Modern Approaches to Transgender and Nonbinary Youth With HIV

Michelle Collins-Ogle, MD, FAAP, FPIDS, AAHIVS

Montefiore Adolescent and Youth Sexual-health Clinic, Inc.
Associate Professor of Pediatrics
Einstein College of Medicine
Pediatric and Adolescent HIV
Children's Hospital at Montefiore

November 8, 2023

AETC AIDS Education & Training Center Program Southeast

Disclosures

- *This program is supported by the Health Resources and Services Administration (HRSA) of the U.S. Department of Health and Human Services (HHS) under grant number U1OHA30535 as part of an award totaling $4.2m. The contents are those of the author(s) and do not necessarily represent the official views of, nor an endorsement, by HRSA, HHS, or the U.S. Government. For more information, please visit HRSA.gov.*

- *"Funding for this presentation was made possible by cooperative agreement U1OHA30535 from the Health Resources and Services Administration HIV/AIDS Bureau. The views expressed do not necessarily reflect the official policies of the Department of Health and Human Services nor does mention of trade names, commercial practices, or organizations imply endorsement by the U.S. Government. Any trade/brand names for products mentioned during this presentation are for training and identification purposes only."*

-

AETC AIDS Education & Training Center Program Southeast

AETC Program National Centers and HIV Curriculum

National Coordinating Resource Center – serves as the central web –based repository for AETC Program training and capacity building resources; its website includes a free virtual library with training and technical assistance materials, a program directory, and a calendar of trainings and other events. Learn more: https://aidsetc.org/

National Clinician Consultation Center – provides free, peer-to-peer, expert advice for health professionals on HIV prevention, care, and treatment and related topics. Learn more: https://nccc/ucsf.edu

National HIV Curriculum – provides ongoing, up –to-date HIV training and information for health professionals through a free, web –based curriculum; also provides free CME credits, CNE contact hours, CE contact hours, and maintenance of certification credits. Learn more: www.hiv.uw.edu

AETC AIDS Education & Training Center Program Southeast

Speaker Disclosures

Speaker: Michelle Collins-Ogle, MD, FAAP, FPIDS

Disclosures: No financial conflicts of interest

Learning Objectives

Upon completion of this presentation, learners should be better able to:

- Review the nuances when assessing transgender and nonbinary youth for HIV/STI screening, and linkage to HIV care
- Adopt strategies for engaging transgender persons, in effective patient-provider communications to improve sexual health and HIV outcomes
- Apply the latest guidelines and recent clinical evidence on safety, efficacy, and adherence to improve PrEP initiation and monitoring in diverse patient groups
- Describe the impact of the 4 Us on prioritizing HIV prevention in transgender and non-binary youth of color

“My mom doesn’t know I’m gay. Don’t tell her I have AIDS.”

Global Threat of HIV in Children

Globally in 2022, 1.5 million children are infected with HIV (under 15 yo)

In 2022, 84,000 AIDS related deaths occurred in children

In 2022, 130,000 new HIV infections are in children

Since 2010, new HIV infections among children decreased by 58%

Youth, ages 15-24 account for 27% of all new infections

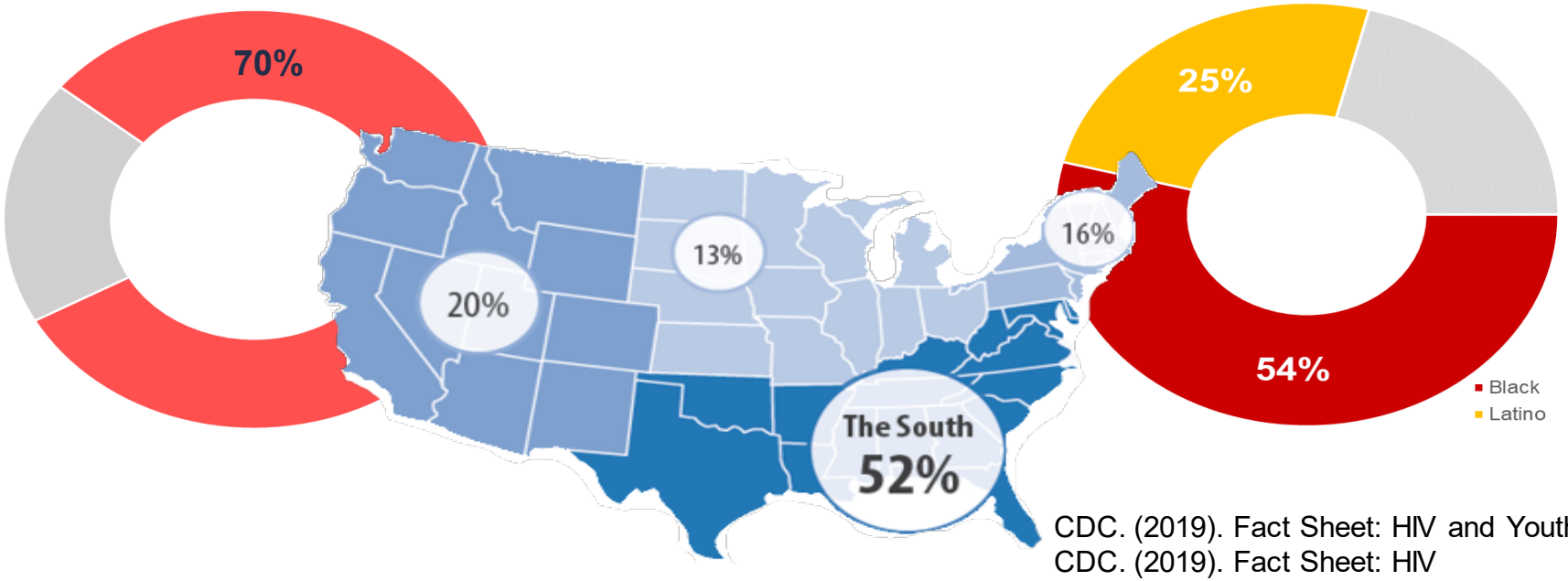
- Youth face barriers accessing sexual and reproductive health services
- Delayed diagnosis and underestimate of new infections

UNAIDS, *Global HIV statistics 2023 fact sheet*; July 2023.

Incidence of HIV Diagnoses among MSM Youth of Color

Men Who Have Sex With Men (MSM) accounted for 70% of youth newly diagnosed with HIV in 2019

Of those, **79%** were **Young Men of Color**, primarily in the South



CDC. (2019). Fact Sheet: HIV and Youth.
CDC. (2019). Fact Sheet: HIV Surveillance Report.

AETC AIDS Education & Training Center Program Southeast

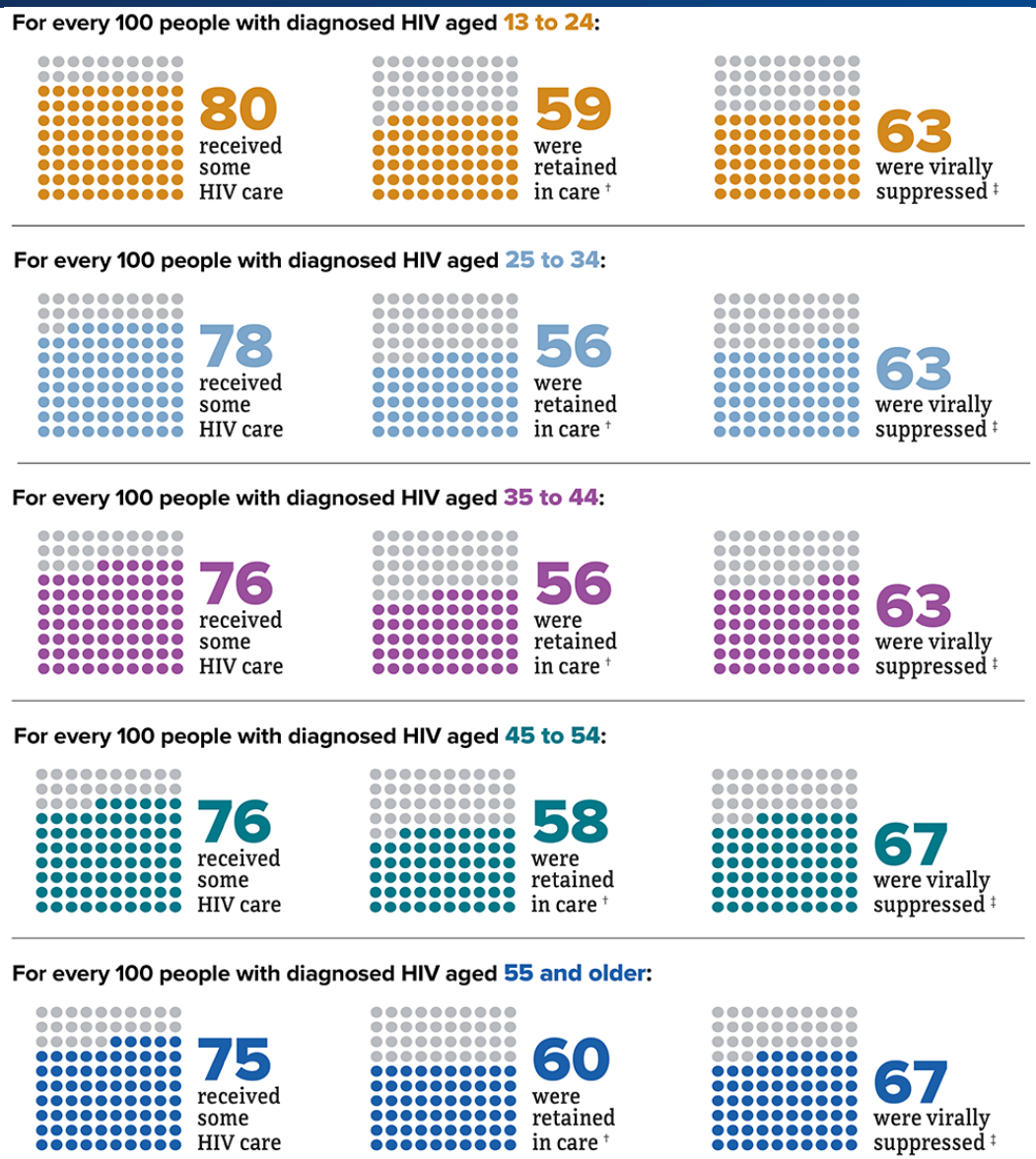
Poll Question #1

What percent of adolescents 13-24 yrs. are virally suppressed?

- 14%
- 35%
- 63%
- 50%
- There is no data in this age group

AETC AIDS Education & Training Center Program Southeast

People with Diagnosed HIV in 44 States and the District of Columbia by Age, 2019*



* Data not available for children aged 12 and under.
† Had 2 viral load or CD4 tests at least 3 months apart in a year.
‡ Based on most recent viral load test.

Source: CDC. Monitoring selected national HIV prevention and care objectives by using HIV surveillance data—United States and 6 dependent areas, 2019. HIV Surveillance Supplemental Report 2021;26(2).

AETC AIDS Education & Training Center Program Southeast

Novel Approach to HIV Treatment for Transgender Youth

Transgender Population in the US and New York

According to the Centers for Disease Control,1 Million people identify as Transgender 0.6% of adult population in 2016

transgender youth ages 13-17 make up 0.7% of the youth population, about 150,000 people.

Bronx population about 1.4 million

Estimated 5000-9000 trans individuals in the Bronx

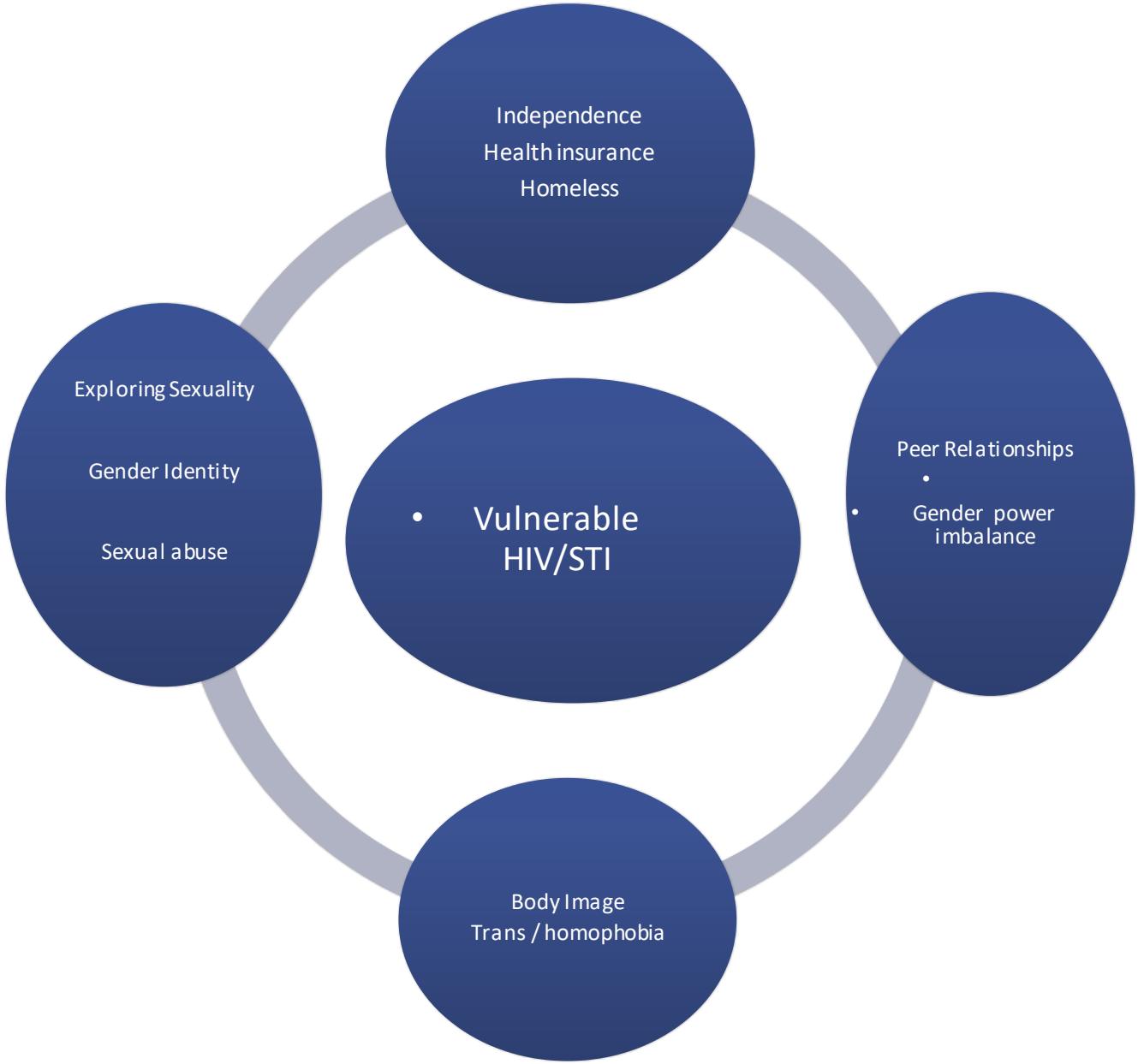
78,600 (.43% of population) in NYS identify as Transgender

AETC AIDS Education & Training Center Program Southeast

Which of the following is **NOT CORRECT** about HIV risk in transgender and nonbinary youth?

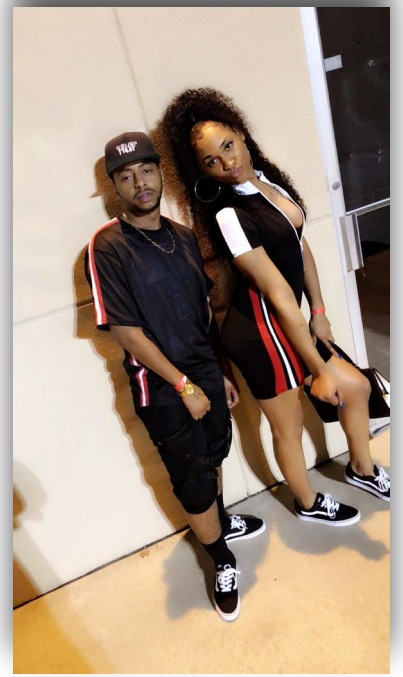
1. Transgender adolescents with HIV experience homelessness at higher rates than their cisgender counterparts.
2. Transgender and nonbinary youth should be virally suppressed before initiating hormone therapy*
3. The majority of transgender adolescents with HIV enter healthcare as asymptomatic and with minimal immune dysfunction.
4. Mental health challenges and substance use disorder are important co-morbidities for transgender adolescents living with HIV
5. You can't trick me, all statements are correct.

Adolescents and Youth Susceptibility to HIV/STI



AETC AIDS Education & Training Center Program Southeast

Challenges with LGBTQ Youth Living with HIV



-Same developmental challenges as all youth

-Must develop healthy, integrated identity amidst negative stereotypes/prejudice, often without family support

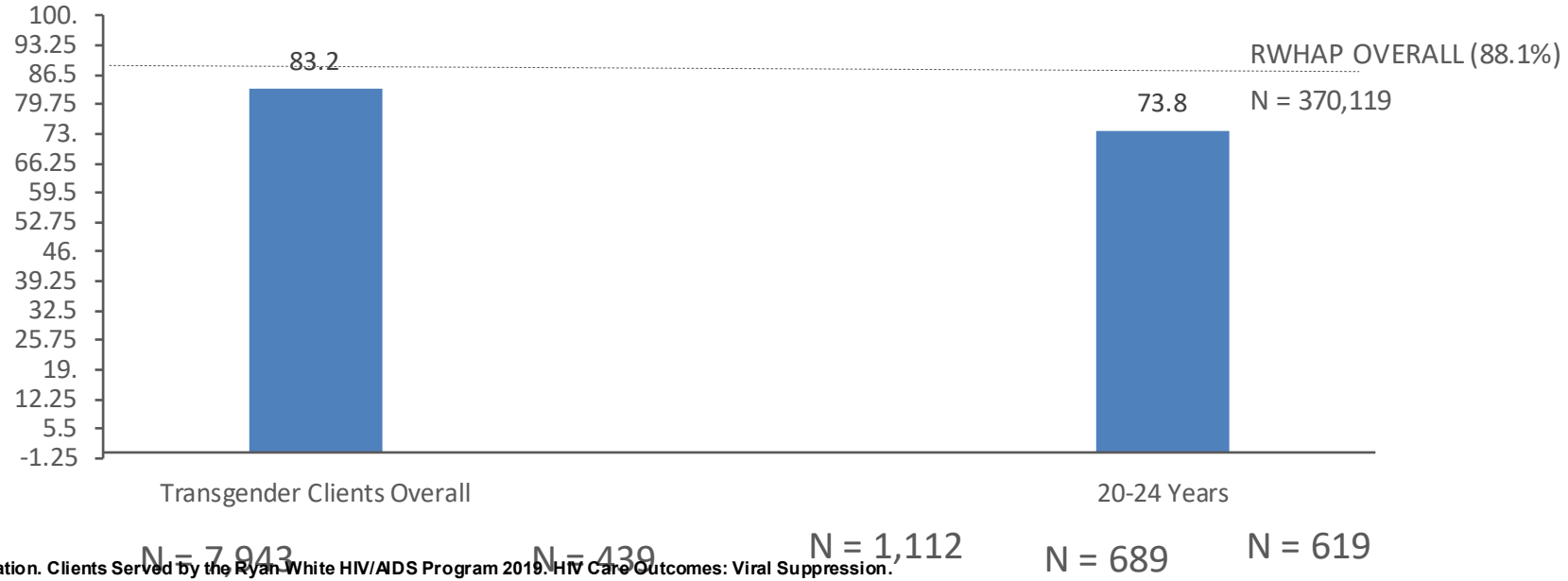
-More susceptible to emotional distress, psychiatric morbidity, multiple disparities, **stigma**, abuse, **violence**, isolation, **suicide**

-Particular challenges of TG youth: childhood to adolescence

-Sexuality and healthy relationships

Viral Suppression among Transgender Adults and Adolescents Served by the Ryan White HIV/AIDS Program, 2019

VIRAL SUPPRESSION AMONG TRANSGENDER ADULTS AND ADOLESCENTS SERVED BY THE RYAN WHITE HIV/AIDS PROGRAM, 2019 – US AND 3 TERRITORIES



Health Resources & Services Administration. Clients Served by the Ryan White HIV/AIDS Program 2019. HIV Care Outcomes: Viral Suppression. February 2021. https://hab.hrsa.gov/sites/default/files/hab/data/datareports/rsr-2019-viral-suppression.pptx. Accessed 6/4/2021.

N REPRESENTS THE TOTAL NUMBER OF CLIENTS IN THE SPECIFIC POPULATION.

INCLUDES TRANSGENDER CLIENTS AGED 15 YEARS AND OLDER.

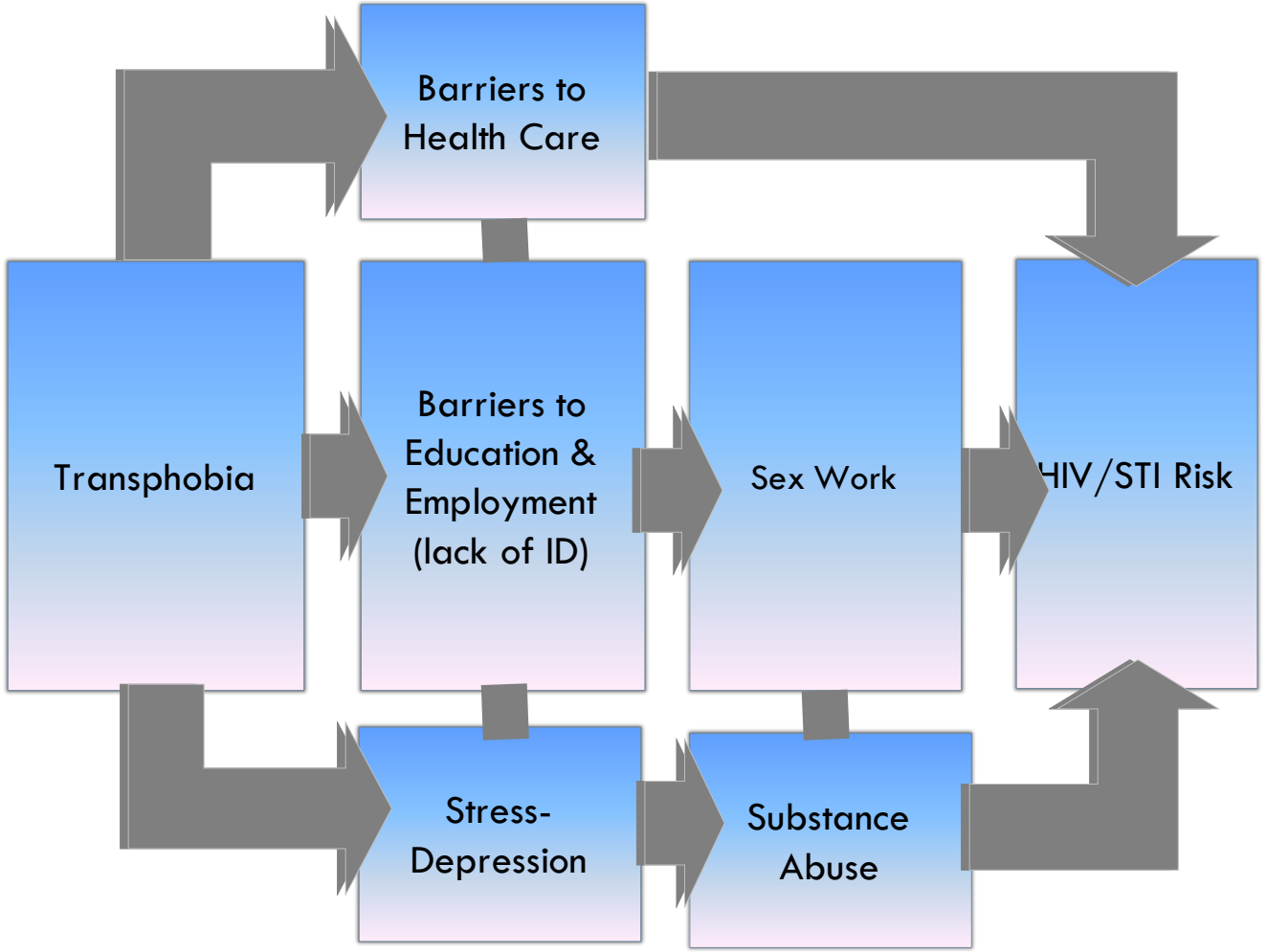
VIRAL SUPPRESSION: ≥1 OAHS VISIT DURING THE CALENDAR YEAR AND ≥1 VIRAL LOAD REPORTED, WITH THE LAST VIRAL LOAD RESULT <200 COPIES/ML

[A] GUAM, PUERTO RICO, AND THE U.S. VIRGIN ISLANDS.

≥ 5 PERCENTAGE POINTS LOWER THAN TRANSGENDER CLIENTS OVERALL

AETC AIDS Education & Training Center Program Southeast

Barriers to Viral Suppression in Transgender / Nonbinary Youth



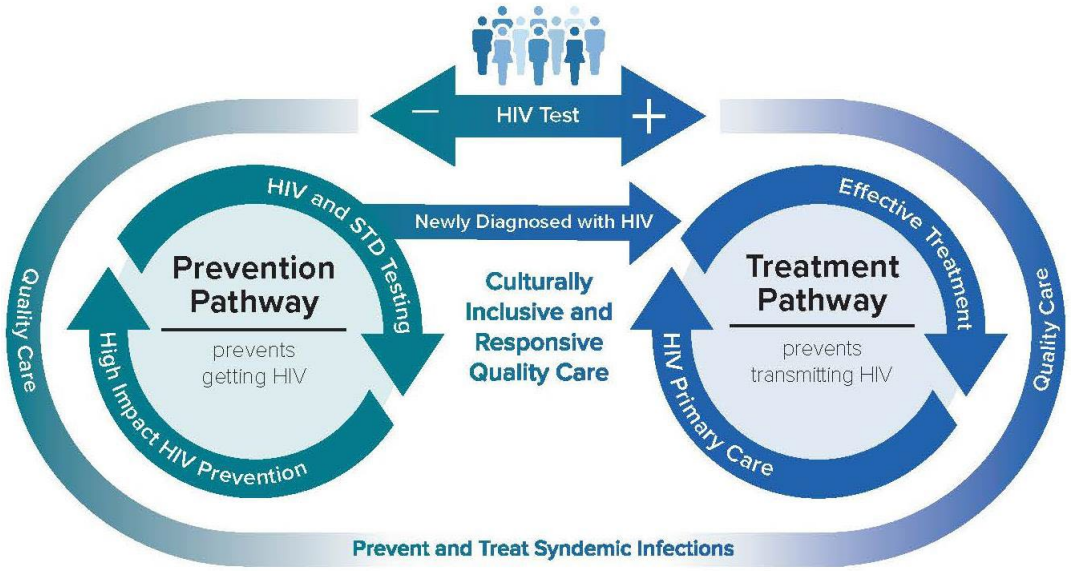
Radix 2015

AETC AIDS Education & Training Center Program Southeast

Status Neutral Approach: Adolescent focused Care

Decreases Stigma

Dramatically decrease new HIV infections



Supports optimal health through continual engagement in comprehensive care

Increases opportunities for more efficient service delivery

Improves health equity

AETC AIDS Education & Training Center Program Southeast

Status Neutral Approach and Adolescents

Goals - Meet youth where they are, destigmatize sexual health and gender affirming care

1. Expand access to pediatric and adolescent people at risk for Sexually transmitted Infections including HIV. End the Epidemic!!
2. Expand access to gender affirming care for pediatric and adolescent people.
3. Provide options to care for people living with HIV

Building A Program focused on Adolescents and Young Adults

Montefiore Adolescent and Youth Sexual-health Clinic (MAYS)

Division of Pediatric Infectious Diseases

People living with HIV, PrEP, PEP
High Risk HIV negative Transgender / Non-binary
**HIV exposed (uninfected / infected) babies
**Other STI exposures (Syphilis, GC, Hep B/C)

Division of Allergy and Immunology

People living with HIV, PrEP, PEP

Division of Adolescent Medicine

Gender Affirming Care

Division of Psychiatry / Behavioral Health

Oval Center - Adult Infectious Diseases

"I didn't keep my appointments because I didn't care. Now I love myself for the first time, I feel happy."

AETC AIDS Education & Training Center Program Southeast

Review of Program Objectives

- Review the nuances when assessing transgender and nonbinary youth for HIV/STI screening and linkage to HIV care
- Adopt strategies for engaging transgender persons in effective patient-provider communications to improve sexual health and HIV outcomes
- Apply the latest guidelines and recent clinical evidence on safety, efficacy, and adherence to improve PrEP initiation and monitoring in diverse patient groups
- Describe the impact of the 4 Us on prioritizing HIV prevention in transgender and non-binary youth of color

Case # 1: *Meet Jay-Zee*

19 y/o Latina transgender teenage girl presents for routine visit

Medical History

Last saw a medical provider 3 years ago at the beginning of the COVID-19 pandemic.

Has been **estradiol and spironolactone since age 17**

Gender affirming surgery include **breast augmentation 1 year ago**.

Had **HIV screen before her last surgery (nonreactive).** She has **never had an STI screen**

No new medical issues and at the clinic for routine monitoring

Social history

Lives with grandmother; separated from long term partner 2 years ago

Has sex with cisgender men (oral and anal), sometimes with condoms

Case # 1 (Cont'd)

Physical Examination

- **General:** Well developed, appears stated age
- **Skin:** No lesions
- **Cardiac/Respiratory:** Normal
- **Breast:** Clinical breast exam normal
- **Genital:** Normal male genitalia – +genital warts

Laboratory Values

- **CBC, BMP:** Normal
- **AST, ALT:** Normal
- **Serum estradiol:** 200 pg/ml
- **Serum testosterone:** 19 ng/dL

STI Testing

- **Syphilis:** Nonreactive
- **3 site testing for GC/Chlamydia:** Negative
- **HIV 1/2/Ab:** **REACTIVE**

Medications

- Oral estradiol 6 mg once daily
- Oral spironolactone 200 mg daily

Poll Question #3

19 y/o Latina transgender woman presents for routine visit and has a reactive HIV Ab/Ag test

Which of the following is true regarding next steps?

A. ART should not be initiated until HIV confirmatory testing is done

B. ART should be initiated immediately*

C. Gender-affirming hormone therapy is associated with reduced ART efficacy

D. ART should not be initiated until viral load is determined

Case # 1: Clinical Course

19 y/o Latina transgender woman presents for routine visit and has a reactive HIV Ab/Ag test

Maria was counseled about HIV and offered rapid initiation of ART

- **She agreed and was started on BIC/FTC/TDF one tablet daily**

She asked several questions:

Will BIC/FTC/TDF affect my hormone levels?

Can I stay on my current dose of estradiol?

I heard these medicines can cause bone problems, do I need to worry?

AETC AIDS Education & Training Center Program Southeast

ARV Drugs and Gender Affirming Hormones

Potential Effect		ARV Drugs	Affected GAHT Drugs
↔	**Least Potential Impact on GAHT**	All NRTIs Unboosted INSTIs: BIC, DTG, RAL NNRTIs: RPV, DOR	None
↑	**ARV Drugs that may Increase GAHT**	EVG/c, PI/r, PI/c	↑ Testosterone Finasteride
↓	**ARV Drugs that may Decrease GAHT**	PI/r	↓ Estradiol
↓		EFV, ETR, NVP	↓ Estradiol Testosterone Finasteride
?	**ARV Drugs with Unclear Effect on GAHT**	EVG/c and PI/c on estradiol	Estradiol

ARV = Antiretroviral; GAHT = Gender Affirming Hormone Therapy; NRTI = Nucleoside Reverse Transcriptase Inhibitor; BIC = Bictegravir; DTG = Dolutegravir; RAL = Raltegravir; NNRTI = Non-Nucleoside Reverse Transcriptase Inhibitor; RPV = Rilpivirine; DOR = Doravirine; EVC/c = Elvitegravir/Cobicistat; PI/r = Protease Inhibitor/Ritonavir; PI/c = Protease Inhibitor/Cobicistat; EFV = Efavirenz; ETR = Etravirine; NVP = Nevirapine.

Panel on Antiretroviral Guidelines for Adults and Adolescents. Guidelines for the Use of Antiretroviral Agents in Adults and Adolescents with HIV. Department of Health and Human Services. https://aidsinfo.nih.gov/contentfiles/lvguidelines/adultandadolescentgl.pdf. Accessed 6/4/2021.

HIV Risk and Prevention in Transgender People: *Results from the iBrEATHe Trial*

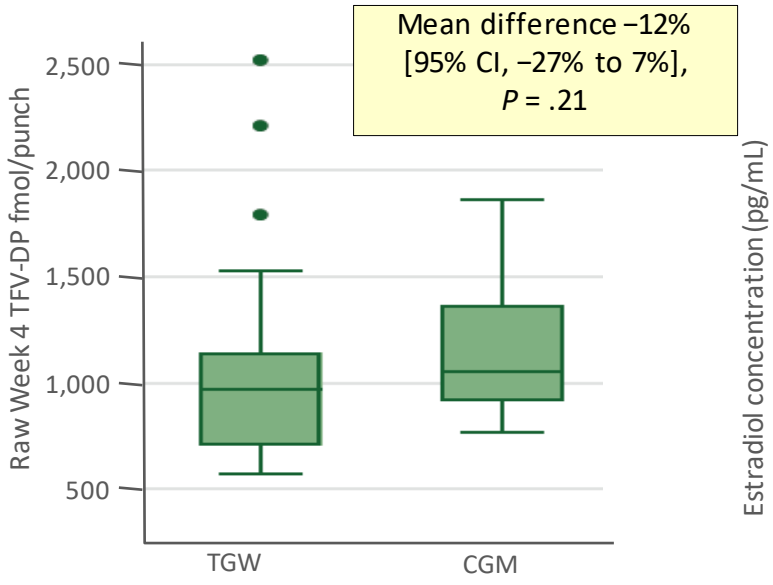
About 14% of trans women are living with HIV

Identified risk factors for HIV acquisition among trans women (iPrEx):

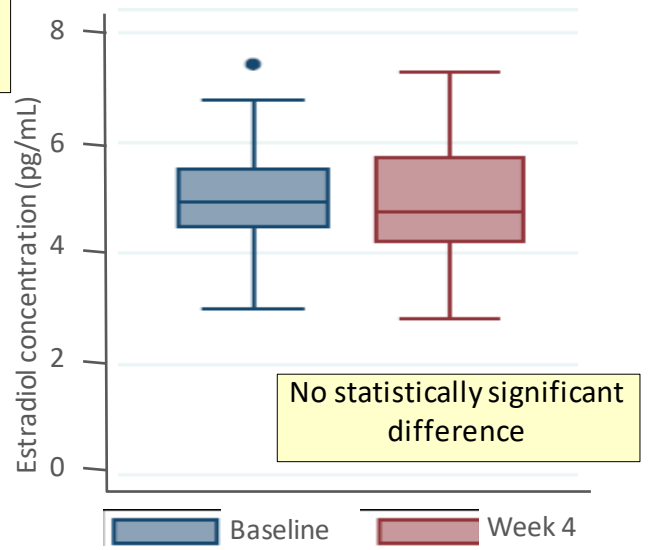
✓ More sex partners ✓ Condomless sex ✓ STIs ✓ Drug use ✓ Transactional sex

iBrEATHe: studied 24 TGW taking estradiol and 15 CGM taking DOT dosing of FTC/TDF for PrEP

TFV-DP concentrations during PrEP, TGW vs CGM



Estradiol concentrations among TGW before and during PrEP



TFV-DP = Tenofovir Diphosphate; PrEP = Pre-Exposure Prophylaxis; CGM = Cisgender Men; TGW = Transgender Women; 95% CI = 95% Confidence Interval

Becasen JS, et al. *Am J Public Health*. 2019 ; 109(1):e1-e8; Deutsch MB, et al. *Lancet HIV*. 2015; 2(12):e512-e519; 109(1):e1-e8; Grant RM, et al. *Clin Infect Dis*. 2020;ciaa1160.

Case # 2: *Meet Angel*

A 17 y/o transgender teenage female presents for initial visit to start hormone therapy

Medical history

- Has taken her friend's estradiol for about 9 months
- Thinks she had a UTI a few months ago (burning)
- Has been well otherwise

Medications

- No current medications

Social history

- Intermittently lives with her 30 year old cisgender boyfriend; denies partner violence
- Can't live as female at home; couch serfs
- Current alcohol and marijuana use
- Has sex with cisgender men (anal receptive / oral)
- Sometimes engages in survival sex to pay bills / eat (no condoms)

My family doesn't support my gender identity.

AETC AIDS Education & Training Center Program Southeast

How Do You Engage Angel?

Medical History cont.

Last HIV/STI testing about 1 year ago: HIV - nonreactive

Had been on TDF/FTC a year ago but stopped

No gender affirming surgeries

She has never been diagnosed with an STI

Social history

Unemployed

Uses Marijuana / alcohol

Unstable housing

AETC AIDS Education & Training Center Program Southeast

Angel (Cont'd)

A 17 y/o transgender teenage female presents for initial visit to start hormone therapy

Physical Examination

- **General:** Thin, not cachectic
- **Skin:** Non pruritic; hyper-pigmented macular, copper color lesions on trunk, palms and soles
- **Breast development: Tanner 1**
- **Genital:** Normal male genitalia; no lesions, sores or vesicles

Laboratory Values

- **CBC, BMP:** Normal
- **AST, ALT:** Mildly elevated
- **Total / Direct Bili:** Elevated
- **Estrogen/Testosterone:** Unremarkable
- **Hep A Ab+; Hep B Core / Surface Ag & Ab-**
- **Hep C Ab -**

STI Testing

- **HIV:** Nonreactive
- **Syphilis RPR: 1:64, *T. pallidum* Ab+**
- **3 site testing for GC/Chlamydia: Rectal GC+**

Polling Question #3

A 17 y/o transgender teenage female presents for gender affirming hormone therapy (GAHT), engages in survival sex, diagnosed with secondary syphilis and rectal GC+.

Is Angel a candidate for HIV pre-exposure prophylaxis (PrEP)?

A. Yes; she should start TDF/FTC along with oral GAHT now
B. No; she did not bring it up or ask about PrEP
C. Maybe; more discussion is needed about HIV risk and prevention*
D. No; PrEP and GAHT should not be initiated simultaneously
E. Both B and D

GAHT = Gender Affirming Hormone Therapy; PrEP = Pre-Exposure Prophylaxis; FTC = Emtricitabine; TDF = Tenofovir Disoproxil Fumarate; TAF = Tenofovir Alafenamide.

Angel (Cont'd): Clinical Course

A 17 y/o *transgender teenage female* presents for an initial visit to start hormone therapy.

Angel was treated for STIs

LA Benzathine Penicillin 2.4 million units for secondary syphilis

Ceftriaxone 500 mg IM for Rectal GC

She is concerned about FTC/TDF PrEP and estradiol levels

✓ Discussed the risks and benefits of initiating hormone therapy

Does she need parental consent?

✓ For PrEP?

✓ For gender affirming care?

Discussed with her the ongoing risk for acquisition of HIV

✓ Survival Sex / Syphilis and GC

AETC AIDS Education & Training Center Program Southeast

RATIONALE FOR INTEGRATING GENDER AFFIRMING CARE AND HIV TREATMENT AND PREVENTION

- HIV estimated prevalence 9.2% for all transgender persons nationally with a significantly higher prevalence for transgender women at 14.1%. A paucity of published data exists defining the risk of HIV in transgender or non-binary (TGNB) youth. *Becasen JS, et al. Am J Public Health 2018 Nov 29

- Recent CDC data reported the urgent need for more HIV prevention and treatment services in this population.

- TGNB youth have several risk factors for HIV infection, including unstable housing, under/uninsured, unemployment, and substance use disorder.

- We assessed key social determinants of health (SDOH) in TGNB youth and the impact on their ability to prioritize and access HIV prevention in our PrEP program in the Bronx, NY

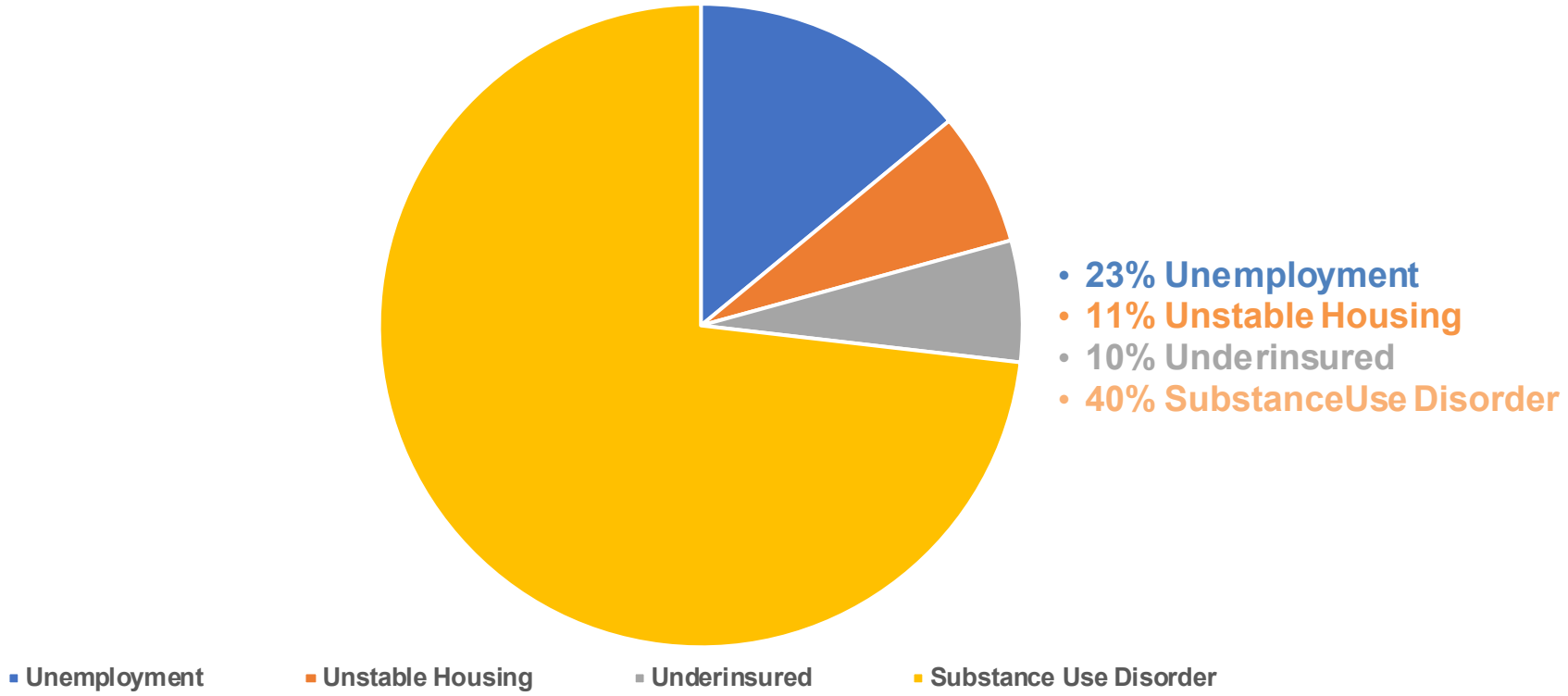
TRANSGENDER AND NONBINARY YOUTH AT RISK FOR HIV

Table 1: Demographics of TGNB youth attending the MAYS clinic Bronx, NY

	Sexually active TGNB youth assessed for HIV risk and PrEP awareness (N=101)
Transgender female, (49%)	51 (50.4%)
Mean Age (years)	20 ± 2.7 years
TGNB Youth of Color	66%
PrEP initiation and adherence	24% (10/41)

Social Determinants of Health in TGNB Youth in the Bronx

Figure 1: Assessment of Key SDOH in TGNB Youth of Color in the Bronx : 4 U's



AETC AIDS Education & Training Center Program Southeast

RESULTS AND CONCLUSION

	SDOH	Initiated PrEP
Total Sexually Active TGNB Assessed	101	24% (24)
Unemployed	23%	5
Unstable Housing	11%	3
Uninsured or Underinsured	10%	3
Substance Use Disorder	40%	10
More than one of the above SDOH	66%	3

- Gender affirming care is associated with access and willingness for STI testing and counseling to inform them of their individual risk for HIV
- SDOH, specifically the 4 U's negatively impact TGNB youth of color in the Bronx and are prioritized over HIV prevention
- We are restructuring our PrEP program to better understand the impact of ARTISTA and SDOH on improved PrEP uptake in TGNB youth of color

AETC AIDS Education & Training Center Program Southeast

What Can Clinicians do to Improve Comprehensive Care?

- Educational materials designed to improve clinicians ability to provide evidence-based, high quality care for transgender patients. The World Professional Association for Transgender Patients (WPATH) https://www.wpath.org provide guidelines for healthcare clinicians. Another excellent source for transgender clinicians is University of California, San Francisco (UCSF) Transgender Care & Treatment Guidelines. https://transhealth.ucsf.edu

- Host a clinic event: “Birthday clinic visit” Trans-girls Lunch and Learn; Transitioning awards.

- Recognize and document trauma as well as PTSD in transgender Youth. It is key to their overall health and may help in ongoing high risk behaviors. Providing mental health services needs to be incorporated as part of comprehensive healthcare.

- **Connecticut State Crisis Line:** 211 **New York State Crisis Line:** 311

Crisis Text Line: employs nonconsensual active rescue using 911, first responders and potential law enforcement.

Text HOME to 741741

National Suicide Prevention Hotline: employs nonconsensual active rescue using 911, first responders, and potential law enforcement.

Call 1-800-273-8255.

988: employs nonconsensual active rescue using 911, first responders and potential law enforcement

GLBT National Hotline: 888-843-4564

National Sexual Assault Telephone Hotline by RAINN: 800-656-4673

National Domestic Violence Hotline: 1-800-799-7233

Sex, Gender, and Relationships Hotline (SGR Hotline): 415-989-7374

Anti-violence Project hotline: 212-714-1141

National Council on Alcoholism and Drug Dependence, 24-hour Hopeline: 800-622-2255

Thrive Lifeline: for marginalized people in STEM fields

Trans Lifeline: U.S. 877-565-8860; Canada 877-330-6366

AETC AIDS Education & Training Center Program Southeast