

The Choice Agenda invites you:

# TRANSGENDER RESEARCH 2026

June 10, 2026  
10:00 - 11:30 AM ET

Findings  
from CROI  
and Beyond



Welcome to the webinar.



HIV prevention research - a new forum  
for advocacy on the latest

[avac.org/project/choice-agenda](http://avac.org/project/choice-agenda)



**TCA Radio**

**6.10.26 playlist**



**hung up**

/madonna, danell arma, dan port

**midnight ride**

/orville peck, kylie minogue,  
diplo

**take me with u**

/prince & the revolution

**i like ur look**

/kim petras

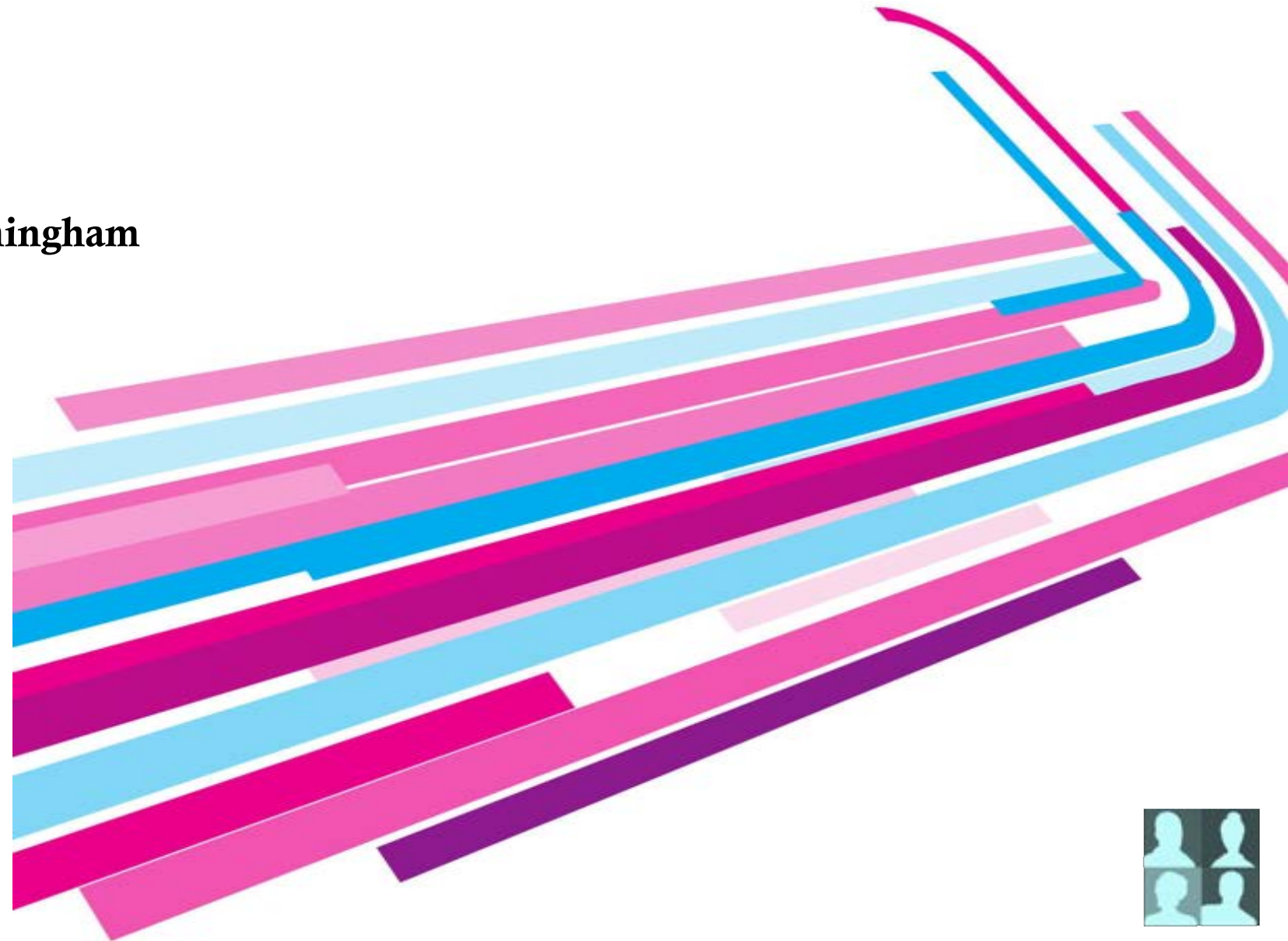
**there must be an  
angel**

/eurythmics



# FEATURING

- **Bokani Nleya**  
University of Alabama at Birmingham
  - **Sari Reisner**  
University of Michigan
  - **Yuanqi Mi**  
Johns Hopkins Bloomberg  
School of Public Health
- And your moderator
- **Brian Minalga**  
HANC



# **Assessing susceptibility of cervical explant tissue (CET) from transgender men on GAHT, to HIV-1 infection**

Bokani Nleya, PhD

Heersink School of Medicine, Department of Medicine

&

UAB Center for AIDS Research

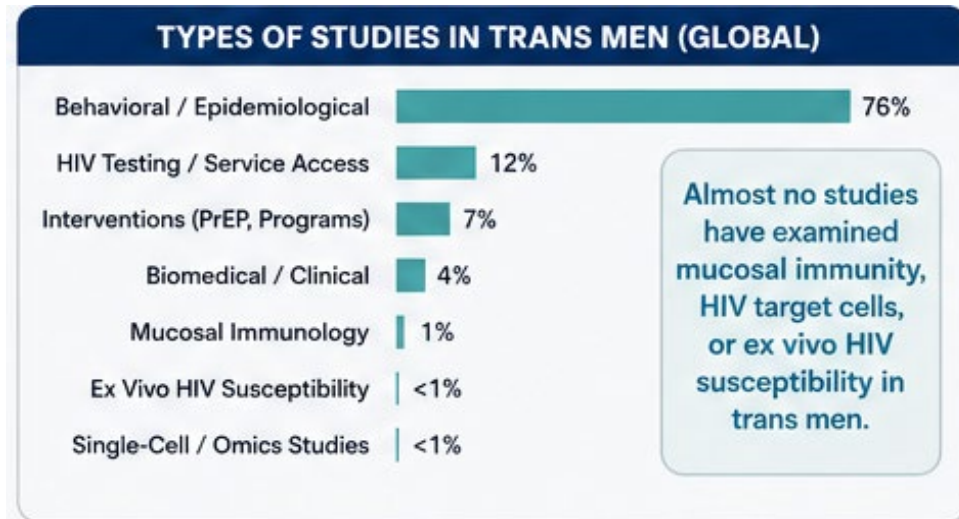
# Objectives

- Brief review on the current literature as it relates to GAHT in TGM, a bench science perspective
- Describe characteristics of study participants
- Outline study design and preliminary findings
- Discuss implications of study findings, and future directions

# Number of published studies on HIV-1: 2000-2024



# Currently in literature



## nature

Explore content ▾ About the journal ▾ Publish with us ▾

nature > articles > article

Article | [Open access](#) | Published: 04 September 2024

### Immune system adaptation during gender-affirming testosterone treatment

## iScience



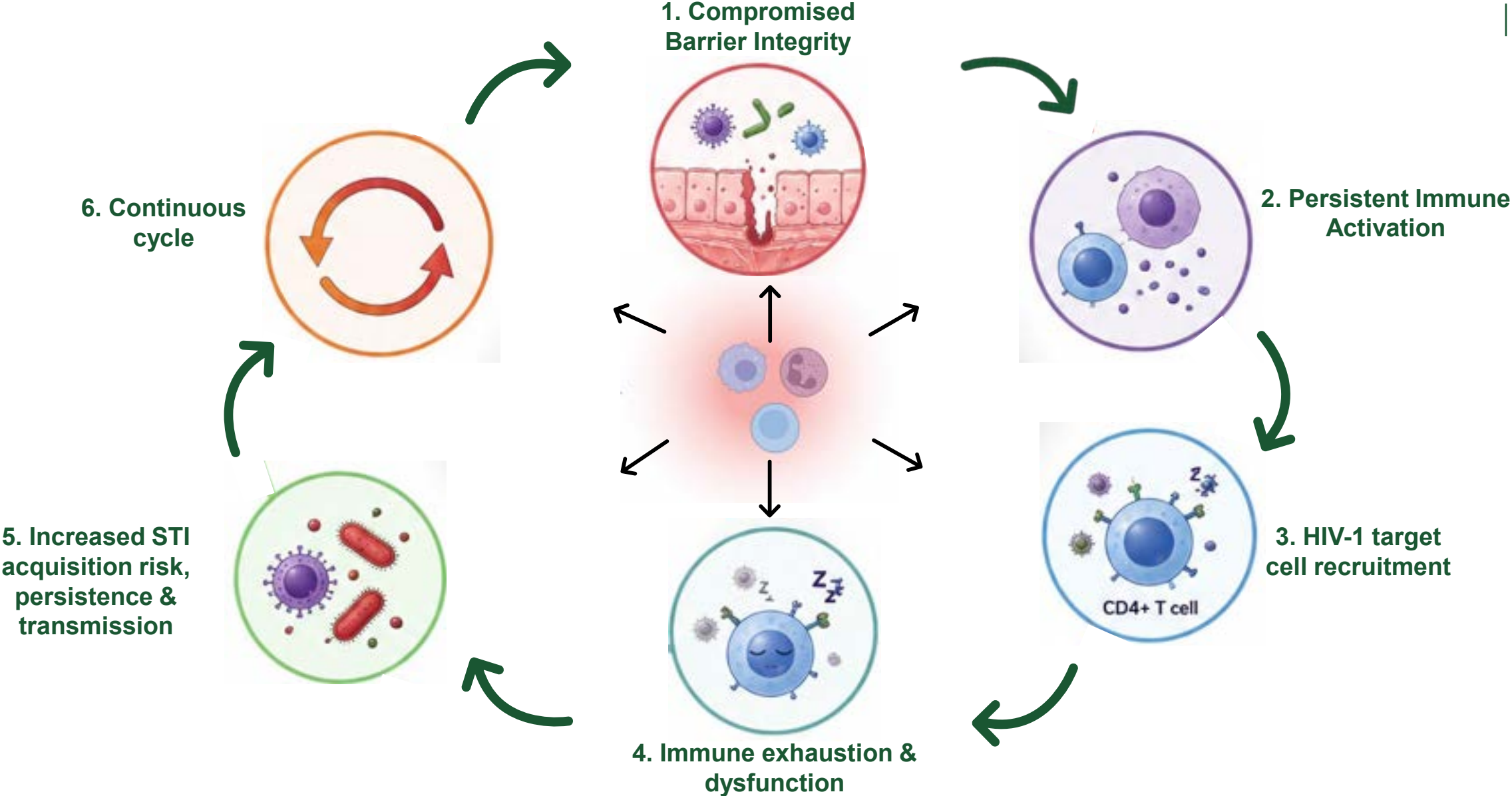
Volume 26, Issue 11, 37 November 2023, 108209

Article

### Reduction of IFN-I responses by plasmacytoid dendritic cells in a longitudinal trans men cohort

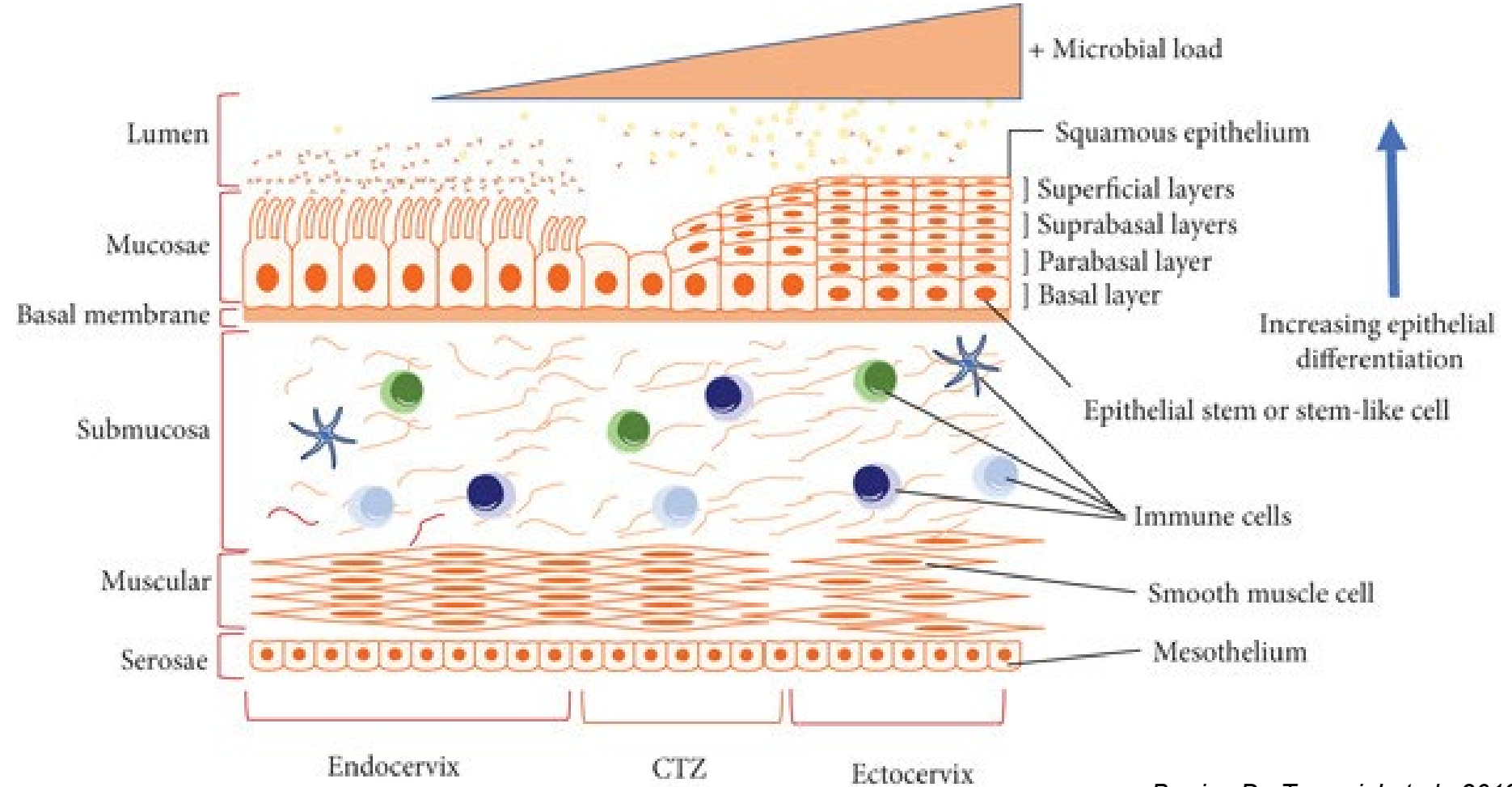
Altered cross-regulation axis involving IFN-I/TNF- $\alpha$  & IFN- $\gamma$   
= chronic inflammation

# Chronic inflammation



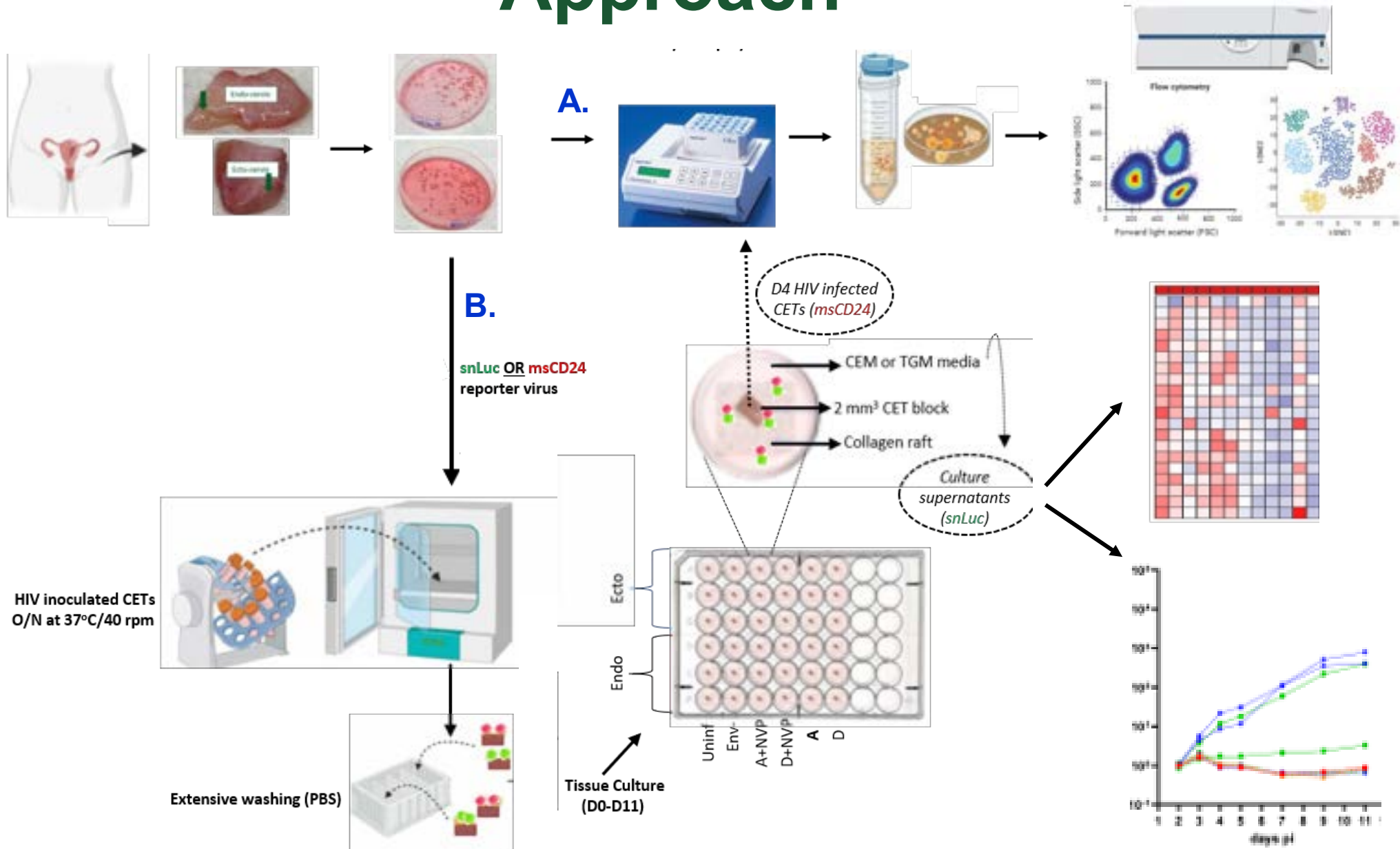
# Impact of GAHT on immune cells in human cervical tissue?

- Primary portal of HIV-1 exposure
- Enriched for HIV-1 target cells
- Androgen receptors

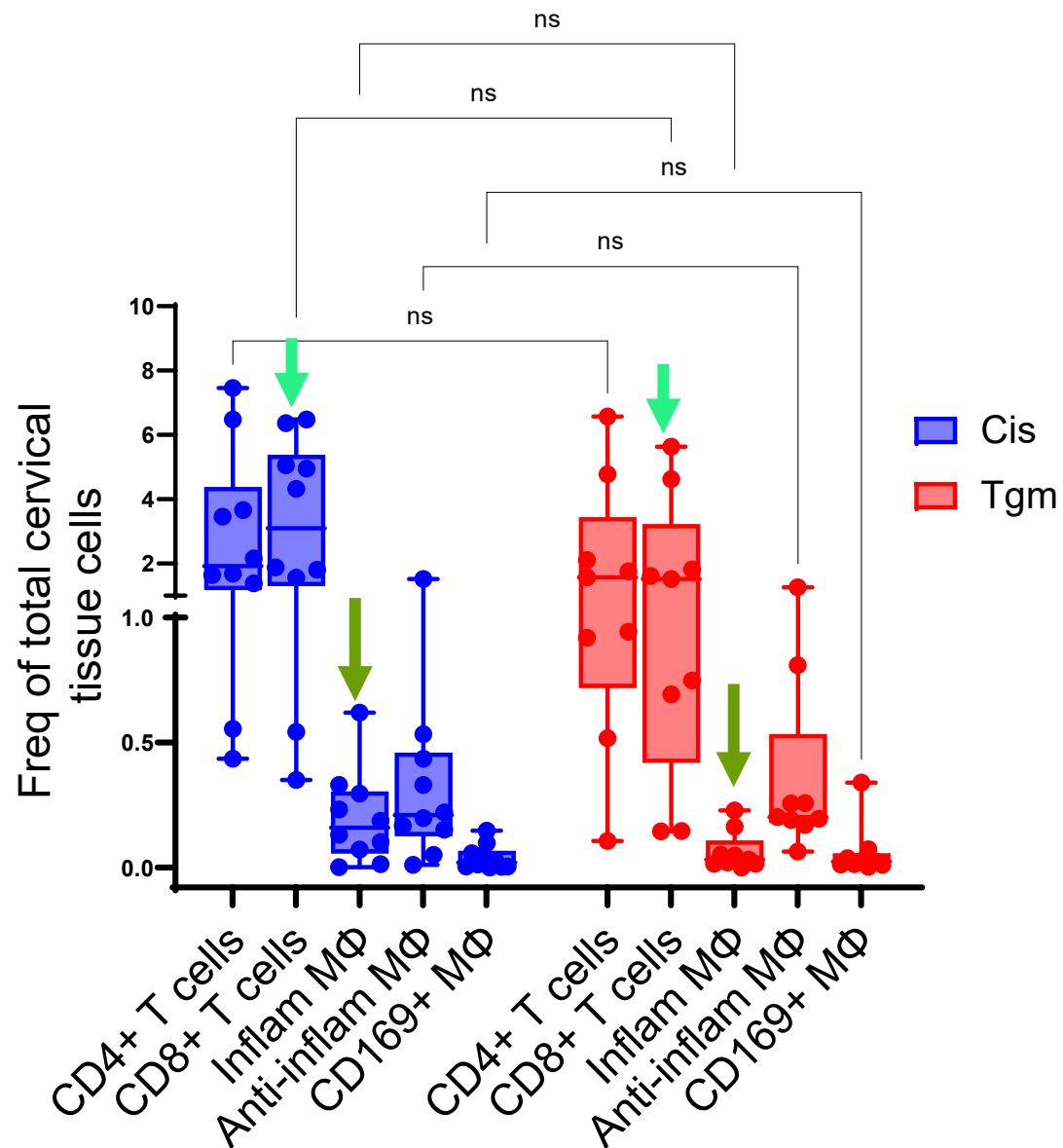
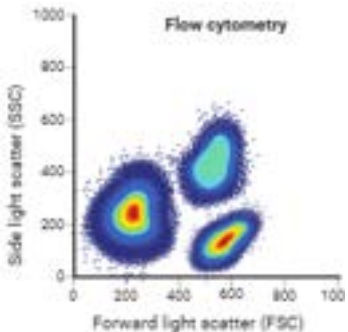


Barrios De Tomasi J et al., 2019

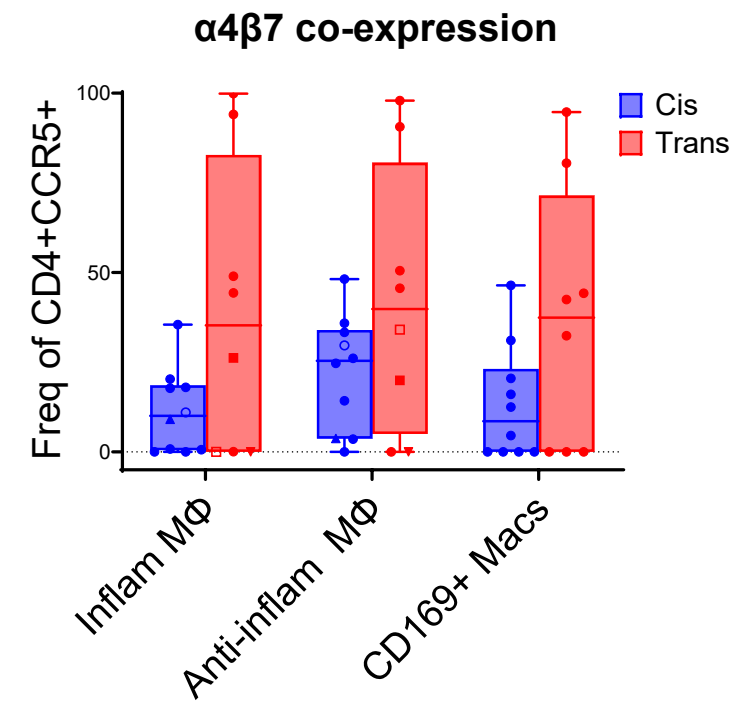
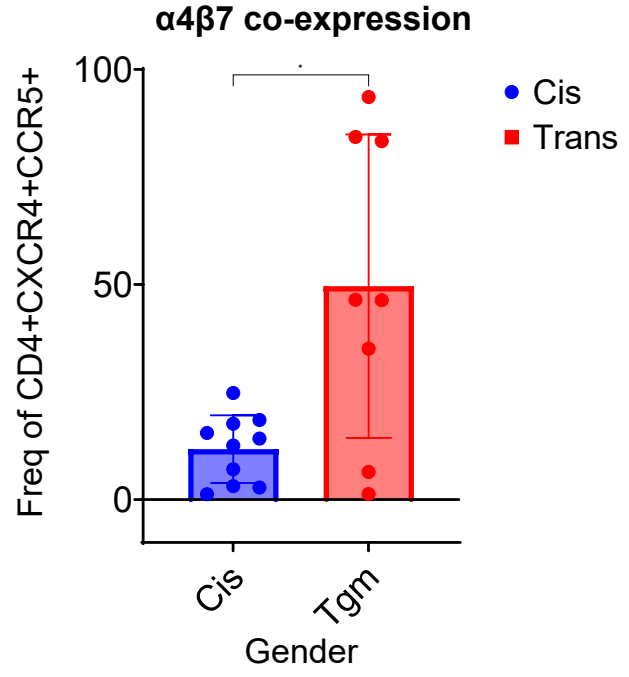
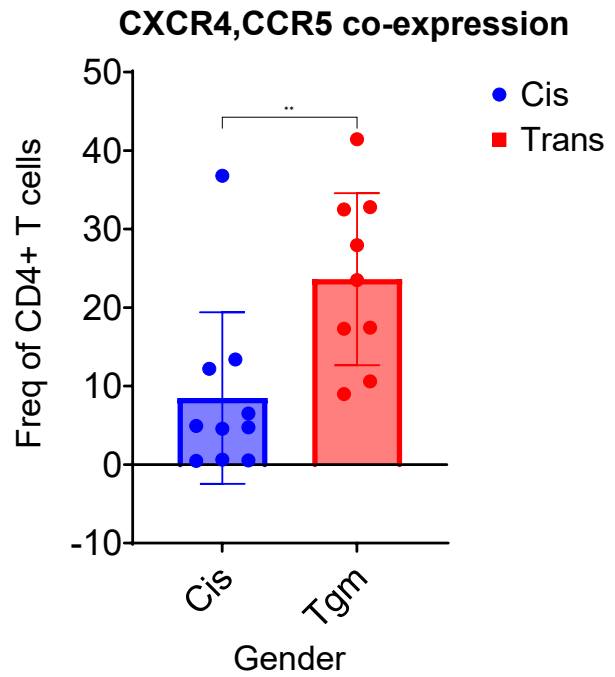
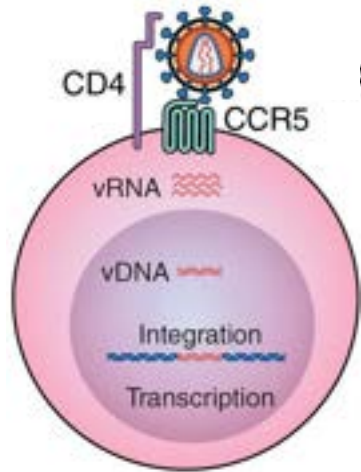
# Approach



# Trend: ↓ Freq of inflammatory MΦ & CD8<sup>+</sup> T cells in TGM compared to CGW

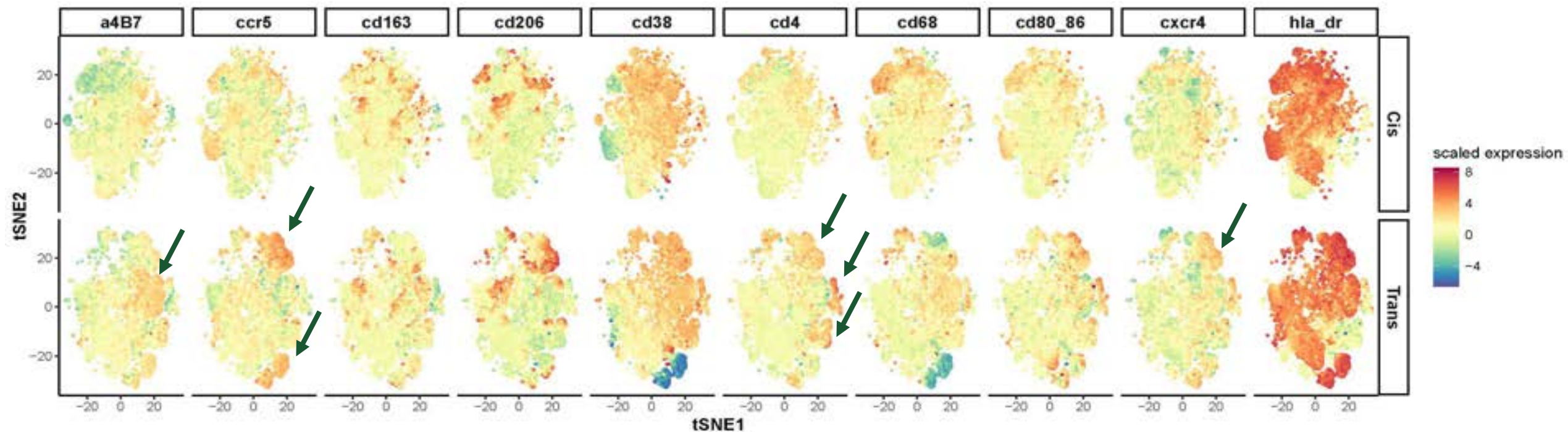
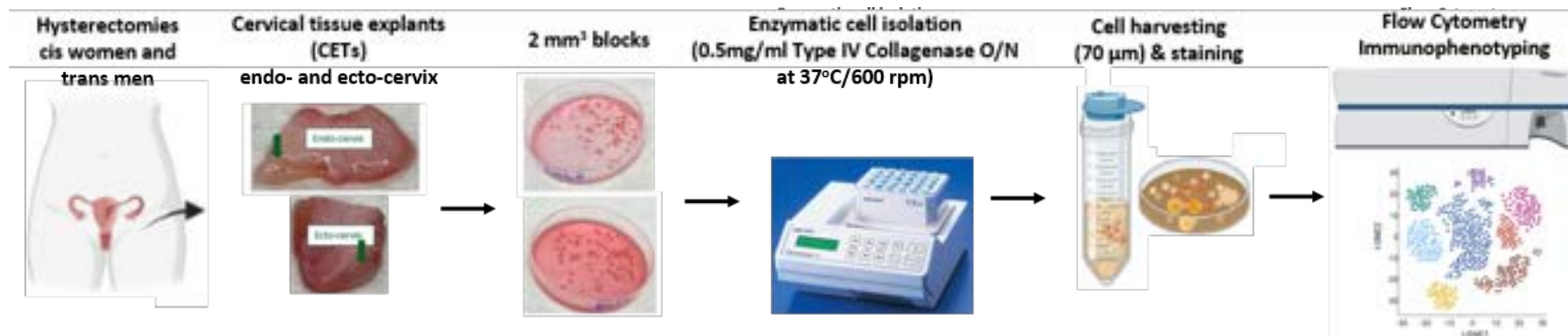


# Increased frequency of HIV-1 co-receptor<sup>+</sup> CD4<sup>+</sup> T cells and MΦ in TGM compared to CGW

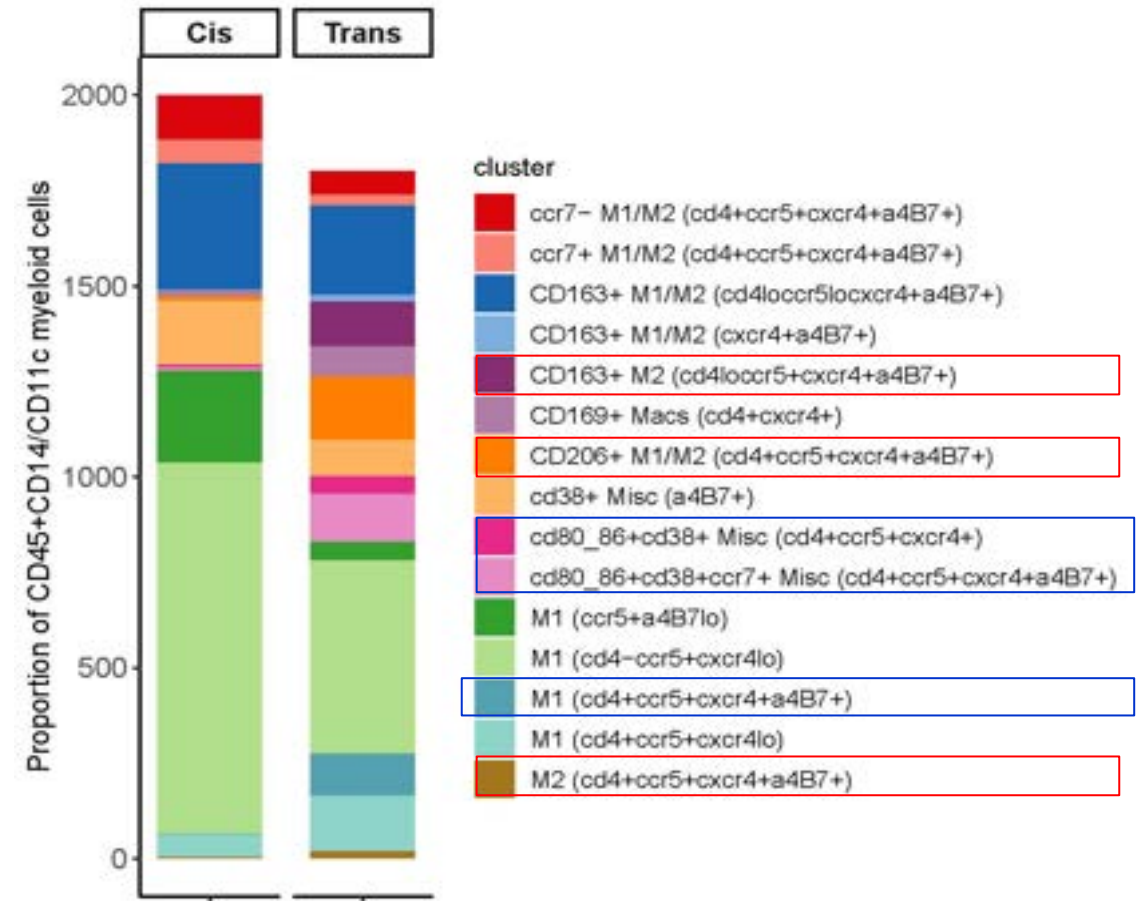
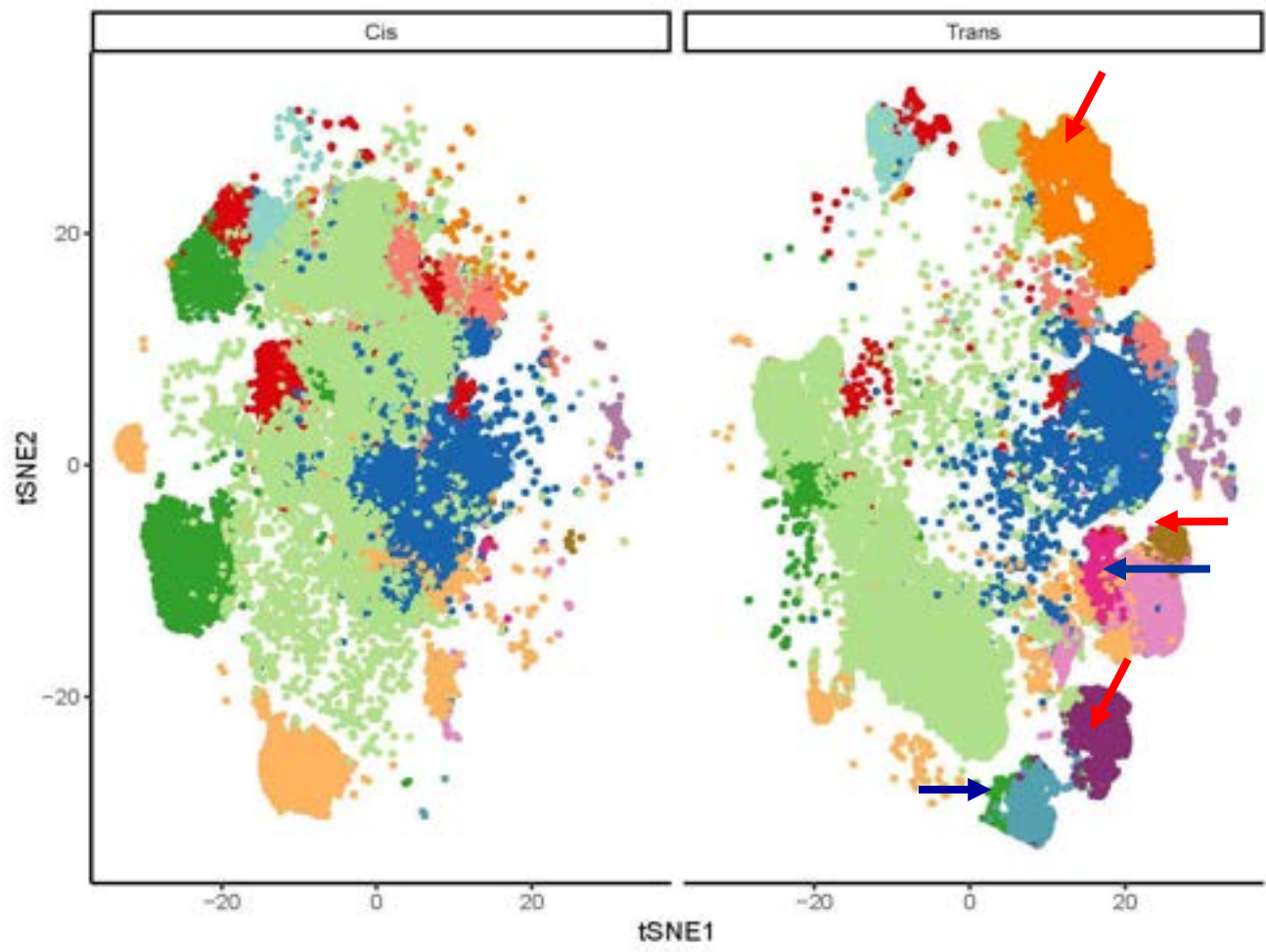


**Together, this suggests increased susceptibility to HIV-1 infection within the cervical mucosa of TGM on GAHT**

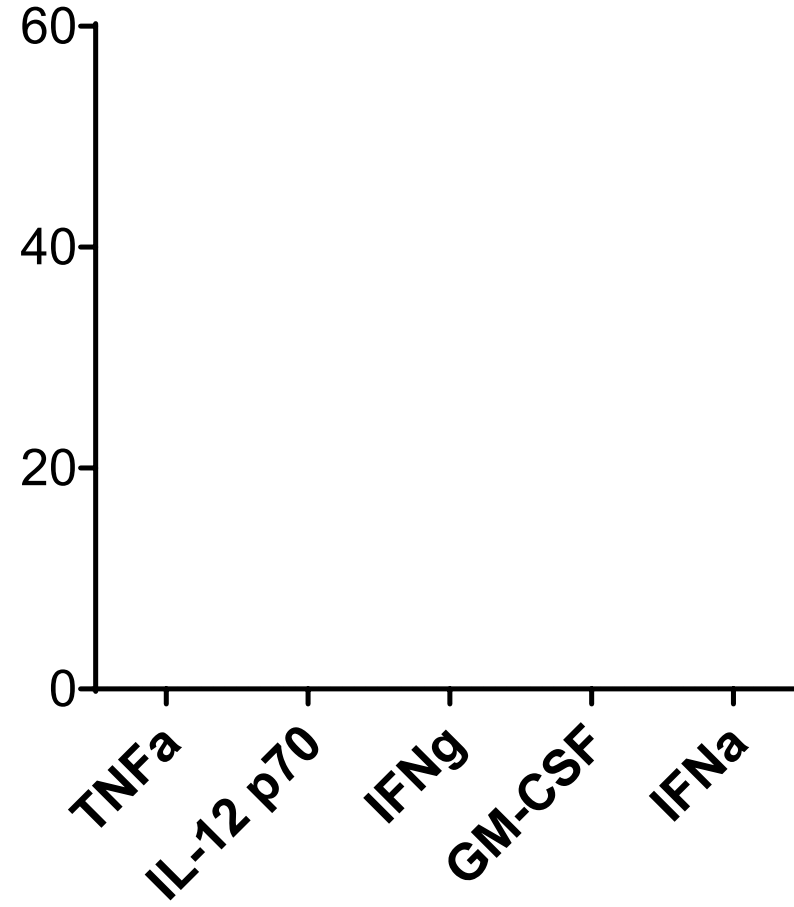
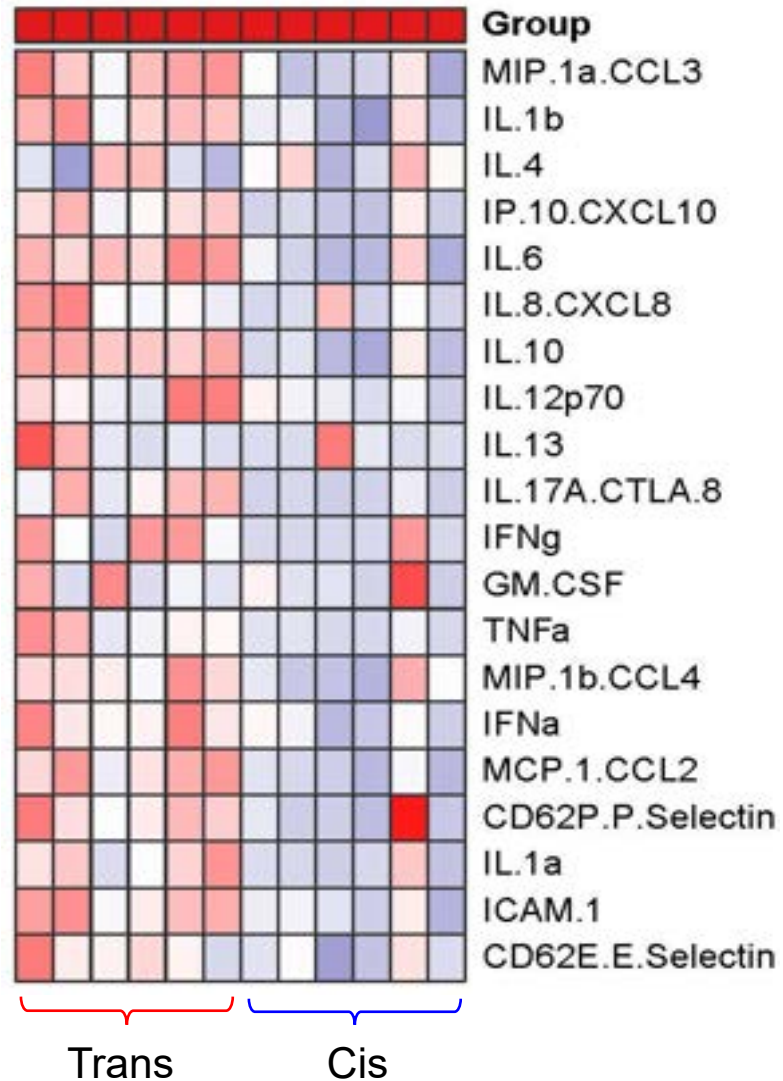
# “New” clusters in TGM, with bright $\alpha 4\beta 7$ , CCR5, CXCR4 & CD4 co-expression



# TGM: ↑ anti-inflammatory/Intermediate MΦ and ↓ inflammatory MΦ clusters

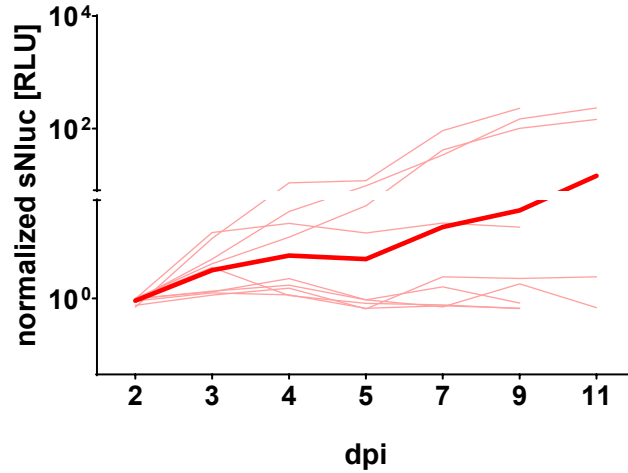


# Pro-inflammatory cytokines were elevated in culture supernatants of CETs from TGM vs CGW

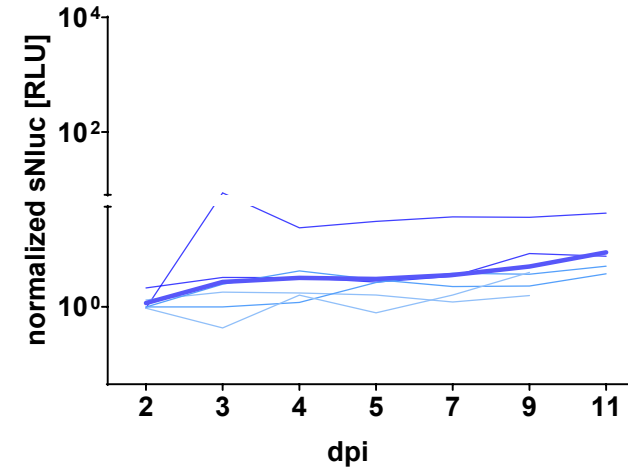


# HIV-1 replication kinetics were in overall higher in **TGM** compared to **CGW** CETs

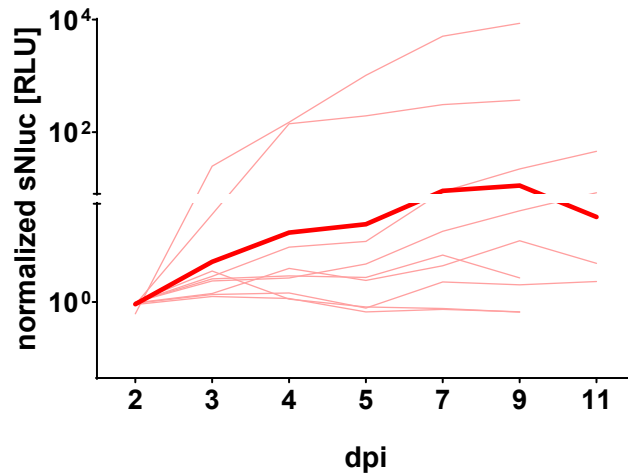
Subtype A tgm n = 8



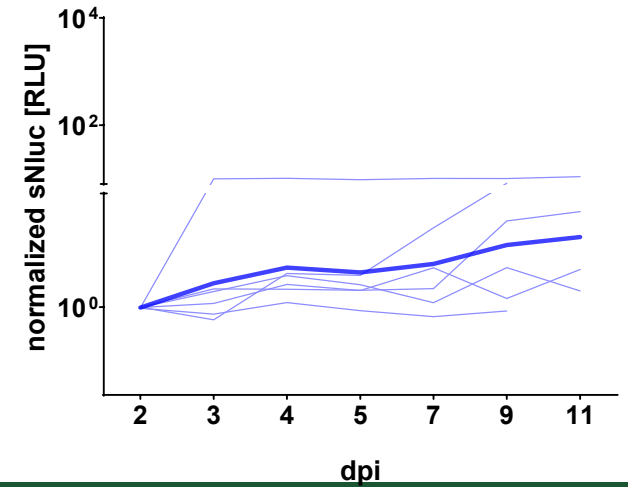
Subtype A cis n = 6



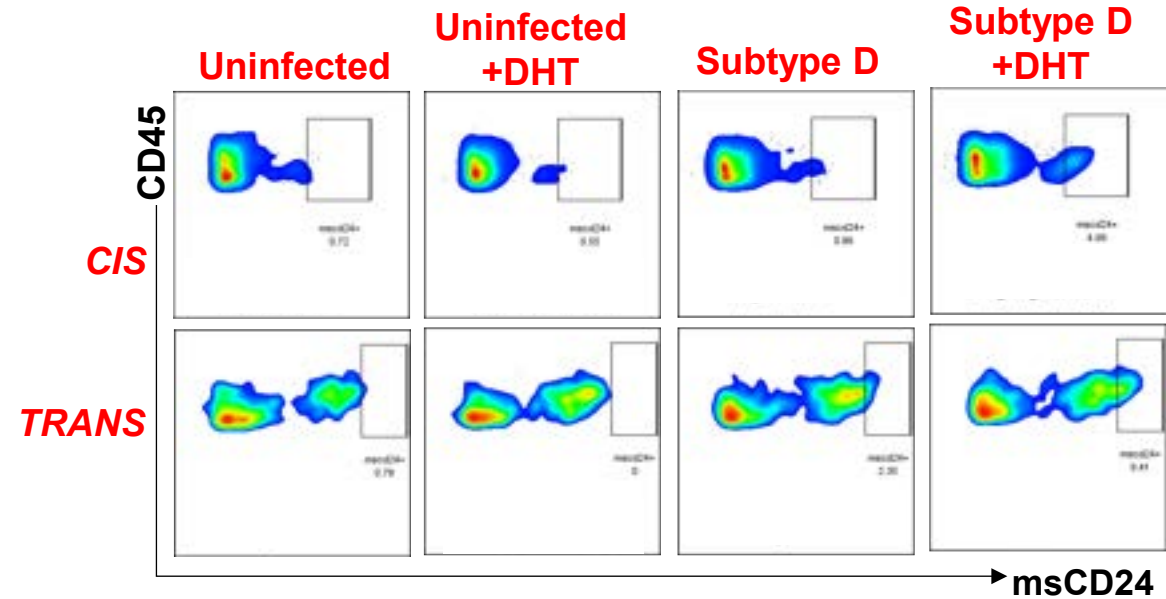
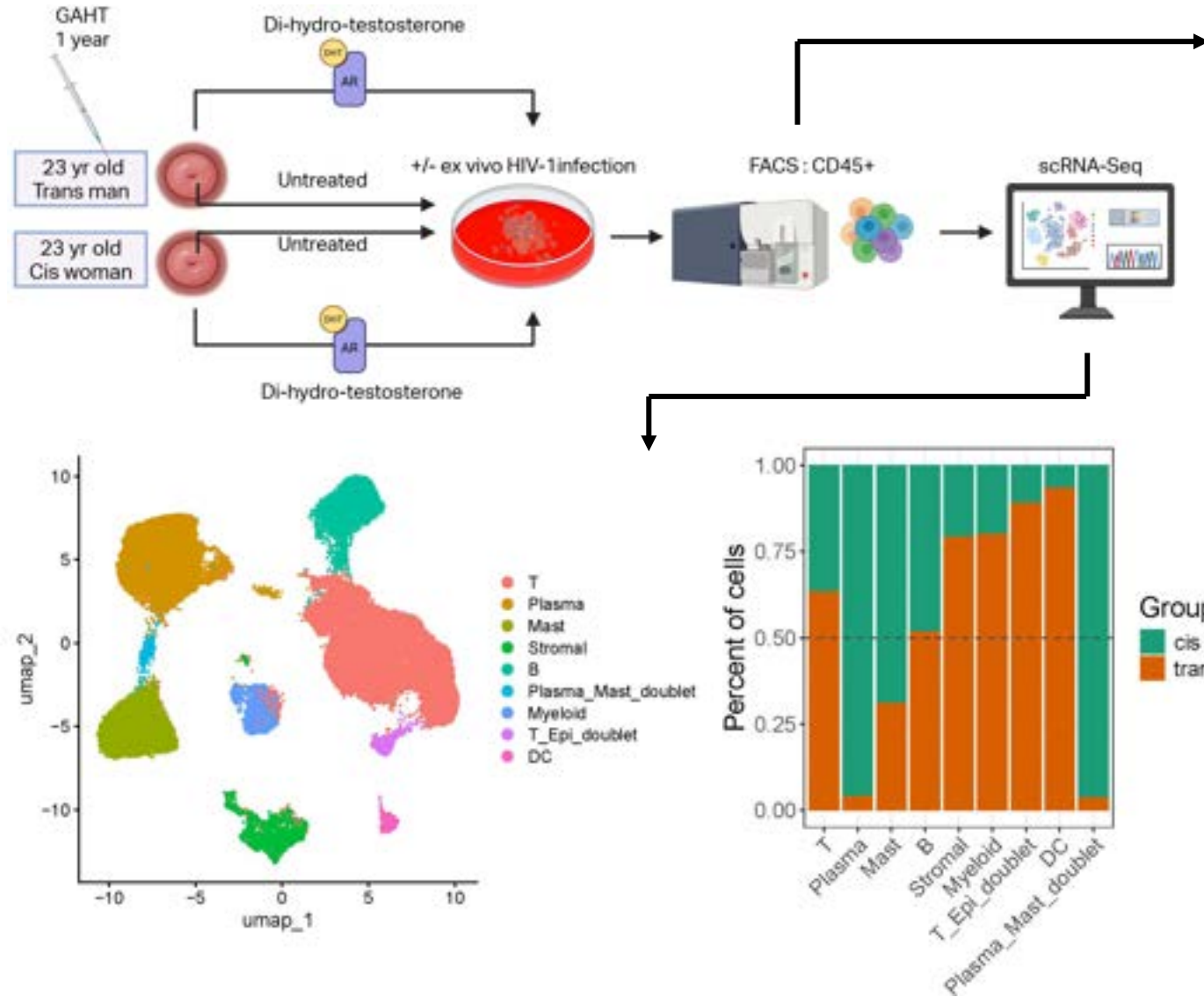
Subtype D tgm n = 8



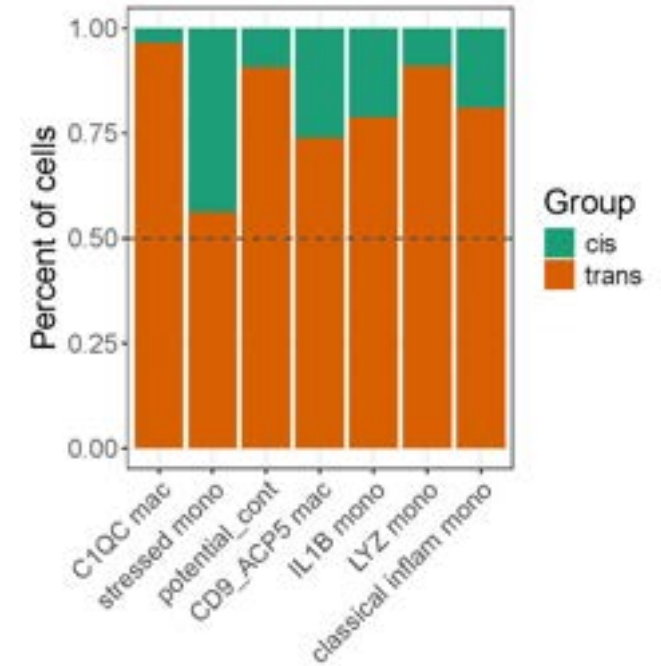
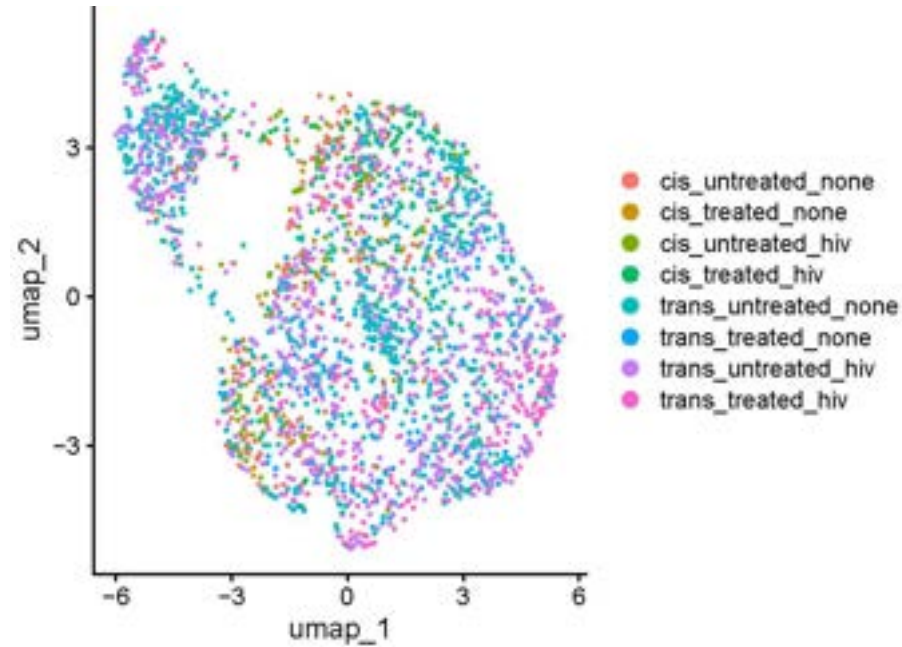
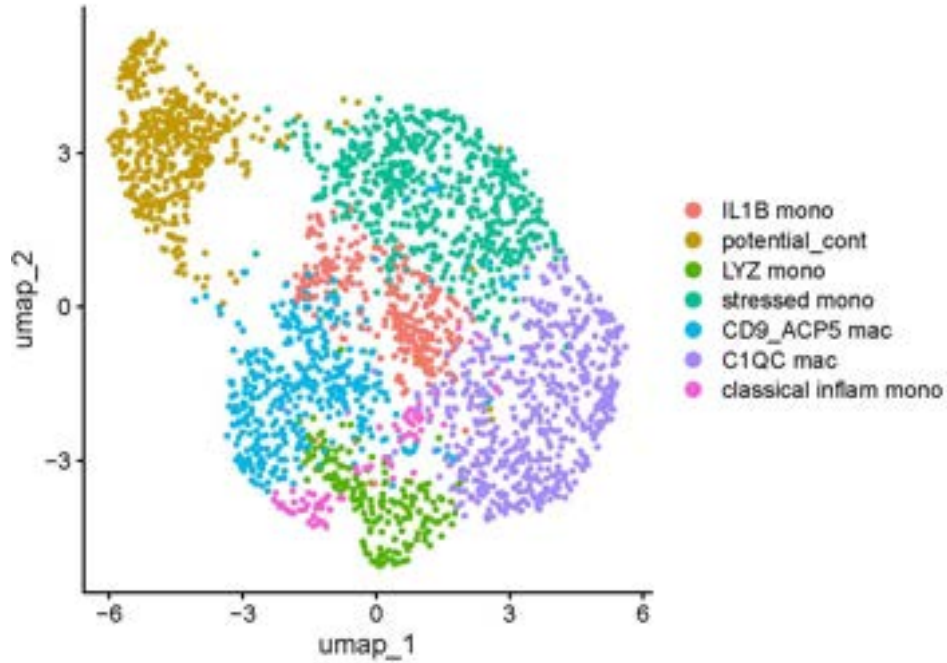
Subtype D cis n = 6



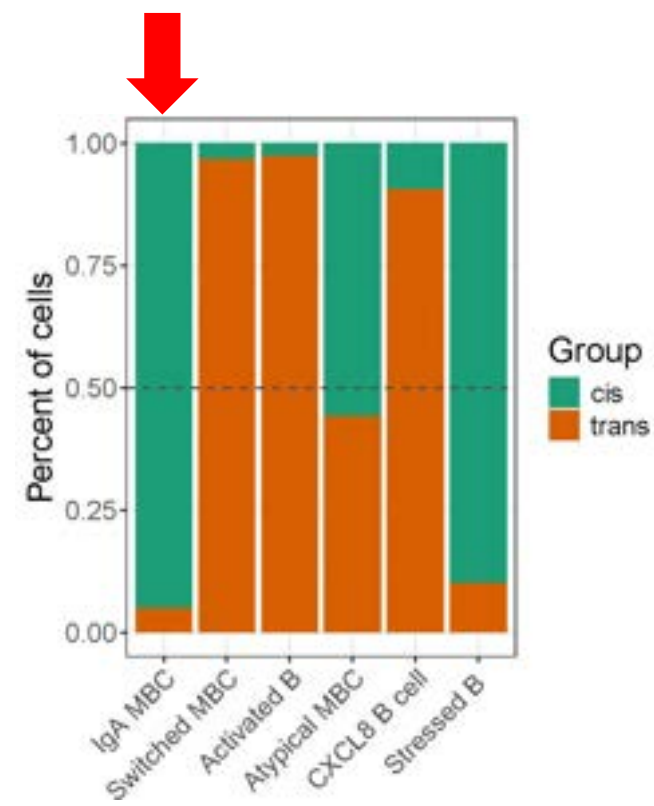
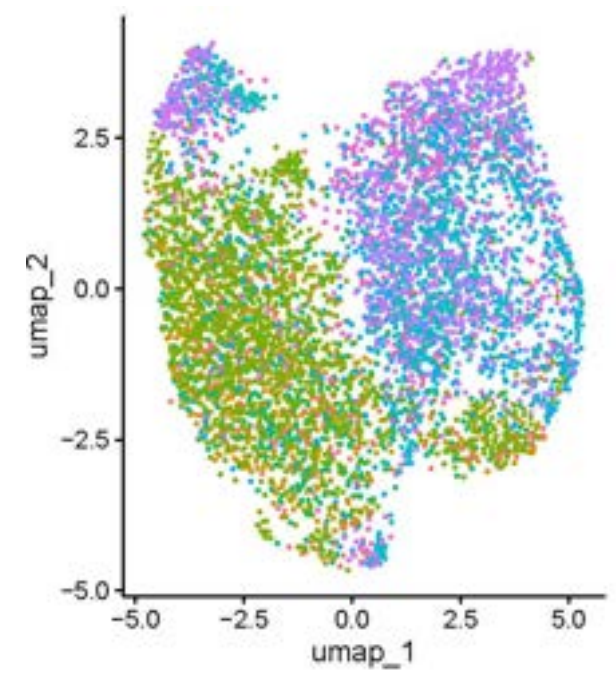
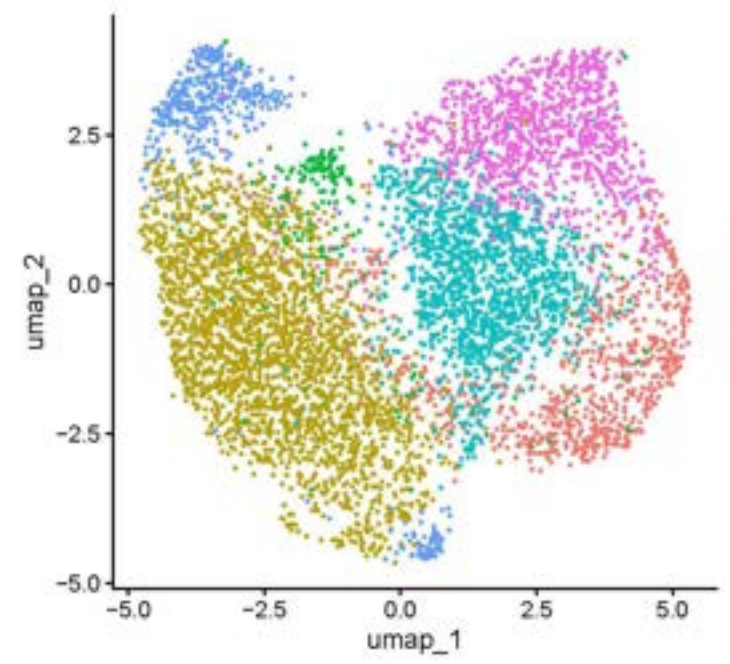
# Divergent transcription profiles between TGM vs CGW immune cells



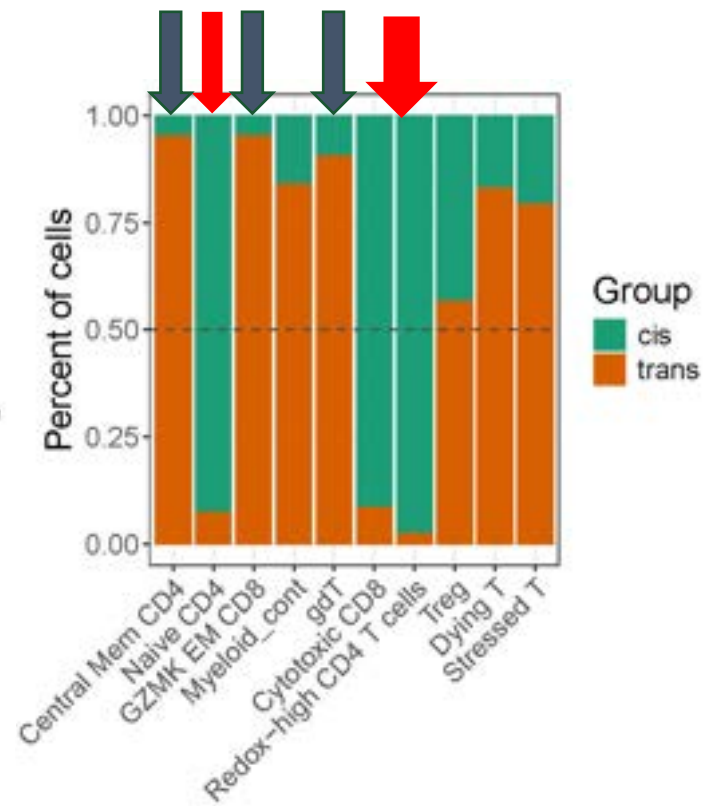
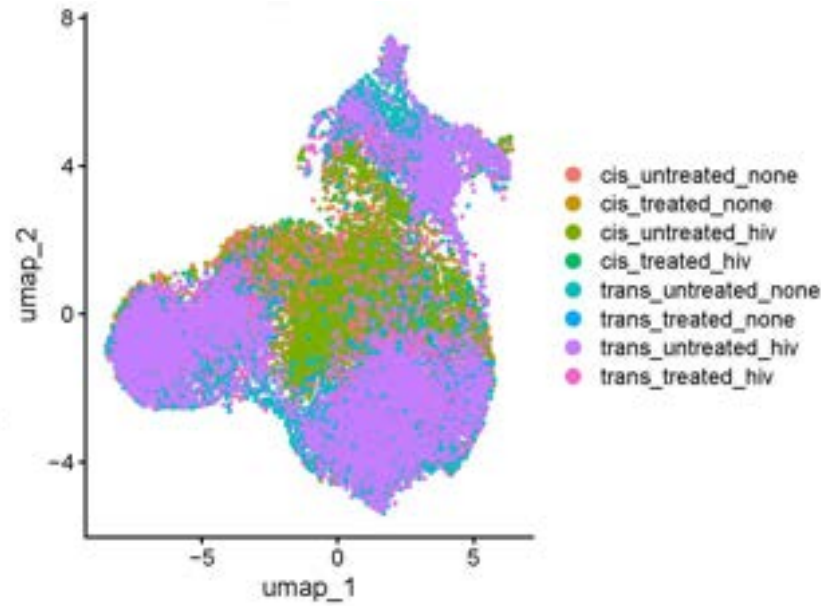
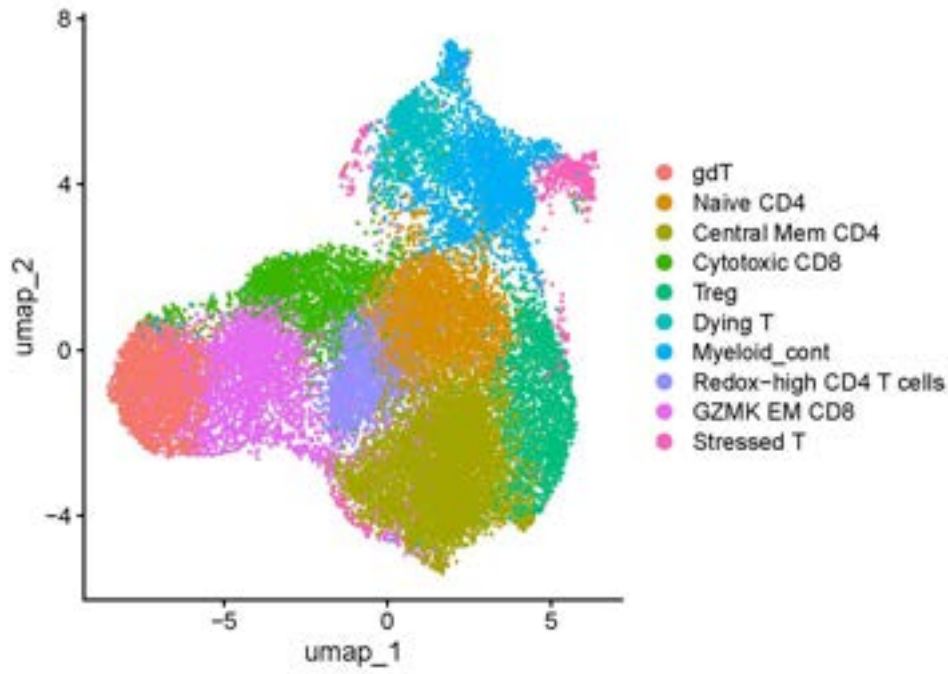
# Inflammatory myeloid cell states enriched in TGM



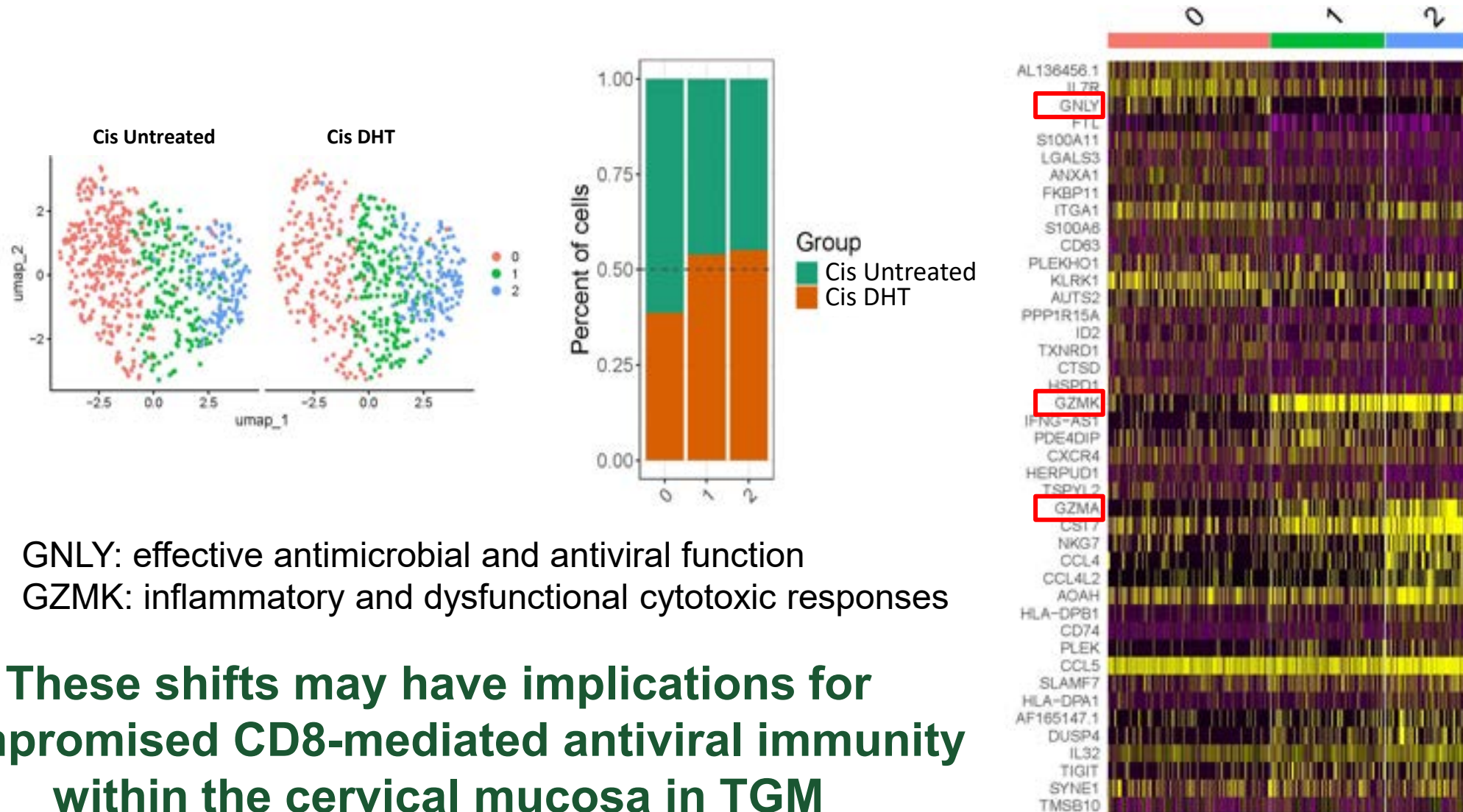
# Low of IgA<sup>+</sup> B cells and enrichment of pro-inflammatory B cell states in TGM



# TGM cells enriched for HIV-1 target cell states in a pro-inflammatory microenvironment, “lacking” CTLs



# Treatment of CGW CETs with DHT was associated with a downregulated *GNLY*+*GZMK/A*- state



# CONCLUSIONS

Trans men's cervical tissue may be more susceptible to HIV-1 due to:

- Enhanced expression of HIV-1 receptors
- Increased viral replication
- Chronic inflammation

# Acknowledgements

## STUDY PARTICIPANTS

## OCHSENBAUER LAB

**Christina Ochsenbauer**

**John C. Kappes**

**Amy Boone**

Eddie-Williams Owiredu Athina

Amanor

Dana Indihar

Christina Le

Ferdinand Amanor

Jennifer Jones

Tulya Vankayala Pati

Fan Jiang



National Institutes of Health R21 HD085869-01  
*Turning Discovery Into Health*

**VA**



U.S. Department  
of Veterans Affairs

BX004547-01A1  
(cis gender CET)



UAB CFAR  
Developmental award



**UAB MEDICINE** | The University of Alabama at Birmingham

**Department of Medicine**

HEERSINK SCHOOL OF MEDICINE

UAB DOM  
DREAM  
Reagan Durant  
Award

# Situated HIV Vulnerabilities and Resiliencies: HIV Prevention and Care for Transgender Women and Transfeminine People



**HARVARD**  
**T.H. CHAN**  
SCHOOL OF PUBLIC HEALTH

**Sari L. Reisner, ScD, MA (he | him)**

Associate Professor, Department of Epidemiology,  
University of Michigan School of Public Health

Adjunct Associate Professor, Department of Epidemiology,  
Harvard T.H. Chan School of Public Health

Research Scientist, The Fenway Institute, Fenway Health

# Global HIV Prevalence and Burden for Transfeminine Individuals: Meta-Analysis, 2000-2019

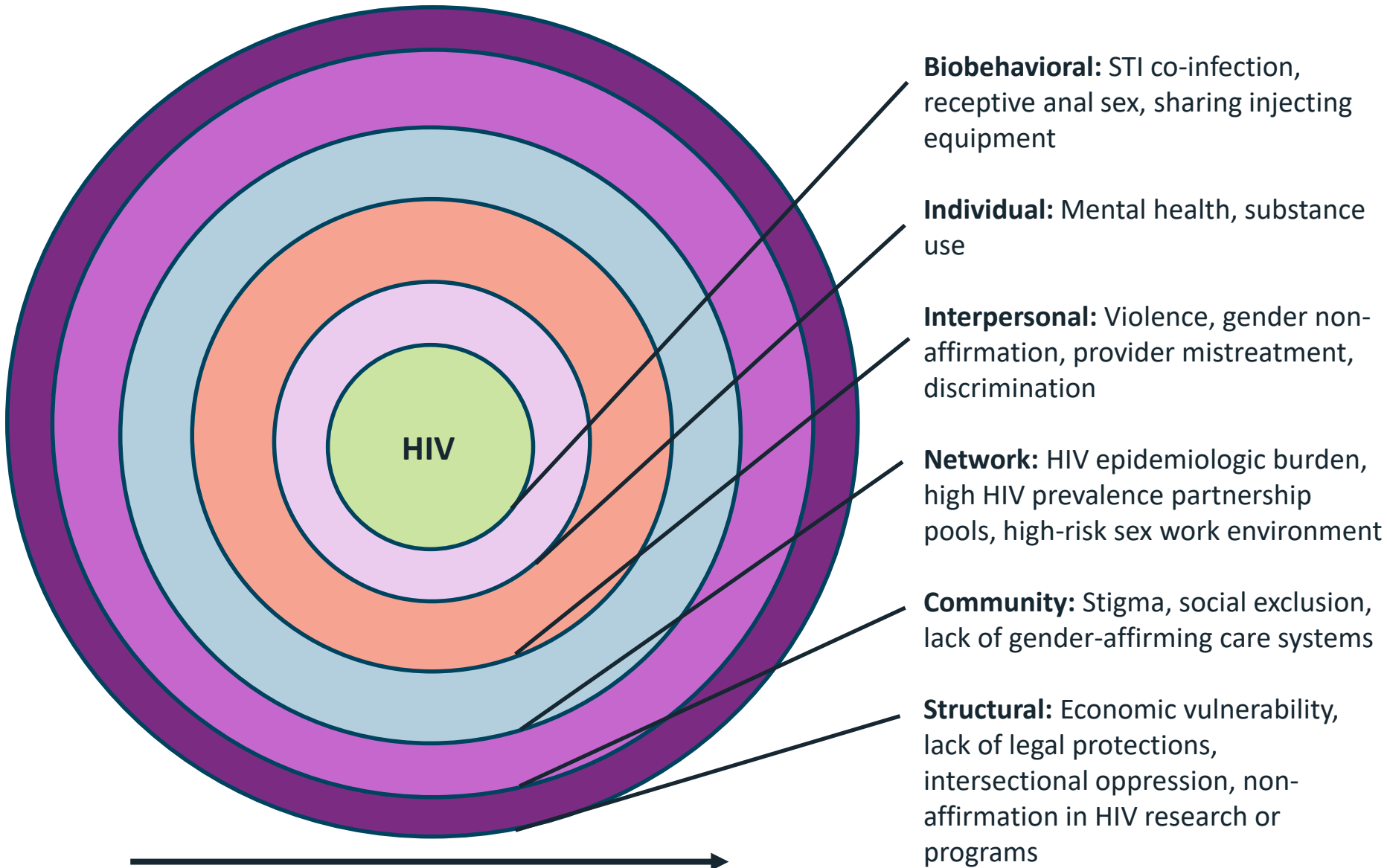
- 98 studies from Jan 1, 2000 – Jan 28, 2019, lab-confirmed HIV infection
- **N=48,604** trans feminine individuals from 34 countries (78 studies)
- HIV prevalence: **19.9% (95% CI=14.7%-25.1%)**
- Transfeminine vs adults age 15+ in each country: **OR=66.0 (95% CI=51.4-84.8)**

Region	# of Countries	# of Samples	Sample Size	Prevalence (95% CI)*	HIV Prevalence in Adults (95% CI)*	Odds Ratio (95% CI)*
Africa	9	9	1192	29.9 (22.5–37.3)	4.69 (4.67–4.71)	21.5 (6.3–73.7)
Asia	11	35	14798	13.5 (2.3–17.7)	0.34 (0.343–0.345)	68.0 (42.9–107.8)
Global North	5	35	24697	17.1 (13.1–21.1)	0.297 (0.296–0.298)	48.4 (28.2–83.9)
Latin America	9	23	7917	25.9 (20.0–31.8)	0.391 (0.388–0.394)	95.6 (73.7–122.7)

Note. The HIV prevalence in adults age 15+ of the population (last column) is the weighted prevalence of the countries included in this meta-analysis, not overall prevalence in the region.

\* Results were calculated by direct standardization of country-year sample size instead of pooling.

# Situated Vulnerabilities: Multilevel Drivers of the HIV Epidemic and Inequities in Transgender Women



Life Course

# Trans Erasure in HIV Science and Beyond

## Transgender erasure is a crisis for HIV science

The inclusion of transgender, nonbinary, and other gender diverse (henceforth trans) individuals at all stages of HIV science—from design to implementation—has been instrumental in addressing the global HIV

and legal rights. These occurrences are not haphazard. Instead, they reflect targeted and coordinated efforts by multifaceted and politicised forces that will compromise the effectiveness and integrity of HIV science if the field



**Lancet HIV 2025**  
 Published Online  
 May 5, 2025  
[https://doi.org/10.1016/S2352-3018\(25\)00126-2](https://doi.org/10.1016/S2352-3018(25)00126-2)

Kristi E Gamarel, Arjee J Restar, Sari L Reisner, \*Don Operario  
[don.operario@emory.edu](mailto:don.operario@emory.edu)

Department of Health Behavior and Health Equity (JEG), Department of Epidemiology (JEG), University of Michigan School of Public Health, Ann Arbor, MI, USA; Population Studies Center, University of Michigan Institute for Social Research, Ann Arbor, MI, USA (JEG); Department of Social and Behavioral Science, Yale University School of Public Health, New Haven, CT, USA (SJR); Center for Social Epidemiology and Population Health, University of Michigan, Ann Arbor, MI, USA (SLR); Department of Behavioral, Social, and Health Education Sciences, Emory University Rollins School of Public Health, Atlanta, GA 30322, USA (DR)

[https://www.thelancet.com/journals/lanhiv/article/PIIS2352-3018\(25\)00126-2/abstract](https://www.thelancet.com/journals/lanhiv/article/PIIS2352-3018(25)00126-2/abstract)



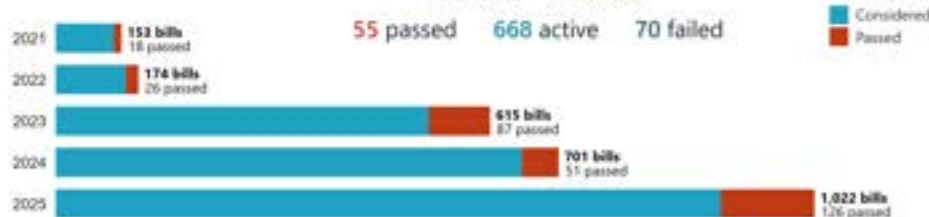
“It is the policy of the United States to recognize two sexes, male and female. These sexes are not changeable and are grounded in fundamental and incontrovertible reality.” US Executive Order 14168 (Jan 20, 2025)

## 2026 anti-trans bills tracker

In 2026, anti-trans bills continue to be introduced across the country. We track legislation that seeks to block trans people from receiving basic healthcare, education, legal recognition, and the right to publicly exist.

793 bills 43 states

55 passed 668 active 70 failed



Anti-trans bills under consideration and passed, 2021-2025



<https://mapresearch.org/>



# HIV Incidence and Vulnerabilities in the ENCORE Cohort, USA

- **Objective:** Estimate HIV incidence and identify predictors in a US cohort of trans women
- **Study Overview:** Hybrid digital hub-supported cohort of trans women
- **Enrollment:** 3/2023-12/2024
  - Nationwide recruitment (US and Puerto Rico)
- **Follow-up:** 24 months with semiannual data collection
  - Surveys
  - HIV testing (self-collected DBS or alternative oral fluid testing)
- **IRB:** Johns Hopkins (IRB00355445)

## Hub-Supported Digital Cohort



Hubs and community partners (red pins), relative to US Ending the HIV Epidemic counties and states (dark and light blue)

9 Community hubs: Atlanta GA, Baltimore MD, Carrollton TX, Durham NC, Indianapolis IN, Miami FL, New York NY, San Diego CA, San Juan PR

encore

6 months



# Methods: Eligibility, Measures, and Analyses

## Eligibility Criteria:

- Age  $\geq 18$
- Transgender woman or transfeminine spectrum
- English or Spanish speaking
- HIV-negative (confirmed at baseline)
- US or Puerto Rico residency

## Sampling & Recruitment:

- Convenience sampling methods
- Community Advisory Board
- Community-based recruitment (e.g., community organizations/events)
- Word of mouth, peer referrals
- Web-based methods (e.g., app-based advertisements, closed social media groups, listservs)

## Analyses:

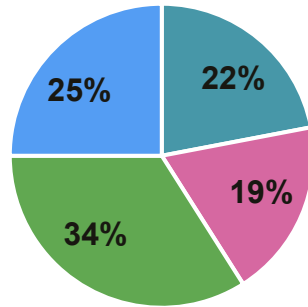
- Follow-up: From enrollment to first: date of HIV seroconversion (outcome), last completed study visit (max. 24 mo after enrollment), or administrative censoring on 1 Jan 2026
- Cumulative incidence of HIV estimated using Kaplan-Meier
- Risk ratio (and 95%CI) of HIV seroconversion, predictors measured at enrollment (“baseline”)

## Survey Measures Collected:

Domain	Measure
• <b>Demographics</b>	• Age, race, ethnicity, US Census region
• <b>Structural &amp; Social Determinants</b>	• Housing, sex work, poverty
• <b>Healthcare Access</b>	• Health insurance, unmet need for gender-affirming care
• <b>Violence</b>	• Adverse childhood experiences (ACES $\geq 4$ ); psychological, sexual, and physical
• <b>Mental &amp; Behavioral Health</b>	• Stimulant use, hazardous alcohol use (AUDIT-C $\geq 4$ ), psychological distress (Kessler-6 $\geq 13$ )
• <b>Sexual Health &amp; HIV Prevention</b>	• PrEP indication, PrEP use, self-reported STI, cisgender male partner

# Results: Baseline Sample Characteristics (N=2,504)

## US Census Region: Geographic Distribution



■ Midwest ■ Northeast ■ South ■ West

### Cohort Mode:

Online: 1,602 (64%), Hub-Supported: 902 (36%)

Age in Years	Median (IQR [Q1, Q3])	n (%)
18-24 years	32 (26, 40)	486 (19%)
25+ years		2,018 (81%)

## Race and Ethnicity (multiple options)

White	1,962 (78%)
Black	304 (12%)
Asian	118 (5%)
Another Race	241 (10%)
Latine Ethnicity	394 (16%)

## Domain

n (%)

### Structural and Social Determinants

Unhoused, Last 6 Mo	223 (9%)
Sex Work, Last 6 Mo	256 (10%)
Poverty ( $\leq 100\%$ FPL)	752 (30%)

### Healthcare Access

Public/Uninsured	1,211 (49%)
Unmet Gender-Affirming Care Need, Last 6 Mo	232 (11%)

### Violence

Adverse Childhood Experiences (ACES $\geq 4$ ), Lifetime	1,182 (48%)
Any Violence, Lifetime	1,725 (72%)
Any Violence, Last 6 Mo	615 (26%)

### Mental and Behavioral Health

Stimulant Use, Last 6 Mo	266 (11%)
Hazardous Alcohol Use (AUDIT-C $\geq 4$ ), Current	665 (27%)
Psychological Distress (K6 $\geq 13$ ), Last 30 Days	1,001 (40%)

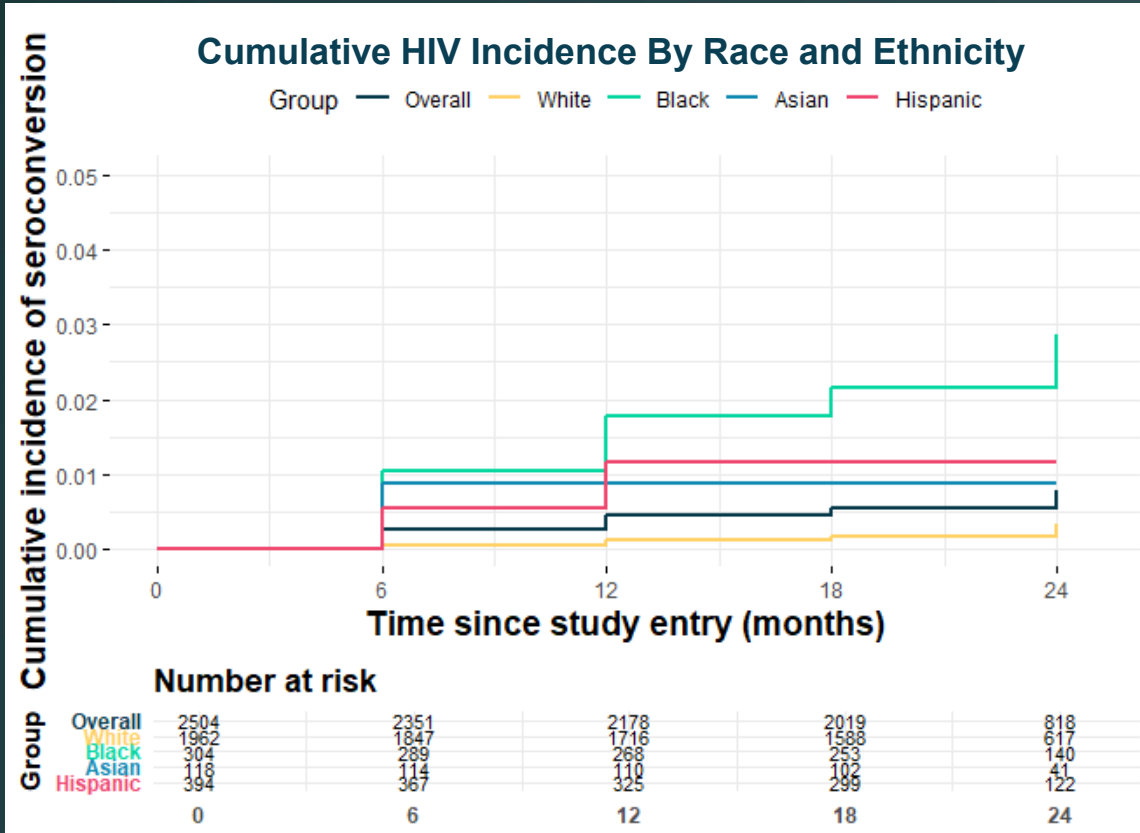
### Sexual Health and HIV Prevention

PrEP-Indicated, Last 6 Mo	404 (16%)
PrEP Use, Last 6 Mo	440 (18%)
Self-Reported STI, Last 6 Mo	103 (4%)
Cisgender Male Sexual Partner, Last 6 Mo	850 (34%)

# Results: HIV Incidence Overall and By Age, Race, Ethnicity, US Census Region, and PrEP-Indication

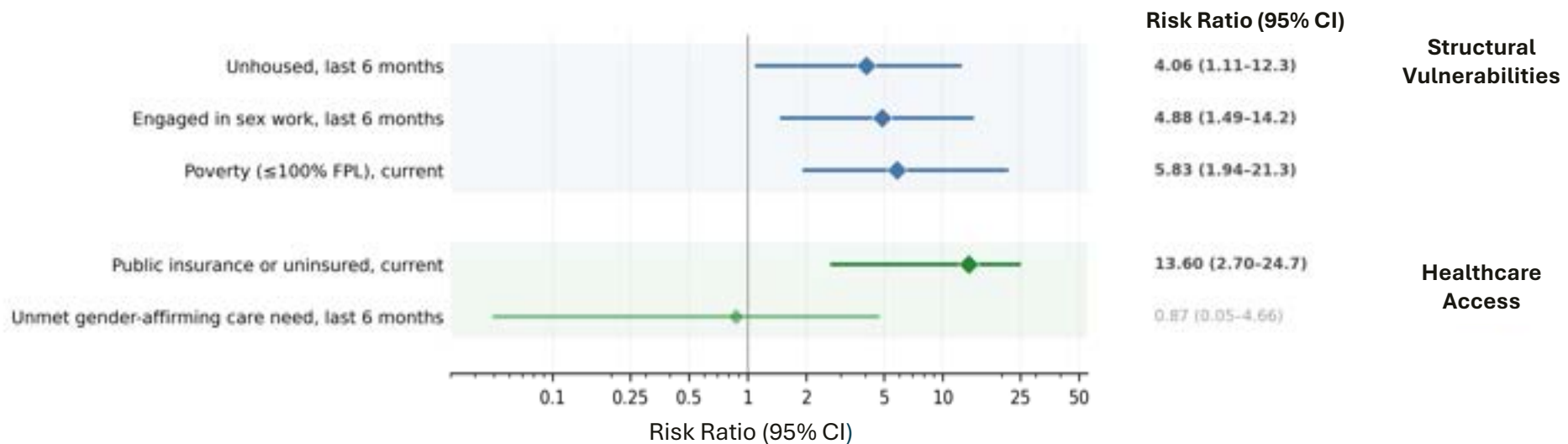
3,400+ py accrued: 39 new HIV diagnoses, 25 at baseline and 14 seroconversions over follow-up

	HIV Incidence Rate per 1,000 py (95% CI)
<b>Overall Cohort</b>	3.95 (2.16, 6.63)
<b>Age Group</b>	
18-24 Years	3.06 (0.37, 11.06)
>=25 Years	4.15 (2.15, 7.26)
<b>Race</b>	
White	1.44 (0.39, 3.69)
Black	15.45 (6.21, 31.83)
Asian	5.65 (0.14, 31.5)
<b>Ethnicity (Any Race)</b>	
Not Latine	3.33 (1.6, 6.12)
Latine	7.46 (2.03, 19.10)
<b>US Census Region</b>	
Northeast	8.87 (3.26, 19.31)
Midwest	2.58 (0.31, 9.33)
South	4.10 (1.33, 9.57)
West	1.17 (0.03, 6.50)
<b>PrEP-Indicated</b>	
No	1.67 (0.54, 3.90)
Yes	16.27 (7.44, 30.88)

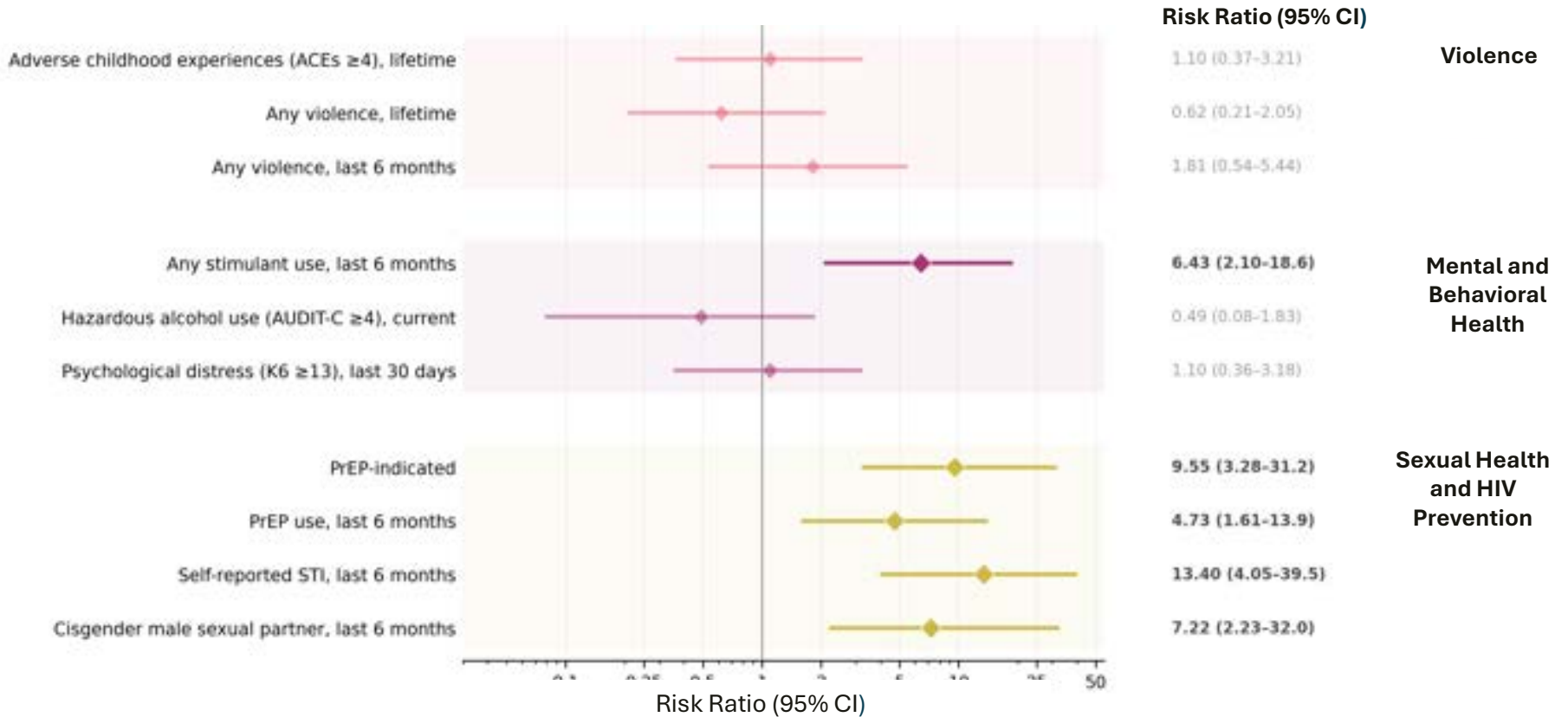


Black trans women had a 7.4 times higher risk (95% CI=2.5-21.7) of HIV seroconversion relative to White trans women.

# Results: Baseline Predictors of HIV Seroconversion



# Results: Baseline Predictors of HIV Seroconversion



# Summary, Conclusions, and Implications

- **Summary:**

- HIV incidence remains high among trans women in the US
- Disparities persist across race and ethnicity (Black, Latine, Asian)
- “Situated vulnerabilities” of HIV acquisition
  - Structural and social determinants
  - Healthcare access
  - Mental and behavioral health
  - Sexual health and HIV prevention

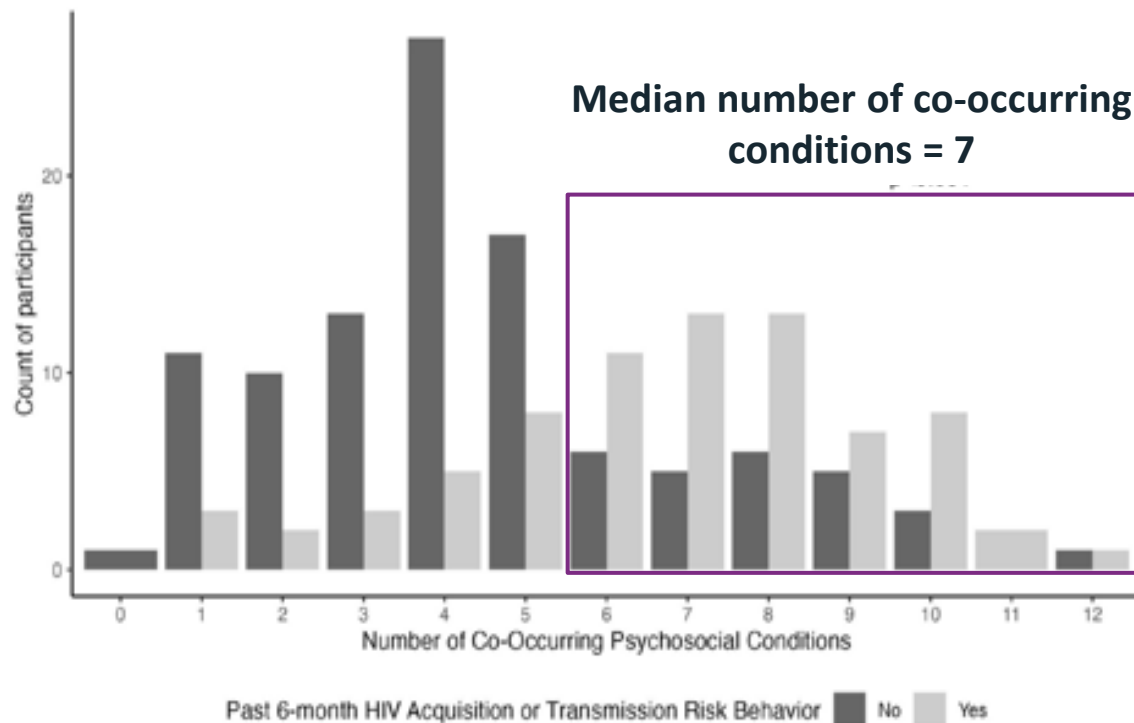
- **Conclusions and Implications:**

- Trans women need tailored interventions
- Safe, affirming HIV prevention services
- Continued gender-inclusive research infrastructure globally

# Developmental Considerations and Syndemic Dynamics in Situated HIV Vulnerabilities



- **N=211** young trans women ages 16-24 in Lima, Peru
- **41%** HIV prevalence (**79%** were new diagnoses)
- **64%** another STI
- **42%** HIV acquisition or transmission risk behavior, last 6 months

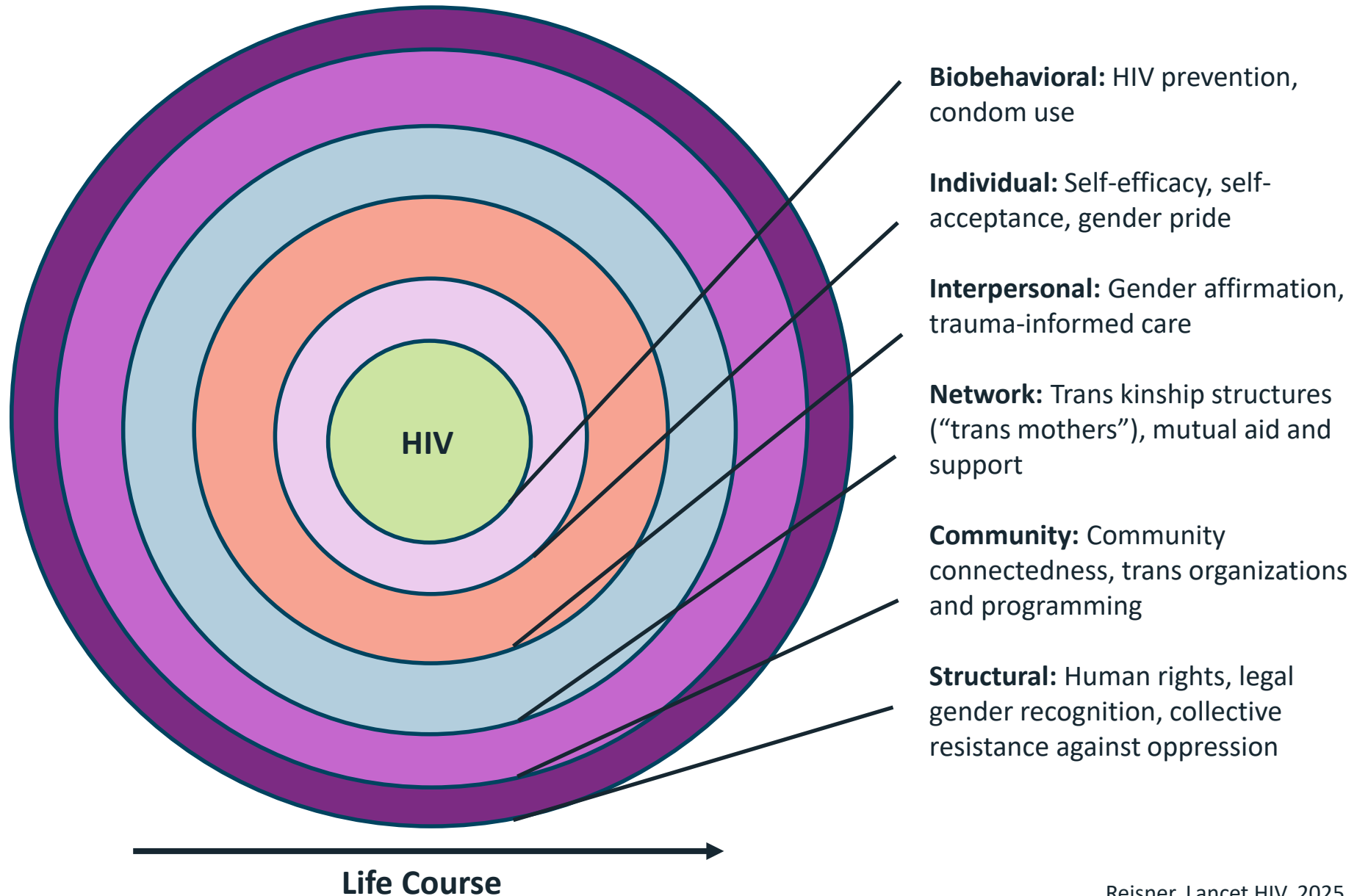


Co-occurring psychosocial conditions increase risk:

➔ For each co-occurring condition: **Risk Ratio=1.16 (95%CI=1.08-1.23)**

➔ For 6+ co-occurring conditions: **Risk Ratio=3.23 (95% CI=2.15, 4.87)**

# Situated Resiliencies: Multilevel Drivers of the HIV Epidemic in Transgender Women

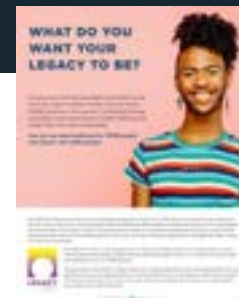


# Situated Resiliencies

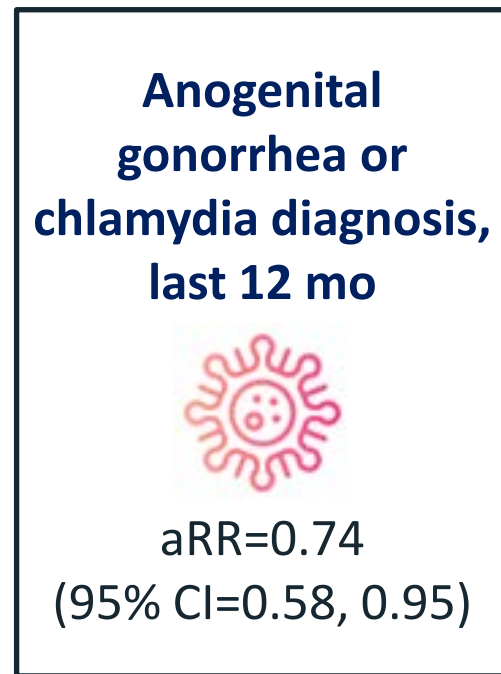
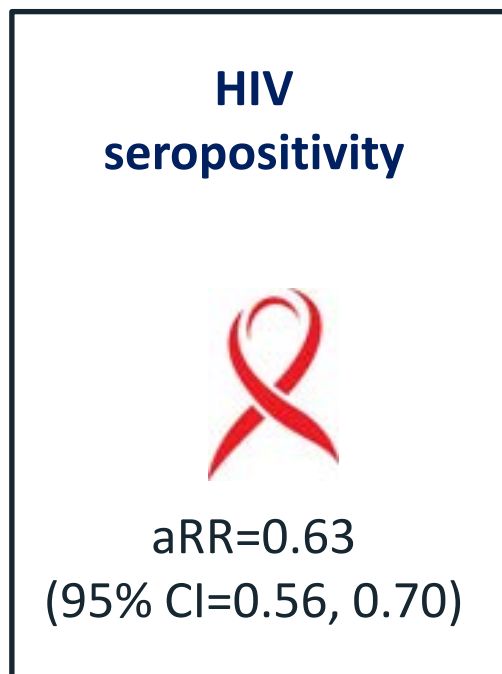
Photo Credit: Danielle Villasana  
<https://www.daniellevillasana.com/projects/a-light-inside>



# LEGACY Cohort: Gender-Affirming Hormones, Trans Primary Care Patients, Boston & New York, USA



- Gender-affirming hormone prescription: 72%-86%
- From 2016-2019 (n=6330 to n=8109), reduced risk of:



\*Models adjusted for: Age, gender identity, race, ethnicity, health insurance, federal poverty level, HIV transmission risk, site, # cohort years



FENWAY  HEALTH



# World Professional Association for Transgender Health (WPATH) Standards of Care Version 8 (SOC8)



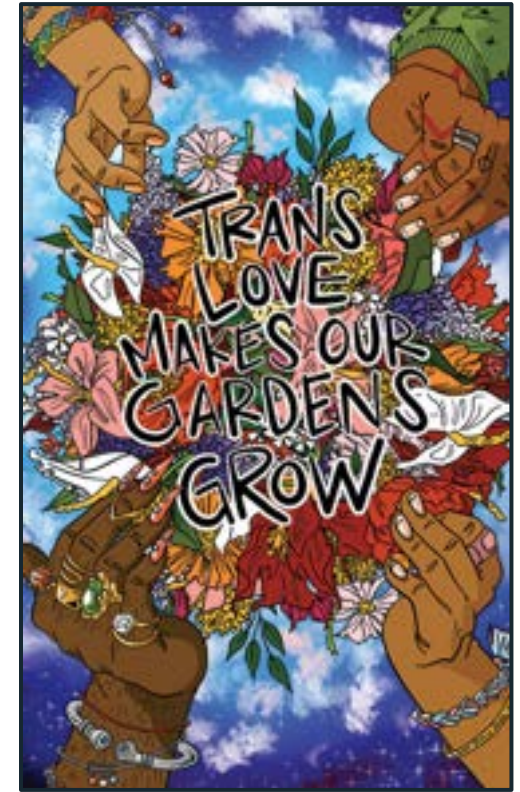
## Purpose and Use

The overall goal of the WPATH Standards of Care—Eighth Edition (SOC-8) is to **provide clinical guidance to healthcare professionals** to assist transgender and gender diverse (TGD) people in accessing safe and effective pathways to achieving lasting personal comfort with their gendered selves with the aim of **optimizing their overall physical health, psychological well-being, and self-fulfillment.**

This assistance may include but is not limited to hormonal and surgical treatments, voice and communication therapy, primary care, hair removal, reproductive and sexual health, and mental healthcare. **Healthcare systems should provide medically necessary gender-affirming health care for TGD people.**

# Flipping the Script: Gender Euphoria and Trans Joy

- **Positive emotions** resulting from affirmation of gender identity (“**trans joy**”)
- **LEGACY Cohort (n=2165)**
  - 35% experienced gender euphoria
  - Lower odds of:
    - **Gender dysphoria** (aOR=0.58; 95% CI=0.47-0.72;  $p<0.001$ )
    - **Alcohol misuse (AUDIT)** (aOR=0.75, 95% CI=0.60-0.95;  $p=0.02$ )
  - Higher odds of:
    - **Resilience** (aOR=1.31, 95% CI=1.07-1.61;  $p<0.001$ )
- **ENCORE Cohort (n=2374)**
  - Higher prevalence of:
    - **PrEP uptake past 6 mo** (aPR=1.12, 95%CI=1.02-1.24;  $p=0.02$ )



 @cozcon | [cozcon.threadless.com](https://cozcon.threadless.com)  
<https://tdor.co/>

# The Situated Vulnerabilities and Resiliencies Framework: a call for integrated strategies to address global HIV inequities for transgender, non-binary, and gender diverse populations

Lancet HIV 2025; 12: e303-12  
Published Online  
March 27, 2025  
[https://doi.org/10.1016/S2352-3018\(24\)00299-6](https://doi.org/10.1016/S2352-3018(24)00299-6)

Sari L. Reisner

- Use strengths-based approaches and leverage situated resiliencies
- Engage trans people and address trans community priorities
- Deploy HIV status-neutral approaches
- Integrate gender affirmation and gender-affirming care
- Invest in social enablers

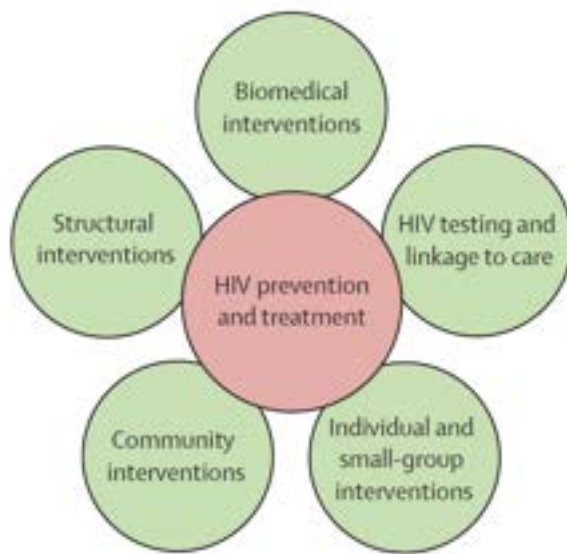


Figure 2: Integrated HIV prevention and treatment strategies for transgender, non-binary, and gender diverse populations using the Situated Vulnerabilities and Resiliencies Framework

## Gender Affirmation



Social



Psychological



Medical

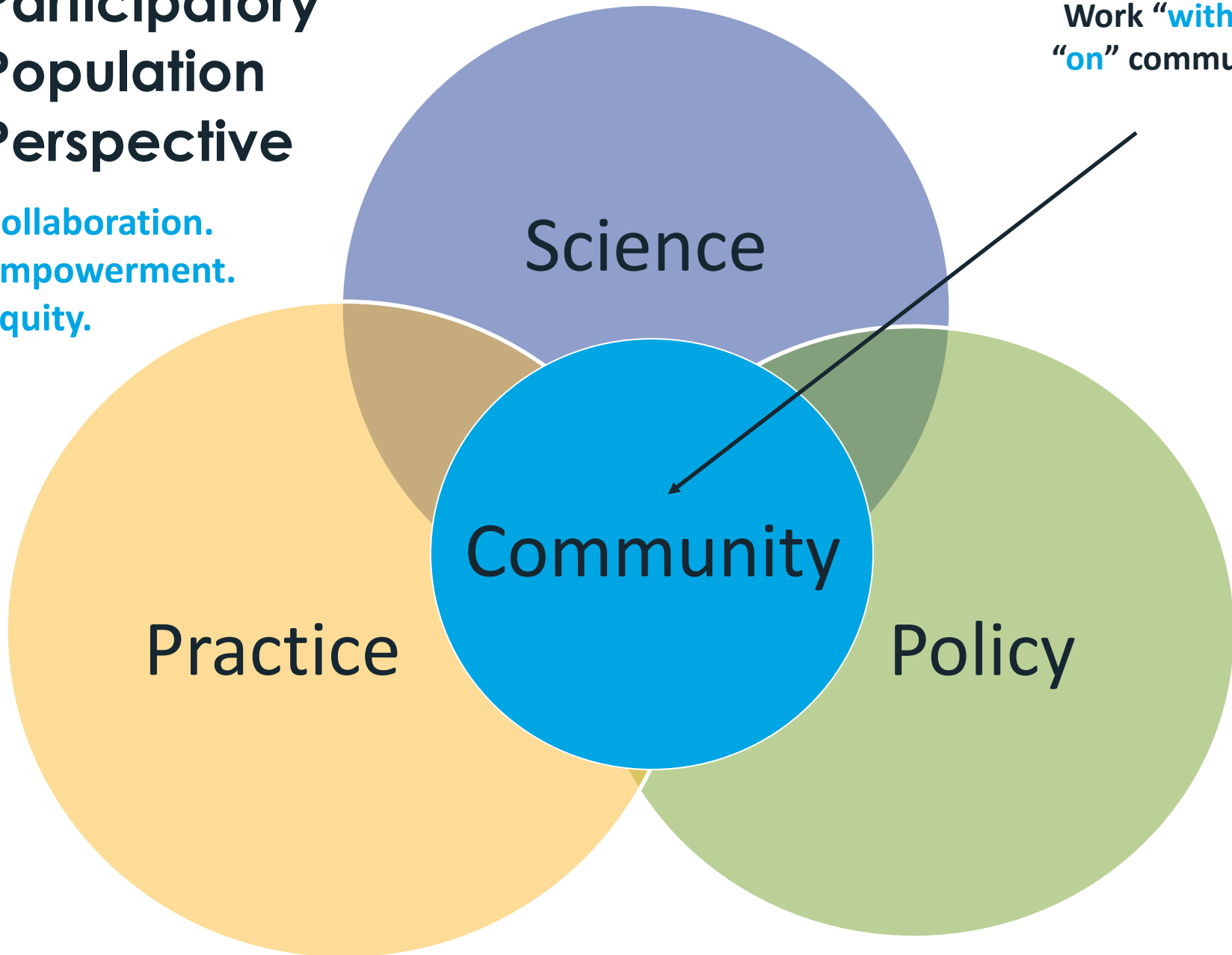


Legal

# Participatory Population Perspective

Collaboration.  
Empowerment.  
Equity.

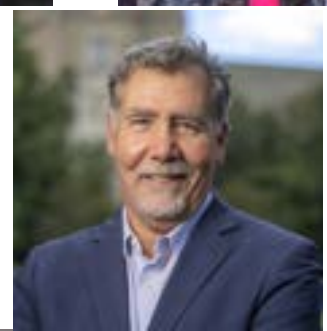
Work “with” not  
“on” communities



# Acknowledgments



## Investigator Team



We express gratitude to **our participants** without whom this research would not be possible. We also want to thank our **National ENCORE CAB** and **study staff** who contributed to actualize this study.

**Funders:** NIH, ViiV

# Acknowledgments

## Adolescent and Young Adult Trans Women Research Study



Alfonso Silva-Santisteban, MD, MPH



Amaya Perez-Brumer, PhD, MSc



Leyla Huerta, MA



Dorothy Apedaile, MS



Rodrigo Aguayo Romero, PhD



Casey Orozco-Poore, MD



- Susannah Allison (NIMH)
- Yahaira Chavarri, Anto Garcia, Flavia Cuenca, Mia Loarte (Féminas team)
- Francezka Leon (coordinator)
- Ximena Salazar (formative research)
- Segundo Leon (laboratory)

**The young trans women who participated in our research**



# Acknowledgments – LEGACY Cohort Team



Sari Reisner,  
ScD



Asa Radix,  
MD, PhD,  
MPH



Kenneth  
Mayer, MD



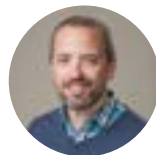
Madeline  
Deutsch,  
MD, MPH



Alex  
Keuroghlian,  
MD, MPH



Jennifer  
Potter, MD



Alex  
Gonzalez,  
MD



Jaclyn  
Hughto, PhD,  
MPH



David Pletta,  
PhD, MPH



Juwan  
Campbell,  
MA



Dana  
Pardee, MBA



Andrew  
Asquith, BA



Alexander  
Harris, MPH



We express gratitude to **our participants** without whom this research would not be possible.

We also want to thank our **CAB**.

**Funder:** Patient-Centered Outcomes Research Institute (PCORI).

# CROI 2026 Interactive Symposium

IAS-USA  
CME Courses - CME Webinars - Webinars - Topics in Antiretroviral Medicine - HIV Drug Resistance - Fellow Resources - About

## (Interactive Symposium-06) Counting and Caring for Transgender and Gender-Diverse Individuals

Watch the Session Here

**Moderator: Jade Ghose**, Assistance Publique – Hôpitaux de Paris, Paris, France  
Epidemiology  
**Stefan Baral**, The Johns Hopkins Bloomberg School of Public Health, Baltimore, MD, USA  
Clinical Management  
**Asa E. Radix**, Callen-Lorde Community Health Center, New York, NY, USA  
Community Evidence, System Change: Transgender Leadership in Sustaining HIV Care  
**Rena Janamnuaysook**, Institute of HIV Research and Innovation, Bangkok, Thailand

## Optimizing Measurement of Intersectional Discrimination

- Policies, practices, and behaviors rooted in overlapping systems of power
- Drives inequities across individuals and communities with multiple marginalized identities, conditions, or behaviors

Lead: Dr. Kaitlyn Atkins

## Sustaining Care in Challenging Times

- Telehealth
- Legal and policy awareness
- Know shield laws
- Document carefully
- Advocate

## Gender-Affirming Care is the Gateway to Prevention

Trust  
Engagement

HIV testing  
PrEP  
Syphilis testing

Clinic visits p=0.027  
Repeat HIV testing p=0.026  
PrEP uptake p=0.042

<https://www.croiwebcasts.org/s/2026croi/croi/SYMP-06>

# Thank you!



Contact:

[sreisner@umich.edu](mailto:sreisner@umich.edu)

**Please cite presentation as:** Reisner, S.L. Situated HIV Vulnerabilities and Resiliencies: HIV Prevention and Care for Transgender Women and Transfeminine People. June 10, 2026. Transgender Research 2026—Findings from CROI and Beyond. The Choice Agenda Webinar.





# Gender-identity stigma and HIV prevention among transgender women under differing State-level LGBTQ healthcare policies in the U. S.

Yuanqi Mi, ScM  
Research Data Analyst  
Department of Epidemiology  
Johns Hopkins Bloomberg School of Public Health

# Acknowledgement

- ▶ JHU Study Team: Amrita Rao, Emma Reynolds, John Mark Wiginton, Kaitlyn Atkins, Jason M. Lo Hog Tian, Kristen Alicea-Jorgensen, Sarah Murray, Stefan Baral
- ▶ Emory Study Team: Irah Lucas, Mariah Valentine-Graves, Savannah Winter, Joanna Caldwell, Travis Sanchez
- ▶ We would like to thank the TWIST participants, whose experiences made this analysis possible.



# Overview

- ▶ Background
- ▶ Methods
- ▶ Results
- ▶ Key Takeaways



# Background

- **Transgender women and transfeminine nonbinary people** in the United States (US) are disproportionately affected by HIV, yet evidence-based HIV prevention services remain underutilized.
- **Gender identity stigmas** in **healthcare** settings could impede health-seeking behaviors.
- The relationship between healthcare stigma and HIV prevention uptake may be shaped by the **broader state LGBTQ policy environment**, especially in the context of healthcare.



# Research question

- ▶ Objectives
- ▶ To examine the association between gender identity stigma in healthcare settings and HIV prevention uptake, including HIV testing and PrEP use, among transgender women in the United States
- ▶ To evaluate whether this association is moderated by state-level LGBTQ healthcare policy climate.
- ▶ The findings are intended to inform **evidence-based policy** and **programmatic strategies** to **reduce healthcare stigma** and **improve HIV prevention engagement** among transgender women.



# Transgender Women's Internet Survey and Testing (TWIST)

- ▶ Annual, cross-sectional, online HIV behavioral survey of transgender women and transfeminine non-binary people assigned male at birth in the United States.
- ▶ The study previously included an optional mail-in self-testing kit for HIV/STIs, hepatitis C, and hormone levels (estrogen and testosterone).
- ▶ TWIST's aim is to examine the role of gender identity-based and sexual behavior-based stigmas on mental and sexual health, resilience, and access to care in this population.



# Methods

- ▶ **Study design:** Sexually-active transgender women and transfeminine nonbinary people (TWTBP) were recruited to participate in the 2022–2023 and 2023-2024 TWIST study. 5,508 TWTBP who self-reported never having an HIV diagnosis were included in analyses.
- ▶ **Exposure:** gender-identity stigma
- ▶ *Perception, anticipation, or experience of **gender identity** stigmas in **healthcare settings** in the last 12 months (yes/no).*
- ▶ **Outcome: HIV Prevention Uptake**
- ▶ **Outcome 1:** PrEP use in the last 12 months
- ▶ **Outcome 2:** HIV testing in the last 12 months



# Methods

- ▶ **Effect measure modification (EMM):** *state-level anti-LGBTQ+ Policy Tally in the context of healthcare*, categorized as **more protective** (including states with above median ratings) and **more punitive** (including states at or below median ratings), using scoring from *2020 Monitoring Assessment Project (MAP)'s State Equality Index*.
- ▶ **Statistical analyses:**
  - We used multi-level Poisson regression with robust estimation clustered by states to assess the independent association between **healthcare gender identity stigma** and **both HIV prevention outcomes** in the last 12 months
  - **Confounders:** age, race/ethnicity, education, employment, food insecurity, non-prescribed injection drug use, health insurance, and homelessness.

Variables were selected for inclusion as confounders in the multivariable multi-level Logistic regression model were based on a priori hypothesized relevance to the relationship of interest



# Healthcare policy in the MAP index

## ▶ **More protective healthcare policy examples**

- Medicaid coverage for transgender-related care
- Private insurance nondiscrimination / bans on insurance exclusions
- Inclusive state employee health benefits
- Shield laws protecting access to transgender healthcare

## ▶ **More punitive healthcare policy examples**

- Bans or restrictions on best-practice gender-affirming medical care for transgender youth
- Insurance exclusions or lack of protections for transgender-related care
- Absence of healthcare nondiscrimination protections
- Policies limiting access to gender-affirming healthcare



# Results: Overall sample characteristics

Nearly half reported gender-identity related stigma in healthcare settings in the past 12 months.



**59.7%**

**Aged 25 years or older**

40.3% were aged 15–24 years



**71.5%**

**Some college or higher**

educational attainment



**68.1%**

**Employed for wages**

employment status



**74.5%**

**Identified as White**

race and ethnicity



**91.8%**

**Had health insurance**

coverage was high



**35.0%**

**Experienced food insecurity**

past 12 months



**7.1%**

**Experienced homelessness**

past 12 months

The sample was largely insured, educated, and wage-employed, while food insecurity remained common.

Ever injection drug use was uncommon overall (4.2%).



# Results: Key measures

## Exposure

**49.9%**

**experienced healthcare  
gender-identity stigma**

past 12 months

*Primary independent variable*

## HIV prevention outcomes

**35.6%**

1,960 participants

**reported HIV testing  
in the last year**

**9.3%**

511 participants

**reported PrEP use  
in the last year**

**Healthcare gender-identity stigma remains prevalent among transgender women.  
Testing was more common than PrEP use, suggesting a prevention linkage gap.**



# State-level anti-LGBTQ+ Healthcare Policy



**National median**



# Healthcare Policy Climate vs. Healthcare Stigma

**MAP healthcare policy score, dichotomized at the national median**

**TWIST  
participants'  
distribution**

N=2232 (40.5%)

N=3276 (59.5%)

**TWIST participant-reported healthcare stigma,  
dichotomized at the median state prevalence**

There are geographic overlaps between higher prevalence of healthcare-based gender identity stigma and more punitive state LGBTQ healthcare policy environments, especially in **South** and **Midwest** regions



# Healthcare stigma and HIV prevention uptake by state policy climate

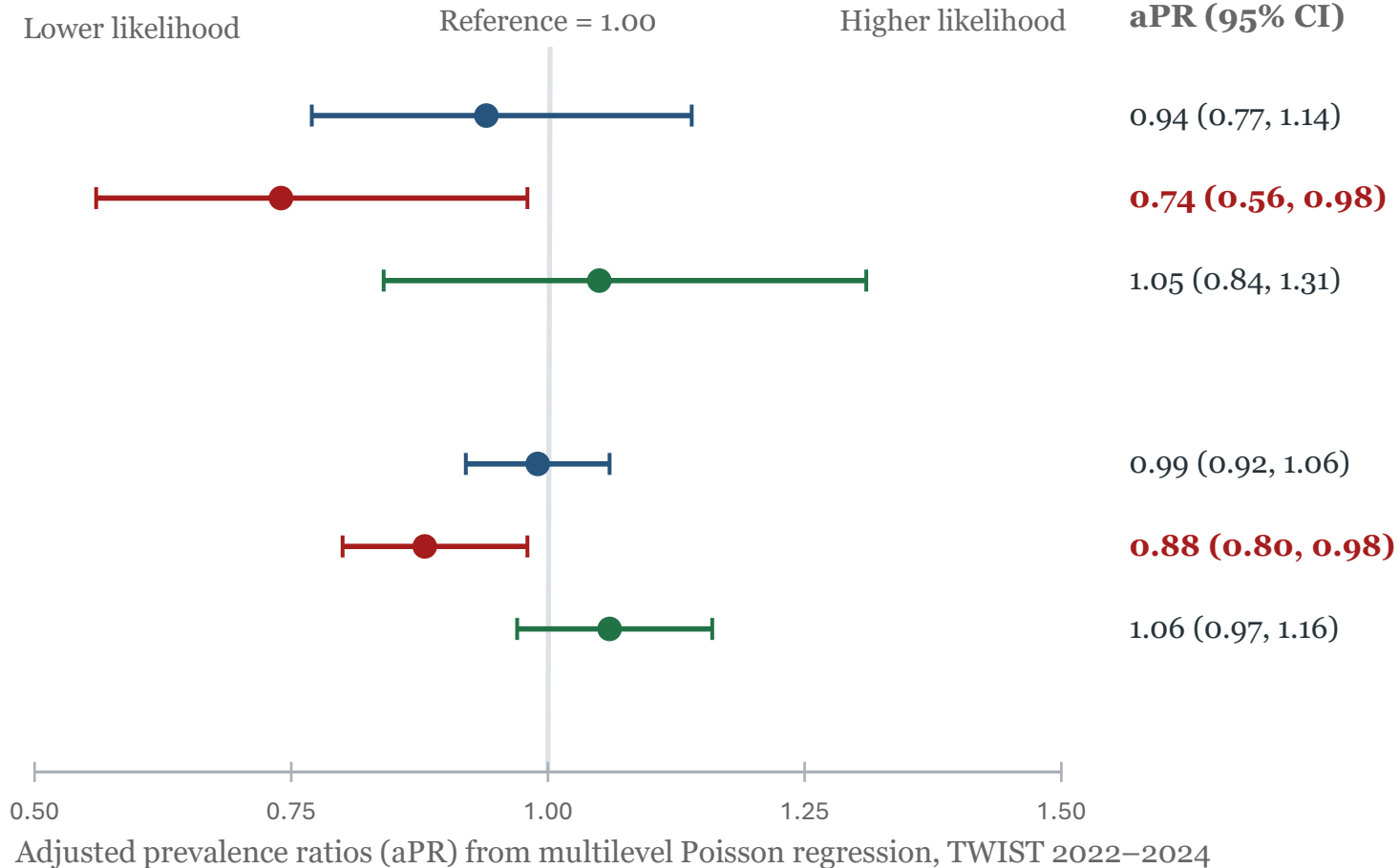
**PrEP use**

- Overall adjusted
- More punitive policy states
- More protective policy states

**HIV testing**

- Overall adjusted
- More punitive policy states
- More protective policy states

Outcome / policy climate



Multiplicative interaction:  
 stigma \* policy climate: **PrEP use: p = 0.035;**  
**HIV testing: p = 0.004**

Healthcare stigma was associated with **decreased** likelihood of both PrEP use and HIV testing only among participants **in states with more punitive policy environments**

Notes: aPR = adjusted prevalence ratio. Models included a random intercept for state; overall adjusted models also included covariates. Bolded estimates are statistically significant at  $p < 0.05$ .

# Limitations

## Design and sampling

---

- Cross-sectional design limits causal inference and prevents establishing temporality between healthcare stigma and HIV prevention uptake.
- Online convenience sampling may limit generalizability to all transgender women and transfeminine nonbinary people in the U.S., particularly those with limited internet access or different healthcare engagement patterns.
- Low PrEP use prevalence may have reduced precision in stratified analyses.

## Measurement and inference

---

- All measures were self-reported and may be subject to recall error, social desirability bias, or misclassification.
- MAP healthcare policy scores dichotomized at the median may mask variation in specific policies, implementation, enforcement, and within-state healthcare access; rapid policy changes may also introduce exposure misclassification.
- Residual confounding may remain from unmeasured local availability of gender-affirming care, LGBTQ-affirming HIV prevention services, provider access, and community support.



# Key Takeaways

- Gender-identity stigma in healthcare settings is associated with lower HIV prevention uptake among transgender women in states with more punitive policy environments only.
- Optimizing the real-world impact of health intervention in the US necessitates being responsive to policy-level barriers and facilitators.



# Program implications

- ▶ **Target resources to more punitive policy environments** by expanding state-level protections for gender-affirming care and HIV prevention services.
- ▶ **Strengthen gender-affirming healthcare delivery** through provider training, trans-inclusive clinical environments, and stigma-reduction interventions.
- ▶ **Improve linkage from HIV testing to PrEP use** using same-day PrEP initiation, navigation, follow-up, and education addressing PrEP misconceptions.
- ▶ **Use peer-based and community-led models** to reduce mistrust and improve access for transgender women with prior negative healthcare experiences.



# Thank you! Questions?

---

[ymi3@jhu.edu](mailto:ymi3@jhu.edu)

