



# CARDI·OH

Ohio Cardiovascular and Diabetes Health Collaborative



In partnership with:



## Cardi-OH ECHO

# *Health Equity and Cardiovascular Risk*

November 30, 2023

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# Today's Presenters



## FACILITATOR

**Goutham Rao, MD, FAHA**  
*Case Western Reserve University*

## DIDACTIC PRESENTER

**George Matar, MD, AAHIVS, CCRP**  
*Case Western Reserve University*

## LEAD DISCUSSANTS

**Danette Conklin, PhD**  
*Case Western Reserve University*

**Chris Taylor, PhD**  
*The Ohio State University*

**Goutham Rao, MD, FAHA**  
*Case Western Reserve University*

## CASE PRESENTER

**Emily Boyd, NP**  
*Southeast Healthcare (Primary Care)*

**Megan Sizemore, PharmD**  
*UTMC Family Medicine*

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# Health Equity Among Sexual Minorities

George W. Matar, MD, AAHIVS, CCRP

Family and Preventive Medicine Resident, PGY-4

University Hospitals, Cleveland Medical Center

Case Western Reserve University, School of Medicine

# Learning Objectives



1. Provide an overview of increased cardiovascular risk, including potential causes, among LGBTQ patients
2. Describe culturally sensitive and effective strategies for communicating cardiovascular risk to LGBTQ patients
3. Describe strategies to provide a welcoming environment for sexual and gender minority patients seeking care

**Table 1. Glossary of Terms for LGBTQ Health**

Bisexual	People who experience sexual, romantic, physical, or spiritual attraction to people of their own gender and toward another gender (sometimes shortened to bi).
Cisgender	A term used to describe people whose gender identity is congruent with what is traditionally expected on the basis of their sex assigned at birth.
Gay	A term used to describe boys/men who are attracted to boys/men but often used and embraced by people with other gender identities to describe their same-gender attractions and relationships. Often referred to as homosexual, although this term is no longer used by the majority of people with same-gender attractions.
Gender expression	The ways in which a person communicates femininity, masculinity, androgyny, or other aspects of gender, often through speech, mannerisms, gait, or style of dress. All people have ways in which they express their gender.
Gender identity	A person's inner sense of being a girl/woman, a boy/man, a combination of girl/woman and boy/man, or something else, or having no gender at all. Everyone has a gender identity.
Gender minority	A broad diversity of people who experience an incongruence between their gender identity and what is traditionally expected on the basis of their sex assigned at birth, such as transgender and gender nonbinary people.
Gender nonbinary	A term used by some people who identify as a combination of girl/woman and boy/man, as something else, or as having no gender. Often used interchangeably with gender nonconforming.
Lesbian	Used to describe girls/women who are attracted to girls/women; applies for cisgender and transgender girls/women. Often referred to as homosexual, although this term is no longer used by the majority of women with same-gender attractions.



Queer	Historically a derogatory term used against LGBTQ people, it has been embraced and reclaimed by LGBTQ communities. Queer is often used to represent all individuals who identify outside of other categories of sexual and gender identity. Queer may also be used by individuals who feel as though other sexual or gender identity labels do not adequately describe their experience.
Sex assigned at birth	Usually based on phenotypic presentation (ie, genitals) of an infant and categorized as female or male; distinct from gender identity.
Sex	Biological sex characteristics (chromosomes, gonads, sex hormones, or genitals); male, female, intersex. Synonymous with sex assigned at birth.
Sexual minority	A broad diversity of people who have a sexual orientation that is anything other than heterosexual/straight and typically includes gay, bisexual, lesbian, queer, or something else.
Sexual orientation	A person's physical, emotional, and romantic attachments in relation to gender. Conceptually separate from gender identity and gender expression. Everyone has a sexual orientation.
Straight	Boys/men or girls/women who are attracted to people of the other binary gender than themselves; can refer to cisgender and transgender individuals. Often referred to as heterosexual.
Transgender man	Someone who identifies as male but was assigned female sex at birth.
Transgender woman	Someone who identifies as female but was assigned male sex at birth.
LGBTQ indicates lesbian, gay, bisexual, transgender, and queer or questioning.	

**Gender dysphoria**      A term that describes a sense of unease that a person may have because of a mismatch between their biological sex and their gender identity.

Billable ICD-10 diagnosis to cover gender-affirming care (F64.0)



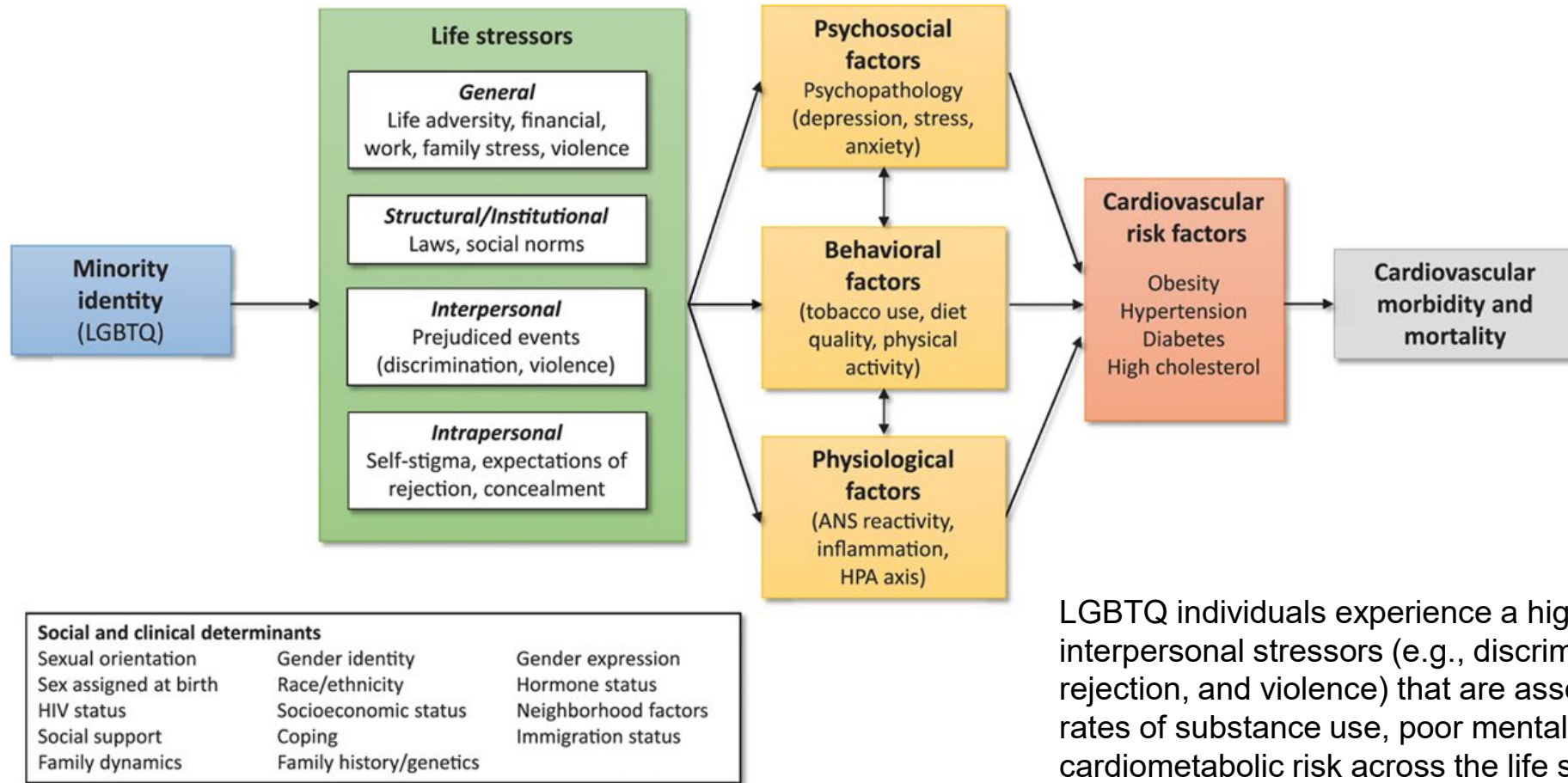
# Summary of Cardiovascular Health Concerns in Sexual Minorities



- **~11 million LGBTQ adults** in the US remain a marginalized group with significant health disparities
  - BRFSS (Behavioral Risk Factor Surveillance System) have documented higher prevalence of self-reported tobacco use and CVD diagnoses in gender minority adults
- The predominant theory to explain LGBTQ health disparities is the **minority stress model**
  - LGBTQ people are exposed to multilevel minority stressors (i.e., intrapersonal, interpersonal, and structural) that contribute to health disparities



# Conceptual Model of Cardiovascular Health in LGBTQ Adults (AHA)



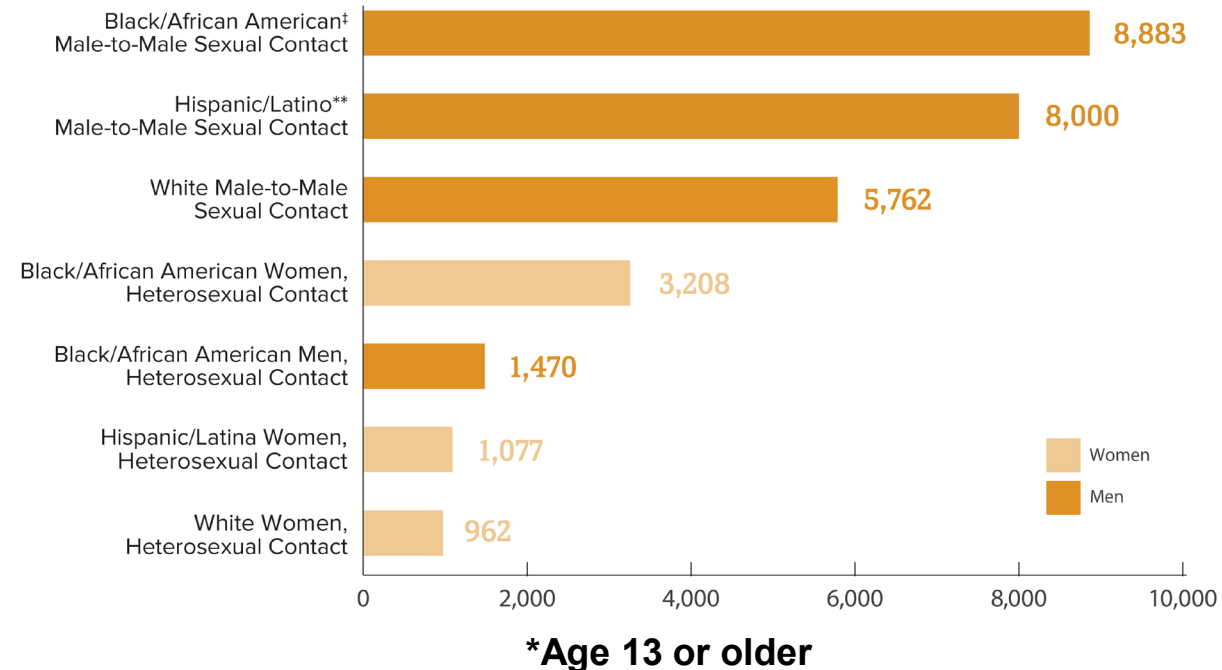
LGBTQ individuals experience a high number of interpersonal stressors (e.g., discrimination, family rejection, and violence) that are associated with higher rates of substance use, poor mental health, and cardiometabolic risk across the life span

# Additional Risk Factors

- Transgender women and sexual minority men bear a disproportionate burden of HIV compared with non-LGBTQ people
  - HIV is associated with increased risk for CVD because of:
    - High prevalence of CVD risk behaviors among people with HIV
    - Dyslipidemia and other cardiometabolic changes associated with certain HIV treatments
    - Physiological effects of HIV disease itself



**New HIV Diagnoses in the US and Dependent Areas for the Most-Affected Subpopulations, 2021 (CDC)**



# Additional Risk Factors



1666  
JACC March 7, 2023  
Volume 81, Issue 8, suppl A



## CARDIOVASCULAR OUTCOMES IN GENDER DYSPHORIC PATIENTS UNDERGOING HORMONE REPLACEMENT THERAPY

Moderated Poster Contributions  
Prevention and Health Promotion Moderated Poster Theater 10\_Hall F  
Sunday, March 5, 2023, 4:15 p.m.-4:25 p.m.

**Retrospective Cohort Study**  
**n = 1675**

### Summary of Results:

- In patients with Gender Dysphoria, the presence of hormone replacement therapy (HRT) was associated with increased odds of:
  - Ischemic Stroke
  - Pulmonary embolism
  - STEMI
  - NSTEMI
  - Drug abuse
  - Hypothyroidism
- HRT was seen more in older males
- No significant difference in all-cause mortality, length of stay, hospitalization charge, as well as arrhythmias, heart failure, or CV risk factors

- Use of gender-affirming hormone therapy has been identified as a potential contributor to poor CVH in transgender people because of the potential cardiovascular effects of these treatments

# Estrogen



Risk Level	Feminizing Hormones
Likely increased risk	Blood clots Gallstones Elevated liver enzymes Weight gain Hypertriglyceridemia
Likely increased risk with presence of additional risk factors	Cardiovascular disease
Possible increased risk	Hypertension Hyperprolactinemia or prolactinoma
Possible increased risk with presence of additional risk factors	Diabetes
No increased risk or inconclusive	Breast cancer

# Testosterone



Risk Level	Masculinizing Hormones
Likely increased risk	<ul style="list-style-type: none"> <li>Polycythemia</li> <li>Weight gain</li> <li>Acne</li> <li>Androgenic alopecia</li> <li>Sleep apnea</li> </ul>
Possible increased risk	<ul style="list-style-type: none"> <li>Elevated liver enzymes</li> <li>Hyperlipidemia</li> </ul>
Possible increased risk with presence of additional risk factors	<ul style="list-style-type: none"> <li>Destabilization of certain psychiatric disorders</li> <li>Cardiovascular disease</li> <li>Hypertension</li> <li>Diabetes</li> </ul>
No increased risk or inconclusive	<ul style="list-style-type: none"> <li>Loss of bone density</li> <li>Breast cancer</li> <li>Cervical cancer</li> <li>Ovarian cancer</li> <li>Uterine cancer</li> </ul>

# Higher Risk Individuals

- So, do we need to turn away our higher CVD risk trans patients seeking hormone replacement therapy?
  - **Yes and No**
    - Shared decision making

## Trans Patient Risk Factors

- 4% turn to the ED for primary care
- 21% avoid ED out of fear of discrimination
- 5x more likely to attempt suicide
- HIV infection rate 4x higher than national average
- Higher rates of drug use, sexual assault, domestic violence, and sex work
- 4x more likely to live in extreme poverty
- 2x more likely to be unemployed

# Culturally Competent Care

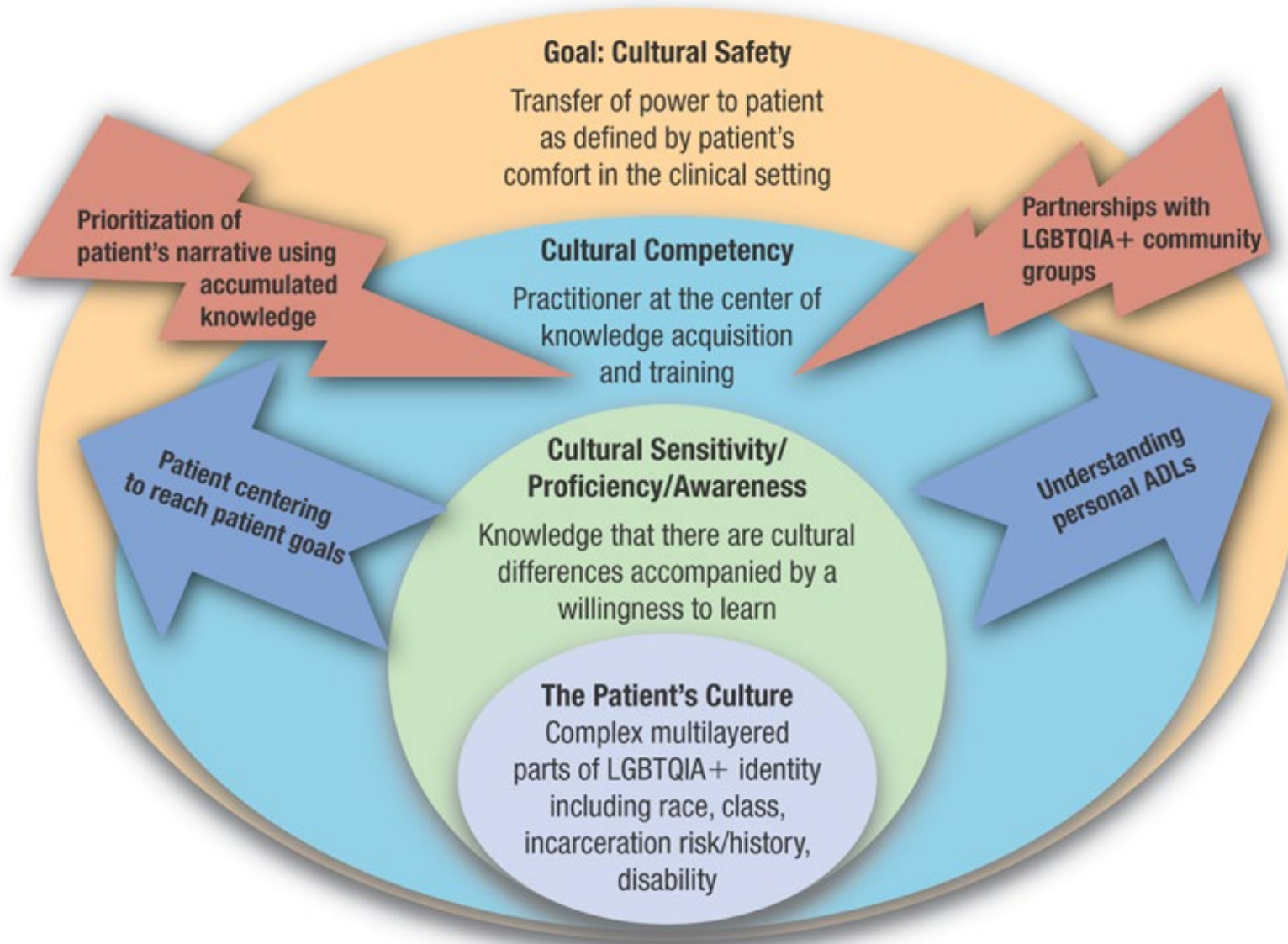
- Advertise practices as accepting of members of the LGBTQ community
- Educate staff and providers to be comfortable in discussing sexual orientation, gender orientation, and sexual practices
- Include members of the LGBTQ community as part of your staff and train your staff to refer to patients by their name and chosen descriptive pronouns (Mr., Ms., Mrs., etc.)
- Maintain an open mind and avoid judgment regarding sexual orientation and practices
- On intake forms, include the term partner in addition to the spouse; include transgender as an option
- Participate in referral programs such as the GLMA or GayHealth

# Culturally Competent Care

- Post LGBTQ symbols and posters of ethnically and racially diverse transgender or same-sex couples
- Provide patient brochures on:
  - Sexually transmitted infection prevention
  - Substance abuse
  - Safe sex practices
  - Hormone therapy
- Provide waiting room magazines about the LGBTQ community
- Support observance of LGBTQ Pride Day, World AIDS Day, and National Transgender Day of Remembrance
- Train staff and provide continuing education on the care of LGBTQ patients







# Connecting Cultural Competency to Cultural Safety

# References

- <https://www.ahajournals.org/doi/10.1161/CIR.0000000000000914#T1>
- <https://www.cdc.gov/hiv/default.html>
- <https://www.acc.org/About-ACC/Press-Releases/2023/02/22/20/29/Hormone-Therapy-for-Gender-Dysphoria-May-Raise-Cardiovascular-Risks>
- [https://www.jacc.org/cms/asset/6bd8e2f9-ccd4-4870-93a8-769af5ab9b9e/s0735-1097\(23\)02110-1.fp.png](https://www.jacc.org/cms/asset/6bd8e2f9-ccd4-4870-93a8-769af5ab9b9e/s0735-1097(23)02110-1.fp.png)
- <https://www.emra.org/books/transgender-care-guide/trans-patient-risk-factors>
- <https://www.ncbi.nlm.nih.gov/books/NBK563176/>
- <https://connect.springerpub.com/content/book/978-0-8261-6921-1/part/part01/chapter/ch01>



Thank you!

Questions/Discussion