

Best Practices for Gender-Affirming Care

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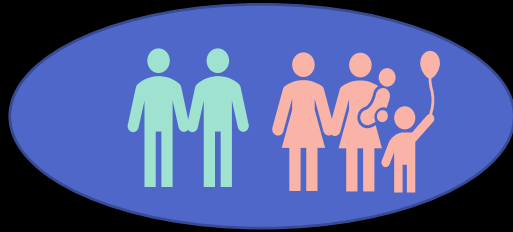
Ogden Surgical-Medical Society

May 17, 2024

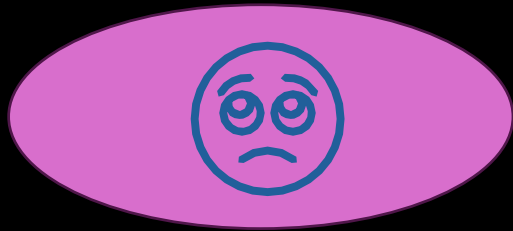
Disclosures

- No relevant financial disclosures
- We will be discussing the off-label use of medications with other FDA-approved indications
- I am the founder and medical director of the Mountain West Transforming Care Conference
- I am the founder and president of the Gender-Affirming Primary Care Residency Research Collaborative (GAPCRRC)
- I am a member, and frequent contributor, to medical conferences put on by the World Professional Association for Transgender Health Global Education Initiative (WPATH GEI)

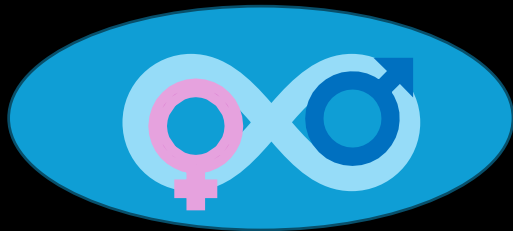
Objectives



Describe how clinicians can help create a safe space for LGBTQIA+ identified patients within a clinical setting



Understand the factors which contribute to the gender and sexual minority stress model



Understand a general approach to diagnosing and treating gender dysphoria/incongruence



Understand the basic principles of both estradiol- and testosterone-based gender-affirming hormone therapy





Positionality





To help people



To help people with...



To help people
with...

To help
people with...



An anatomical illustration of the human digestive system, showing the esophagus, stomach, small intestine, and large intestine. The large intestine is highlighted in a light blue color, and a small, reddish, polypoid growth is visible on the sigmoid colon. The text "To help people with..." is overlaid at the bottom of the image.

To help people with...





To help people who are...



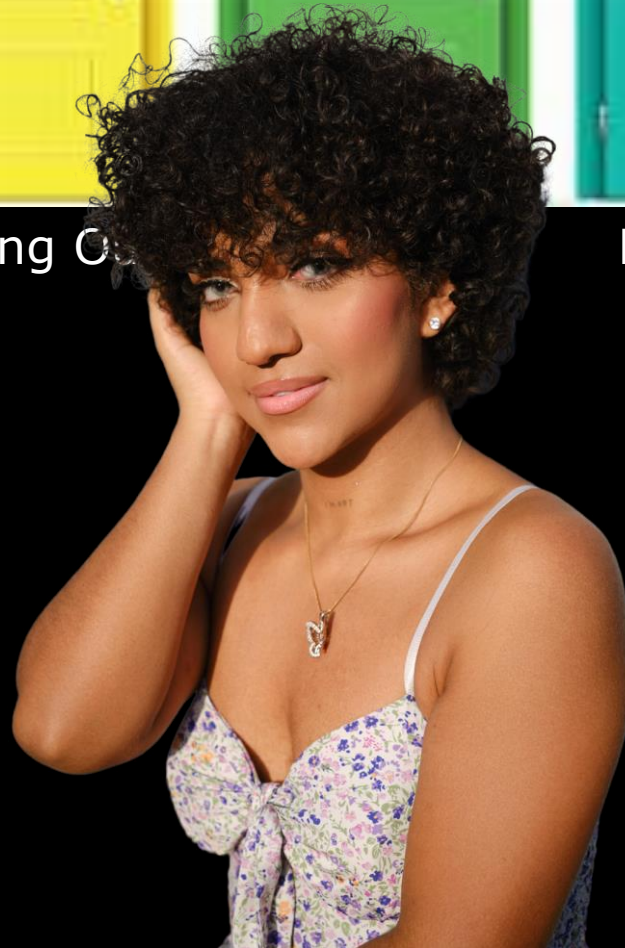
Educational

Expression

Coming Out

Hormones

Other



DSM 5 Gender Dysphoria

The DSM-5 defines gender dysphoria in adolescents and adults as a marked incongruence between one's experienced/expressed gender and their assigned gender, lasting at least 6 months, as manifested by at least two of the following:

- A marked incongruence between one's experienced/expressed gender and primary and/or secondary sex characteristics (or in young adolescents, the anticipated secondary sex characteristics)
- A strong desire to be rid of one's primary and/or secondary sex characteristics because of a marked incongruence with one's experienced/expressed gender (or in young adolescents, a desire to prevent the development of the anticipated secondary sex characteristics)
- A strong desire for the primary and/or secondary sex characteristics of the other gender
- A strong desire to be of the other gender (or some alternative gender different from one's assigned gender)
- A strong desire to be treated as the other gender (or some alternative gender different from one's assigned gender)
- A strong conviction that one has the typical feelings and reactions of the other gender (or some alternative gender different from one's assigned gender)

In order to meet criteria for the diagnosis, the condition must also be associated with clinically significant distress or impairment in social, occupational, or other important areas of functioning.





To help people... who are being
harmed





1 in 4
AMERICAN YOUTH
Will Become
HOMELESS
the day they
COME OUT

egalit
Gay.

'Return the key': the parents who reject their gay children

Chris Jewell's parents disowned him after finding out he was gay, but he is not alone in his story of parental rejection



📷 Raised with Jehovah's Witness beliefs, Chris Jewell says: "I was lonely and depressed. I prayed constantly to God to ease those crushing feelings. He didn't." Photograph: PhotoAlto/Alamy Stock Photo

Source: <https://www.theguardian.com/society/2020/feb/22/return-the-key-the-parents-who-reject-their-gay-children>



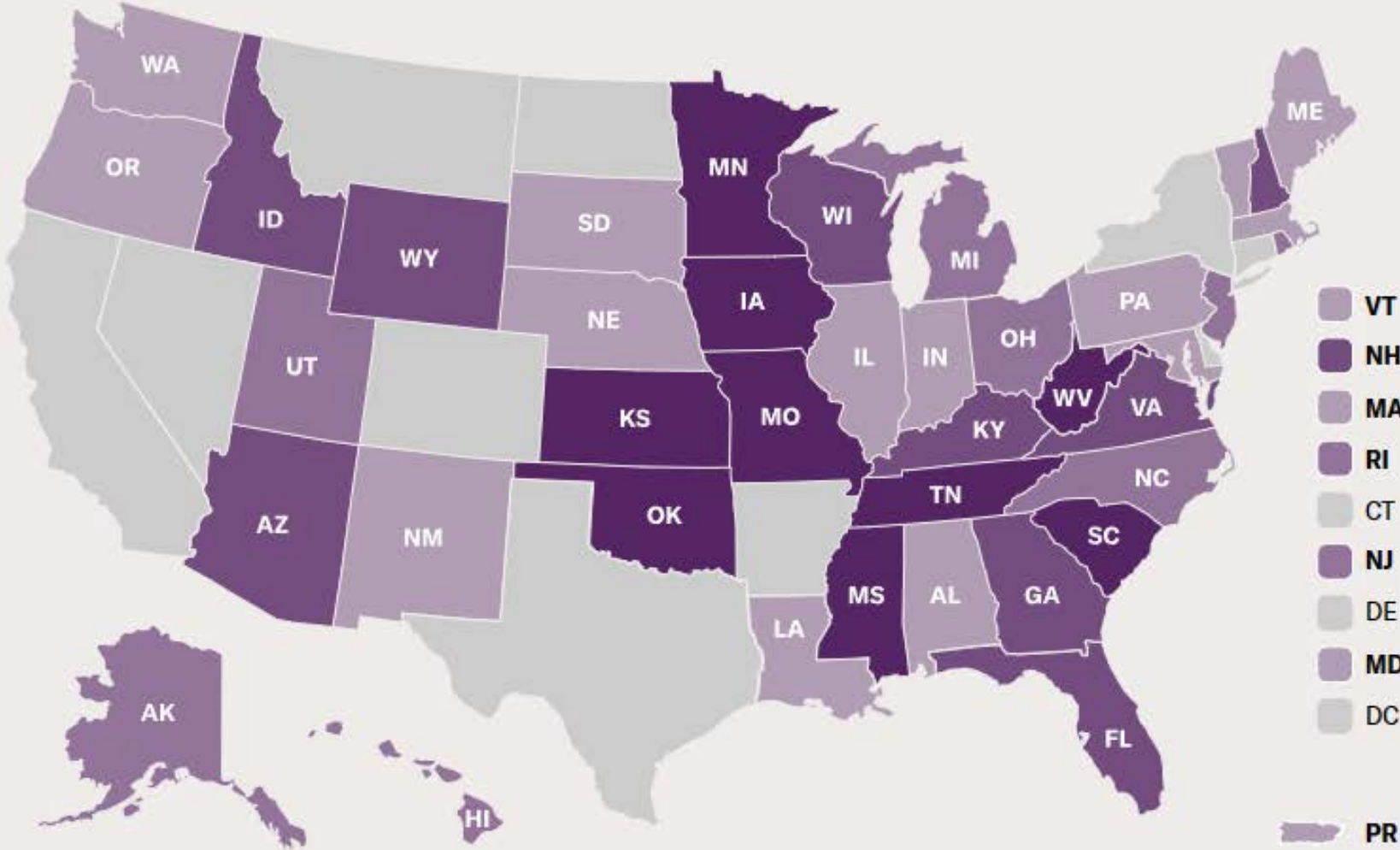
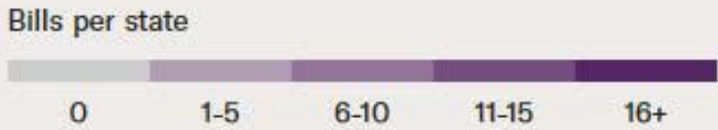
[Family Rejection as a Predictor of Suicide Attempts and Substance Misuse Among Transgender and Gender Nonconforming Adults - PubMed \(nih.gov\)](#)



The ACLU is tracking 484 anti-LGBTQ bills in the U.S.

Choose a state on the map to show the different bills targeting LGBTQ rights and take action. While not all of these bills will become law, they all cause harm for LGBTQ people.

Last updated on April 12, 2024



484 Bills

Filter by state

Filter by issue

Filter by status

Sorting by: State

10 Bills









State: Utah ×

Filter by issue

Filter by status

Clear 1 filter

Sorting by: State ▾

STATE ⓘ	BILL ⓘ	ISSUE ⓘ	STATUS ⓘ
 Utah	H.B.157	 Other Healthcare Barriers	Passed into Law Governor signed, 03/14/2024
 Utah	H.B.316	 Other Anti-LGBTQ Bills	Passed into Law Governor signed, 03/18/2024
 Utah	H.B.396	 Religious Exemptions	Passed into Law Governor signed, 03/19/2024
 Utah	S.B.150	 Religious Exemptions	Passed into Law Governor signed, 03/21/2024
 Utah	H.B.253	 Public Accommodation Bans  School Facilities Bans	Defeated Legislative session ended, 03/01/2024
 Utah	H.B.303	 Other Expression Restrictions  Other School Restrictions	Defeated Legislative session ended, 03/01/2024
 Utah	H.B.224	 Healthcare Age Restrictions	Defeated Legislative session ended, 03/01/2024
 Utah	H.B.527	 Other School Restrictions  Religious Exemptions	Defeated Legislative session ended, 03/01/2024
 Utah	H.B.257	 Other Anti-LGBTQ Bills  Public Accommodation Bans  Re-Definition Of Sex  School Facilities Bans	Passed into Law Governor signed, 01/30/2024
 Utah	H.B.261	 Other Anti-LGBTQ Bills	Passed into Law Governor signed, 01/30/2024

Utah commission determining which trans athletes can play school sports to take effect



Kim Bojórquez



Illustration: Maura Losch/Axios

A Utah commission that will determine whether transgender girls can compete in school sports matching their gender identity will soon go into effect, Utah Senate leaders announced Friday.

Utah bans gender-affirming care for trans minors



Kim Dojórquez, Shawna Chen



Illustration: Allie Carl/Axios

Utah Gov. Spencer Cox (R) signed a controversial bill Saturday that would ban gender-affirming health care and hormone therapy for transgender children and teenagers.

Texas governor calls on citizens to report parents of transgender kids for abuse

Gov. Greg Abbott said those who fail to report instances of minors receiving gender-affirming medical care could face "criminal penalties."



Nearly 1 in 3 LGBTQ young people said their mental health was poor most of the time or always due to **anti-LGBTQ policies and legislation.**



Share:



Nearly 2 in 3 LGBTQ young people said that hearing about potential state or local laws banning people from discussing LGBTQ people at school made their mental health a lot worse.



Share:



Source: [The Trevor Project](#)

'Don't Say Gay' bill passes Florida Senate

The bill would ban curricula concerning LGBTQ issues in some Florida classrooms.

By Kiara Alfonseca

March 8, 2022, 11:13 AM • 6 min read



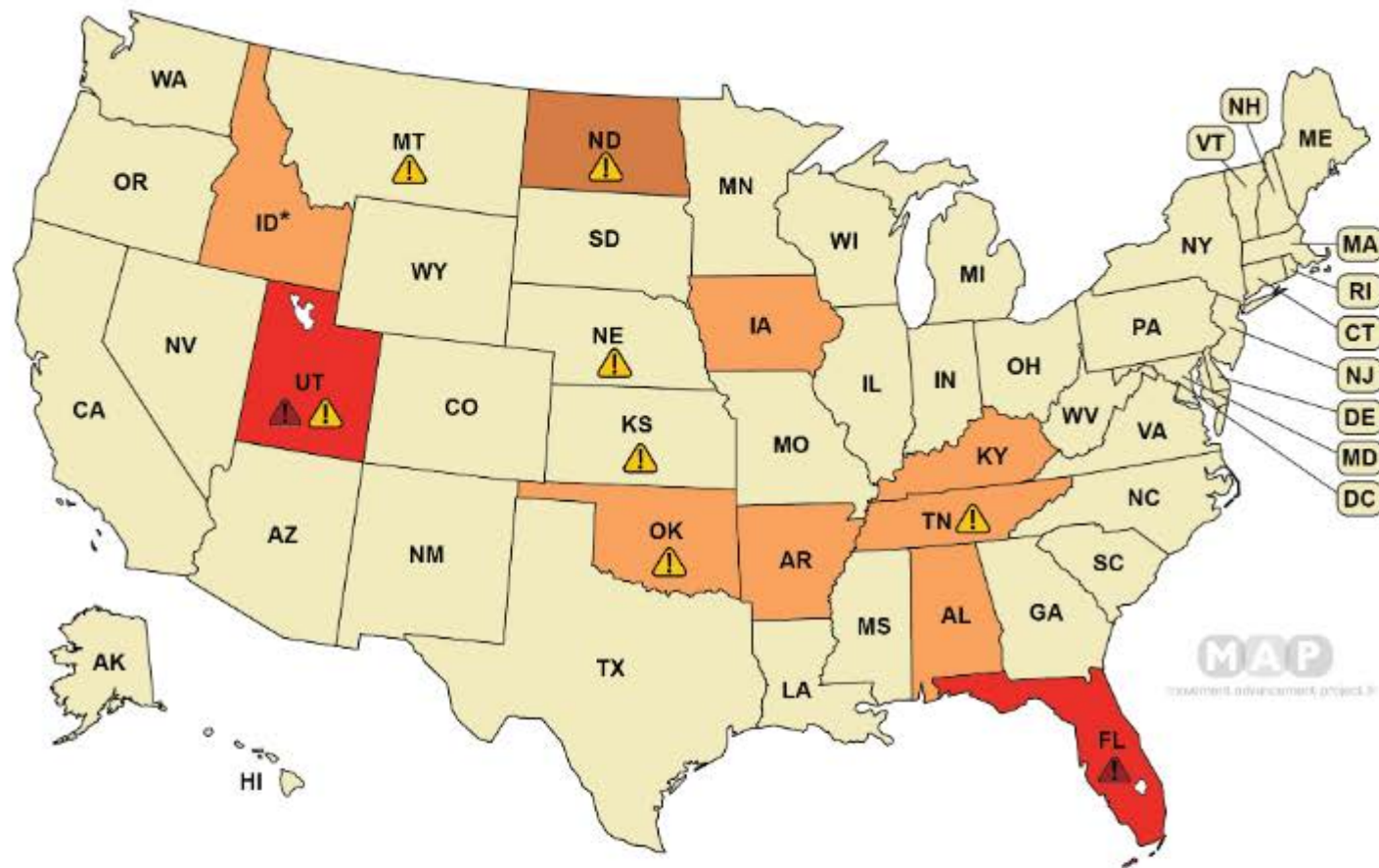
What is the 'Don't Say Gay' bill?

The bill aims to remove schools' ability to discuss gender identity and sexual orientation i...[Read More](#)
Wilfredo Lee/AP

Source: <https://abcnews.go.com/Politics/dont-gay-bill-passes-florida-senate/story?id=83301889>







- State bans transgender people from using bathrooms and facilities consistent with their gender identity in all government-owned buildings and spaces, including schools and colleges (2 states)
- State bans transgender people from using bathrooms and facilities consistent with their gender identity in K-12 schools and at least some government-owned buildings (1 state)
- State bans transgender people from using bathrooms and facilities consistent with their gender identity in K-12 schools (7 states)
- No state ban on transgender people's use of bathrooms or facilities (40 states, 5 territories + D.C.)
- State law makes it a criminal offense, in certain circumstances, for transgender people to use bathrooms or facilities consistent with their gender identity (2 states)
- State has law or policy defining "sex" in ways that may impact transgender people's access to bathrooms or facilities according to their gender identity (7 states)

U.S. Territories



Citations & More Information

Utah governor signs anti-trans bathroom bill



Kim Bojórquez, author of [Axios Salt Lake City](#)



Utah Gov. Spencer Cox. Photo: Ting Shern/Bloomberg via Getty Images

[Utah Gov. Spencer Cox](#) signed a bill on Tuesday that would ban transgender people's access to public restrooms and locker rooms.



United Methodist conservatives detail breakaway plans over gay inclusion

Differences over same-sex marriage and the ordination of LGBTQ clergy have simmered for years in the United Methodist Church.



Various forms of religiosity have been linked to transprejudice including church attendance, interpreting the bible literally and religious fundamentalism.



Source: <https://nbcnews.to/3hSsUR8>

A rainbow flag flies along with the U.S. flag in front of the Asbury United Methodist Church in Prairie Village, Kansas on April 19, 2019.

Campbell 2019, Fisher 2017, Cragun 2015, Nagoshi 2018

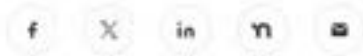


Photo source: <https://pixabay.com/photos/one-against-all-all-against-one-1744093/>

Utah teen athlete faces threats after state official posted photos questioning her gender



Erin Alberty



Portrait of Utah State Board of Education member Natalie Cline. Image via USBE

Utah state school board member Natalie Cline is under fire after [posting photos](#) of a high school basketball player, questioning her gender and prompting threats against the girl.

Many LGBTQ youth who die by suicide are bullied before their death, study finds

By Arman Azad, CNN

🕒 Updated 5:54 PM ET, Tue May 26, 2020



Brother of teen who died by suicide speaks out 02:52

discriminate fact from op
ferently from each other in a unfair way
discriminates ag
of good quar of As an
women.
wine list for those of
di·scrim·i·na·tion
tice of treating one
unfair way: [+ against
stop discrimination ag
of] discrim
raci
the abilit
and what is not
a dis





Youth start younger

Youth 3x odds of substance use

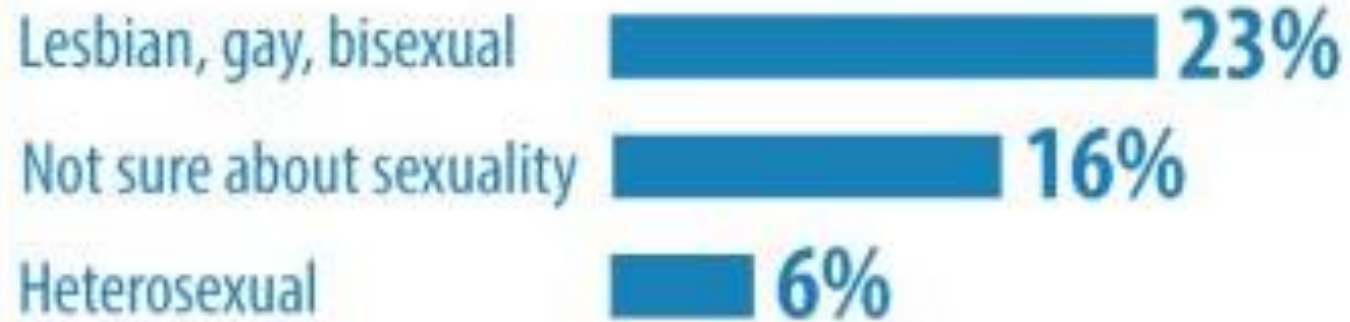
Persist into adulthood

Suicidal Ideation and Behaviors Among High School Students — Youth Risk Behavior Survey, United States, 2019

Supplements / August 21, 2020 / 69(1);47–55

Asha Z. Ivey-Stephenson, PhD¹; Zewditu Demissie, PhD²; Alexander E. Crosby, MD¹; Deborah M. Stone, ScD¹; Elizabeth Gaylor, MPH¹; Natalie Wilkins, PhD²; Richard Lowry, MD³; Margaret Brown, DrPH¹ ([View author affiliations](#))

Lesbian, gay, and bisexual U.S. high school students were more likely to report a suicide attempt during the last year



Schools can:

~2.7x ~3.8x

- ✓ Create safe spaces
- ✓ Reduce stigma
- ✓ Promote help-seeking behaviors
- ✓ Train adults to recognize & respond to signs



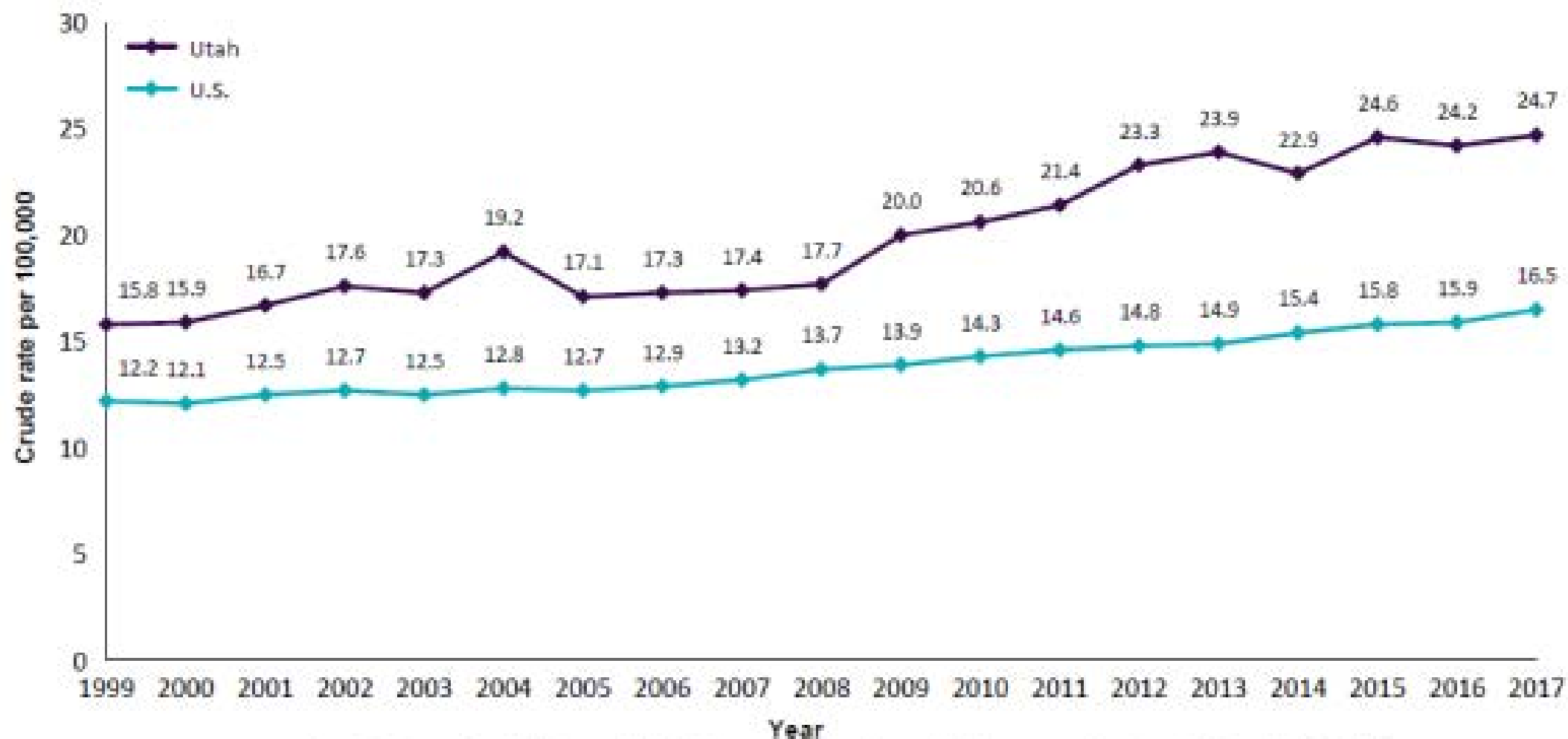
UTAH LGBTQ+ SUICIDE PREVENTION PLAN

2020 - 2023



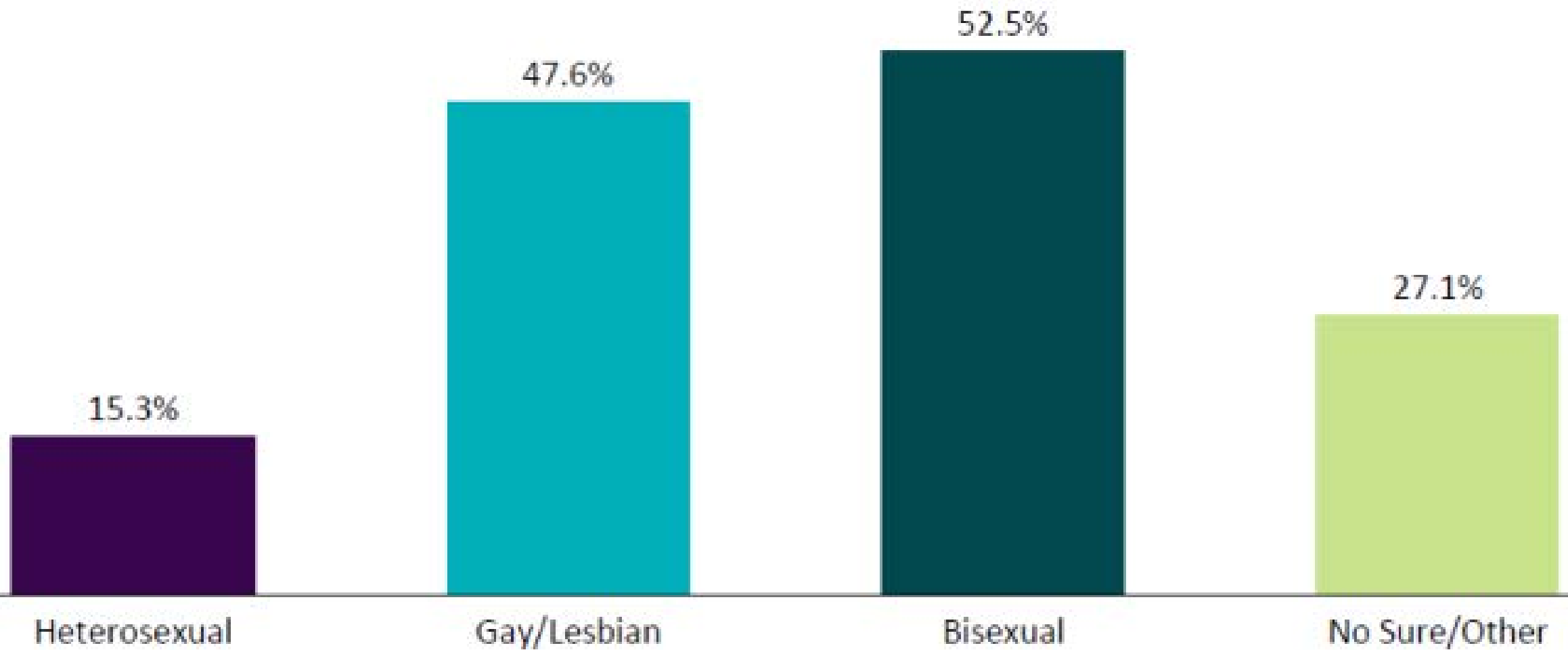
Suicide Prevention Resource Center

FIGURE 1: UTAH IS CONSISTENTLY ABOVE THE NATIONAL RATE OF SUICIDE.



Crude Rate of suicide per 100,000 population, Ages 10+ by year, Utah and U.S., 1997-2017
Data Source: Utah Death Certificate Database, U.S. Centers for Disease Control and Prevention

FIGURE 4: YOUTH SUICIDAL IDEATION BY SEXUAL ORIENTATION (2019)



Data Source: Student Health and Risk Prevention (SHARP) Statewide Survey, 2019.

The lifetime suicide attempt rate for TGD-identified people ranges from 30-80%.

The incidence of attempted suicide in the general population is under 1%.



Trans populations
experience
EXTREMELY high
rates of gender-
based violence
(GBV), with
estimates ranging
from 7-89% in the
United States

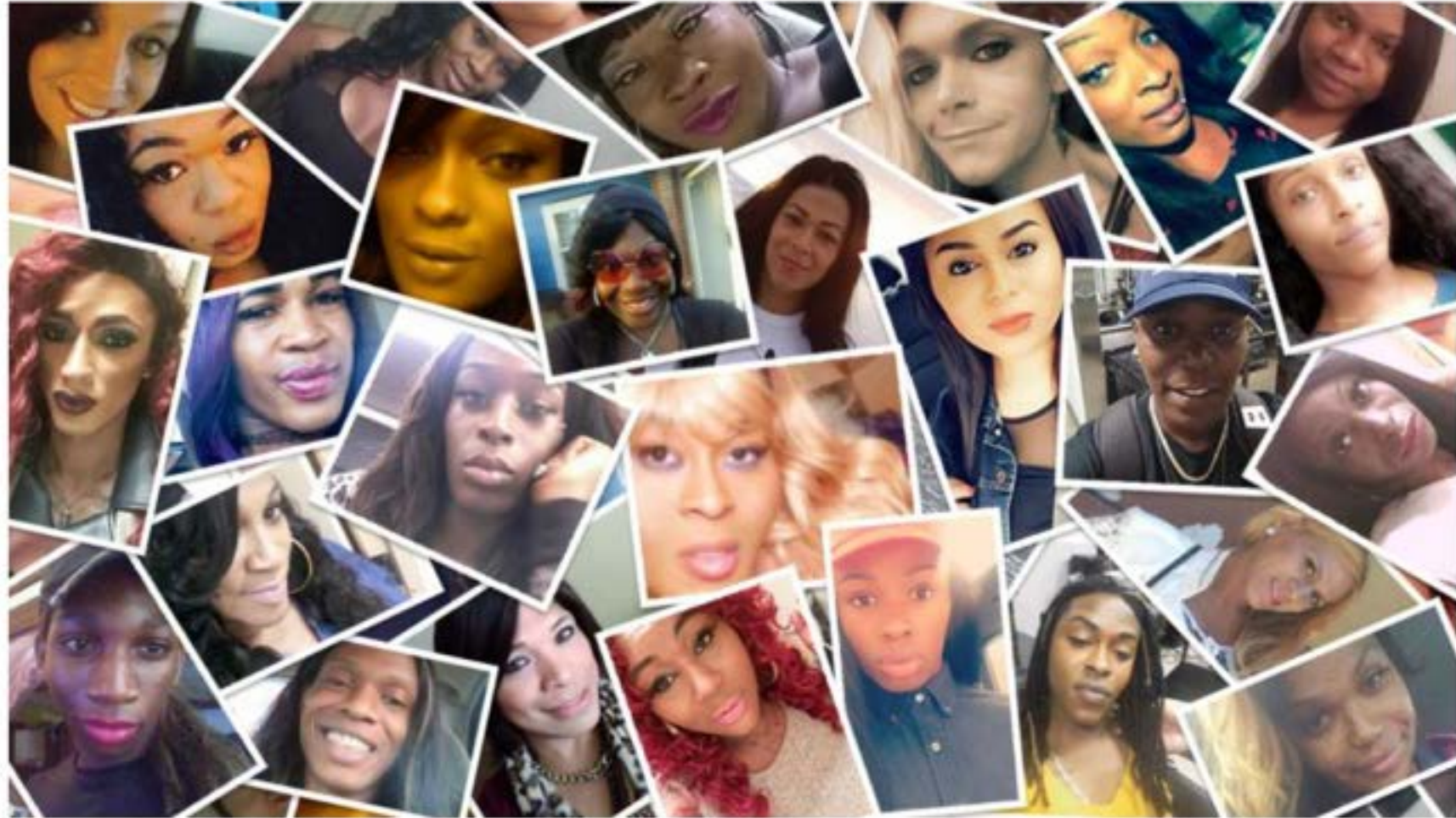


Killings of transgender people in the US saw another high year



By [Jen Christensen](#), CNN

12:02 PM EST, Thu January 17, 2019



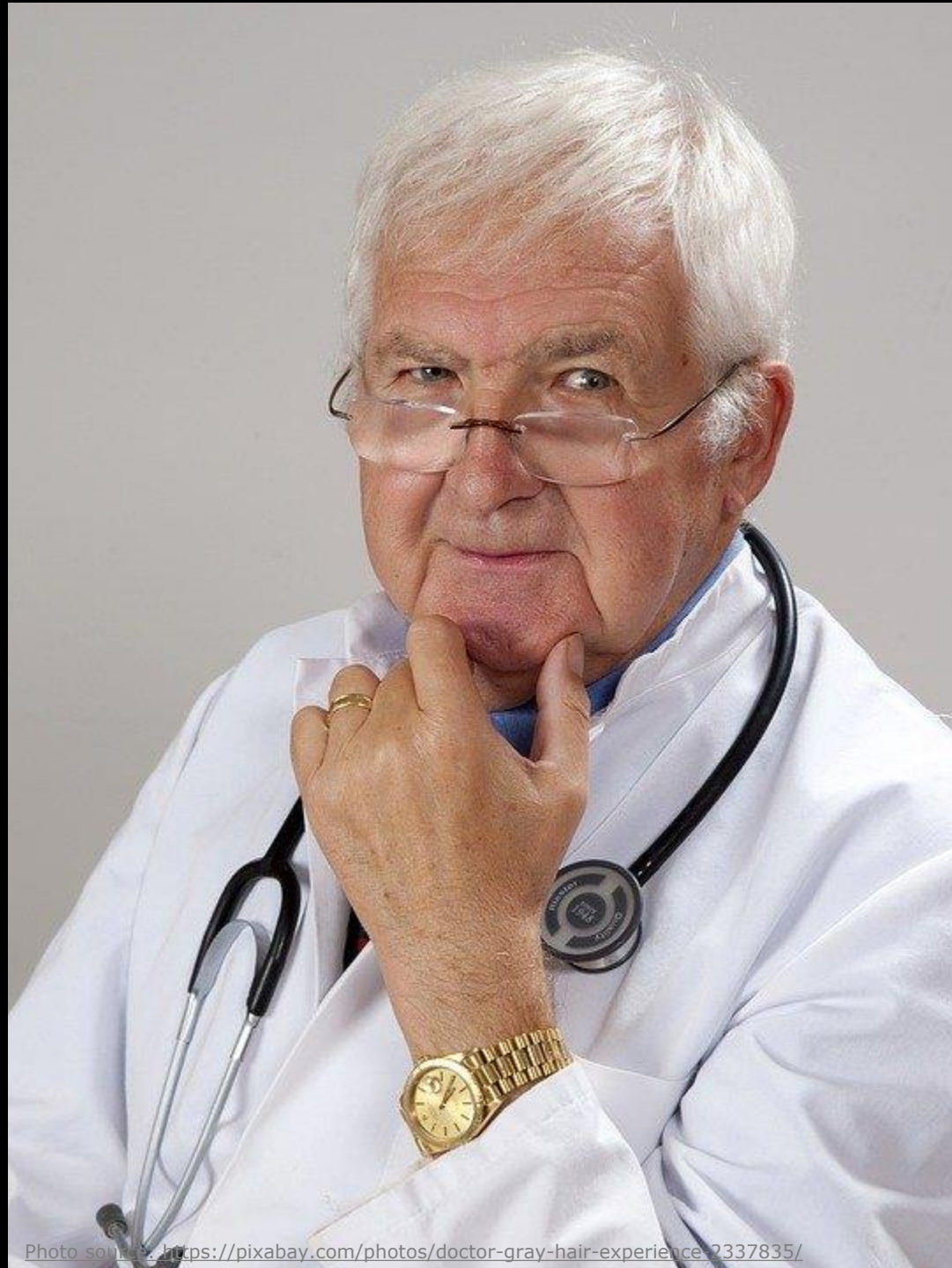




Photo source: <https://bit.ly/31khlc7>



Photo Source: <https://bit.ly/38ZEV0w>



suicide

poverty

mental illness

uninsured

violence

STDs

HIV

unemployment





The Gender and Sexual Minority Stress Model

[Psychol Bull.](#) Author manuscript; available in PMC 2007 Nov 9.

Published in final edited form as:

[Psychol Bull.](#) 2003 Sep; **129**(5): 674–697.

doi: [10.1037/0033-2909.129.5.674](https://doi.org/10.1037/0033-2909.129.5.674)

PMCID: PMC2072932

NIHMSID: NIHMS32623

PMID: [12956539](https://pubmed.ncbi.nlm.nih.gov/12956539/)

Prejudice, Social Stress, and Mental Health in Lesbian, Gay, and Bisexual Populations: Conceptual Issues and Research Evidence

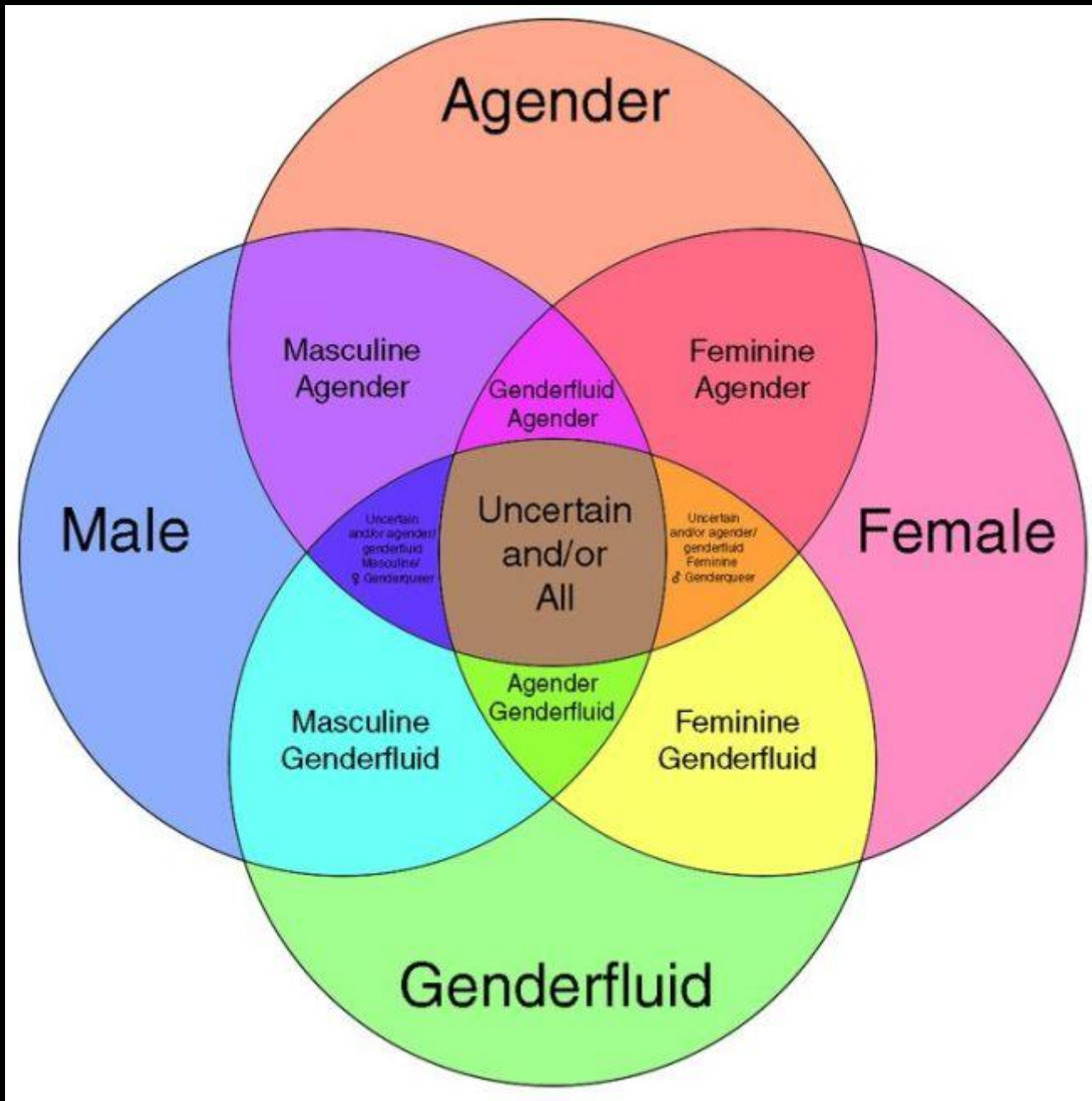
[Ilan H. Meyer](#)

► [Author information](#) ► [Copyright and License information](#) [Disclaimer](#)

“The author offers a conceptual framework for understanding ... *minority stress*—explaining that stigma, prejudice, and discrimination create a hostile and stressful social environment that causes mental health problems. The model describes stress processes, including the experience of prejudice events, expectations of rejection, hiding and concealing, internalized homophobia, and ameliorative coping processes.”

How can I help?







Toxic
Stress

Racial
Stress

GSM
Stress

Socio-
economic
Stress





**School Nurses
Keep
Children Healthy**



Please report to
the main office if
the health office
is unattended.



she /
her

he /
him

they /
them

he /
him

they /
them

she /
her



QUESTION YOUR

→ ASSUMPTION →

Sexual Orientation & Gender Identity

Patient pronouns:

Confirmation steps patient has taken,

Structure plans,

In terms of the organs that you have, or think that you have, would that include breasts, cervix, ovaries, uterus and vagina?

What pronouns do you use?

Organ Inventory

Organs the patient currently has:

+ breasts -
 + cervix -
 + ovaries -
 + uterus -
 + vagina -
 + penis -
 + prostate -
 + testes -

Organs present at birth or expected at birth to develop:

+ breasts -
 + cervix -
 + ovaries -
 + uterus -
 + vagina -
 + penis -
 + prostate -
 + testes -

Organs surgically enhanced or constructed:

+ breasts -
 + vagina -
 + penis -

Organs hormonally enhanced or developed:

+ breasts -



Counseling on Access to Lethal Means (CALM) to Prevent Suicide

An Online Training by CALM™
Produced by Intermountain Health for
Colorado, Idaho, Kansas, Montana,
Nevada, Utah, and Wyoming.

Get Started



BH02.00-2023.03.29

PROTECTIVE FACTORS	RISK FACTORS
Family Acceptance	Mental Health Problems
Connectedness	Alcohol or Drug Use/Abuse
Sense of Safety	Prejudice and Discrimination
Access to Competent Mental Health Care	Social Isolation

Source: Suicide Prevention Resource Center, www.sprc.org/population/lgbt









[Health Care Home](#)

TRANSGENDER HEALTH PROGRAM

Call 801-213-2195 or

[REQUEST INFORMATION >](#)

[Refer a Patient >](#)

ON THIS PAGE

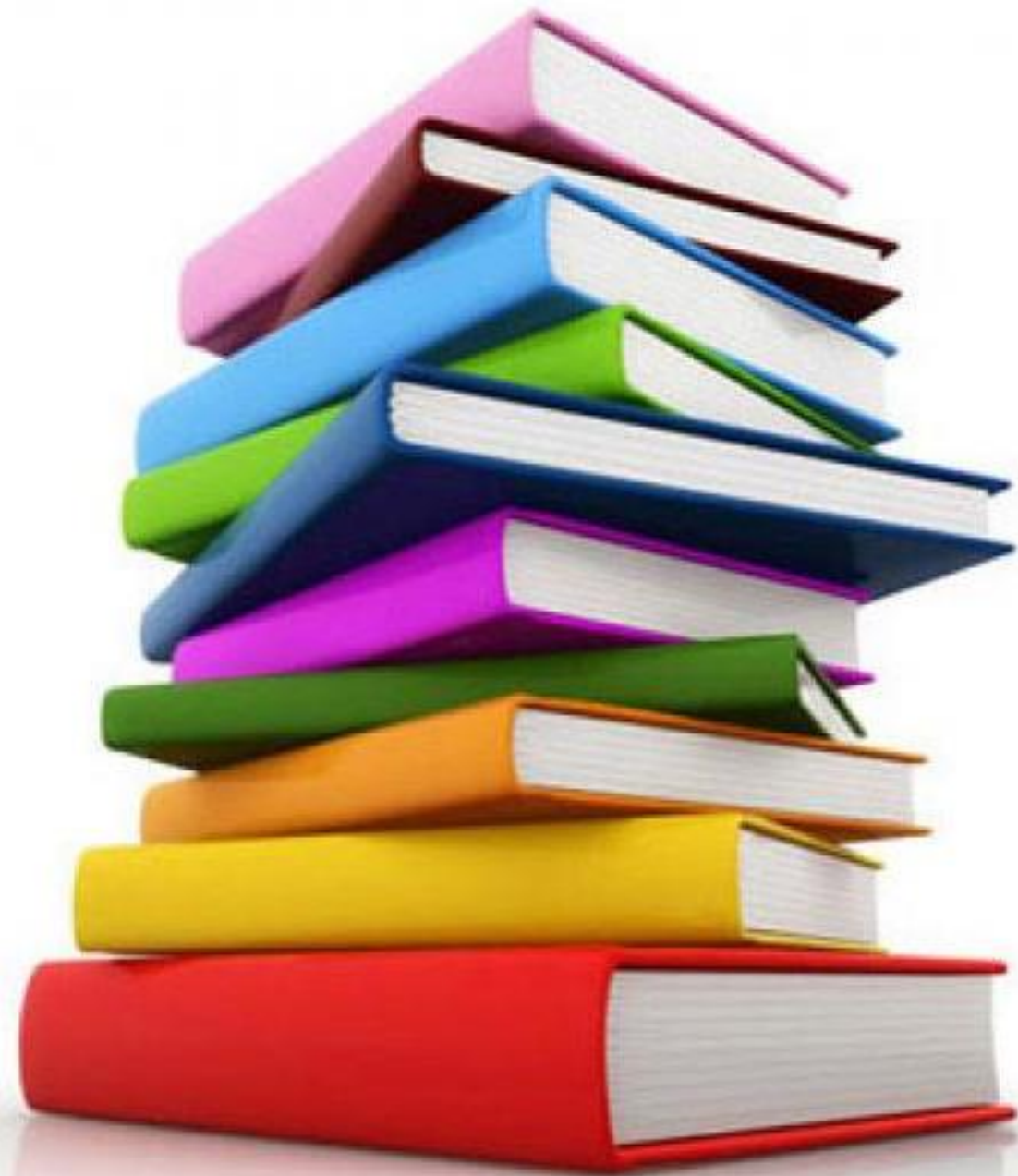
- [Supportive, Accessible Transgender Health Care](#)
- [Transgender Health Services for Adults](#)
- [Health Services for Transgender Teens & Youth](#)
- [FAQs](#)
- [Insurance Coverage](#)
- [Find a Transgender Health Doctor](#)
- [Traveling From Out of State](#)
- [Events](#)
- [Hear from Our Patients](#)
- [Resources](#)
- [We Want Your Feedback](#)

SUPPORTIVE, ACCESSIBLE TRANSGENDER HEALTH CARE









ADD QR CODE



Learning Resources — Introduction to LGBTQIA+ Health

Foundations of LGBTQIA+ Health, Part 2: For Clinicians

 Learning Module

Published on 28 July 2021

 This course is eligible for CME credit

This module builds off the [Foundations of LGBTQIA+ Health, Part 1](#) by offering specific information for clinicians, including: effective communication with LGBTQIA+ patients, asking about sexual orientation and gender identity, and addressing health disparities through clinical care.

[Read More »](#)

 Filed under Introduction to LGBTQIA+ Health, Organizational Change

101

Foundations of LGBTQIA+ Health, Part 2: For Non-Clinical Staff

 Learning Module

Published on 28 July 2021

 This course is eligible for CME credit

This module builds upon [Foundations of LGBTQIA+ Health, Part 1](#) by offering specific information for non-clinical staff, including: effective communication with LGBTQIA+ patients and collecting sexual orientation and gender identity data.

[Read More »](#)

 Filed under Introduction to LGBTQIA+ Health, Organizational Change


101

Foundations of LGBTQIA+ Health, Part 2: For Administrators

-  Learning Module
-  Publication
-  Video
-  Webinar

Filter resources by topic


-  Behavioral Health
-  Collecting Sexual Orientation and Gender Identity Data
-  COVID-19
-  Diabetes and Heart Health
-  HIV/STI Treatment and Prevention
-  Intersex Health

 Introduction to LGBTQIA+ Health

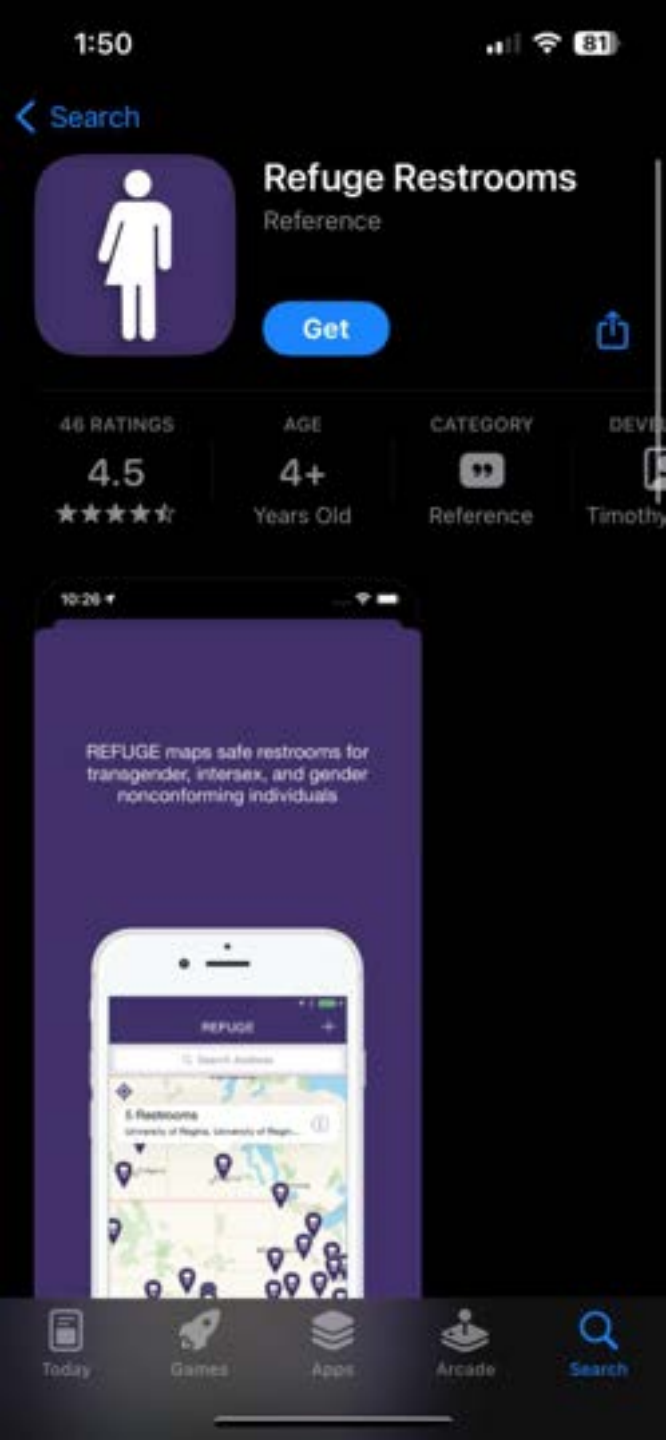
 LGBTQIA+ Children and Youth

 LGBTQIA+ Older Adults


 LGBTQIA+ People of Color

 Organizational Change

National
LGBTQIA+
Health
Education
Center
A program
of the
Fenway
Institute



1:50 📶 📶 81

 **Refuge Restrooms** Submit a New Rest

1 Embarcadero Center, San Francisco, CA

About REFUGE

[Fork us and contribute on GitHub!](#)

What is REFUGE restrooms?

Refuge Restrooms is a web application that seeks to provide safe restroom access for transgender, intersex, and gender nonconforming individuals. Users can search for restrooms by proximity to a search location, add new restroom listings, as well as comment and rate existing listings.

We're trans led and seek to create a community focused not only on finding existing safe restroom access, but also advocating for transgender, intersex, and gender nonconforming people's safety.

Where did you get all this data?

The first 4500 entries are thanks to the old Safe2Pee database. The rest of our database is generated by our users. If you know of a gender neutral or safe restroom, please add it to our database!

Why did you pick the name REFUGE?

We firmly believe that everybody has the right to use the restroom in safety and we wanted the name of our application to have a little of same dignity we want to give our users. Quite simply, we hope to provide a place of refuge in your time of need.

What's the big deal about restrooms anyway and why do we need this resource?

One of the biggest battlefields upon which the fight for transgender rights is taking place daily are restrooms. It seems that every other week a transgender child is made the center of a national news story because they used the restroom assigned to the gender they identify with. Obviously, we believe that every transgender person should have the right to use the restroom they want to. However, we also realize that despite legislative victories in recent years regarding restroom usage, many transgender individuals still face both verbal and physical harassment simply for using the restroom. Nobody should have to face that - and that is why we created REFUGE.

What can we do to help?

First: Add listings. The database is only as big as you make it. The more listings, the more comprehensive and valuable the resource can be.

Secondly: Spread the word. Tweet. Facebook. Blog. Whatever it is that you do, do it. Let people know about this resource.

Thirdly: If you know how to code, visit GitHub and let us know about a bug, suggest an improvement, or even contribute a little bit of code and help out the project. REFUGE is open source and we can't do it without you.



Trans Health Resources <https://callen-lorde.org/transhealth/>

▼ TransAtlas

▼ Surgery Coordination

▼ Safer Binding and Tucking

▼ Safer Tucking

▼ Finding your Voice

▼ Pump

▼ Hysterectomy & Oophorectomy

▼ Chest Reduction & Reconstruction

▼ Facial & Vocal Surgery

▼ Phalloplasty & Metoidioplasty

▼ Silicone Injection Facts





Be curious, not
judgmental.

Walt Whitman



Be generous with your time



Be kind whenever possible.
It is always possible.

Dalai Lama XIV

“quotation”

An illustration in a stylized, Art Deco-inspired style. A person with long hair, wearing a dark, patterned outfit, is pushing a large, textured black sphere up a dark, jagged hill. The background is a solid orange color with faint, dashed lines radiating from the top left. The entire scene is framed by a decorative border: a Greek key pattern at the top and a row of pointed, scalloped shapes at the bottom.

Gender-
affirming
care in ten
minutes



International Journal of Transgender Health



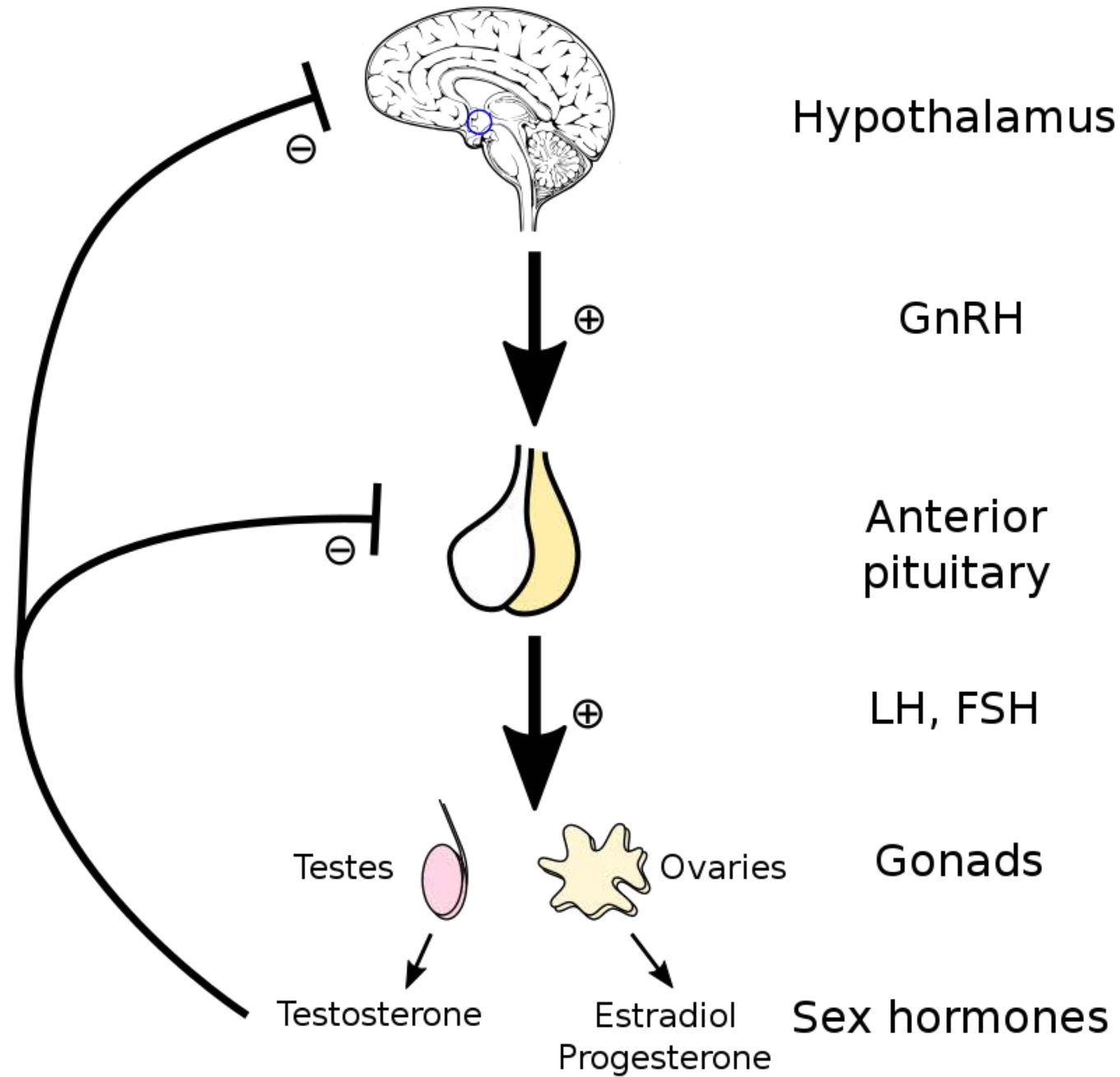
ISSN: (Print) (Online) Journal homepage: <https://www.tandfonline.com/loi/wijt21>



Standards of Care for the Health of Transgender
and Gender Diverse People, Version 8

CHAPTER 5 Assessment of Adults

CHAPTER 12 Hormone Therapy



Gender
incongruence or
gender dysphoria

Are other medical
or mental health
issues reasonably
well controlled?

Capacity to give
informed consent

18 years of age

Their
story

Process in our
clinic

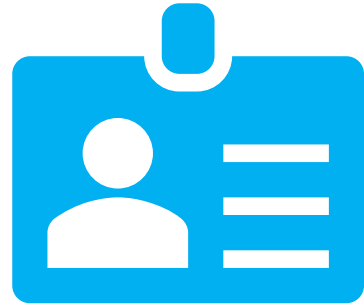
1st visit



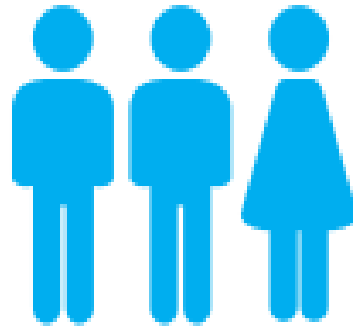
Take a Comprehensive Sexual History (10Ps)



Preferences



Pronouns



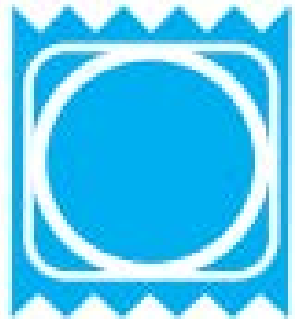
Partners



Pactices



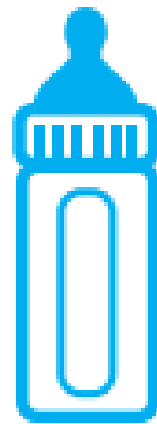
Past History
of STDs



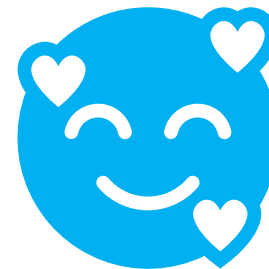
Protection
from STDs



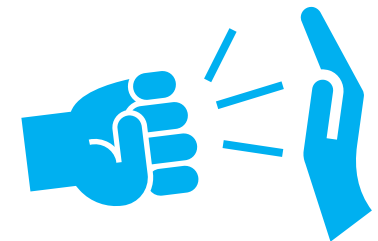
PrEP



Pregnancy
Plans



Pleasure



Partner violence

Rubin, 2018 and CDC and T. Cavanaugh (Fenway)

Source (graphic): https://www.lgbthealtheducation.org/wp-content/uploads/COM-827-sexual-history_toolkit_2015.pdf

Source (info): <https://www.cdc.gov/std/treatment/sexualhistory.pdf>

Source: Timothy Cavanaugh, MD, Sexual Health History: Talking Sex with Gender Non-Conforming & Trans Patients. <https://bit.ly/2wRLG3G>

Information about Feminizing Hormone Therapy

This informational document refers to the use of estrogen, progesterone and/or androgen antagonists (sometimes called “anti-androgens”, “androgen blockers”, or “testosterone blockers”) by persons who wish to become feminized to reduce gender dysphoria and facilitate a more feminine gender presentation.

We would like to you read this whole document. This format helps us to ensure that you understand these medications. If you have questions or concerns about this information, you are encouraged to take the time you need to ask for clarification, read, research, talk with your provider, and think about the potential effects of this treatment before starting.

Feminizing Effects

1. Estrogen, androgen antagonists, or a combination of the two may be prescribed to reduce male physical features and feminize one’s body.
 2. The feminizing effects of estrogen and androgen antagonists can take several months or longer to become noticeable, and the rate and degree of change can’t be predicted.
 3. Taking estrogen will probably lead to breast development, and:
 - Breasts may take several years to develop to their full size.
- If estrogen is stopped, the breast tissue that has developed will remain.
- Galactorrhea (milk discharge (galactorrhea). This can be caused by taking
- ...with your provider



Goals and Timelines



Effects and Expected Time Course of T-GAHT

Desired Effects*:

Vocal changes
Cessation of menses
Hair growth

Undesired Effects*:

Acne
Scalp hair loss
Vaginal atrophy

IRREVERSIBLE

Deepened voice
Facial and body hair growth
Clitoral enlargement



REVERSIBLE

Skin oiliness/acne
Increased muscle mass/strength
Vaginal atrophy

VARIABLE

Fat redistribution
Scalp hair loss



Effects and Expected Time Course of E-GAHT

Desired Effects*:

- Breast development
- Softer skin
- Thinner/slower growing hair

Undesired Effects*:

- Mood changes
- Weight gain
- ~Erectile dysfunction
- ~Decreased libido

IRREVERSIBLE
Chest growth

VARIABLE

Decreased spontaneous arousals
Decreased libido
Decreased testicular volume
Decreased sperm production
Erectile Dysfunction



REVERSIBLE

Skin softening/Decreased oiliness
Thinned/slowed terminal hair growth
Decreased muscle mass/strength

VARIABLE

Fat redistribution

EFFECTS AND EXPECTED TIME COURSE OF FEMINIZING HORMONES

The degree and rate of physical effects are largely dependent on patient-specific factors such as age, genetics, body habitus and lifestyle, and to some extent the dose and route used (selected in accordance with a patient's specific goals and risk profile).⁸



Risks and Benefits

Fertility

Discussing Fertility Implications

Hormones can decrease sperm/egg quality and production



It is still possible to get pregnant/get someone pregnant while taking hormones



Aware of the
impacts on fertility



Considered
how/if/when they
want to start a family



Contraception/
Family Planning

Fertility Discussion

- Discuss the effects of hormones on eggs/sperm and that hormones may impact future fertility
- Discuss that it is still possible to get pregnant/get someone pregnant when taking hormones
- Discuss options for fertility preservation; if possible, this should be done *before* starting hormones, although it may be possible to do this down the road

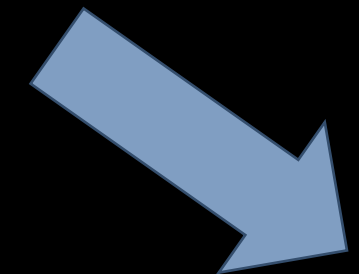
Venous thromboembolism and cardiovascular risks

Table 2. Risks associated with gender affirming hormone therapy (bolded items are clinically significant) (Updated from SOC-7)

RISK LEVEL	Estrogen-based regimens	Testosterone-based regimens
Likely increased risk	Venous Thromboembolism Infertility Hyperkalemia ^s Hypertriglyceridemia Weight Gain	Polycythemia Infertility Acne Androgenic Alopecia Hypertension Sleep Apnea Weight Gain Decreased HDL Cholesterol and increased LDL Cholesterol
Likely increased risk with presence of additional risk factors	Cardiovascular Disease Cerebrovascular Disease Meningioma ^c Polyuria/Dehydration ^s Cholelithiasis	Cardiovascular Disease Hypertriglyceridemia
Possible increased risk	Hypertension Erectile Dysfunction	
Possible increased risk with presence of additional risk factors	Type 2 Diabetes Low Bone Mass/ Osteoporosis Hyperprolactinemia	Type 2 Diabetes Cardiovascular Disease
No increased risk or inconclusive	Breast and Prostate Cancer	Low Bone Mass/ Osteoporosis Breast, Cervical, Ovarian, Uterine Cancer



E-GAHT:
VTE/CVD



T-GAHT:
Polycythemia/
CVD

Risk of Venous Thromboembolism in Transfeminine People

Venous Thromboembolism	Ref: Cis men (SIR / OR / HR, 95% CI [adjusted])	Ref: Cis women (SIR / OR / HR, 95% CI [adjusted])
Nota et al, 2019 (SIR)	4.55 (3.59-5.69)	5.52 (4.36-6.90)
Getahun, 2018 (HR)	1.9 (1.4-2.7)	2.0 (1.4-2.8)

Risk of Myocardial Infarction in Transfeminine People

Myocardial infarction	Ref: Cis men	Ref: Cis women
Nota et al, 2019 (SIR)	0.79 (0.54-1.11)	2.64 (1.81-3.72)
Getahun, 2018 (HR)	0.9 (0.6-1.5)	1.8 (1.1-2.9)
Alzahrani, 2019 (OR)	1.32 (0.92-1.90)	2.56 (1.78-3.68)

Risk of Ischemic Stroke in Transfeminine People

Stroke	Ref: Cis men	Ref: Cis women
Nota et al, 2019 (SIR)	1.80 (1.23-2.56)	2.42 (1.65-3.42)
Getahun, 2018 (HR)	1.2 (0.9-1.7)	1.9 (1.3-2.6)

Risk of Venous Thromboembolism in Transmasculine People

Venous thromboembolism	Ref: Cis men (SIR / OR / HR, 95% CI [adjusted])	Ref: Cis women (SIR / OR / HR, 95% CI [adjusted])
Nota et al, 2019 (SIR)	0.36 (0.06-1.19)	0.41 (0.07-1.37)
Getahun, 2018 (HR)	1.6 (0.9-2.9)	1.1 (0.6-2.1)

Risk of Myocardial Infarction in Transmasculine People

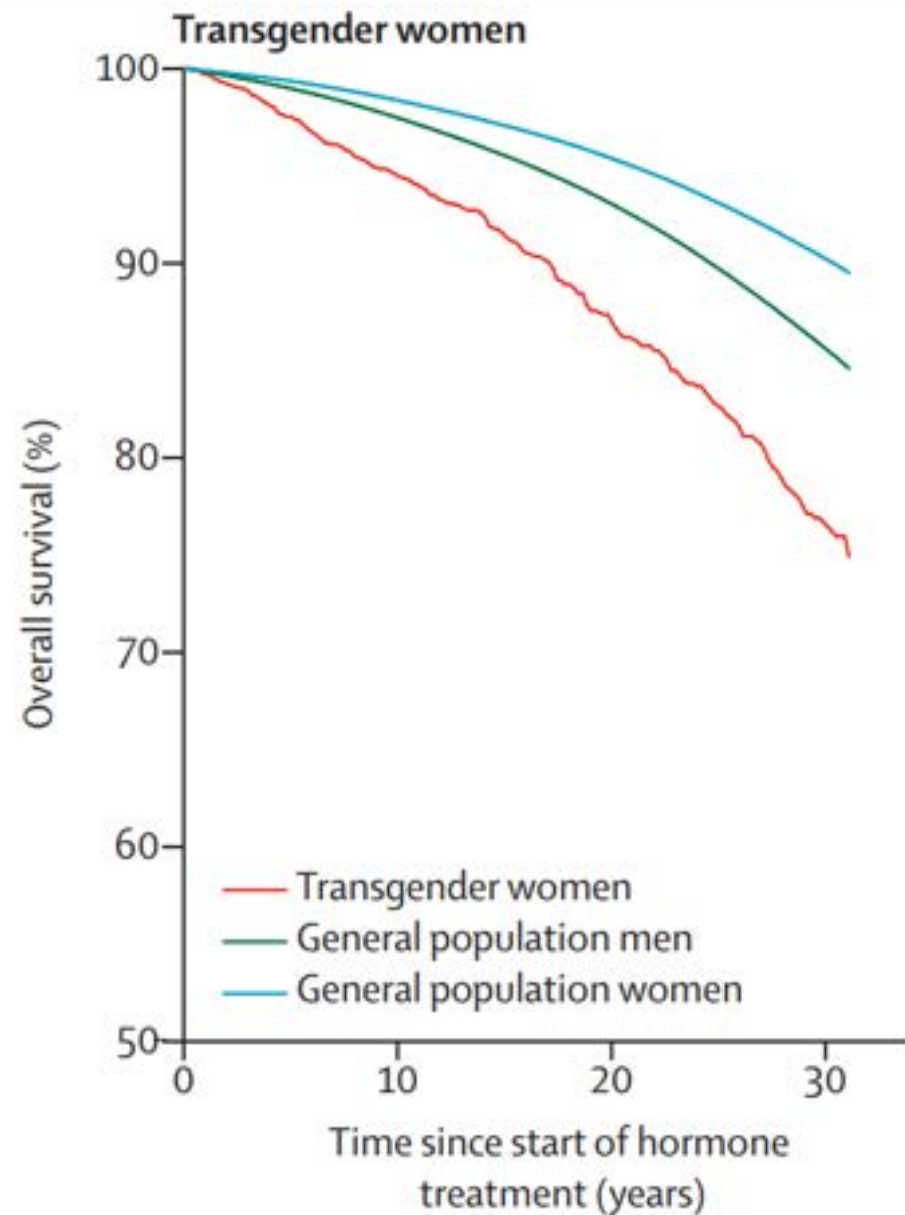
Myocardial infarction	Ref: Cis men	Ref: Cis women
Nota et al, 2019 (SIR)	1.72 (0.70-3.58)	3.69 (1.94-6.42)
Getahun, 2018 (HR)	0.7 (0.3-1.8)	1.3 (0.5-3.9)
Alzahrani, 2019 (OR)	2.53 (1.14-5.63)	4.90 (2.21-10.90)

Risk of Ischemic Stroke in Transmasculine People

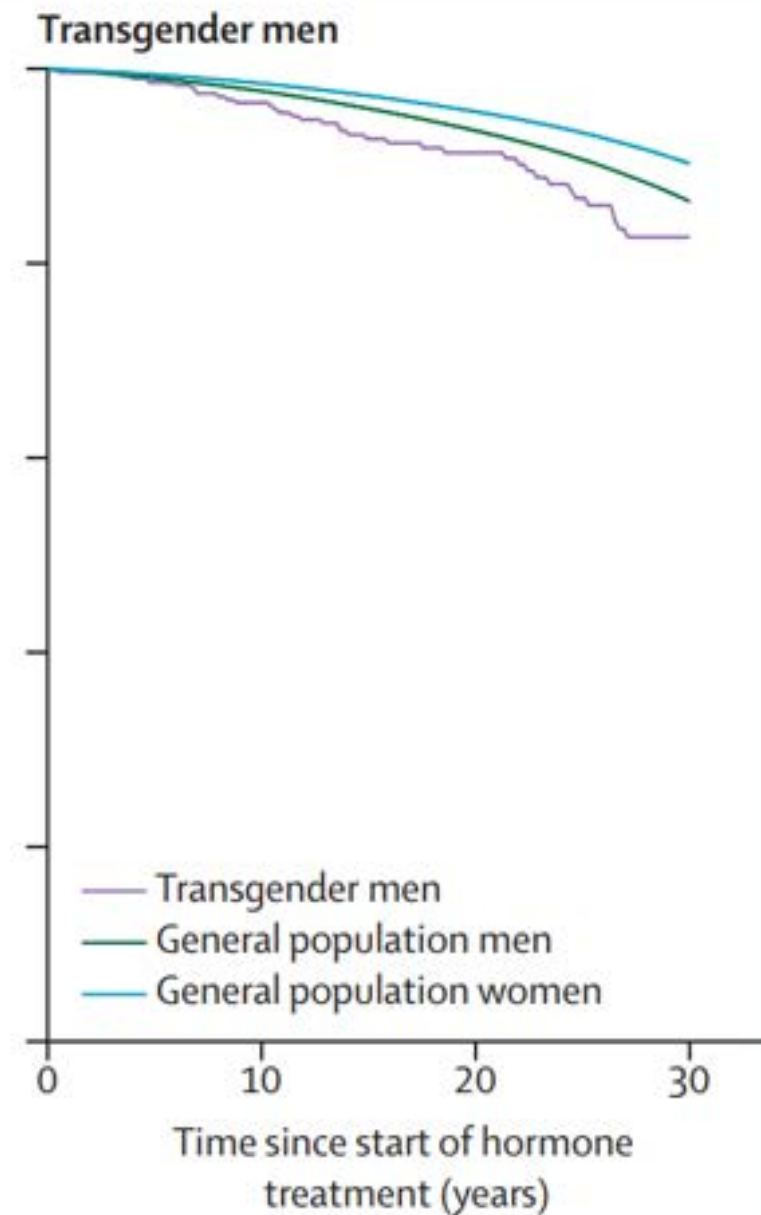
Stroke	Ref: Cis men	Ref: Cis women
Nota et al, 2019 (SIR)	1.46 (0.59-3.04)	2.42 (1.65-3.42)
Getahun, 2018 (HR)	1.1 (0.6-2.0)	1.3 (0.7-2.5)

Cardiovascular Risks and GAHT – Key Points

- Large cohort studies are lacking
- Existing data suggests that **transfeminine** individuals taking gender-affirming estrogens may experience an **increased risk of myocardial infarction and ischemic stroke** compared to both cis-men and cis-women
- Existing data suggests that **transmasculine** individuals taking gender-affirming testosterone may experience an **increased risk of myocardial infarction and stroke** compared with cis-women but that this is similar to what is observed in cis-men



Number at risk	2927	1569	915	387
(censored)	(1254)	(568)	(453)	(353)



Number at risk	1641	615	363	169
(censored)	(1011)	(239)	(182)	(165)



	Transgender women			Transgender men		
	Number who died (n)	SMR compared with general population men	SMR compared with general population women	Number who died (n)	SMR compared with general population women	SMR compared with general population men
Overall*	241	1.6 (1.4-1.9)	2.4 (2.1-2.7)	34	1.6 (1.1-2.1)	1.1 (0.8-1.5)
Cardiovascular disease	50	1.4 (1.0-1.8)	2.6 (1.9-3.4)	<10	1.6 (0.5-3.2)	0.8 (0.3-1.6)
Myocardial infarction	17	1.1 (0.7-1.7)	3.0 (1.7-4.5)	<10	1.0 (0.0-3.7)	0.4 (0.0-1.4)
Thromboembolism	NA	NA	NA	NA	NA	NA
Other	33	1.5 (1.1-2.1)	2.5 (1.7-3.4)	<10	1.8 (0.5-4.0)	1.1 (0.3-2.3)
Cancer	76	1.3 (1.0-1.6)	1.6 (1.3-2.0)	<10	0.8 (0.4-1.4)	0.8 (0.4-1.4)
Lung cancer	34	2.0 (1.4-2.8)	3.1 (2.1-4.2)	<10	1.1 (0.2-2.7)	1.0 (0.2-2.3)
Cancer of digestive tract	17	1.0 (0.6-1.5)	1.5 (0.9-2.4)	<10	0.4 (0.0-1.6)	0.3 (0.0-1.0)
Other	25	1.1 (0.7-1.6)	1.0 (0.6-1.4)	<10	0.8 (0.3-1.6)	1.1 (0.4-2.2)
Infection	13	5.4 (2.9-8.7)	8.7 (4.7-14.1)	NA	NA	NA
HIV	<10	14.7 (1.8-40.9)	47.6 (5.8-132.6)	NA	NA	NA
Other	<10	4.8 (2.4-8.0)	7.6 (3.8-12.7)	NA	NA	NA
Non-natural cause	32	2.7 (1.8-3.7)	6.1 (4.2-8.4)	<10	3.3 (1.2-6.4)	1.3 (0.5-2.5)
Suicide	18	3.1 (1.8-4.7)	6.8 (4.1-10.3)	<10	2.8 (0.6-6.8)	1.2 (0.3-3.0)
Other	<14	2.3 (1.2-3.6)	5.2 (2.9-8.4)	<10	4.0 (0.8-9.7)	1.3 (0.3-3.2)
Other	70	1.9 (1.5-2.3)	2.7 (2.1-3.4)	14	2.8 (1.6-4.5)	1.9 (1.0-3.0)

Data are absolute values or standardised mortality ratio (95% CI). N indicates the number of patients who started hormone therapy who died. Absolute numbers of people who died are only presented if the number exceeds ten cases to guarantee patient anonymity. SMR=standardised mortality ratio. NA=not applicable (no deaths in the population). HIV=human immunodeficiency virus. *Overall mortality risk for the period that cause-specific death data were available (1996-2018).

Table 3: Cause-specific standardised mortality ratios in transgender women and transgender men compared with general population men and general population women

The Risk of Doing Something and the Risk of Doing Nothing – The Turnaway Study



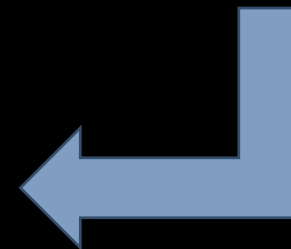
Baseline Laboratory Monitoring

Baseline Labs – T-GAHT

Everyone: CBC

Some people: CMP,
lipid, A1c, STI, “PrEP
labs,” urine hCG

Other indications *besides* T-GAHT



Testosterone-based GAHT Lab Panel

- Basic Metabolic Panel ■
Expected: Today, Clinic Collect, Blood - Venipuncture, Blood
- POC Pregnancy Test (Urine) ■
Routine, Clinic Performed, Qty-12, Expected: Today
- Pregnancy Beta-HCG, Urine Qualitative ■
Expected: Today, Clinic Collect, Urine - Void, Urine, Qty-12
- CBC w/Platelet ■
Expected: 4/27/2023, Expires: 4/27/2024, Clinic Collect, Blood - Venipuncture, Blood, Resulting Agency - SUGARHOUSE LAB, Qty-12
- Testosterone, Adult Male ■
Expected: 4/27/2023, Expires: 4/27/2024, Clinic Collect, Blood - Venipuncture, Blood, Resulting Agency - ARUP, Qty-1
- Lipid Panel ■
Expected: Today, Expires: 1 Year, Clinic Collect, Qty-1
- Hgb A1C ■
Expected: Today, Expires: 1 Year, Clinic Collect, Qty-1
- Human Immunodeficiency Virus (HIV) Combo Antigen/Antibody (HIV-1/O/2) by CIA, Reflexive Panel ■
Expected: Today, Expires: 1 Year, Clinic Collect, Qty-1
- Rpr With Reflex To Titer And TP-PA Conf ■
Expected: Today, Expires: 1 Year, Clinic Collect, Qty-1
- Chlamydia T & N Gonorrhoeae By TMA ■
Expected: Today, Expires: 1 Year, Clinic Collect, Urine - Void, Urine
- Hepatitis C Virus Antibody by CIA with Reflex to HCV by Quantitative NAAT ■
Expected: Today, Expires: 1 Year, Clinic Collect, Qty-1
- testosterone cypionate injection 200 mg/mL (SQ route)
- finasteride (PROPECIA) 1 mg tablet
Disp-45 tablet, R-3
- Needles & Syringes
Please dispense 1 cc Luer Lock syringe. Do NOT dispense a 3cc syringe. Please also provide 18G draw needles and 5/8" 23-25G administration needles. Needs sufficient supplies for weekly injections for three months.
- AMB Referral to Psychology
- AMB Referral to Plastic Surgery
- AMB Referral to Transgender Services
- AMB Referral to Urology
- AMB Referral to Adolescent Medicine
- AMB Referral to Transgender Voice Therapy
- AMB Referral to OB/GYN

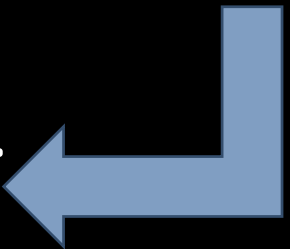


Baseline Labs E-GAHT

Everyone: BMP
(we only use spiro)

Some people: CMP, lipid,
A1c, STI, “PrEP labs”

Indications *besides* E-GAHT



Estradiol-based GAHT Lab Panel

- Basic Metabolic Panel ■
Expected: 4/27/2023, Expires: 4/27/2024, Clinic Collect, Blood - Venipuncture, Blood, Resulting Agency - SUGARHOUSE LAB, Qty-1
- Testosterone by TMS (Females or Children) ■
Expected: 4/27/2023, Expires: 4/27/2024, Clinic Collect, Blood - Venipuncture, Blood, Resulting Agency - ARUP, Qty-1
- Estradiol by TMS (Males, Children or Postmenopausal Females) ■
Expected: 4/27/2023, Expires: 4/27/2024, Clinic Collect, Blood - Venipuncture, Blood, Resulting Agency - ARUP, Qty-1
- Lipid Panel ■
Expected: Today, Clinic Collect, Qty-1
- LH / FSH (Luteinizing Hormone and Follicle Stimulating Hormone) ■
Expected: Today, Clinic Collect
- Hgb A1C ■
Expected: Today, Clinic Collect
- Human Immunodeficiency Virus (HIV) Combo Antigen/Antibody (HIV-1/O/2) by CIA, Reflexive Panel ■
Expected: Today, Expires: 1 Year, Qty-1
- Rpr With Reflex To Titer And TP-PA Conf ■
Expected: Today, Expires: 1 Year
- Chlamydia T & N Gonorrhoeae By TMA - Urine ■
Expected: Today, Expires: 1 Year, Urine - Void, Urine
- Chlamydia T & N Gonorrhoeae By TMA - Pharyngeal ■
Expected: Today, Expires: 1 Year, Throat, Swab
- Chlamydia T & N Gonorrhoeae By TMA - Rectum ■
Expected: Today, Expires: 1 Year, Rectum, Swab
- Hepatitis C Virus Antibody by CIA with Reflex to HCV by Quantitative NAAT ■
Expected: Today, Expires: 1 Year
- estradiol (CLIMARA) 0.1 MG/24HR weekly patch
- estradiol (VIVELLE-DOT) 0.1 MG/24HR biweekly patch
- estradiol valerate (DELESTROGEN) 20 MG/ML oil
- estradiol (ESTRACE) 1 mg tablet
- estradiol (ESTRACE) 2 mg tablet
- progesterone micronized (PROMETRIUM) 100 mg capsule
- spironolactone (ALDACTONE) 50 mg tablet
- spironolactone (ALDACTONE) 100 mg tablet
- finasteride (PROPECIA) 1 mg tablet
- Needles & Syringes
Please dispense 1 cc Luer Lock syringe. Do NOT exchange for a 3 cc syringe. Please also provide 18G draw needles and 1-1.5" 22-23G administration needles. Needs sufficient supplies for weekly injections for three months.
- AMB Referral to Psychology
- AMB Referral to Plastic Surgery
- AMB Referral to Urology
- AMB Referral to Transgender Services
- AMB Referral to Adolescent Medicine
- AMB Referral to Transgender Voice Therapy

Ongoing Laboratory Monitoring

Important Concepts in GAHT Labs

1. Hormones labs are generally helpful to monitor for SUPRATHERAPEUTIC levels
2. Understanding hormone pharmacokinetics will help you interpret lab results
3. In E-GAHT (feminizing), testosterone suppression is paramount
4. Don't get too "hung up" on keeping labs in the normal ranges

The Absolute Basics of Masculinizing Hormone Therapy

300-1000 ng/dL
(400-700 ng/dL)

Adult male
testosterone

Testosterone cypionate*
50-100mg IM/SQ weekly



Starting T-GAHT

Table 4. Hormone regimens in transgender and gender diverse adults*

Testosterone-Based Regimen (Transmasculine)

Transgender males

Testosterone

Parenteral

Testosterone enanthate/
cypionate

50–100 IM/SQ weekly or
100–200 IM every 2 weeks

Testosterone undecanoate

1000 mg IM every 12 weeks or
750 mg IM every 10 weeks

Transdermal testosterone

Testosterone gel

50–100 mg/day

~~Testosterone transdermal patch~~

2.5–7.5 mg/day

Testosterone-based Hormone Therapy Lab Monitoring

Lab	Baseline	Year 1 (with dose changes/ every 3 months)	Year 2+ (1-2x annually)	Anytime with dose changes	As needed
CBC	X	X	X	X	X
Testosterone		X	X	X	X
Pregnancy					X
CMP					X
Lipid					X
A1c					X
STI/PrEP					X

Target Ranges:

CBC: Hct <50%, data for harm in people with PV w/ Hct above 55%

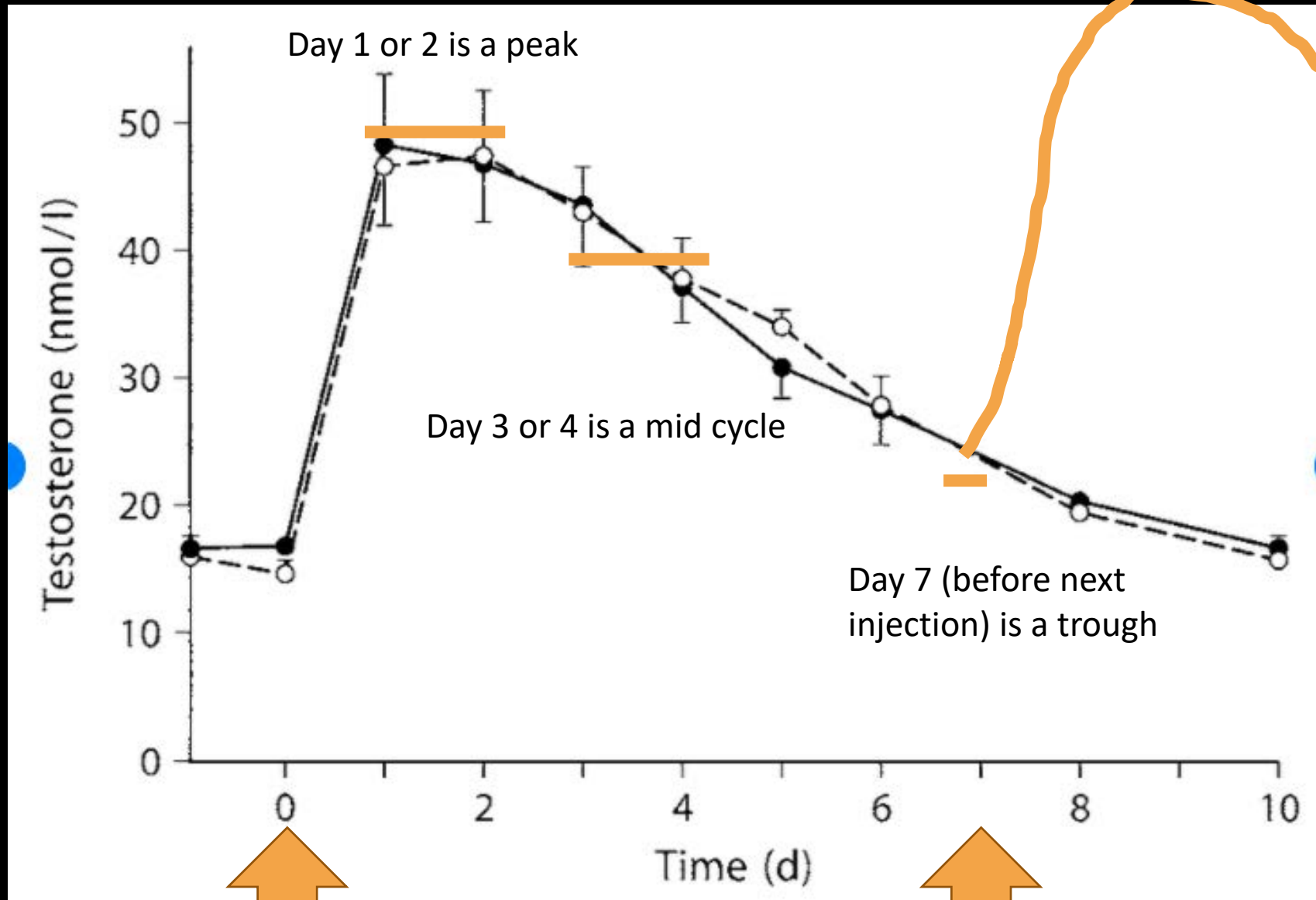
Total testosterone:

400-700 ng/dL (cisgender male range)

Timing of blood work:

Injectable: Peak/trough or mid-cycle for cypionate/enanthate

Transdermal: after one week of daily application and at least 2 hours after application (or at least avoid area where applied)



Injection

Injection



- Choosing the right syringe/needles is very important
 - SQ (testosterone) 23-25G 5/8 inch on **1 cc LUER LOCK syringe**
 - IM (testosterone/estradiol) 22-23G 1-1.5 inch on **1 cc LUER LOCK syringe**

Testosterone-based GAHT Summary

- Increasing testosterone is the primary objective
- Aim for “total adult male testosterone” to be in the “normal” cis-male range (300-1000 ng/dL)
- Use 1 cc Luer locked syringes
- SQ injections may be better tolerated, similar pharmacokinetics to IM

The Absolute Basics of Feminizing Hormone Therapy

100-200 $\mu\text{g/ml}$

17 β estradiol

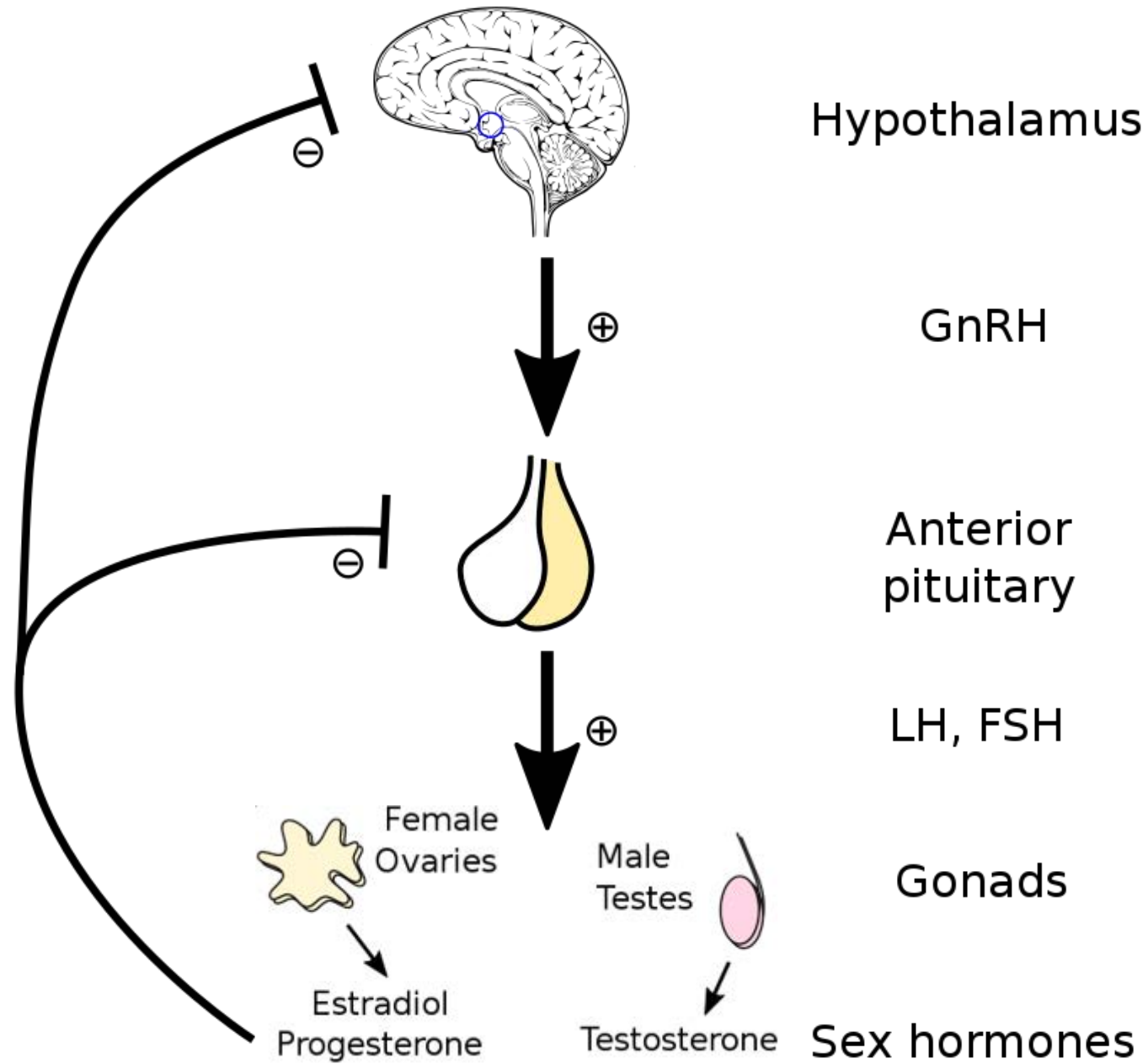
Adult male
testosterone

<50 ng/dl

Spirolonactone,
GnRHa



Photo source: <https://bit.ly/2Smm2hs>



Starting Hormones

Table 4. Hormone regimens in transgender and gender diverse adults*

Estrogen-based regimen (Transfeminine)

Estrogen

Oral or sublingual

Estradiol

2.0-6.0 mg/day

Transdermal

Estradiol transdermal patch

0.025-0.2 mg/day

Estradiol gel various

‡ daily to skin

Parenteral

Estradiol valerate or cypionate

5-30 mg IM every 2 weeks

2-10 IM every week

Anti-Androgens

Spiroonolactone

100-300 mg/day

Cyproterone acetate

10 mg/day**

GnRH agonist

3.75-7.50 mg SQ/IM monthly

GnRH agonist depot formulation

11.25/22.5 mg SQ/IM 3/6

monthly

‡ Amount applied varies to formulation and strength

Estradiol-based Hormone Therapy Lab Monitoring

Lab	Baseline	Year 1 (with dose changes)	Year 2+ (annually)	Anytime with dose changes	As needed
K	X*	X	X	X	X
Estradiol		X	X	X	X
Testosterone		X	X	X	X
CMP					X
Lipid					X
A1c					X
STD					X

*If using spironolactone

Target Ranges:

Potassium <5

Estradiol 100-200 pg/mL

Testosterone <50 ng/dL

Timing of blood work:

Oral: AM trough

Injectable: Peak (1-2 days post injection) for valerate or mid-cycle (3 days post injection) for valerate and cypionate

Transdermal: after one week of daily application

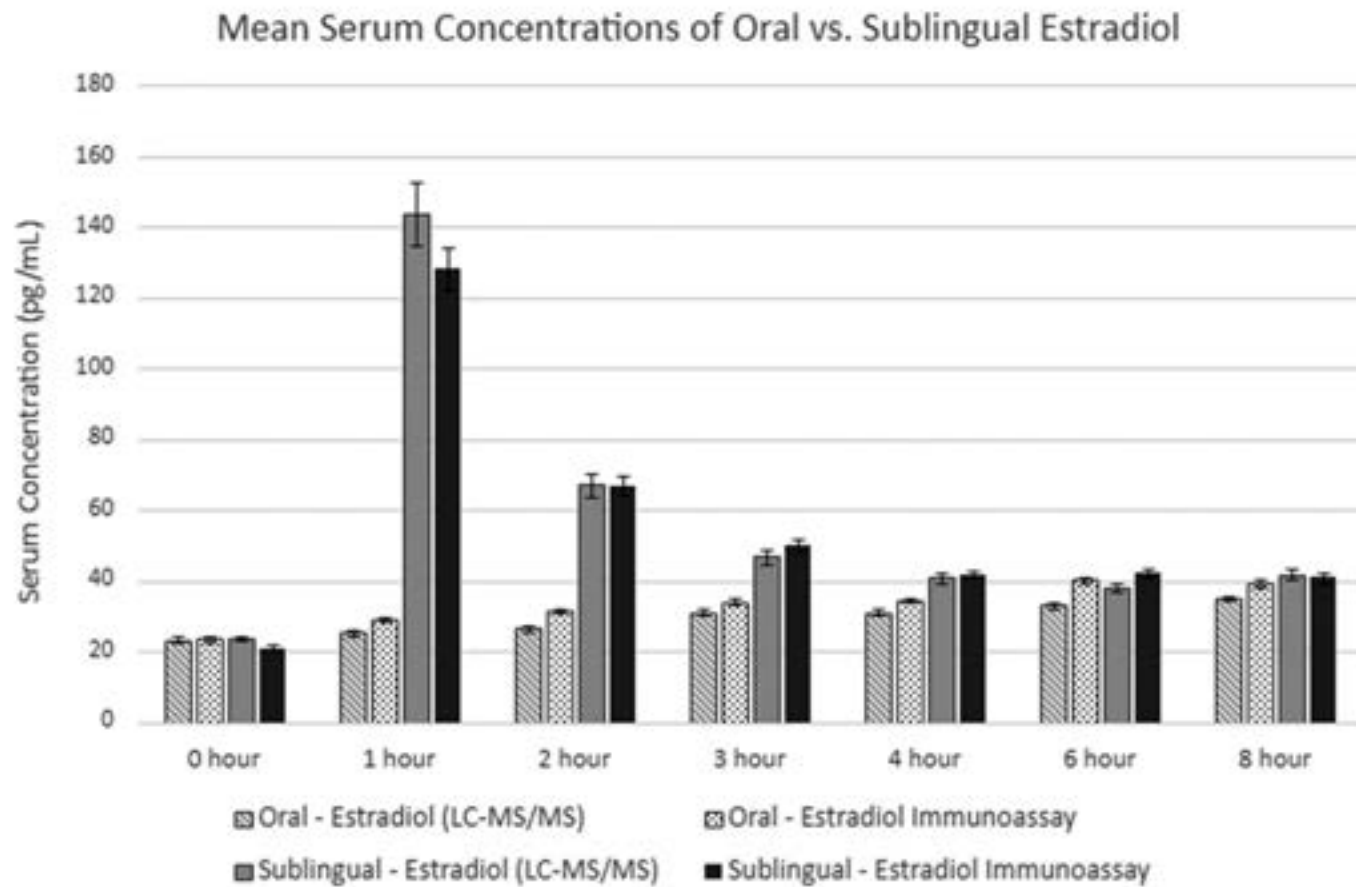


Fig. 1. Comparison of serum estradiol concentrations over time following oral and sublingual administration, measured using LC-MS/MS and immunoassay in both the conditions ($N = 70$ per series). Error bars represent SEs. LC-MS/MS = liquid chromatography mass spectroscopy.

Single dose pharmacokinetics of 1mg of oral or sub-lingual 17-b estradiol administered to TEN transgender women

Estradiol-based GAHT Summary

- Lowering testosterone is the primary objective
- Estradiol is the main anti-androgen
- Using adjunctive anti-androgens allows you to use less estradiol
- Estradiol likely confers the most risk
- It's easy to get “stuck in the weeds” with labs
- Don't go chasing numbers

Summary

- Creating infrastructure makes it easier for providers (especially learners) to offer gender-affirming services
- New patients may require two visits to obtain history/discuss goals and risks/benefits
- Visits/labs every three months during the first year, then 1-2x per year
- T-GAHT testosterone goal is 300-1000 ng/dL, use IM/SQ testosterone cypionate/enanthate
- E-GAHT testosterone goal is <50 ng/dL and estradiol goal is 100-200 pg/ml, use PO/TD/IM estradiol



**KEEP
CALM
AND
SAY
YES**



Ask me for my cell



Erika.Sullivan@hsc.Utah.edu

Transgender Care Is Family Medicine: A Call to Action

Erika Anne Sullivan, MD, MS¹; Shanna D. Stryker, MD, MPH²; Julie Blaszcak, MD, MEHP³; Ryan Spielvogel, MD, MS⁴; Tiffany Ho, MD, MPH⁵; Bernadette Kiraly, MD⁶; Lisa MacVane, MD⁷; Rachel Nixon, DO⁸; Dylan M. Sabb, MD, MPH⁹; Anita Venkatesan, MD, MPH¹⁰; José E. Rodriguez, MD¹¹

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KEYWORDS: cultural competence and responsiveness, gay, lesbian, transgender, health care system issues, special populations

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Currently in the United States, transgender* individuals account for 1.6 million people 13 years of age and older.¹ Unfortunately, they face a litany of health disparities when compared to their cisgender counterparts, including higher rates of death and disability from a variety of causes.²⁻⁷ The most notable discrepancies involve mental health conditions, with one study finding that transgender adults were more than six times as likely to have had suicidal ideation and more than four times as likely to have attempted suicide in their lifetimes.⁴

Many factors contribute to these poor health outcomes. But lack of access to culturally competent evidenced-based health care is a likely contributor—and it is one that we can all do something about. Many studies have suggested that transgender individuals are reluctant to seek care because of prior discrimination perpetrated against them at the hands of providers.⁸ When transgender individuals connect with clinicians who can provide them with gender-affirming care, however, many of the observed health disparities abate. In one study, gender diverse youth showed a 73% reduction in suicidality in the year after receiving gender-affirming care.⁹ Another study similarly showed continual, progressive, and persistent positive mental health effects after initiating gender-affirming care over the 2 years of the study.³

The issue, as stated, is that access to such care is limited. In a 2018 survey study of primary care physicians (PCPs), 86% were willing to provide routine care to transgender patients, but 52% expressed lack of familiarity with guidelines, and 48% expressed lack of training in transgender health.¹⁰ Of note, in the same study, the family physicians surveyed were five times more likely to be willing to provide gender-affirming care than the internal medicine physicians surveyed. So, while a large percentage of surveyed physicians reported a willingness to treat transgender patients, many did not have the expertise, skills, or confidence to do so.

The discrepancy between clinician desire to provide gender-affirming care and having the training and skills to offer it, unfortunately, extends to medical students and residents as well. Despite calls from the American Academy of Family Physicians,¹¹ American Academy of Pediatrics,^{10,11} and the Association of American Medical Colleges¹² for medical school and residency curricula to include education on the unique needs of transgender patients as well as eagerness from medical students and residents to receive training in gender-affirming care,^{13,14} such broad training continues to be lacking. Recent Council of Academic



TED^x SaltLakeCity

2023



Stay tuned...





Learning Modules

<https://www.lgbthealtheducation.org/lgbt-education/learning-modules/>

You may also be interested in our [On-Demand Webinars](#) which offer a range of topics and include free CME/CEU credit and downloadable content.

If you have any questions or comments, [send us your feedback!](#)

UCSF Transgender Care

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UCSF Transgender Care is a multidisciplinary program consisting of experts in transgender medicine and surgery at UCSF Medical Center. Our aim is to provide evidence-based, cutting-edge clinical care for transgender and gender non-binary communities, as

Welcome!

NOTICE REGARDING STATUS OF SERVICES DURING THE COVID-19 PANDEMIC RESPONSE

[Schedule an appointment](#)

[Surgical assessment process](#)

[UCSF Transgender Care Guidelines](#)

[For Providers](#)

- [Refer a patient](#)
- [e-Consult](#)
- [Clinical rotation/experience](#)

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Volume 102, Issue 11
1 November 2017

Article Contents

Abstract

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Evidence-Based Clinical
Practice Guidelines

Commissioned Systematic
Review

EDITOR'S CHOICE

Endocrine Treatment of Gender- Dysphoric/Gender-Incongruent Persons: An Endocrine Society* Clinical Practice Guideline

Wylie C Hembree, Peggy T Cohen-Kettenis, Louis Gooren, Sabine E Hannema,
Walter J Meyer, M Hassan Murad, Stephen M Rosenthal, Joshua D Safer, Vin Tangpricha,
Guy G T'Sjoen [Author Notes](#)

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2017, Pages 3869–3903, <https://doi.org/10.1210/jc.2017-01658>

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A correction has been published: *The Journal of Clinical Endocrinology & Metabolism*,
Volume 103, Issue 7, July 2018, Pages 2758–2759, <https://doi.org/10.1210/jc.2018-01268>

Endocrine
Society
Guidelines



Mountain West Transforming Care Conference

[Summary](#) [Agenda](#) [Sponsors](#) [Registration](#) [Support Opportunities](#) [Abstract Submission](#) [Location](#)

Mountain West Transforming Care Conference
Presented by [Gilead Sciences, Inc](#)

Event Location &
Dates

May 8-10, 2025 in Springdale, UT aka Zion National Park



UPCOMING GEI COURSE AND WORKSHOPS

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FIRST
DOING
NOTHING IS
HARM