifying it and controlling it and seeing the parallel outcomes. It's an observation. And then that way they've kind of separated themselves out from being culpable because NIH isn't recommending this. We're just reviewing your data as you move forward in a prospective fashion.

REPRESENTATIVE RAPP: Well, you know, the NIH and the Administration has been in the news a lot lately. And surely the NIH is aware that these blocking drugs are not FDA-authorized. Is this typical in medical -- you used the word experiments, so is this typical that the NIH would fund other programs such as this?

DR. VAN METER: Well, the way the NIH works is actually to design the research, so they would take a drug that maybe has another indication and in a very extremely controlled circumstance allow a small group of individuals, enough that you could get statistical significance out of the patient population, let's say in kids maybe 15 or 20 individuals in a control group and 15 or 20 individuals matched socioeconomically, physically, mentally to be a parallel group. You obviously can't do a crossover blind

study where -- you could, but injecting a sham medication and the real medication and seeing differences as they move forward is frowned on with kids' studies particularly. But there is no non-treated group to compare to.

And the NIH running those studies and actually designing those protocols looking at the specific purpose of approving a drug would be a very different protocol than the one that's funding these four centers, okay, because they are not recommending any drug specifically. They're just saying whatever you're doing at your center we want to see what the outcomes are like and the four centers that were kind of pioneering this.

REPRESENTATIVE RAPP: So, they'll be asked to submit a report?

DR. VAN METER: Yes, that's it.

REPRESENTATIVE RAPP: On their findings.

DR. VAN METER: Yes.

REPRESENTATIVE RAPP: Thank you.

MAJORITY CHAIRMAN SCHEMEL: Good. Thank you.

Doctor, you said during your testimony -- I'm sorry. You said during your testimony that, you know, at conferences where, you know, academic research or other, you know, medical information like that is shared, that you find that you and other individuals within the Endocrine Society or that represent an opposing point of view to the

gender affirmation, you know, are never invited to present. Just for the rest of us who are not practitioners, is that unusual? And on other medical issues, especially ones that are fairly novel where, you know, the opinion of experts has changed so radically in such a short period of time, is there typically offers or opportunities for people with contrary opinions, medical opinions to testify or to present?

DR. VAN METER: Not on this scale. I will tell you that having been practicing endocrinology for 40 years, knowing the politics -- and there's politics in medicine and politics in research in terms of getting funding -- I remember specifically my mentor at Johns Hopkins was doing a study of adrenal disorders, which look like puberty but aren't, and was doing very much cutting-edge evaluation of outcomes on these patients. And he submitted his study to the *Journal of Clinical Endocrinology and Metabolism*, which is sort of the flagship journal of the Endocrine Society. It was held back while the editor of the *Journal of Clinical Endocrinology*, who was a pediatric endocrinologist from Cornell, waited and produced her study and published it instead of his study. And it was the same data, but it got her name recognized as the person who sort of published this first.

So, that kind of small stuff goes on and has gone

on in the academic world of dog eat dog and, you know, trying to get your CV and your worldwide acclaim for your research recognized, but nothing on the scale like this where no voices -- we finally from our concern side had a letter to the editor accepted to critique the recommendation for puberty blockers in children to the *Journal of Clinical Endocrinology and Metabolism*. We wrote that letter. It took them about 15 months to approve it and had very strict guidelines. We could only have so many references. There can only be four authors. But it did get published. It was the first time in a general mainstream medical journal that any contrary opinion was ever brought up. Almost immediately, the entire committee that wrote the guidelines came back with a rebuttal, which wasn't a very valid rebuttal but it was their rebuttal, and that was published as a counter to our letter to the editor.

But that's the landscape. You know, we are literally suppressed. And in academia there are people who are literally -- confide in me they cannot come out and state their opinion for fear that their jobs are in jeopardy, that they will be removed from their academic position or they will never be published again.

MAJORITY CHAIRMAN SCHEMEL: So, in your opinion based on your experience is the voice of people who are

critics of this one treatment theory silenced?

DR. VAN METER: Yes.

MAJORITY CHAIRMAN SCHEMEL: Okay. Thank you. With that, any further questions?

Representative Zimmerman.

REPRESENTATIVE ZIMMERMAN: Yes. Thanks. This is very interesting information, and I appreciate your time and informing us.

So, just to continue the dialogue a little bit further, when there's puberty blockers, at one point then does surgery generally happen? And is that outcome generally that individual is going to be sterile? Is that correct?

DR. VAN METER: The recommendations from the professional society is that surgery not be done until the age of consent. There are some softening of the guidelines saying under circumstances where there is emotional duress that top surgery so called in females could be done at a younger age, perhaps age 16. And those are sort of soft opinion pieces. They're not actually in the guidelines yet. But in practice I don't think that many centers in the United States are doing surgical procedures, the bottom surgery so-called in kids before their 18th birthday. I think they're waiting for the age of consent for that.

The outcomes of the surgery, just to think of

what you're doing anatomically to try to create, taking a breast off the chest is done surgically for breast cancer. It's done for adolescent males who have incredible breast tissue development during their adolescence that doesn't resolve. It is a very delicate operation done to create a totally normal appearance of a chest wall without a breast is done by a plastic surgeon to retain the innervation and the blood supply to the nipple, the areola so that it doesn't slough off and leave a scar. The surgical incisions are carefully made to be able to contour what looks like the natural curve of the nipple on the breast, and the patient has that tissue removed. That can be done, and it's done in kids and it's known to be, when done well, have a reasonable outcome.

What we have seen openly on the internet are the disaster cases where there is really incredible scarring and sort of disruption of the anterior chest wall that looks nothing like a normal chest in these patients. And that could be that the surgeon that did that was not the appropriate surgeon and didn't use appropriate techniques, but it's still an outcome that can happen if not done perfectly. That's the top surgery. Again, you can't put that breast back. That's not reconstructable in any way. You can do a look-alike. You can create a breast and a nipple out of skin tissue and artfully put that back to

appear to be a breast, but it's not a functioning breast.

In terms of removing the genitalia in a male, taking off the penis and using the skin of the penis as a sort of inside lining of a hole that's created in the area we call the perineum, which is above the rectum and below where the penis was, you create a channel in that tissue that is constantly compacted by the anatomy of the male pelvis, the bones that exist there, and you put in there the skin. It's skin tissue. It's not a mucous membrane. Mucous membranes have moisture and secretions to them that lubricate and that protect from infection. That cannot be re-created in the sense of a hormone-secreting surface the way it would before a vagina.

So, it's essentially a place to try in which to have intercourse which needs constant attention with dilation and it often malfunctions. And in the case of using intestinal tissue to create that lining ruptures and causes infection and damages the urinary tract. The exit from the bladder is disrupted so that you have urinary tract infections and whatnot.

So, the surgical procedures are attempts to create nature that are at this point in time completely impossible to do. It might look like it, but it doesn't work the way that tissue was.

The fake-created penises that are sewn on the

perineum of biological females have no erectile function. They have no secretion. They have no innervation. They are essentially just a limp piece of tissue that hangs down and looks like a penis but has no function of a penis. You can create a sack of tissue and put in two artificial implants that look like testicles so that that hangs below that penis, but those testicles have no function, and the penis has no function. So, you are really doing a disservice to the patient even insinuating that their sexual anatomy will have any physiologic function. It does not.

REPRESENTATIVE ZIMMERMAN: Wow. So, just kind of a follow-up, are there any studies kind of on the horizon at all on any of this?

DR. VAN METER: Well, the problem in trying to do studies is the ethics of the study. So, those of us who know from, again, the disease states where hormones are missing or are excessive in otherwise healthy humans, it would be considered unethical to do a study where you just, you know, took a group of 20 kids and said we'll see you in 20 years and let's see what happens. I mean, I can't envision that any Institutional Review Board or Committee for the Protection of Human Subjects would allow that to proceed.

REPRESENTATIVE ZIMMERMAN: Okay. Thank you.

MAJORITY CHAIRMAN SCHEMEL: Very good. Thank you, Doctor. I appreciate your testimony.

DR. VAN METER: Thank you for having me.

MAJORITY CHAIRMAN SCHEMEL: Chairman DeLissio, if you have any brief closing remarks?

DEMOCRATIC CHAIRWOMAN DELISSIO: Very briefly. This has been an interesting opportunity this morning to hear from folks. And by your own admission this is kind of a minority viewpoint if you look at the profession. So, I think hearing from that other viewpoint -- and, you know, my commitment is really to work toward that opportunity for dialogue. I think that is important, and that should always be part of it to do that.

And I just want to, for the wider audience that is out there, that those who are transgender, experiencing these issues that, you know, certainly my commitment and I believe that of my colleagues is to proceed with compassion in an absolutely nonjudgmental manner looking for the best possible care and treatment and assuring that care and treatment is available to all citizens in the Commonwealth of Pennsylvania. So, thank you for hosting this.

MAJORITY CHAIRMAN SCHEMEL: Thank you, Madam Chair. And thank all of you for being very patient for a long and cerebral hearing. We appreciate that very much. Thank you to you, Dr. Van Meter, and Dr. Levine.

And with that, we conclude this hearing.

(The hearing concluded at 12:51 p.m.)

I hereby certify that the foregoing proceedings are a true and accurate transcription produced from audio on the said proceedings and that this is a correct transcript of the same.

Christy Snyder

Transcriptionist

Diaz Transcription Services