

Gender Affirming Care for People with HIV (Introduction and Testosterone Use in Transgender and Gender Diverse (TGD) Individuals)

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Disclosures

No conflicts of interest or relationship to disclose

There are no FDA-approved medications for gender affirming care

Disclaimer

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Data Considerations

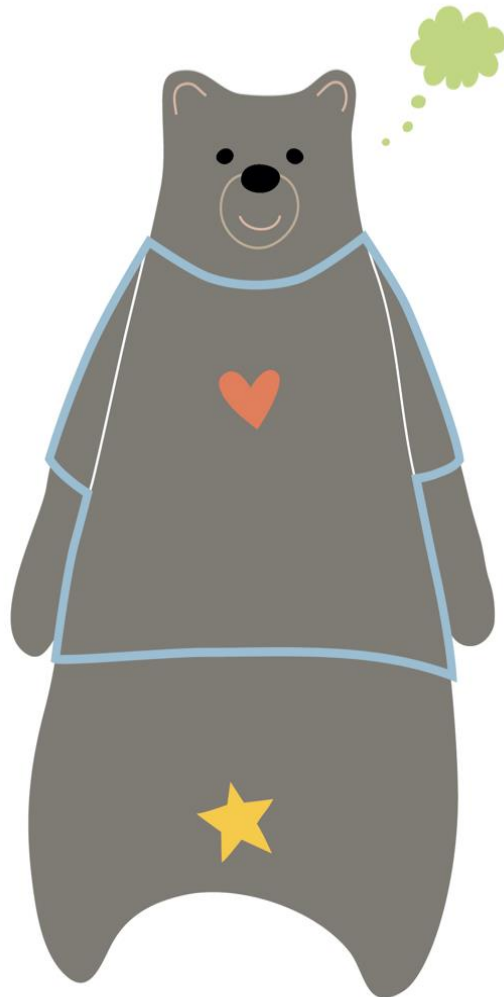
Data in this presentation offer a limited perspective of how systemic, social, and economic factors impact health. We recognize that racism, not race, creates and perpetuates health disparities.



To Learn More:

<https://www.cdc.gov/minorityhealth/racism-disparities>

Definitions



SEX ASSIGNED AT BIRTH

Male ---- Intersex--- Female

GENDER IDENTITY

Agender ----- Man/Transgender Man
Woman/Transgender Woman
Queer/Non-binary

SEXUAL AND/OR ROMANTIC ATTRACTION

Asexual ----- Different gender than self
Same gender as self
Multiple gender

GENDER EXPRESSION

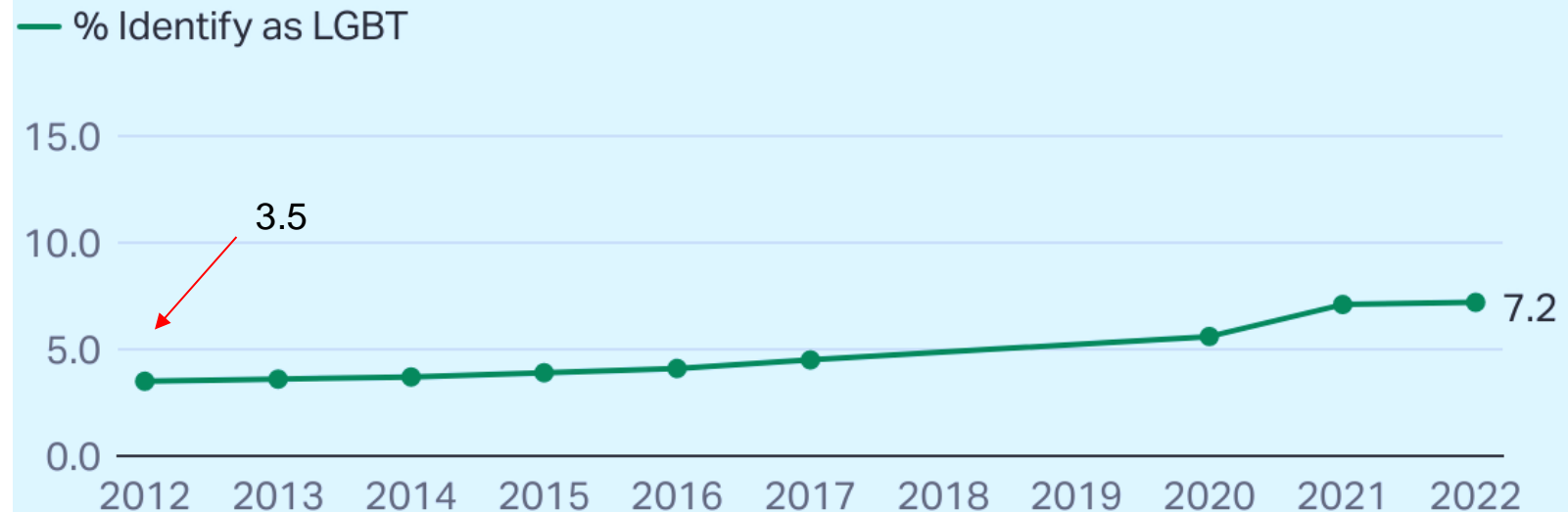
Masculine ---- Androgynous ---Feminine

Definitions

- Cisgender person
- Transgender male
- Transgender female
- Non-binary
- Gender dysphoria (DSMV)
- Gender identity disorder (ICD-10)
- Gender incongruence (ICD-11)

Americans' Self-Identification as Lesbian, Gay, Bisexual, Transgender or Something Other Than Heterosexual, 2012-2022

Which of the following do you consider yourself to be? You can select as many as apply. Straight or heterosexual; Lesbian; Gay; Bisexual; Transgender



Sexual Orientation or Gender Identity, U.S. Adults and LGBT Adults, 2022

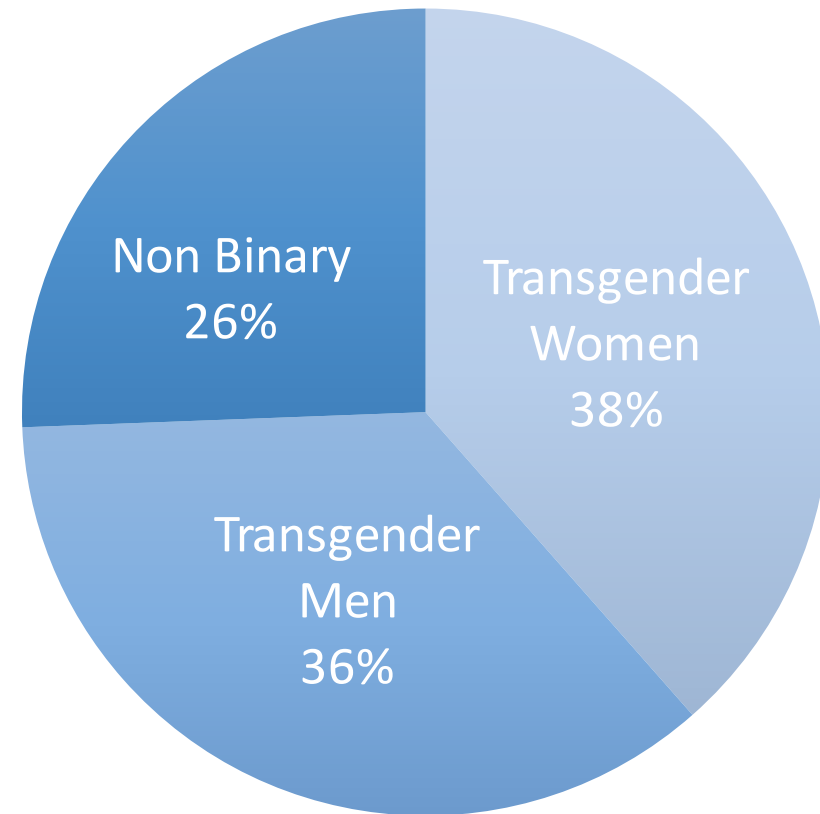
Which of the following do you consider yourself to be? You can select as many as apply. Straight or heterosexual; Lesbian; Gay; Bisexual; Transgender

	U.S. adults	LGBT adults
	%	%
Lesbian	1.0	13.4
Gay	1.4	20.2
Bisexual	4.2	58.2
Transgender	0.6	8.8
Pansexual	0.1	1.7
Asexual	0.1	1.3
Queer	0.1	1.2
Other LGBT	0.1	1.8

How many transgender individuals in the US?

- About 1.6 million adults (ages 18 and older) and youth (ages 13 to 17) identify as transgender
- About 1.3 million adults identify as transgender individuals

Gender Identity of Adults



HIV in transgender population

- In the general US population, the estimated prevalence of HIV is 0.39%. The prevalence of HIV in transgender women and transgender men is 42.0% and 3.2% respectively.¹
- Data from 2019 showed 2% or 671 of the 36,801 new HIV diagnoses in the US and dependent areas were among transgender individuals.²
- Most new HIV diagnosis among transgender people were among Black/African American people

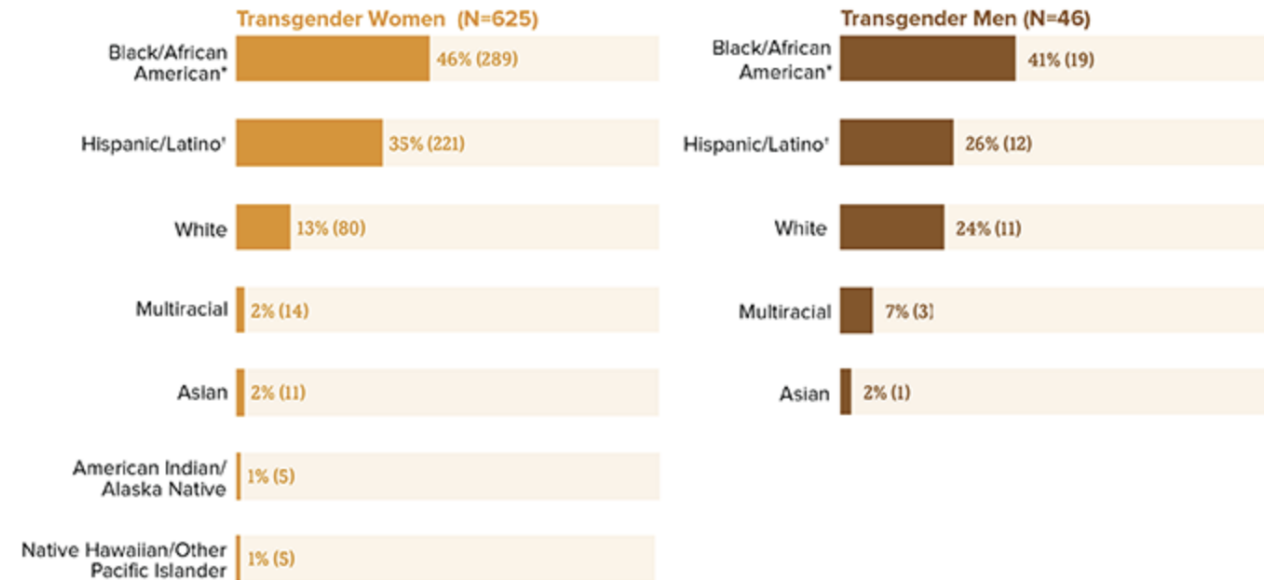
¹Olivia T. Van Gerwen, MD, MPH ; Jill S. Blumenthal, MD, MAS. Feb -March 2023 Providing Gender-Affirming Care to Transgender and Gender-Diverse Individuals With and at Risk for HIV IAS–USA Topics in Antiviral Medicine Volume 31 Issue 1 <https://www.iasusa.org/wp-content/uploads/2023/03/31-1-gerwin-blumental.pdf>

² CDC HIV and Transgender People: HIV Diagnoses <https://www.cdc.gov/hiv/group/gender/transgender/hiv-diagnoses.html>

HIV in transgender population

New HIV Diagnoses Among Transgender People by Race/Ethnicity in the US and Dependent Areas, 2019

Most new HIV diagnoses among transgender people were among Black/African American people.



* *Black* refers to people having origins in any of the Black racial groups of Africa. *African American* is a term often used for people of African descent with ancestry in North America.
[†] Hispanic/Latino people can be of any race.

Gender Affirming Care (GAC)

Gender affirming care encompasses a range of social, psychological, behavioral, and medical interventions “designed to support and affirm an individual’s gender identity” when it conflicts with the gender they were assigned at birth.

Gender Dysphoria

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

1. A marked incongruence between one's experienced gender and primary and/or secondary sex characteristics
2. A strong desire to be rid of one's primary and/or secondary sex characteristics because of marked incongruence with one's experienced/expressed gender
3. A strong desire for primary and/or secondary sex characteristics of the other gender
4. A strong desire to be of the other gender
5. A strong desire to be treated as the other gender
6. A strong conviction that one has the typical feelings and reactions of the other gender

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

DSMV

Masculinizing Hormone



150 mg of testosterone

300 mg of testosterone

450 mg of testosterone



Masculinizing Hormone

Hormone	Dosage		
	Initial Low	Initial Typical	Maximum Typical
TESTOSTERONE			
Testosterone cypionate	20 mg/wk IM/SQ	50mg/wk IM/SQ	100mg/wk IM/SQ
Testosterone enanthate	20 mg/wk IM/SQ	50mg/wk IM/SQ	100mg/wk IM/SQ
Testosterone topical 1%	12.5-25 mg qAM	50 mg qAM	100 mg qAM
Testosterone topical 1.62%	20-25 mg qAM	40.5-60.75 mg qAM	103.25 mg qAM
Testosterone patch	1-2 mg qHS	4 mg qHS	8 mg qHS
Testosterone cream	10 mg	50 mg	100 mg
Testosterone axillary gel 2%	30 mg qAM	60 mg qAM	90-120 mg qAM
Testosterone undecanoate	NA	750 mg IM repeat after 4 weeks then q 10 weeks	

Effects of testosterone

Psychological and CNS

- ↓ Gender dysphoria
- ↓ Anxiety
- ↓ Depression
- ↓ Perceived Stress
- ↑ Quality of life
- ↑ Total grey matter volume

Blood

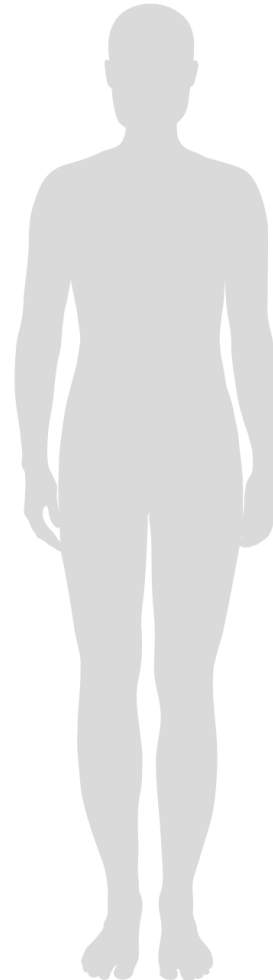
- ↑ Hemoglobin and hematocrit

Blood Pressure

- ↑ Systolic blood pressure

Sexual Health

- ↑ Sexual desire



Voice

- ↓ pitch

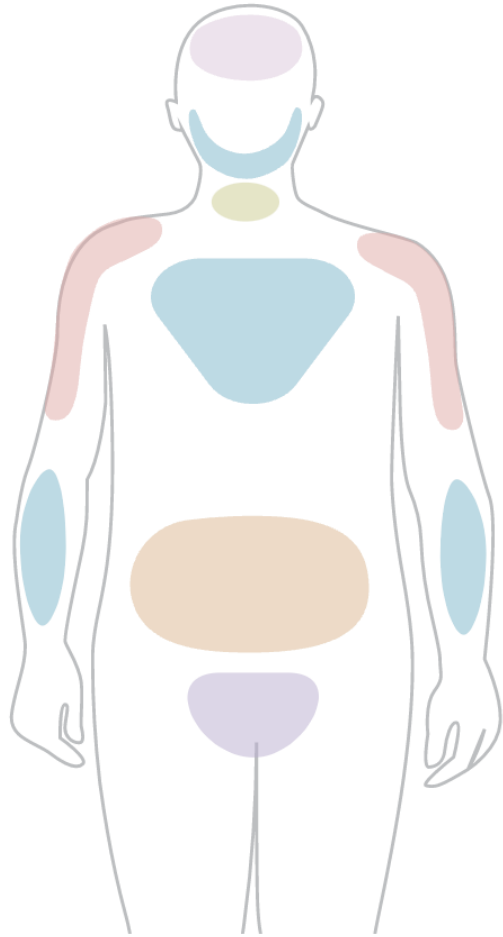
Hormone concentrations

- ↓ Estradiol
- ↓ Luteinizing hormone
- ↓ Follicle-stimulating hormone
- ↓ Prolactin

Lipid and metabolism

- ↓ HDL, cholesterol
- ↑ Triglycerides
- ↓ Sex hormone binding globulin

Effects of testosterone



PHYSICAL EFFECTS	REVERSIBILITY	TIME COURSE (YEARS)					
		0	1	2	3	4	5
Skin oiliness/acne	Reversible	[Progressive bar from 0 to 2 years]					
Deepened voice	Irreversible	[Progressive bar from 0 to 2 years]					
Body fat redistribution	Reversible/Variable	[Progressive bar from 0 to 5 years]					
Increased muscle mass/strength ^b	Reversible	[Progressive bar from 0 to 5 years]					
Facial/body hair growth	Irreversible	[Progressive bar from 0 to 5 years]					
Scalp hair loss ^c	Irreversible	[Progressive bar from 0 to 5 years]					
Cessation of menses	Reversible	[Progressive bar from 0 to 1 year]					
Clitoral enlargement	Irreversible	[Progressive bar from 0 to 2 years]					
Vaginal atrophy	Reversible	[Progressive bar from 0 to 2 years]					
Infertility	Variable	[Progressive bar from 0 to 5 years]					

Drug-drug interaction with HIV medications

- Medications that may ↑ testosterone, finasteride, dutasteride
 - Boosted elvitegravir
 - Boosted PI with cobicistat or ritonavir
- Medications that may ↓ testosterone, finasteride, dutasteride
 - Efavirenz
 - Etravirine
 - Nevirapine

Goals of Therapy

- The goal of masculinizing hormone therapy is the development of male secondary characteristics and suppression/minimalization of female secondary sex characteristics
- The general approach to therapy is to obtain physiological male range of testosterone
- Serum testosterone goal 400-700 ng/dL
- Hgb/Hct within male range
- Cessation of monthly bleeding

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