AETC AIDS Education & Training Center Program Mountain West

Models of Care to Engage Women with HIV

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Last Updated: 2/17/23

Disclosures

No conflicts of interest or relationships to disclose

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Disclosures

Data presented in this presentation offer a limited glimpse of health inequities that exist in a larger social context.

Racism, not race, creates and perpetuates health disparities.

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Objectives

- Discuss HIV epidemiology/care continuum among women in the US
- Discuss special considerations for women with HIV (WWH)
- Discuss barriers in the HIV care continuum for WWH
- Discuss strategies to improve engagement in care

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Epidemiology: United States

Women with HIV in the US, 2019*

In 2019, an estimated **1.2 million PEOPLE** had HIV. **Of those, 263,900 were women.**

For every 100 people with HIV

87 knew their HIV status.

For every 100 women with HIV

90 knew their HIV status.

* Based on sex assigned at birth.

Source: CDC. Estimated HIV incidence and prevalence in the United States 2015–2019. *HIV Surveillance Supplemental Report* 2021;26(1).

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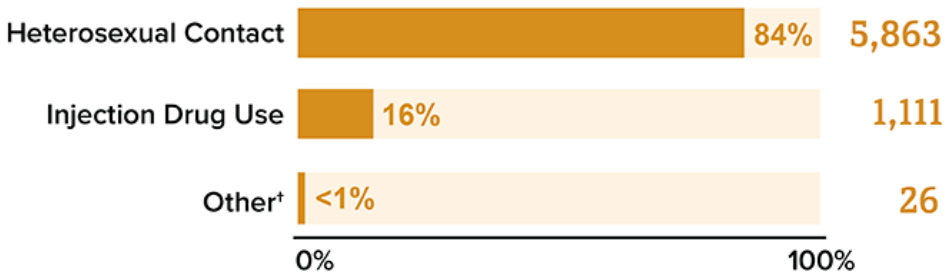
Epidemiology: United States

There were **34,800 estimated new HIV infections** in the US in 2019. Of those, 18% (6,400) were among women.

New HIV Diagnoses Among Women by Transmission Category in the US and Dependent Areas, 2019*

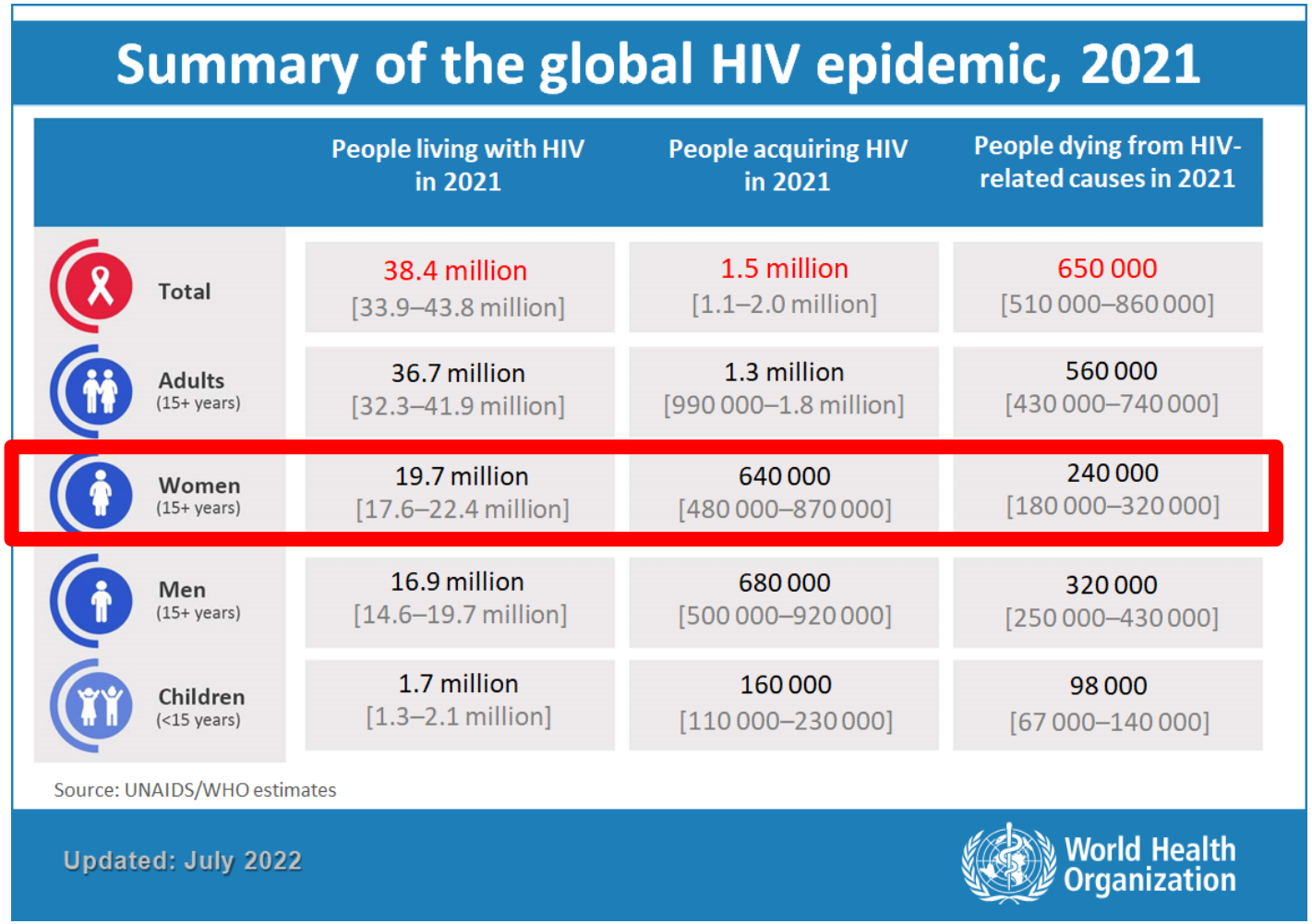
Most new HIV diagnoses among women were attributed to heterosexual contact.



* Based on sex assigned at birth and includes transgender people. For more information about transgender people, visit CDC's HIV and Transgender People web content.
† Includes perinatal exposure, blood transfusion, hemophilia, and risk factors not reported or not identified.

Source: CDC. Diagnoses of HIV infection in the United States and dependent areas, 2019 . *HIV Surveillance Report* 2021;32.

Epidemiology: Global



Summary of the global HIV epidemic, 2021

	People living with HIV in 2021	People acquiring HIV in 2021	People dying from HIV-related causes in 2021
Total	38.4 million [33.9–43.8 million]	1.5 million [1.1–2.0 million]	650 000 [510 000–860 000]
Adults (15+ years)	36.7 million [32.3–41.9 million]	1.3 million [990 000–1.8 million]	560 000 [430 000–740 000]
Women (15+ years)	19.7 million [17.6–22.4 million]	640 000 [480 000–870 000]	240 000 [180 000–320 000]
Men (15+ years)	16.9 million [14.6–19.7 million]	680 000 [500 000–920 000]	320 000 [250 000–430 000]
Children (<15 years)	1.7 million [1.3–2.1 million]	160 000 [110 000–230 000]	98 000 [67 000–140 000]

Source: UNAIDS/WHO estimates

Updated: July 2022

World Health Organization

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HIV Care Continuum

HIV Care Continuum. HIV.gov

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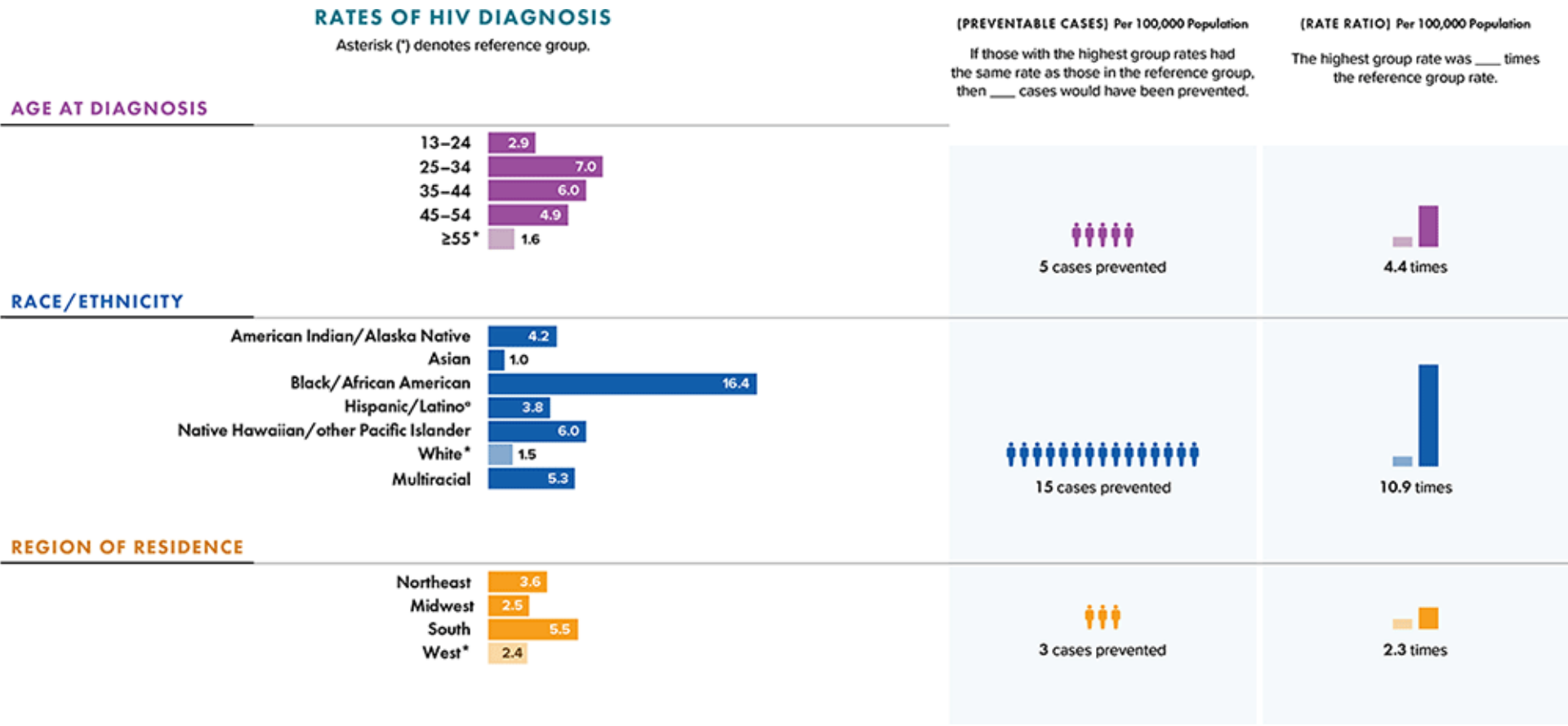
Diagnosis: WWH



Centers for Disease Control and Prevention. *HIV Surveillance Report, 2020*

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Treatment

HIV Treatment Among Women with Diagnosed HIV in the US, 2019*†

Taking HIV medicine consistently and as prescribed is the best way to achieve and maintain viral suppression.

of all people with HIV

of cisgender women with HIV

reported taking all of their doses of HIV medicine over the last 30 days

Data for transgender women are not included because the numbers are too small to report.

* Based on current gender identity.
† Among people aged 18 and older.

Source: CDC. Medical Monitoring Project.

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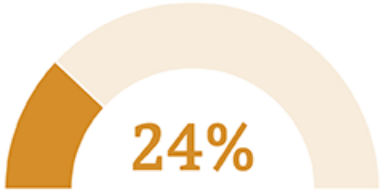
Retention in Care

Missed HIV Medical Care Appointments Among Women with Diagnosed HIV in the US, 2019*†

Staying in HIV care is important to achieving and maintaining viral suppression.



of all people with HIV

of cisgender women with HIV

missed at least 1 medical appointment in the past 12 months

Data for transgender women are not included because the numbers are too small to report.

* Based on current gender identity.
† Among people aged 18 and older.

Source: CDC. Medical Monitoring Project.

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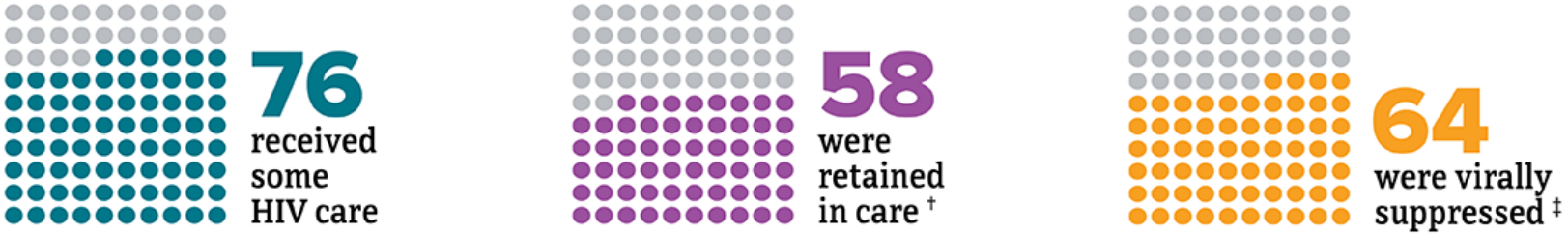
Viral Suppression

Women with Diagnosed HIV in 44 States and the District of Columbia, 2019*

Compared to all people with diagnosed HIV, women have lower viral suppression rates. **For every 100 women with diagnosed HIV in 2019:**



For comparison, for every **100 people overall** with diagnosed HIV, **76 received some care**, **58 were retained in care**, and **66 were virally suppressed**.

* Based on sex assigned at birth.
† 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).

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Transgender women

Of the **36,801 new HIV diagnoses** in the US and dependent areas in 2019, 2% (671) were among transgender people.

HIV Prevalence Among Transgender Women in 7 US Cities, 2019-2020*

Racial and ethnic disparities exist among transgender women with HIV.

Among transgender women interviewed, 42% had HIV.

- 62% of Black/African American transgender women had HIV
- 35% of Hispanic/Latina transgender women had HIV
- 17% of White transgender women had HIV

* Among people aged 18 and older.

Source: CDC. HIV infection, risk, prevention, and testing behaviors among transgender women–National HIV Behavioral Surveillance–7 U.S. Cities, 2019-2020. *HIV Surveillance Special Report* 2021.

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Prevention

PrEP is highly effective for preventing HIV from sex or injection drug use.

ONLY

of women who could benefit from PrEP were prescribed PrEP in the US in 2019.

CDC. HIV Surveillance Supplemental Report 2021

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Care Continuum outcomes over time: WWH

Outcome Data, **2015 --> 2019**:

- Stage 3 Disease (AIDS), ever: 55.8% --> 61.5%
  - Trend analyses of data indicate a **meaningful increase** (EAPC 1.7%; CI 1.5–1.9; *P* < 0.001).

No meaningful increase in:

- Retention in Care: 77.8% --> 79.8%
- Viral Suppression: 67.0% --> 66.0%
- Sustained Viral Suppression: 60.1% --> 59.2%

"During 2015 to 2019, HIV care continuum outcomes did not meaningfully improve among WWH. Further, the prevalence of persons whose HIV infection had ever been classified as stage 3 meaningfully increased, possibly reflecting poorly controlled HIV among WWH."

O'Shea et al. AIDS 2023

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Special Considerations for WWH

- Antiretroviral choice
  - Drug-drug interactions
  - Weight gain
- Cervical Cancer
- Contraception
- Reproductive potential/goals
- Menopause
- Childcare
- Comorbid conditions
  - Osteoporosis/osteopenia, ASCVD risk

Credit Dr. Hillary Liss

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Barriers in the HIV Care Continuum for WWH

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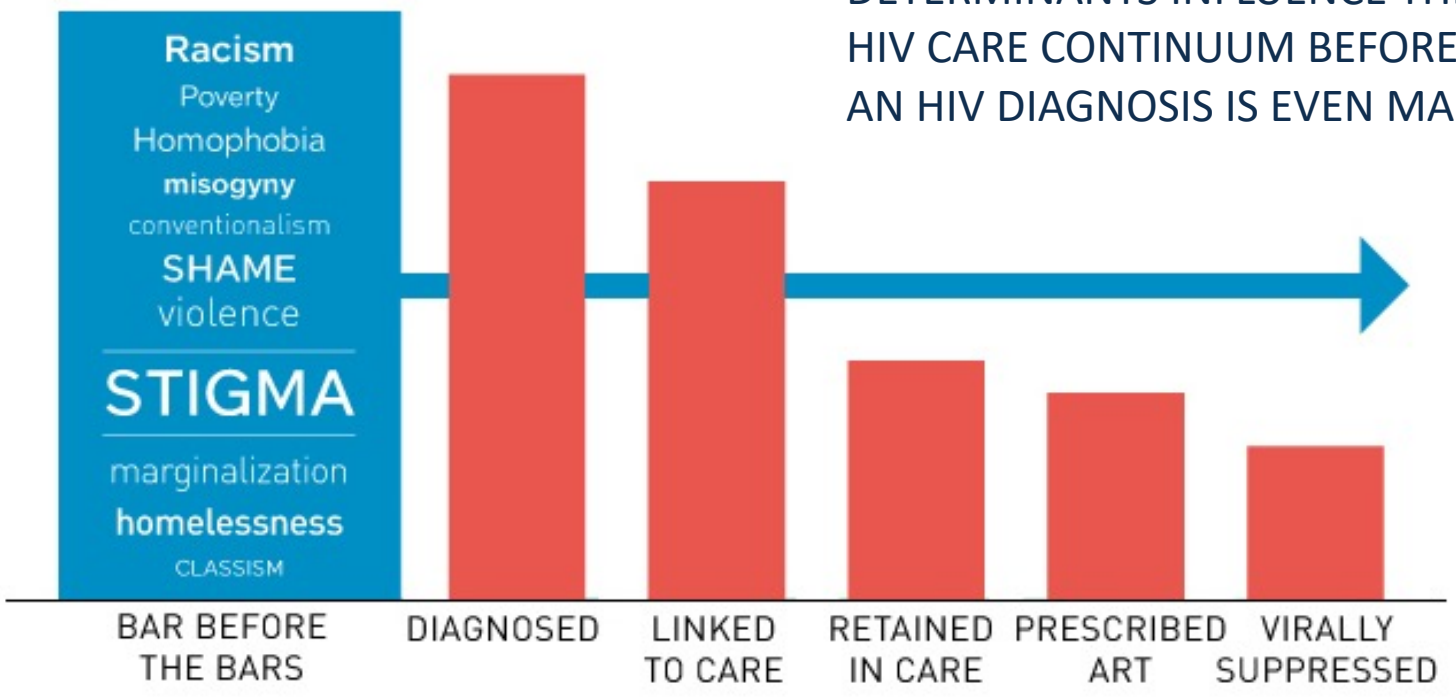
“The Bar Before The Bars”

STIGMA AND OTHER SOCIAL DETERMINANTS INFLUENCE THE HIV CARE CONTINUUM BEFORE AN HIV DIAGNOSIS IS EVEN MADE



https://www.nastad.org/domestic/hiv-prevention-health-equity

Credit Dr. Hillary Liss

May et al. AIDS Care, 2020

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Barriers

- WWH reported higher HIV **stigma** score (31/100) than all PWH (28/100)[1]
- 21% of WWH reported symptoms of **depression/anxiety** as compared to 19% of all PWH[1]
- 19.4% used **injection or noninjection drugs**, and 9.9% reported binge drinking[2]
- 61.1% in a household living **at or below poverty level**[2]
- 8.3% were **homeless** at any time in the past 12 months[2]

1 CDC. Medical Monitoring Project, 2020.
2 O'Shea et al. AIDS, 2023.

Barriers to Engagement in Care

Survey of 700 women across US:

- Feeling that culture, ethnicity or language affected care
- Desire for additional support
- Reproductive, childbearing, and caregiver issues
  - 48% of those desiring pregnancy or who had been pregnant had never been asked about reproductive desire by provider
  - 57% had not discussed treatment options pre-pregnancy
- Perceived gender issues
  - 55% of women had never discussed possible gender-based differences in treatment response with practitioners

Squires et al. AIDS Patient Care STDS, 2011.

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Barriers to Engagement in Care

- Limited transportation to medical care
- Housing instability
  - Unsafe settings, lack of privacy, difficulties storing ART
- Poverty and Unemployment
  - Absence of sick time/flexible work schedule
  - Difficulties navigating insurance
  - Competing financial health priorities (for family)

Park et al. AIDS and Behavior, 2020

Barriers to Engagement in Care

Table 2. Emergent themes for barriers and facilitators for HIV care and treatment among black women, 2005–2016.

Barriers to care	Facilitators for care
• HIV-related stigma among family and friends	• High resilience
• HIV-related stigma among healthcare providers	• Comprehensive and integrated services – including Spirituality components for enhancement of care
• Poor quality of HIV care services, including confidentiality concerns, difficulty in getting an appointment, excessive waiting for healthcare provider	• Positive relationships between case management and supportive services
• Inadequate social support	• Social support from family and friends
• Unmet needs beyond HIV treatment and care including, limited financial resources, lack of childcare, housing, and reliable transportation	• High racial consciousness in the context of perceived racism
• Relationship turbulence, and prioritization of caring for others over their personal care	• Addressing symptoms of depression
• Substance use	

- Systematic literature review focused on contextual factors that facilitate or limit access to HIV treatment and care among black women
- Common themes for barriers and facilitators for HIV care

Geter et al. AIDS Care, 2017

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Substance Use (SU)

- Description of SU and SU treatment utilization among WIHS cohort participants both with and without HIV
- HIV serostatus not significantly associated with current SU
- Among 1802 WWH:
  - 12.8% reported current SU
  - Current SU a/w viral nonsuppression (OR 2.25 [95% CI, 1.32-3.84])
  - Lower odds of SU treatment utilization (versus women without HIV)
    - Did not reach statistical significance

Fujita et al. OFID, 2023

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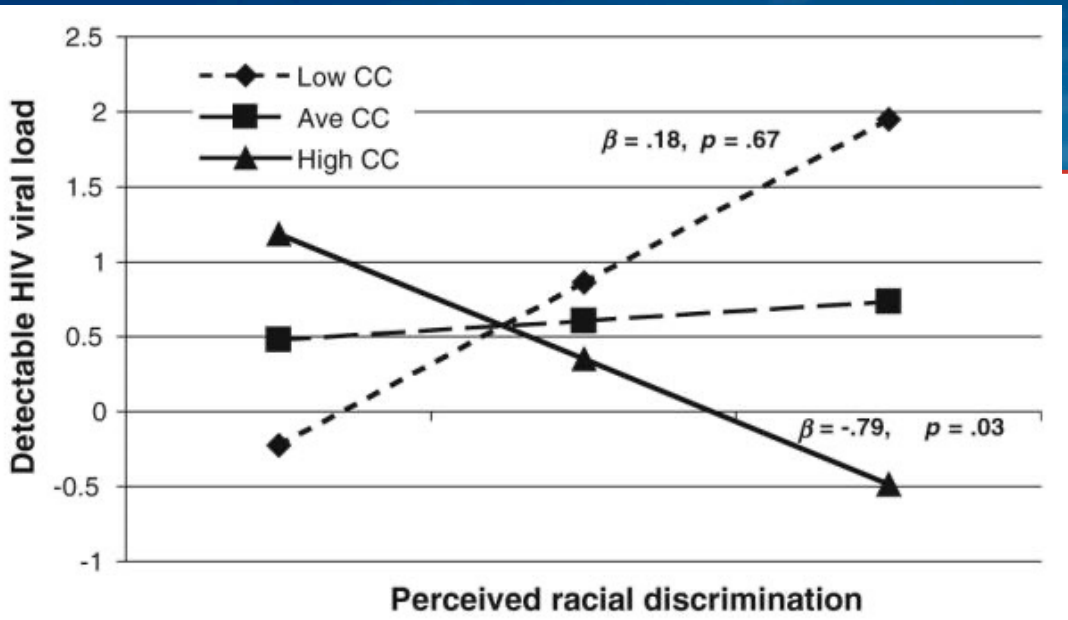
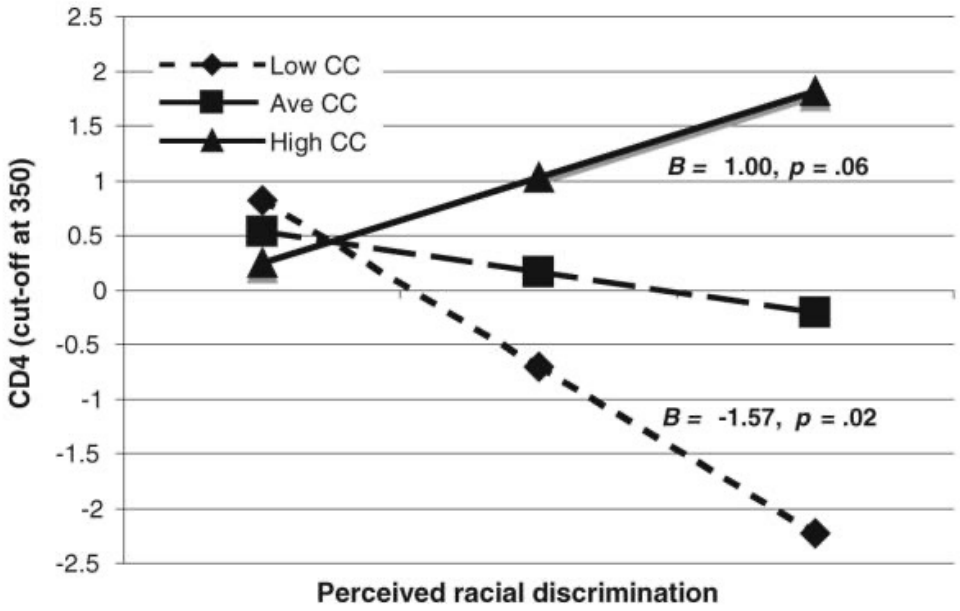
Racism

WIHS Study Participants (n=67), Chicago

- Measured HIV related data, PRD, PGD, and CC
- When perceiving high levels of racial discrimination, Black WWH with high CC had:
  - lower likelihood of detectable VL as compared to low CC
  - higher likelihood of CD4 counts >350
  - more likely to have significant CD4 increase from nadir





Kelso et al. AIDS Behav 2014.

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Intimate Partner Violence (IPV)

- 2015 meta analysis: WWH less likely to report current ART use, had worse self-reported adherence, less likely to achieve viral suppression[1]
- Cross-sectional survey of WWH[2]:
  - Assessed for IPV, mental health symptoms, and substance use
  - 51% reported IPV in the past year
  - In adjusted models, IPV associated with low CD4 (<200) but not viral suppression

1 Hatcher et al. AIDS, 2015
2 Anderson et al. AIDS Care, 2019

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Barriers to VS: Unstable Housing

- Longitudinal study (2008-2012), WWH with history of housing instability, San Francisco (n=120)
- Only 40% of women with history of housing instability achieved viral suppression at all time points
- Odds of unsuppressed HIV viral load increased by:
  - 11% for every 10 nights sleeping on street
  - 16% for every 10 nights spent sleeping in a shelter
  - 4% for every 10 nights in an SRO

Riley et al. AIDS Behav 2020.

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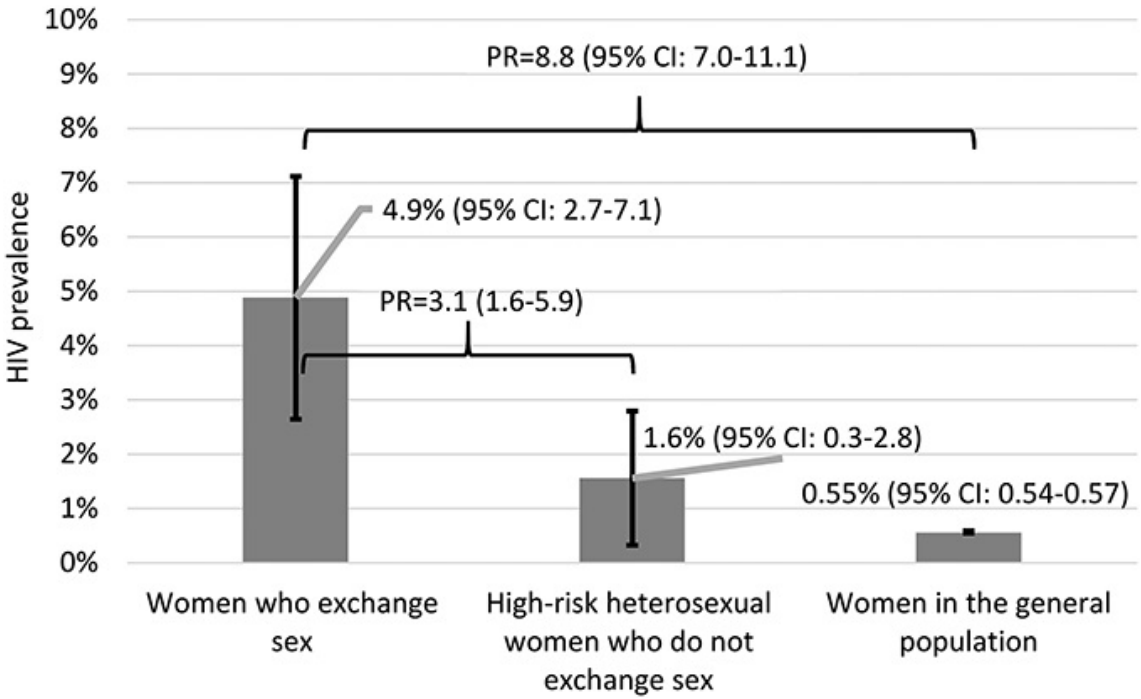
Exchange sex

- Structural:
  - power dynamics with clients, illegality in US, stigma
- Socioeconomic:
  - unstable housing, lower education, poverty



Nerlander et al. JAIDS, 2020

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Strategies to Improve Engagement

Bundled Interventions

- Supports 12 demonstration sites to design, implement, and evaluate use of bundled interventions to improve HIV care/treatment for cis and transgender Black women.
- Interventions include:
  - Patient navigation, case management, peer engagement
  - Support and address barriers to access to care (transportation, food, housing, employment, mental health)
  - Stigma reduction interventions
  - Trauma-informed care
  - Health literacy, resiliency
  - Interventions to address IPV, sexual violence, behavioral health

Bundled Interventions

- Chicago: AIDS Foundation Chicago's Women Evolving
  - Collaboration to streamline access to care, retention, and adherence
- New Orleans: Institute of Women & Ethnic Studies
  - Care and Treatment Services: adapt and evaluate patient and peer navigation interventions
- Atlanta: Grady Health
  - Enhanced Peer Navigation
  - Smartphone mobile application to promote retention

https://www.hiv.gov/blog/demonstration-projects-focus-improving-hiv-care-and-treatment-coordination-black-women

Women-Centred HIV Care Model (Canada)

Knowledge-to-Action framework:

- Formative phase (literature review, focus groups)
- Quantitative analysis of data (CHIWOS questionnaire)
- Brainstorming model
- Stakeholder feedback
- Care model revision/finalization

Loutfy et al. JIAPAC, 2021
www.chiwos.ca

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WCHC: Qualitative

Definition of WCHC:

"Care that supports women living with HIV to achieve the best health and wellbeing as defined by them. This type of care recognizes, respects, and addresses women's unique health and social concerns, and recognizes that they are connected. Because this care is driven by women's diverse experiences, it is flexible and takes different needs into consideration."

Loutfy et al. JIAPAC, 2021
www.chiwos.ca

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WCHC: Quantitative

- High retention in care (96%) and suppression (87%)
  - *Factors a/w non-suppression: younger age, indigenous, recently incarcerated, substances use, unstable housing, low income, having experienced racial discrimination.*
- 80% of women reported some sort of violence in adulthood (including physical, verbal, controlling, and sexual)
- 49% reported symptoms consistent with "probable depression”
- 95% had engaged in HIV care in the last year, 14% with Pap smear >3 years ago (or never)
- 60.8% of reported pregnancies were unintended

Loutfy et al. JIAPAC, 2021
www.chiwos.ca

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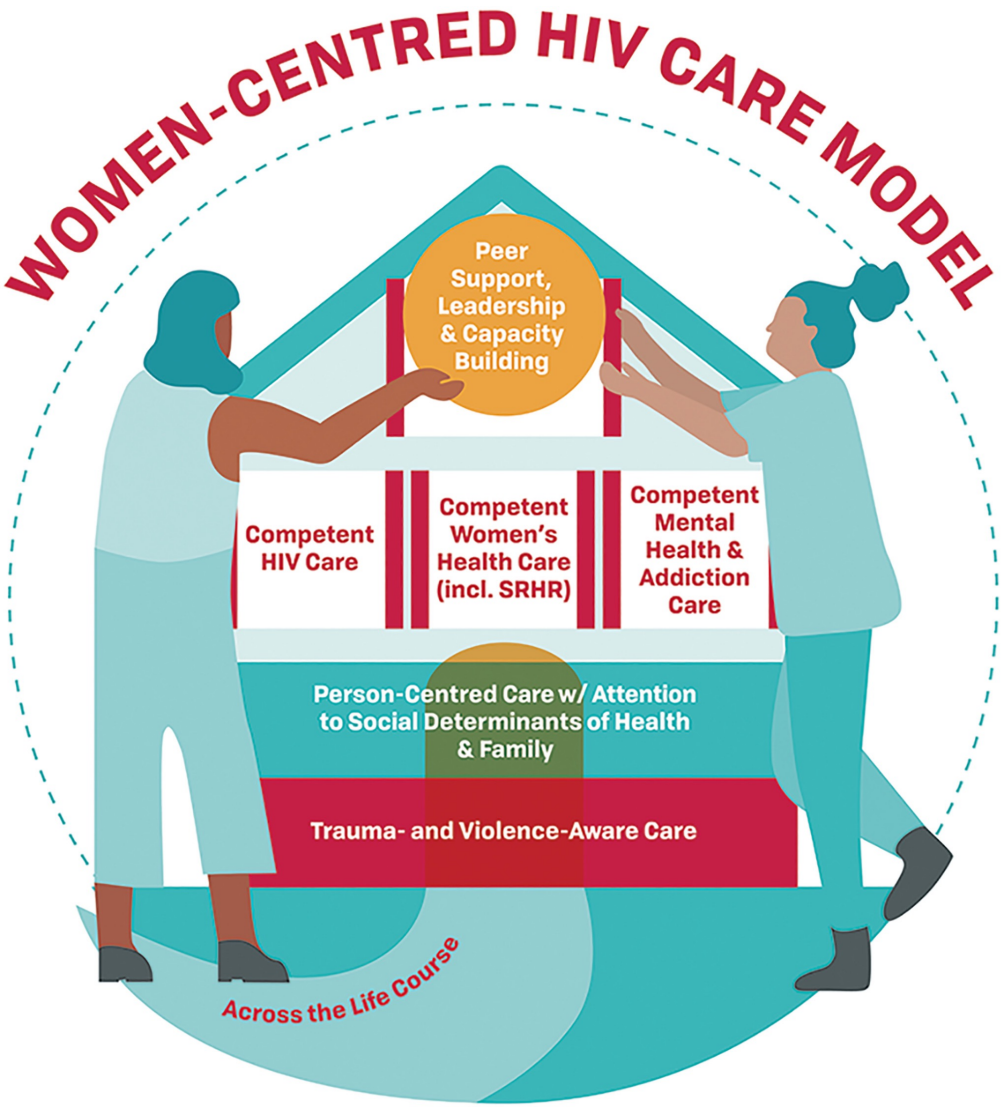
Women-Centred HIV Care Model (Canada)

- Designed to be flexible in various settings:
  - Care delivery by single provider, multiple providers, or multiple care clinics



Loutfy et al. JIAPAC, 2021

Spotlight: SHE (Safe. Healthy. Empowered)

- Low barrier care for women working and living on North Aurora Ave (Seattle)
- Founded 2018
- Co-located continuity clinic
- Special emphasis on HIV prevention

Credit Dr. Maggie Green

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Spotlight: SHE

Women of North Aurora

- Street-based survival sex work
- Unhoused
- Polysubstance use disorder
  - Opiates + methamphetamine
  - Less commonly alcohol
- Childhood trauma + ongoing trauma →complex trauma
- Intimate partner violence/abuse
- Most are mothers, separated from their children

Credit Dr. Maggie Green

Spotlight: SHE

2017 needs assessment:

- Most wanted full primary care
  - Contraception
  - Malignancy screening
  - SUD treatment
  - Vaccines
  - Mental health care
  - STI testing/treatment
  - HCV testing/treatment
  - HIV testing

Most had never heard of HIV PrEP

Slide credit Dr. Maggie Green

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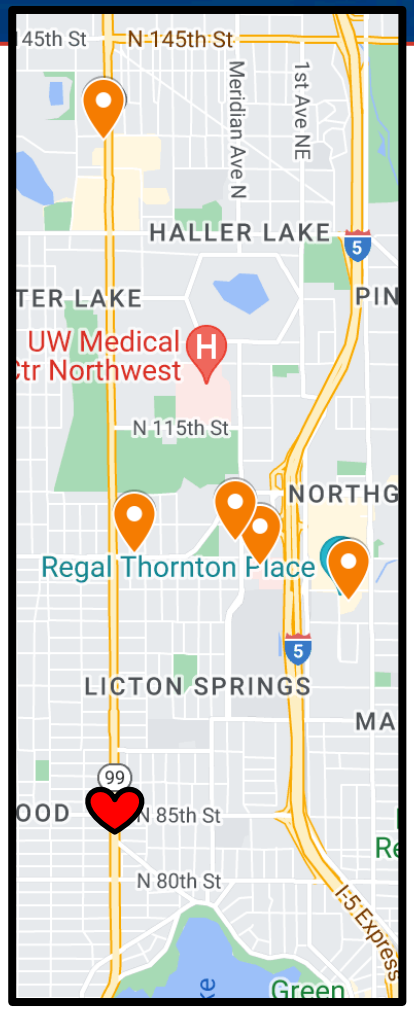
Spotlight: SHE



What makes healthcare accessible?

Table XXX. Top 3 most common themes for avoiding care among 76 women		
Barrier Themes	**Examples of Reasons Given by Participants**	**Frequency (172 reasons)**
Transportation Issues/Inconvenient Locations	*"No Transportation"* *"Location and Transportation"*	29 (17%)
Distrust and Poor Interactions with Doctors and Nurses	*"Fear of being treated poorly"* *"Don't like the way ER doctors treat me"* *"Hospitals/nurses are rude"* *"Lied to by doctors"*	24 (14%)
Drug Use	*"Chasing the drug because I was [dope] sick"* *"Drug use/addiction slows me down"* *"Fear of withdrawal"*	21 (12%)

Credit Dr. Maggie Green

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Spotlight: SHE

Low Barrier Care

- Walk-in access
- No ID required
- Staff on site will enroll patient in Medicaid
- Co-located with Aurora Commons, a welcoming space for our unhoused neighbors
- Focus on harm reduction and trauma-informed care
- Lyft rides and financial incentives (Aurora Commons)

Credit Dr. Maggie Green

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Spotlight: SHE

- Services offered:
  - Integrated treatment
  - OUD treatment options, naloxone, clean kits
  - Motivational interviewing for behavioral change
  - STI, HCV, HIV testing, treatment, and prevention
  - Basic mental health care
  - Wound care, foot care
  - Contraceptive and reproductive services
  - Immunizations
  - Companionship, snacks, makeup

Credit Dr. Maggie Green

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Spotlight: SHE

Morbidity and Mortality Weekly Report

Outbreak of Human Immunodeficiency Virus Infection Among Heterosexual Persons Who Are Living Homeless and Inject Drugs — Seattle, Washington, 2018

Matthew R. Golden, MD[1,2]; Richard Lechtenberg, MPH[1]; Sara N. Glick, PhD[1,2]; Julie Dombrowski, MD[1,2]; Jeff Duchin, MD[1,2]; Jennifer R. Reuer, MPH[3]; Shireesha Dhanireddy, MD[2]; Santiago Neme, MD[2]; Susan E. Buskin, PhD[1]

TABLE 2. Demographic and behavioral characteristics of 23 persons living homeless who inject drugs and their sex partners and molecularly linked cases in a cluster of human immunodeficiency virus (HIV) transmission — Seattle, Washington, 2008–2018

Characteristic	No. (%) 2018 cases (n = 14)	No. (%) All cases (n = 23)
Median age (range) (yrs)	**39 (22–61)**	**39 (21–65)**
Race/Ethnicity		
White, non-Hispanic	11 (78)	17 (74)
Black, non-Hispanic	2 (14)	2 (9)
Latino	0 (—)	2 (9)
Multiracial	1 (7)	2 (9)
Gender		
Female	11 (79)	16 (70)
Male	3 (21)	7 (30)
HIV risk factor		
Injection drug use	12 (86)	16 (70)
Heterosexual	1 (7)	3 (13)
No identified risk	1 (7)	3 (13)
Drug use		
Heroin and methamphetamine	10 (71)	12 (52)
Heroin without methamphetamine	0 (—)	1 (4)
Methamphetamine without heroin	2 (14)	2 (8)
None	1 (7)	3 (13)
Injection drug use of unknown drug	1 (7)	3 (13)
Unknown	0 (—)	2 (9)
Women who exchange sex*	**9 (82)**	**10 (73)**

* Includes data from all 11 women with diagnoses in 2018 and 14 of 16 women in the entire cluster.

- Cluster of 14 new HIV diagnoses
- 9/11 women reporting exchange sex
- Larger trend of increasing new HIV diagnosis among heterosexual PWID

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Spotlight: SHE

Table 1:

Demographic characteristics, housing, HIV/STI risk behaviors and STI test positivity among 50 female patients in the SHE Clinic, 2018

Characteristics	Percent Asked About Characteristic or Tested (n)	% Positive (n)
Average age (IQR)	37 (34, 40)	
Racial identity	98.0 (49)	
White		69.4 (34)
Black		22.5 (11)
Native American/Alaskan		2.0 (1)
Asian		0
Other		6.1 (3)
Unstable housing	94.0 (47)	95.7 (45)
Injection drug use	90.0 (45)	80.0 (36)
Transactional sex	90.0 (45)	68.9 (31)
Pregnancy	78.0 (39)	10.3 (4)
Trichomoniasis	46.0 (23)	47.8 (11)
Chlamydia	56.0 (28)	17.9 (5)
Gonorrhea	54.0 (27)	18.5 (5)
Syphilis	26.0 (13)	0
HIV	84.0 (42)	8.5 (4)
HCV	76.0 (38)	39.5 (15)

- 69% reporting transactional sex work
- 12% tested positive for bacterial STI or trichomonas
- 10% (four women out of 42 tested) HIV positive

"...collaborative and novel approach to provide care to a socially marginalized population of women in the midst of an HIV, STI, homelessness, and substance use syndemic."

Stewart et al. STD, 2020

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Conclusions

- Ongoing gaps in the care continuum for women with HIV
- Need to address unique factors and barriers for women
- Shared decision making, integrated care, low barrier care, stakeholder involvement, and addressing social determinants of health may inform most successful interventions

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Acknowledgements

- Dr. Hillary Liss
- SHE Clinic Team/Aurora Commons
  - Dr. Maggie Green
  - Dr. Shireesha Dhanireddy

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Acknowledgment

This Mountain West AIDS Education and Training (MWAETC) program is supported by the Health Resources and Services Administration (HRSA) of the U.S. Department of Health and Human Services (HHS) as part of an award totaling $2,886,754 with 0% financed with non-governmental sources.

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