

2015 Annual Report

POWER
PROMOTING OUR WORTH EQUALITY AND RESILIENCE
POWER



CENTER FOR BLACK EQUITY
Improving the Lives of Black LGBT People Globally

PITT
iiii PUBLIC HEALTH

POWER Investigators

- Ron Stall, University of Pittsburgh
- Lisa Eaton, University of Connecticut
- Patrick Wilson, Columbia University
- Derrick Matthews, University of Pittsburgh
- Earl Fowlkes, Center for Black Equity
- Henry Raymond, SFDPH

Epidemiological Background: CDC Surveillance in 2010

- 69% of people living with HIV in the US are MSM
- 47,500 Americans were infected with HIV in 2010, 78% (38,000) of these new infections occurred among MSM
- 10,600 new infections in 2010 occurred among BMSM
- 22% of the entire burden of new cases in the US in 2010 occurred among BMSM
 - A disproportionate number of these cases occurred among very young men (38% aged 13-24 among all Black males)

HIV Risk among BMSM

- HIV prevalence and incidence among BMSM are higher than for any other other group of US citizens
- But traditional HIV risk-taking behaviors are lower than found among most other MSM communities.
- If “risk behaviors” don’t explain new HIV infections, then what does?
- **And if we don’t understand what is driving new infections among BMSM, how do we prevent them?**

Samuel, et al., 1987, JAMA

Prevalence of Human Immunodeficiency Virus Infection in Ethnic Minority Homosexual/Bisexual Men

To the Editor.—Recently, ethnic minorities, particularly blacks, have been reported to be disproportionately represented among the total of US cases of acquired immunodeficiency syndrome.^{1,2} However, to date, no human immunodeficiency virus (HIV) seroprevalence data have been reported

elevated HIV seroprevalence among blacks, the distributions of three established risk factors for transmission of HIV infection were examined in black and white study subjects.³

Table 2 shows that the proportions of HIV-infected blacks and whites engaging in needle sharing, multiple sexual partners, and frequent receptive anal/genital contact with ejaculation before entry into the study were not significantly different. In fact, for two of these high-risk behaviors—needle sharing during the five years before entry and

“established risk factors for HIV infection...do not explain the differences in HIV seroprevalence or seroconversion rates between blacks and whites.”

sample for prospective study of the epidemiology and natural history of acquired immunodeficiency syndrome and HIV infection (the San Francisco Men's Health Study).³ Of the study cohort, 800 classified themselves as homosexual/bisexual; of these, 100 belong to ethnic minority groups.

Blacks also experienced a higher rate of HIV seroconversion than whites during 24 months of follow-up. Among the ten HIV-seronegative blacks who entered the study, two (20%) became infected, while among 359 seronegative whites, 23 (6.4%) ($P = .14$) were infected.

Table 1.—Prevalence of Human Immunodeficiency Virus Infection According to Ethnicity, San Francisco Men's Health Study, July to December 1984

Ethnic Group	No. of Subjects	No. (%) Infected
White (non-Hispanic)	700	341 (48.7)
White (Hispanic)	44	22 (50.0)
Black (non-Hispanic)	29	19 (65.5)
Asiatic	11	3 (27.3)
Other*	16	6 (37.5)
Total	800	391 (48.9)

*Three blacks (Hispanic), two Native Americans, and 11 entered as “other.”

Table 2.—Percentage of Black and White Study Subjects Practicing High-Risk Behaviors Before Entering the San Francisco Men's Health Study

High-Risk Behavior	Blacks, No. (%)	Whites, No. (%)	Probability*
Sharing needles (previous 5 y)	1 (3.4)	58 (8.3)	.30
2+ receptive anal/genital contacts (previous 6 mo)	19 (65.5)	401 (57.3)	.25
10+ sexual partners (previous 2 y)	15 (51.7)	458 (65.4)	.10

*Fisher's exact test.

Greg Millett's Answer to this Puzzle

- Delayed HIV testing
- Unknown HIV status
- Lower rates of uptake of HAART among diagnosed HIV positive BMSM
- Higher background rates of STIs



POWER Aims

1. Measure the rates of HIV testing and identify the factors associated with testing among BMSM
2. Describe unknown HIV positive BMSM and identify the factors associated with an unknown positive status
3. Measure access to care among HIV+ BMSM

To what extent can we use existing data sets to address these aims?

Not very well:

- Traditional sampling methods yield small samples of BMSM:
 - National sample, US (3922 men, 11 BMSM)
 - Urban gay men (2881 MSM, 144 BMSM)
 - Internet sample (609 MSM, 104 BMSM)

Treatment Cascade Studies Require Large Numbers of BMSM

- Millett, et al., 2011, *JAIDS*
 - 1154 BMSM from the *Brothers y Hermanos* study
 - Compared BMSM who did not know that they were HIV+ and HIV- BMSM
 - Although they detected significant differences between groups, they warned that results should be “...interpreted with caution” due to the small sample of HIV+ BMSM.

How will large samples allow us to address POWER's aims?

Aim 1: Measure the rates of HIV testing and identify the factors associated with testing among BSM	Total n = 6000
Expected rate of identifying as HIV- or unknown status	88% (n= 5280)
Expected rate among men who identify as HIV-/unknown status who were last tested >6 months ago	39% (n= 2323)
Expected rate of refusal of HIV testing among men who identify as HIV-/unknown status	14% (n= 845)
<u>Estimated rate of men who refuse HIV testing, who identify as HIV-/unknown and who were last tested > 6 months ago</u>	6% (n= 372)
Aim 2: Measure the rates of HIV testing and identify the factors associated with testing among BSM	
Expected rate of HIV seropositivity (self-identified and HIV+ unaware)	32% (n= 1920)
<u>Expected rate of being HIV positive unaware (entire sample)</u>	20% (n= 1200)
Expected rate of self-identification as HIV positive (entire sample)	12% (n= 720)
Aim 3: Measure access to care among HIV+ BSM	
<u>Expected rate of delayed entry into medical care among known HIV positives</u>	28% (n= 202)

**Traditional sampling methods
cannot be used to address
the hypotheses that Millett
proposed to explain
disparities in HIV/AIDS
epidemiology among BMSM**

So Why Don't We Sample BMSM Where They Already Gather?

**That is the core idea of POWER—to
survey BMSM at Black Pride Events**

Black Pride as a Social Movement

- The Black Pride movement began in 1990 as a single event in Washington, D.C.
- That one event grew to become a national Black Pride movement
 - Formally-organized events in 39 cities across the US
 - Provides a safe space for members of Black LGBT communities to celebrate the duality of being both Black and LGBT
- The Center for Black Equity estimates that in 2010 nearly 200,000 people attended Black Pride events across the US

Study Overview

- Collect data from ~6000 BMSM aged 18+ over the course of 3 years
- Meet men where they're at—Black Pride events
- Recruit at multiple and different prides and pride events to increase diversity
 - Small and large cities
 - Northern and southern cities
 - Club events and health fairs
 - Expensive events and free events
 - Male-focused events and mixed gender events

Study Overview

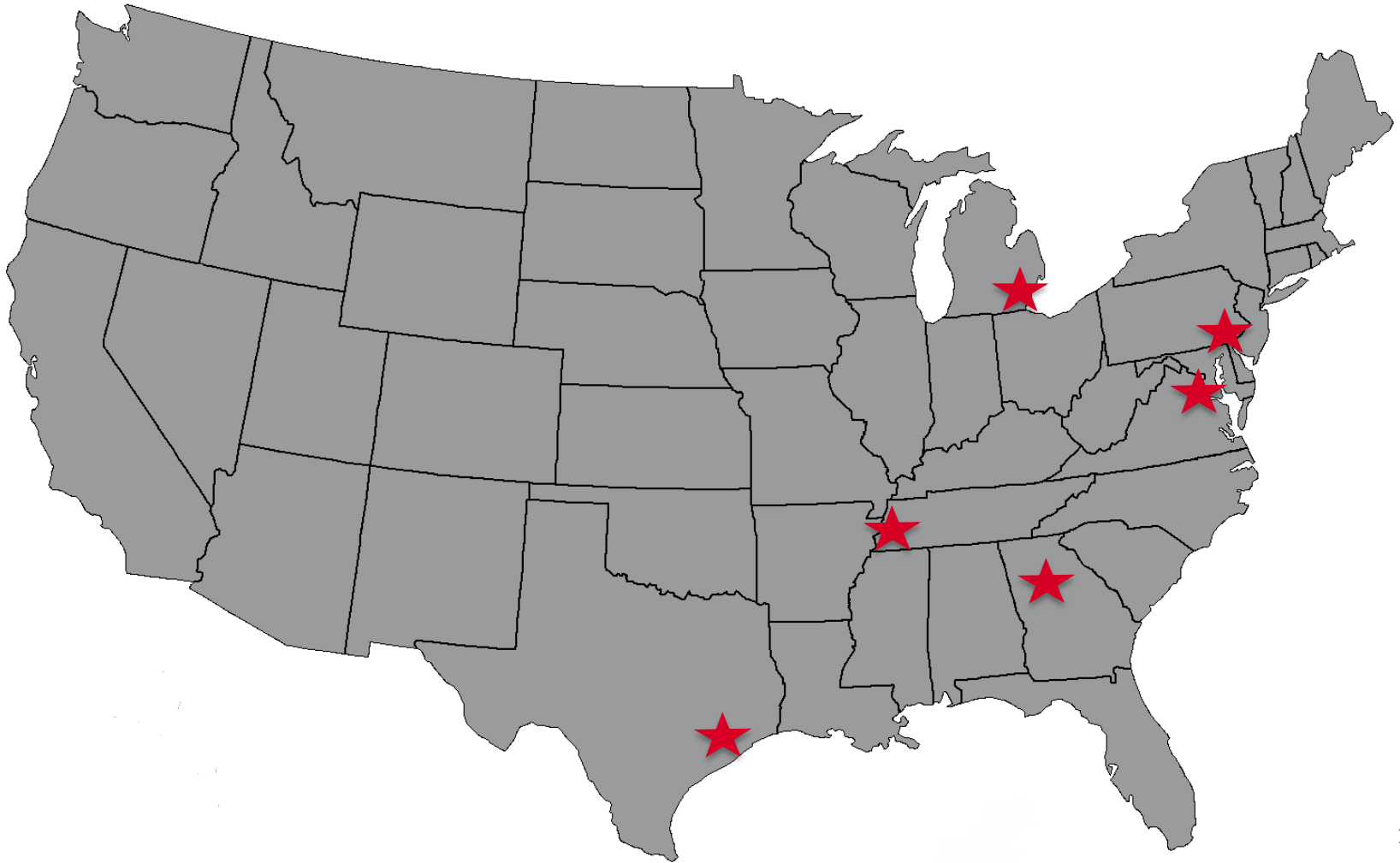
- Use a form of time/location sampling so that participants have to be selected in order to participate
- Participation is anonymous
- Collect behavioral data with a 20-30 minute survey on a tablet computer
 - Compensate \$10
- Offer HIV testing through local community based organizations and POWER
 - Compensate an additional \$10

Approach to Sampling

- Time/location sampling approach
- First order of randomization is to sample time slots and events that occur during a Black Pride weekend in a specific city
- Second order of randomization is the recruitment of men who attend specific time/event windows during a Black Pride weekend

Participant Selection

- 48 events in 6 cities



Time Location Sampling: Venues/Time Selection

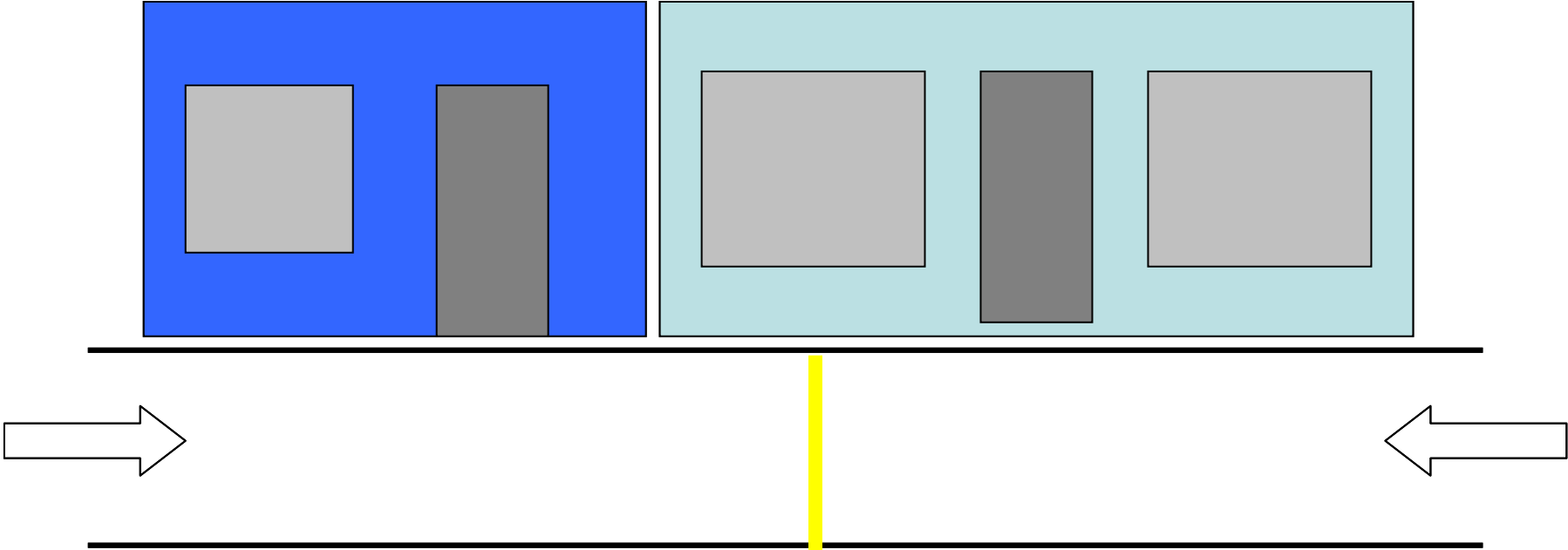
- From all possible Black Pride events in each city, we randomly select sampling venues/times in 2-hour blocks

Thursday April 23 rd	Friday April 24 th	Saturday April 25 th	Sunday April 26 th
<u>Club Aura</u> Attendance: 200 10 -2am	<u>Diary of a Legend:</u> <u>Mini Ball Deluxe</u> Attendance: 400+ 7pm-1am <u>Club Voyeur</u> Attendance: 400+ 11-3am	<u>Location TBA</u> Attendance: 400+ 10-4am	<u>Social Sunday:</u> <u>Day Mingle</u> Attendance : 200+ 5pm-9pm <u>Frank Bradleys</u> Attendance: 200+ 10-2am

Sampling Events for Philadelphia Black Pride: Recruitment Goal of 415 BMSM

Thursday April 23rd	Friday April 24th	Saturday April 25th	Sunday April 26th
<p><u>Club Aura</u> Attendance: 200 10 -2am Sampling: 10PM-12AM</p>	<p><u>Club Voyeur</u> Attendance: 400+ 11-3am Sampling: 11PM-1AM</p>	<p><u>Location TBA</u> Attendance: 400+ 10-4am Sampling: 10PM-2AM</p>	<p><u>Social Sunday: Day Mingle</u> Attendance : 200+ 5pm-9pm Sampling: 5PM- 7PM</p> <p><u>Frank Bradleys</u> Attendance: 200+ 10-2am Sampling: 10PM- 2AM</p>

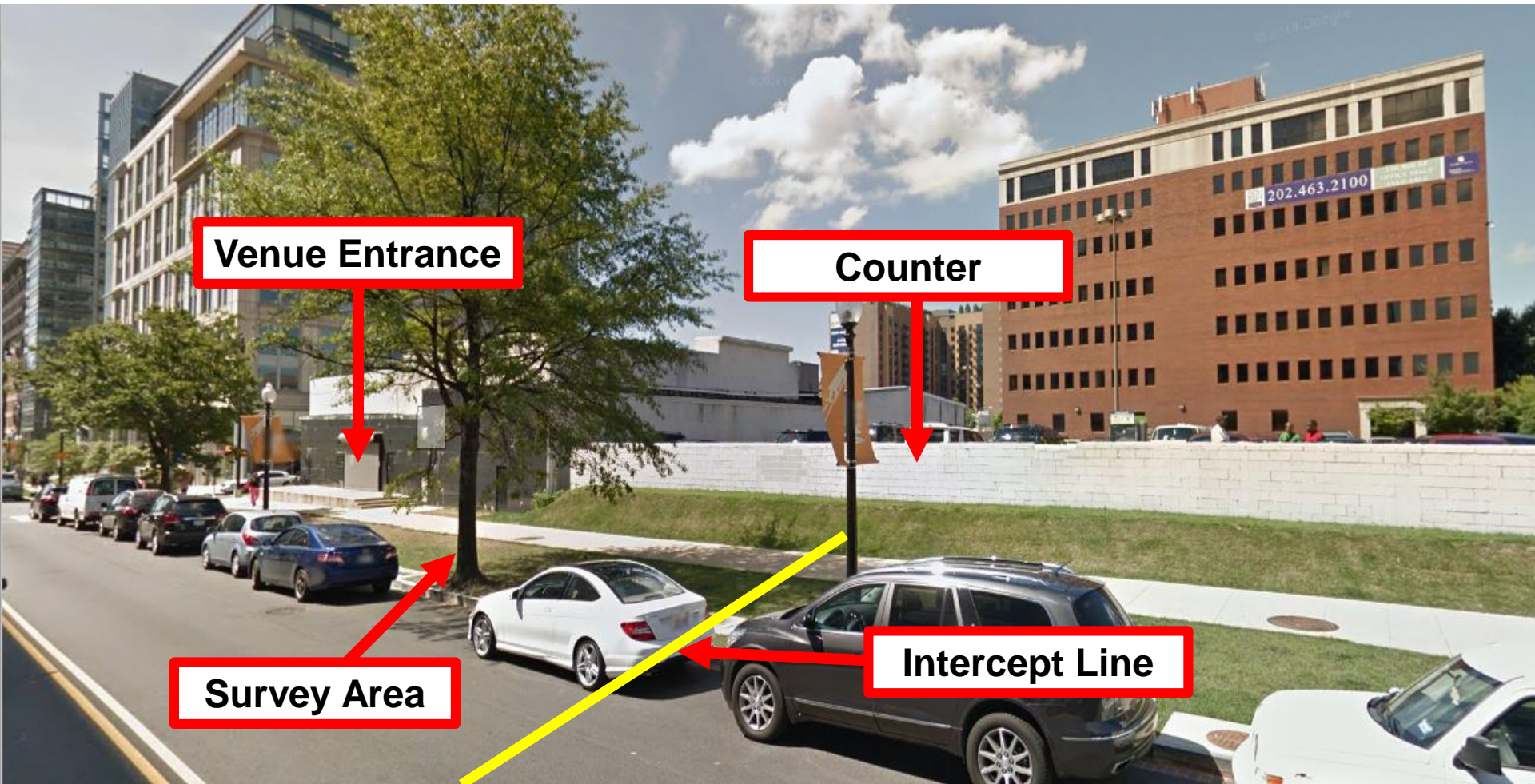
Time Location Sampling: Establishing Intercept Zone



Time Location Sampling: Participant Recruitment

- Principle: Count every person entering intercept zone; men counted should approximately be the men that could have been sampled
- Practice:
 - Enumerator counts every person entering intercept area
 - Recruiters consecutively approach enumerated persons
 - Recruiter introduces study, assesses interest, assesses eligibility, enrolls subject
 - When all recruiters and tablets are occupied, enumerator continues to count
 - When recruiter and tablets is again available, intercepts resume

Establishing Intercept Zone in a Real World Setting





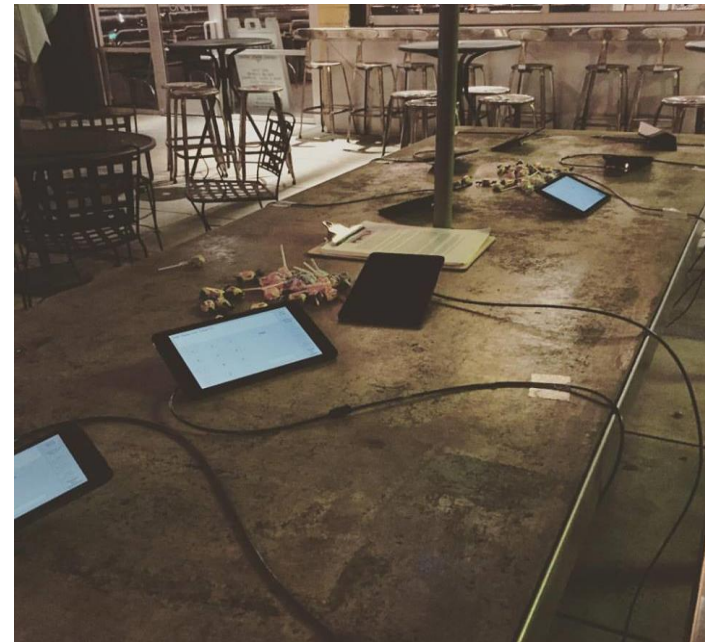
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Behavioral Health Survey

- Self administered using QDS software on Dell Venue Pro tablets
- ~20 minutes to complete
- Participants compensated \$10



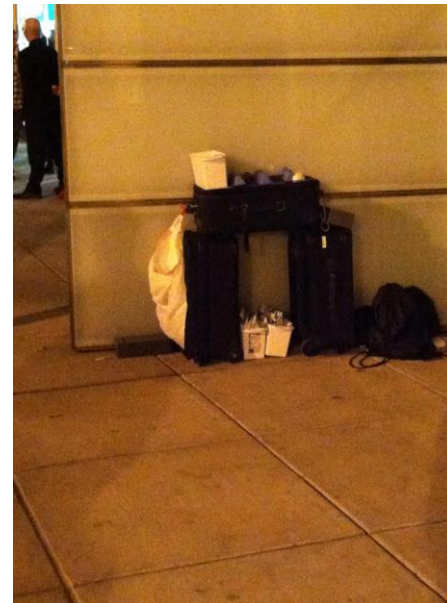
Confidential HIV Testing

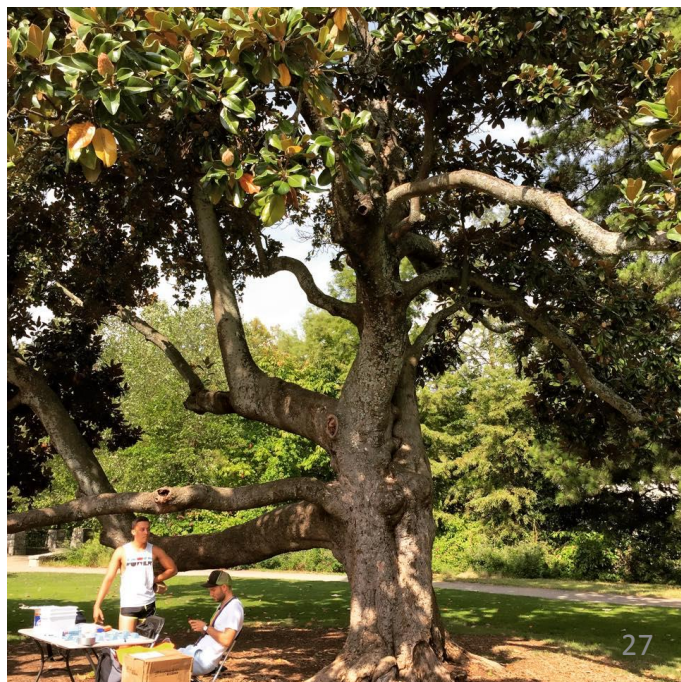
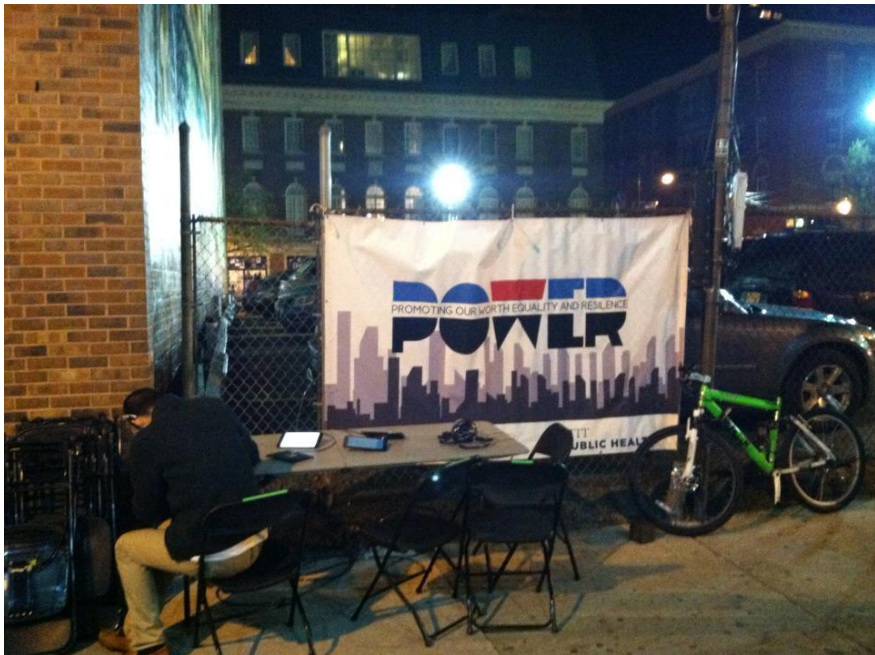
- Performed by local CBOs
- No changes were made to CBOs usual HIV testing procedures
- Participants received their test result and \$10



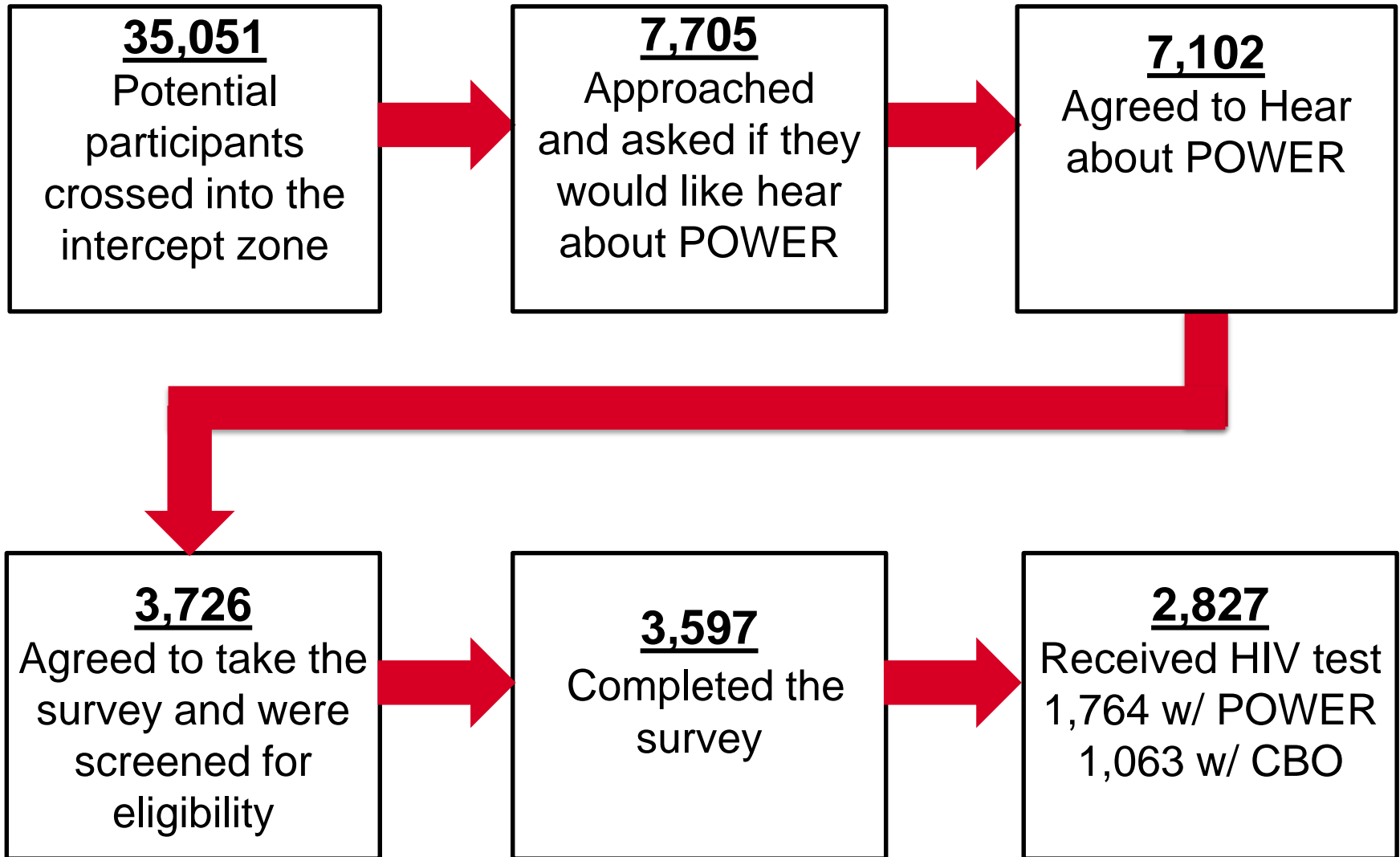
Anonymous HIV testing

- Performed by POWER using OraQuick mouth swab
- Participants did not receive their test result, but did receive \$10





Participant Selection 2014 & 2015







Besides HIV Risk Behaviors, what does POWER measure?

- **Multiple health conditions** to collect data on health in general
 - Syndemic variables
 - Substance use
 - Depression
 - Violence/victimization
 - Resiliencies
 - Social support
 - Community support
- Sample sizes will allow us to describe **understudied groups of BMSM:**
 - Rural men
 - Men who identify as heterosexual
 - Older men

Who Has Access to the Data?

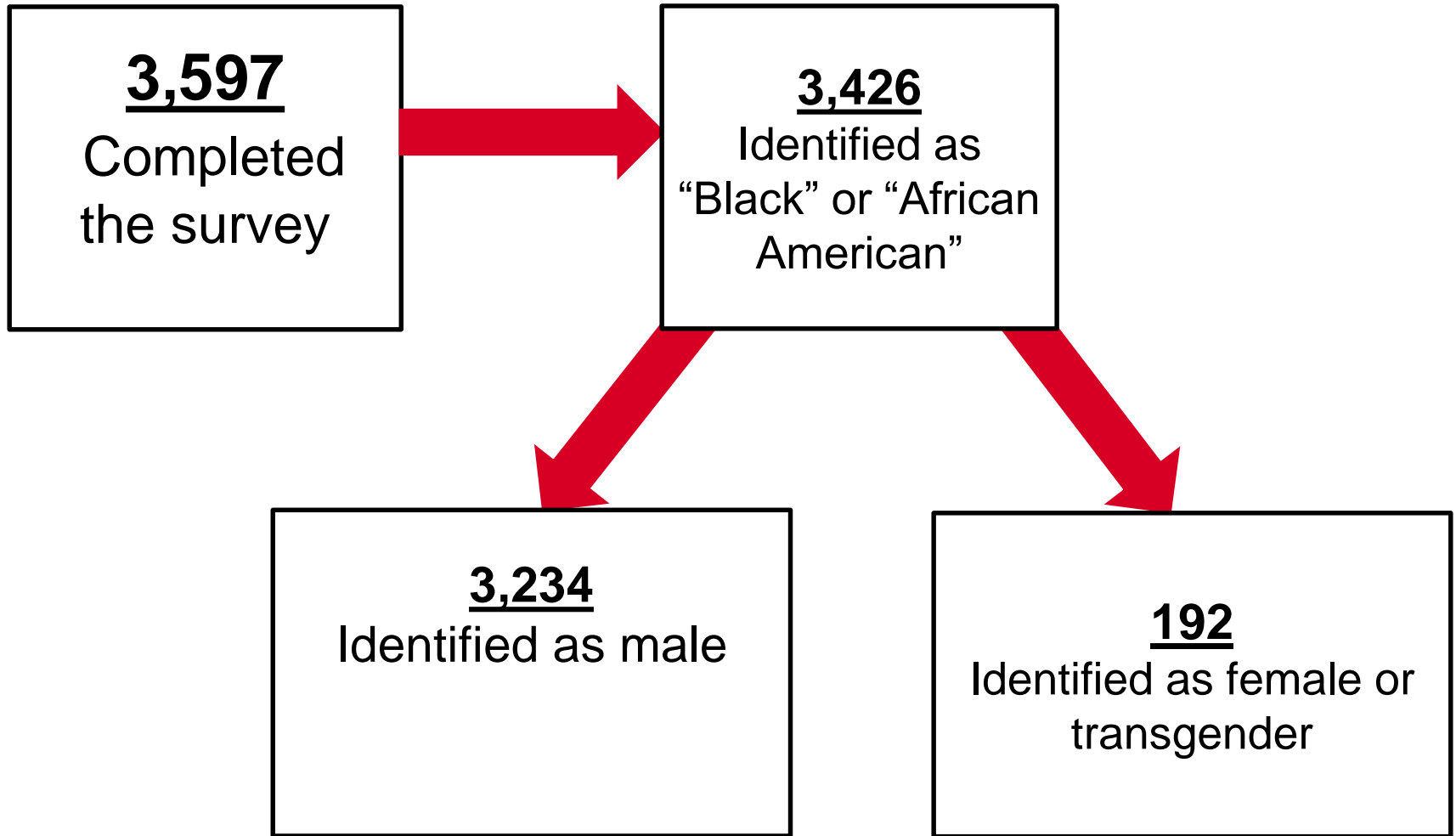
- We share national and local reports with partner CBOs each year
- CBOs can also contact us with questions regarding sub-analyses they would like to see (contact Leigh at lab108@pitt.edu)
- Findings have been and will continue to be published in peer reviewed journals.

Study Population

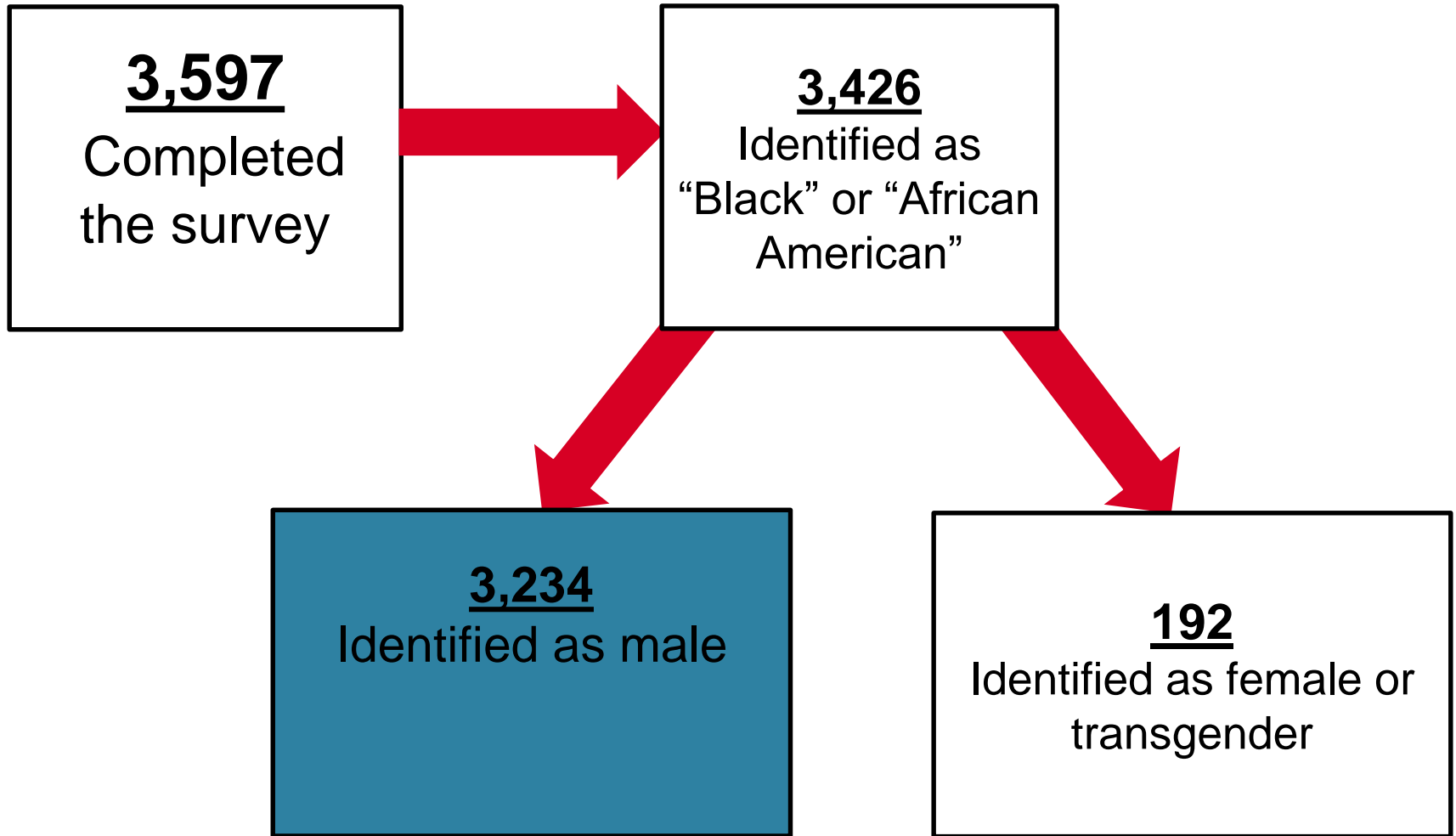
POWER eligibility criteria:

1. Assigned male sex at birth
2. Currently identify as male, female, transgender, or reported having transitioned from male to female
3. Reported having a male sexual partner in their lifetime
4. 18 years or older

Study Population(s)



Results: BMSM



Descriptive Statistics among BMSM

Descriptive Statistics: BMSM

Demographics

Age

31.2 (range: 18-87)

Income

\$0-, 9,999: 20%

\$10,000-29,999: 26%

\$30,000 - 49,999: 26%

\$50,000 - 69,999: 15%

\$70,000 - 89,999: 8%

\$90,000 and up: 5%

Education:

Less than high school: 7%

High school diploma: 19%

Some college: 37%

College diploma or more: 37%

Descriptive Statistics: BMSM

Demographics

Sexual self-identity

Gay: 80%

Heterosexual: 1%

Bisexual: 17%

Other: 2%

Ethnicity

African American: 91%

Caribbean American: 5%

African Immigrant: 1%

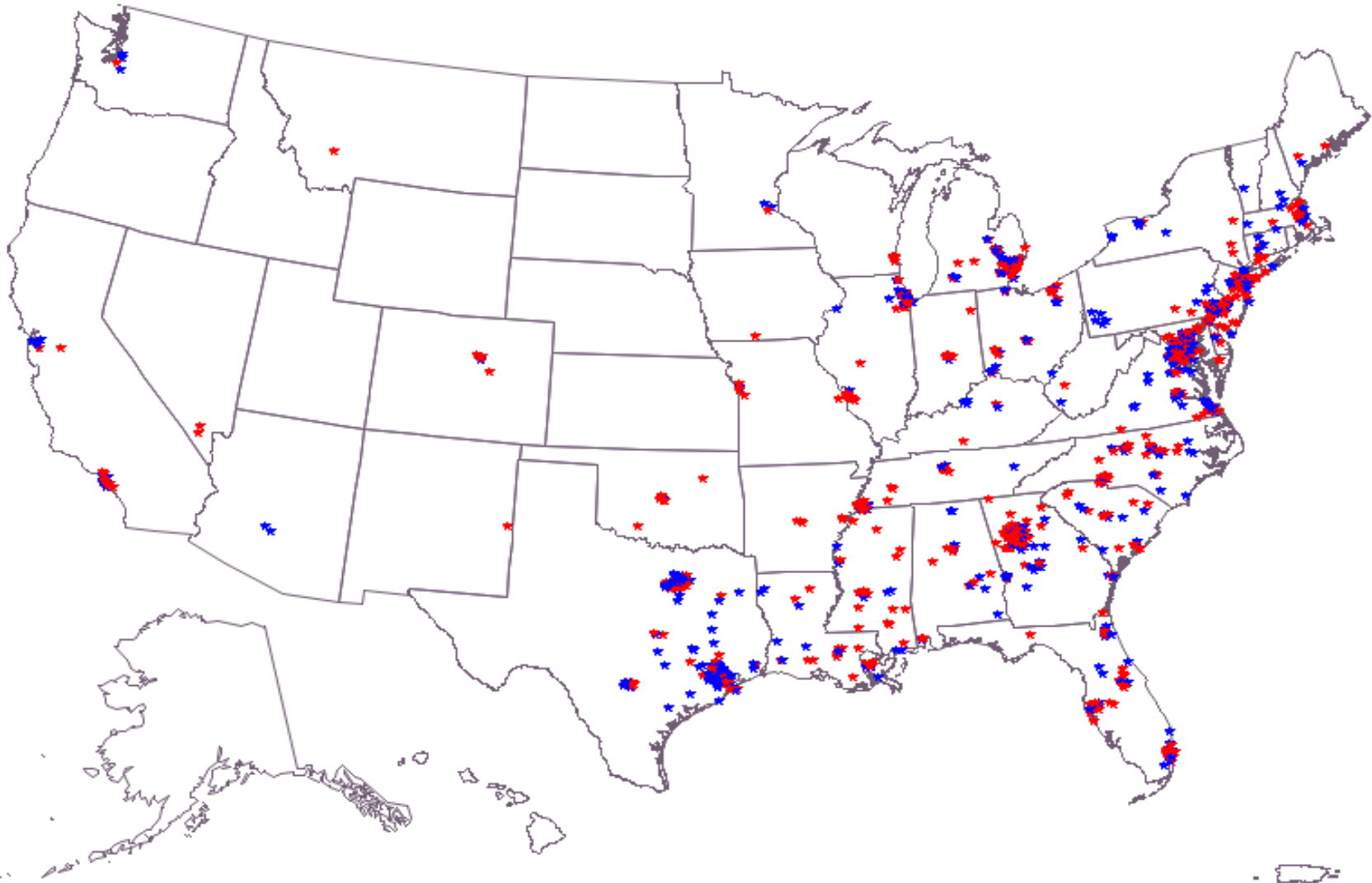
Other: 3%

Health care

Presence of coverage: 85%

Unable to access care: 20%

Where are BMSM from?



* 2014
* 2015

Descriptive Statistics : BMSM

Sexual Behavior

Sex w/ women

Lifetime: 48.5%

Past-year: 17.2%

75% of those who reported sex w/ a woman in the past-year reported condom use at last vaginal or anal sex

Descriptive Statistics : BMSM

Sexual Behavior

Sex w/ men

Past-year: 87.3%

Bottomed: 97.9%

Of those who bottomed, **56.8%** reported using a condom half the time or more when bottoming, and **63.3%** reported discussing HIV-status with a partner with whom they bottomed.

Topped: 96.7%

Of those who topped, 61.5% reported using a condom half the time or more when topping, and 65.0% reported discussing HIV-status with a partner with whom they topped.

Descriptive Statistics : BMSM

Psychosocial Outcomes

Depression: 23%

Violence/ Victimization

Childhood Sexual Abuse: 24%

Intimate Partner Violence: 17%

Physical Assault: 14%

Perceived Discrimination

Race: 17%

Sexuality: 18%

HIV status: 5%

Descriptive Statistics : BMSM

Psychosocial Outcomes

Substance Use

Marijuana: 25%

Nitrates: 8%

Crack: 6%

Cocaine: 4%

Heroin: 4%

Methamphetamines: 3%

Party drugs: 5%

Poly-substance use: 5%

Descriptive Statistics : BMSM

Psychosocial Outcomes

Alcohol

Alcohol consumption: 81%

Problematic alcohol consumption: 17%

Incarceration

Past two-years: 10%

Homelessness: 12%

Descriptive Statistics : BMSM

Resiliencies

Receive support from:

Family: 84%

Friends 89%

Church: 59%

Work: 75%

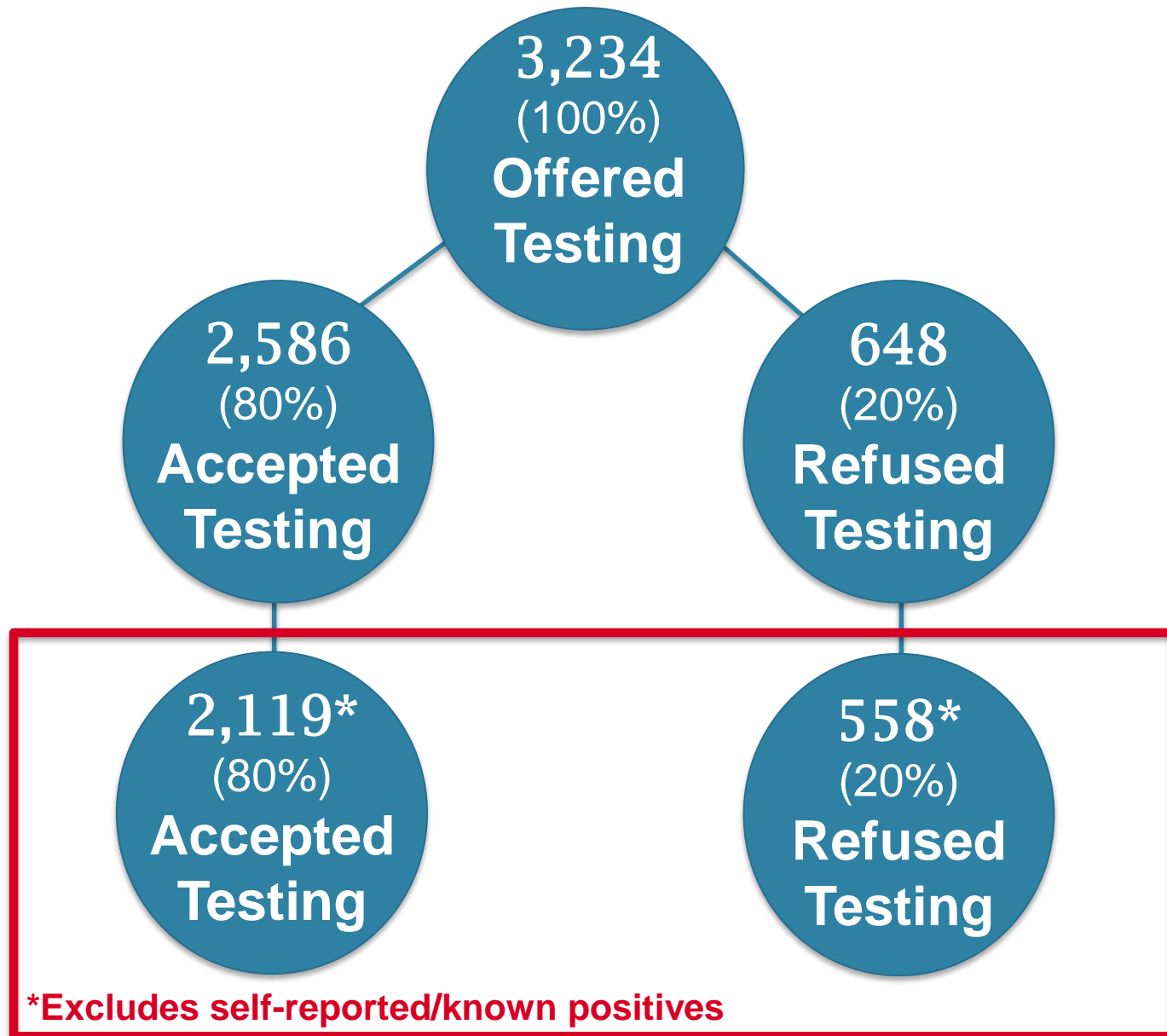
Gay community: 85%

Black community: 82%

People where I live are tolerant of gay and bisexual people: 72%

HIV Testing among BMSM

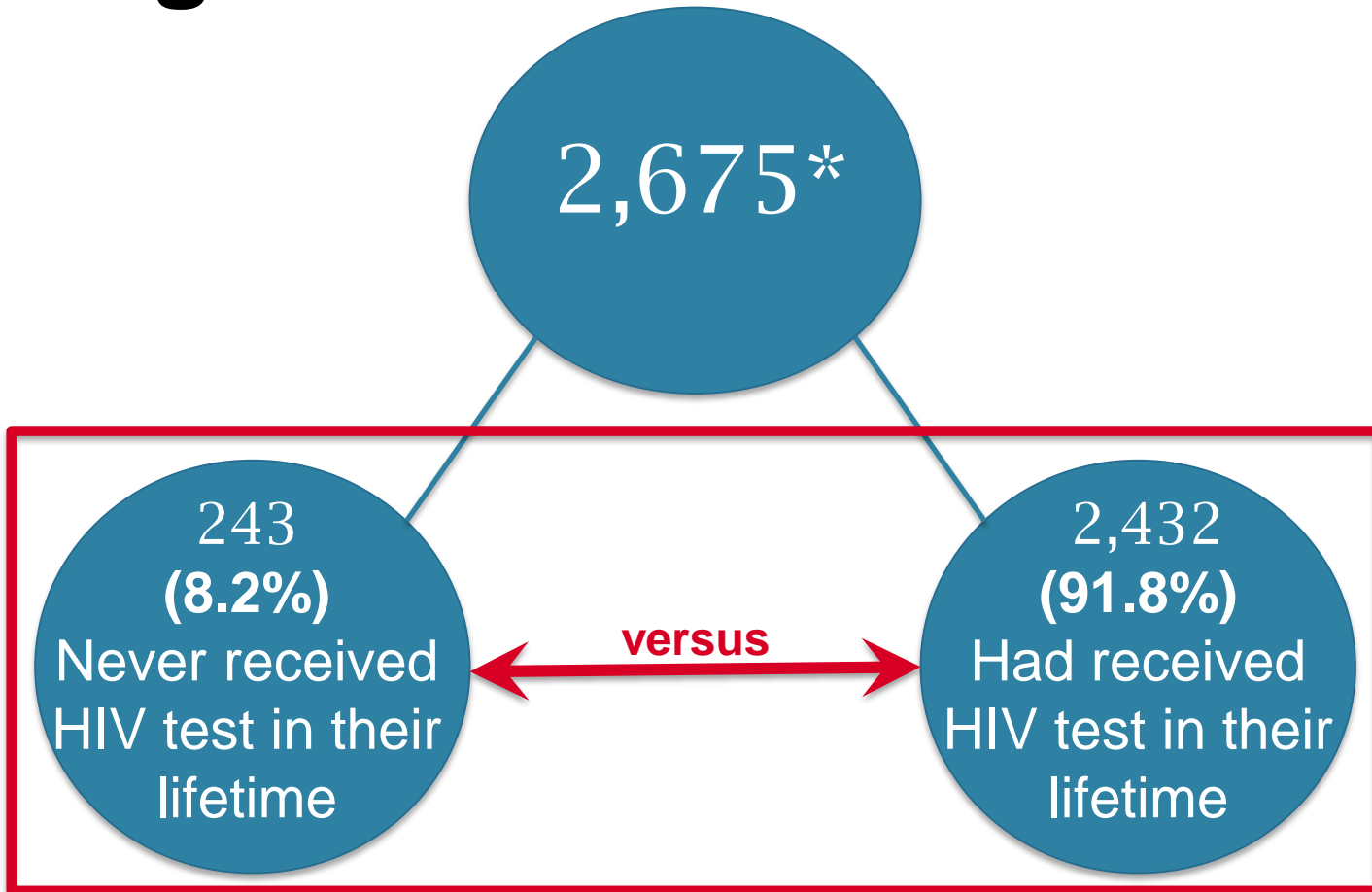
Rates of HIV Testing among BMSM



Research Question:

What factors are associated with having ever received an HIV test?

What factors are associated with having ever received an HIV test?



***Individuals who did not identify as HIV-positive**

What factors are associated with having ever received an HIV test?

Multivariable analysis were weighted according to time-location sampling and **adjusted for**:

- Sociodemographics
 - Age
 - Education
- City in which survey was completed
- Internalized homophobia
- Depressive symptomatology

What factors are associated with having ever received an HIV test?

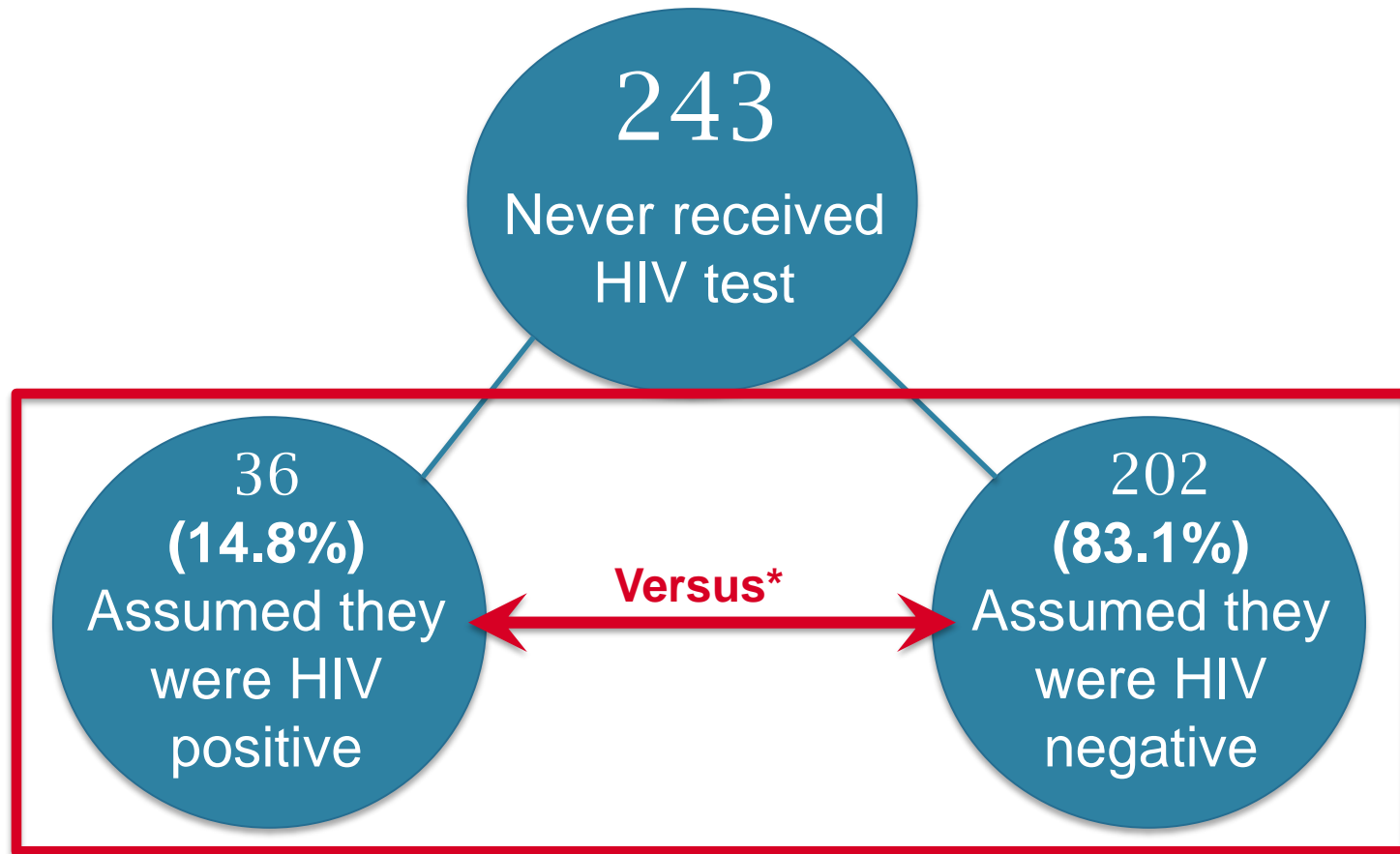
Among individuals who did not identify as HIV-positive:

- **Education** was associated with **increased odds** of having ever received an HIV test
 - AOR: 1.51; 95% CI: 1.33, 1.70
- **Internalized homophobia** was associated with **reduced odds** of having ever received an HIV test
 - AOR: 0.75, 95% CI: 0.63, 0.90

Research Question:

Among individuals who did not identify as HIV-positive and who had never received an HIV test, what factors are associated with an assumption of HIV-positive status?

What factors are associated with assumption of HIV-positive status



What factors are associated with assumption of HIV-positive status

Multivariable analysis were weighted according to time-location sampling **adjusted for:**

- Sociodemographics
 - Age
 - Education
- City in which survey was completed
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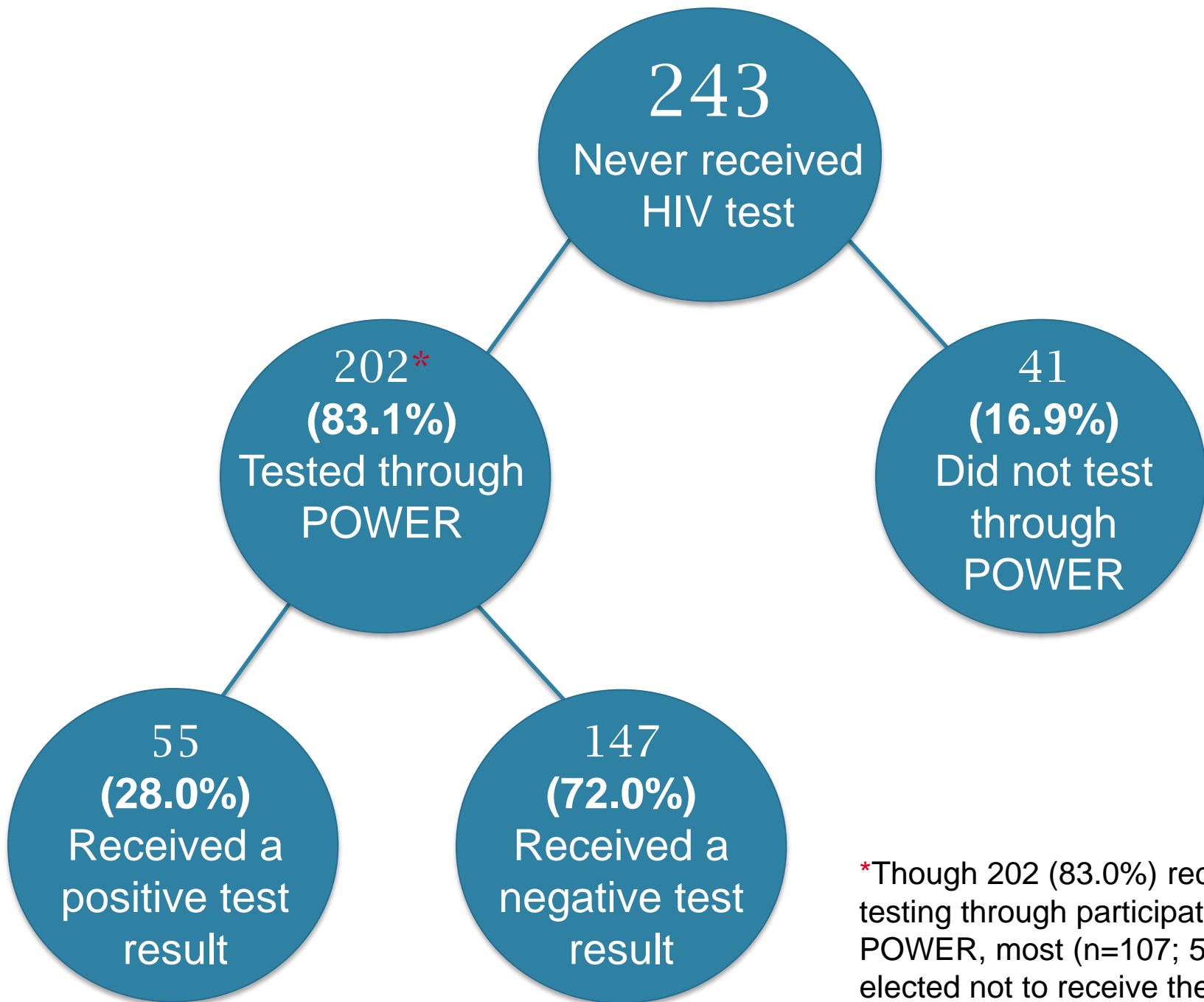
What factors are associated with assumption of HIV-positive status

Among those who **did not identify as HIV-positive** and who had **never received an HIV test**:

- Age was associated with an increased odds in assuming HIV-positive status
 - (AOR: 1.05, 95% CI: 1.01 – 1.09)
- Health insurance was associated with a decreased odds in assuming HIV-positive status
 - (AOR: 0.19, 95% CI: 0.07 – 0.52)

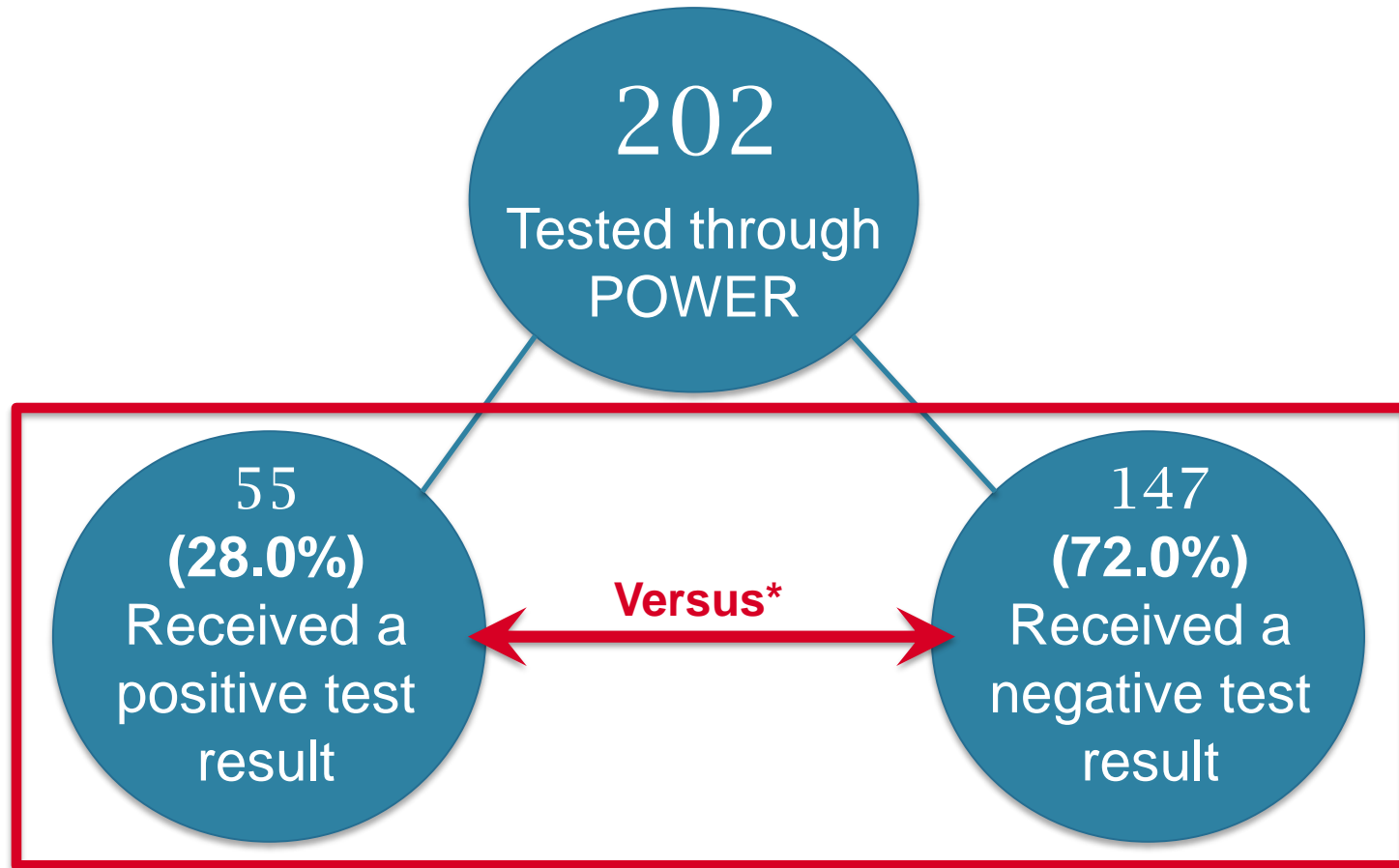
Research Question:

Among individuals who did not identify as HIV-positive, who had never received an HIV test, and who elected to receive an HIV test through the study, what factors are associated with an HIV-positive test result?



*Though 202 (83.0%) received HIV testing through participation in POWER, most (n=107; 53.0%) elected not to receive their result.

What factors are associated with an HIV-positive test result?



What factors are associated with HIV-positive test result?

Multivariable analysis were weighted according to time-location sampling **adjusted for**:

- Sociodemographics
 - Age
 - Education
- City in which survey was completed
- Internalized homophobia
- Depressive symptomatology

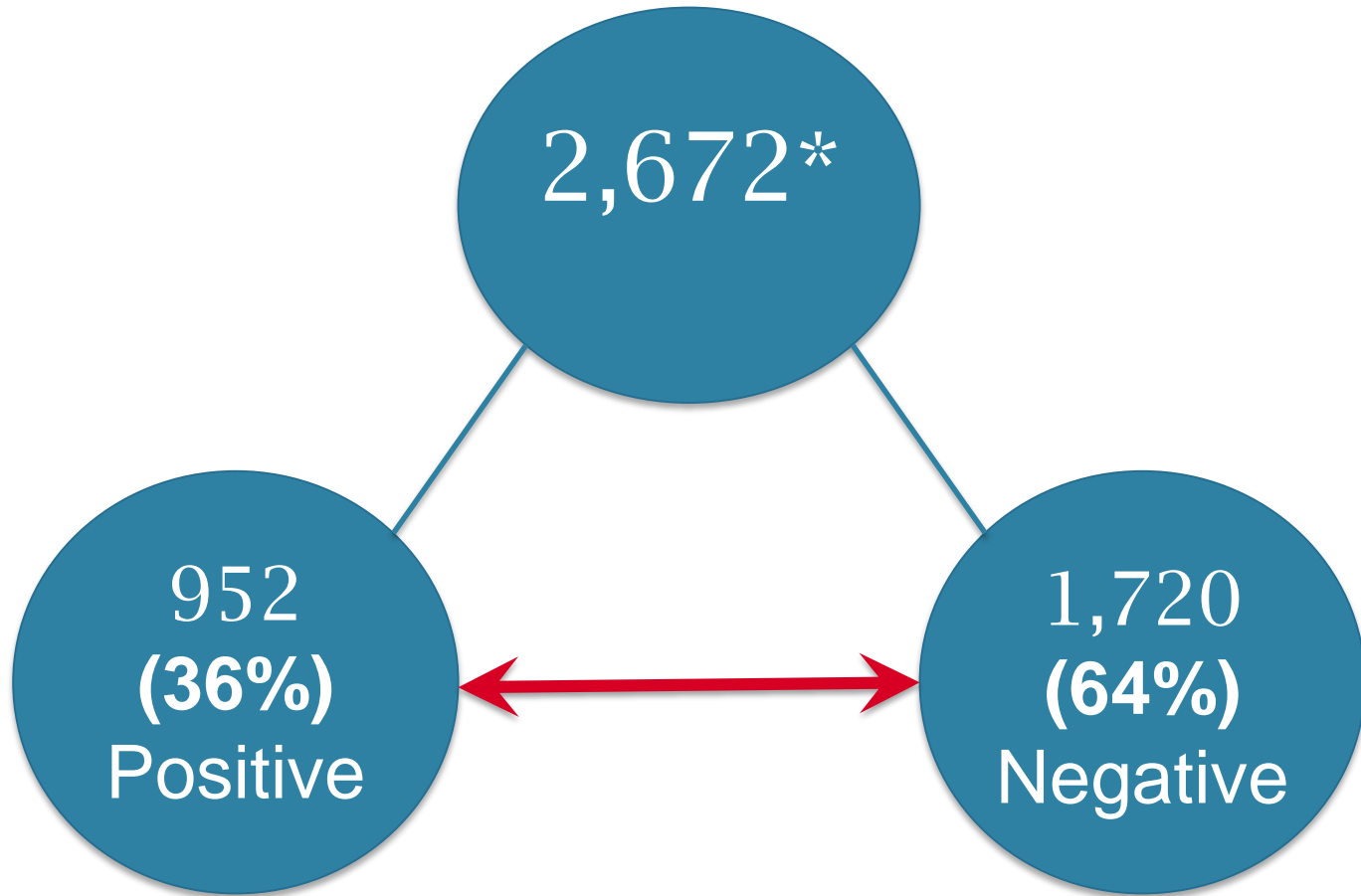
What factors are associated with HIV-positive test result?

Among individuals who **did not identify as HIV-positive**, who **had never received an HIV test**, and **elected to receive a HIV test through POWER**:

- Age was associated with an increased odds of an HIV-positive test result
 - AOR: 1.07, 95%, 1.01 – 1.13
- Assumption of being HIV-positive was associated with an increased odds of an HIV-positive test result
 - AOR: 6.60, 95% CI: 1.72 – 25.23
- Choosing not to receive HIV test result was associated with an increased odds of an HIV-positive test result
 - AOR: 2.83; 1.18 – 6.79

HIV Prevalence among BMSM

HIV Prevalence among BMSM



***Includes all self-reported positives and self-reported negatives who received an HIV test**

HIV Infection Rates BMSM & Africa

<u>Africa*</u>		<u>United States</u>
Swaziland: 28%	<	BMSM : 36%
Botswana: 25%		
Lesotho: 23%		
South Africa: 19%		
Zimbabwe: 17%		

HIV Prevalence among BMSM

By Age Group

18-19: 18%

20-24: 27%

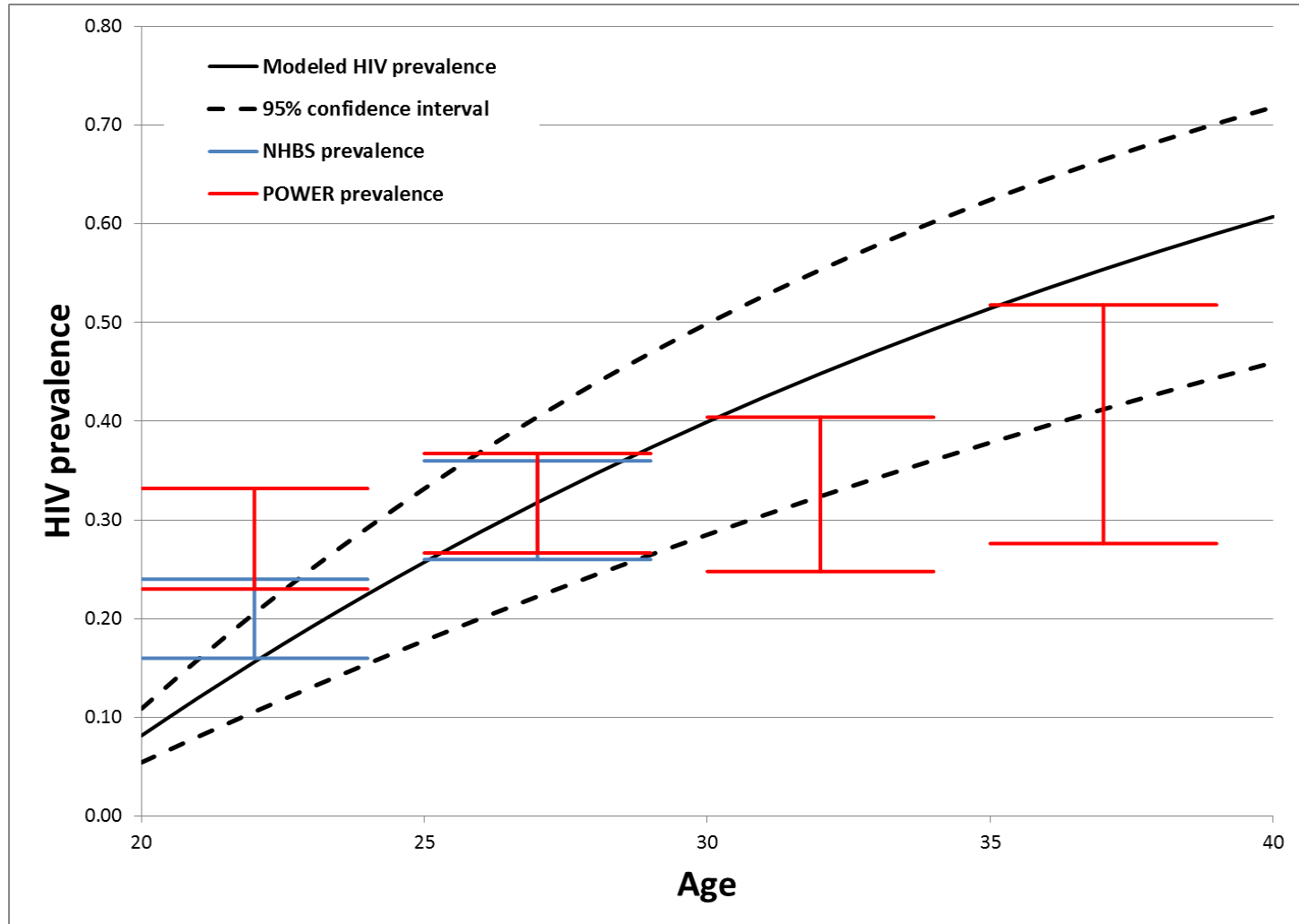
25-29: 34%

30-34: 35%

35-39: 41%

≥ 40: 52%

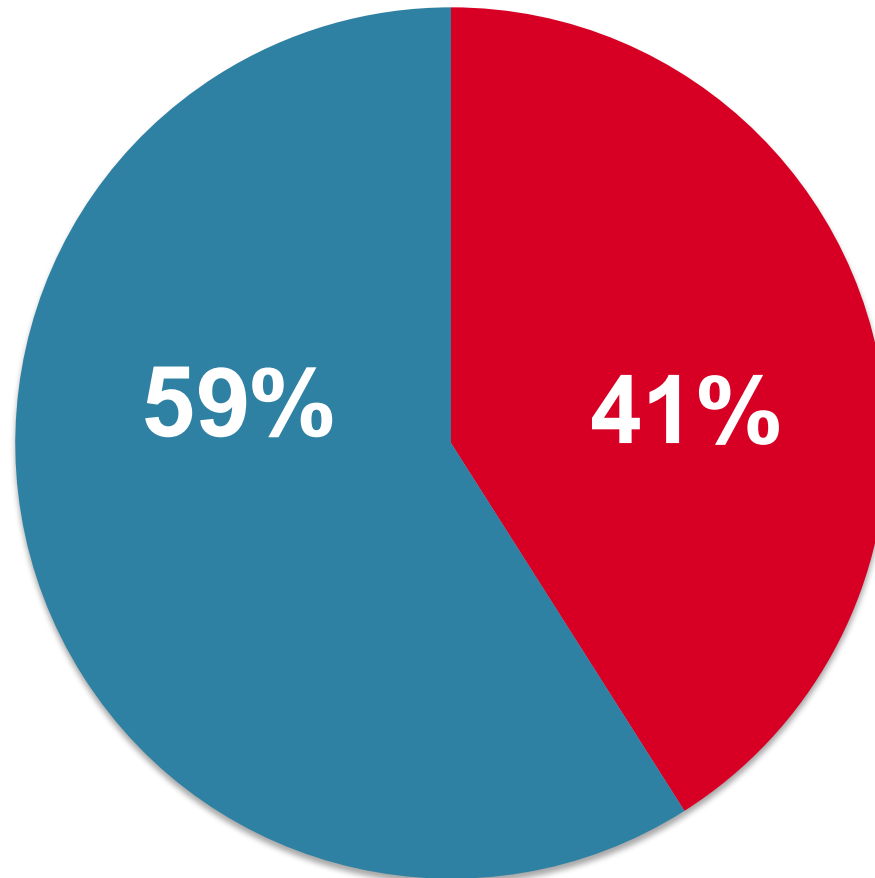
Existing HIV prevalence estimates among BMSM by age, and projection based on annualized HIV incidence rate of 4.16%*



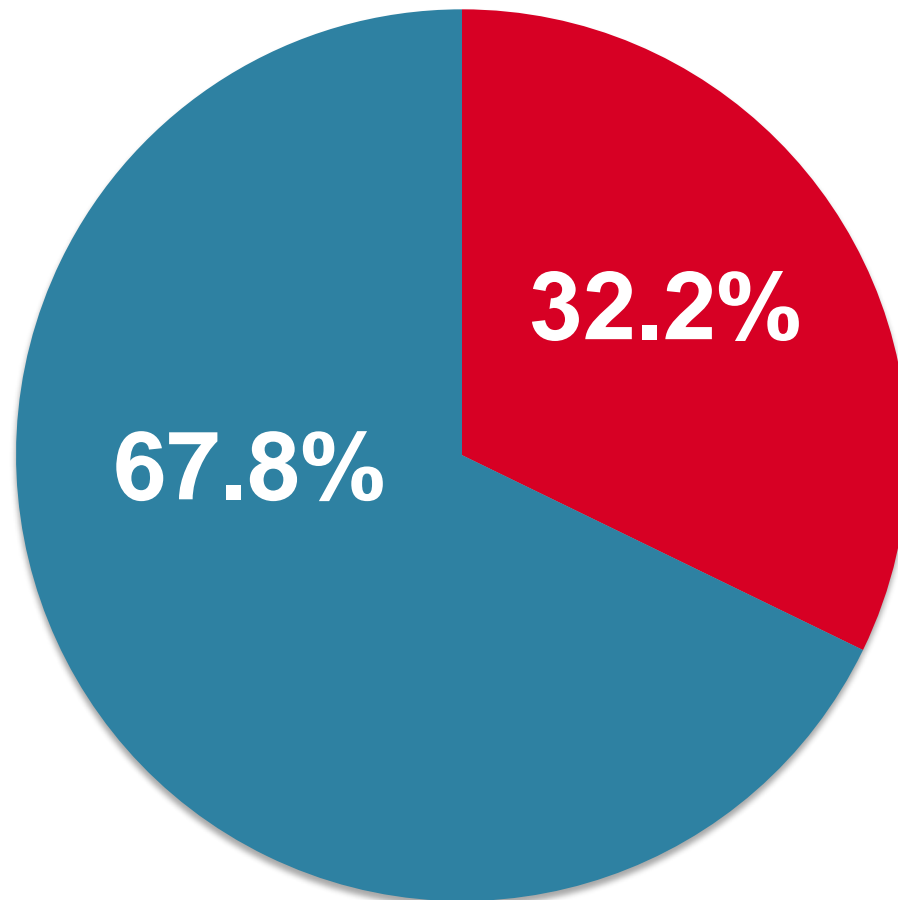
*Matthews DD, Herrick AL, Coulter RWS, et al. Running Backwards: Consequences of Current HIV Incidence Rates for the Next Generation of Black MSM in the United States. *AIDS and behavior*. 2015;20(1):7-16. (<http://www.ncbi.nlm.nih.gov/pubmed/26267251>)

Treatment as Preventions among BMSM

Of all HIV+ BMSM, 41% reported being unaware of their status.



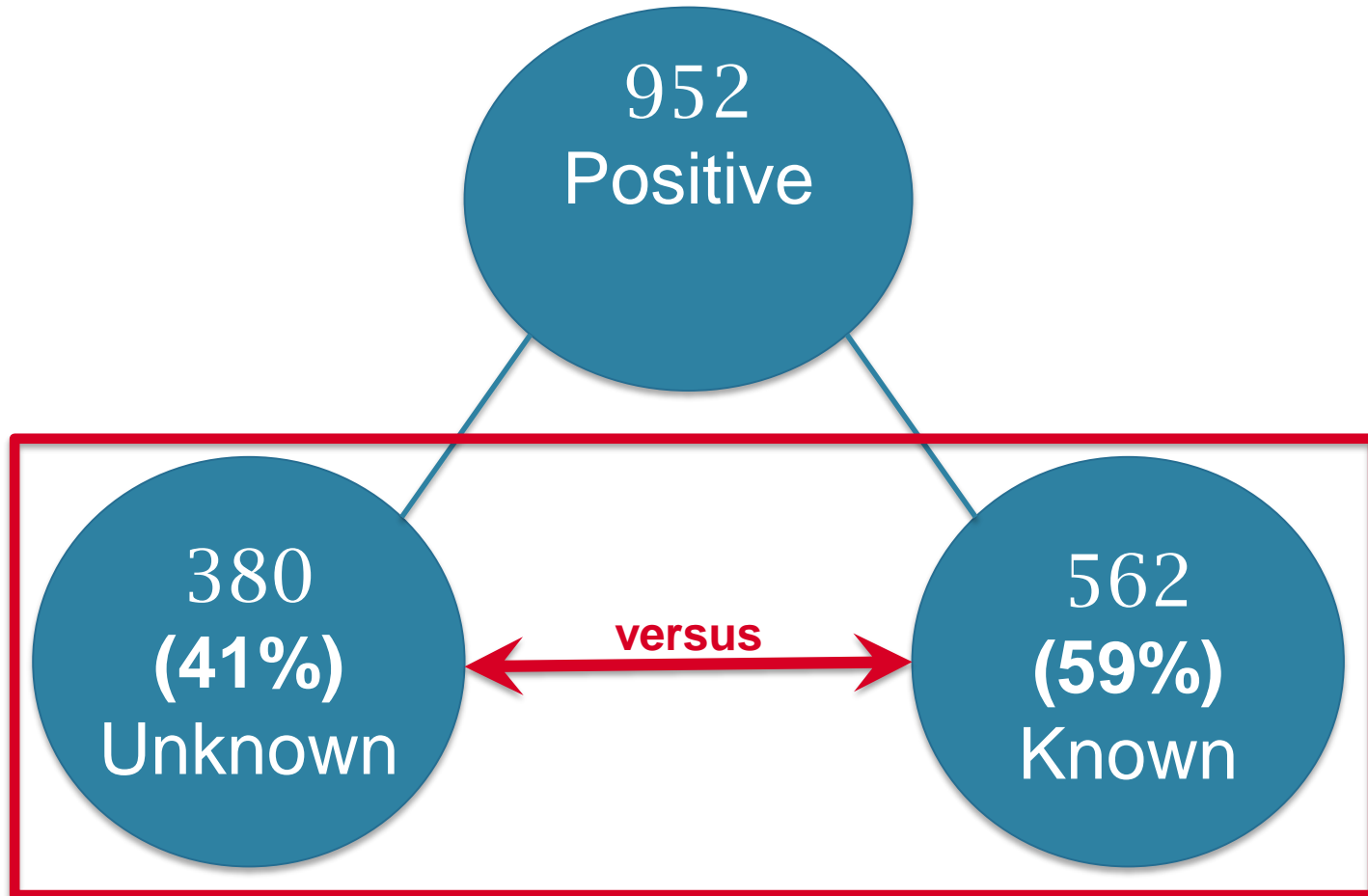
Of HIV+ BMSM unaware of their HIV-status, **67.8%** reported having been tested for HIV in the past six months.



Research Question

What factors are associated with an unknown HIV+ status?

What factors are associated with an unknown HIV+ status?



***Includes all self-reported positives and self-reported negatives who received an HIV test**

What factors are associated with an unknown HIV+ status?

Compared to individuals aware of their HIV-positive status, **individuals unaware of their HIV-status:**

- Were more likely to identify as bisexual
 - 18.1% vs. 8.9%, $p < 0.001$
- Were more likely to have experienced intimate partner violence in the past-year
 - 24.0% vs. 17.0%, $p = 0.011$
- Had higher levels of internalized homophobia
 - $p < 0.001$
- Had achieved lower levels of education
 - $P = 0.49$
- Were younger
 - 30.6 vs. 34.6, $p < 0.001$
- Had lower levels of social support
 - $p = 0.001$

What factors are associated with an unknown HIV+ status?

Multivariable analysis were weighted according to time-location sampling **adjusted for:**

- Sociodemographics
 - Age
 - Education
- City in which survey was completed
- Substance Use
- Depressive symptomatology

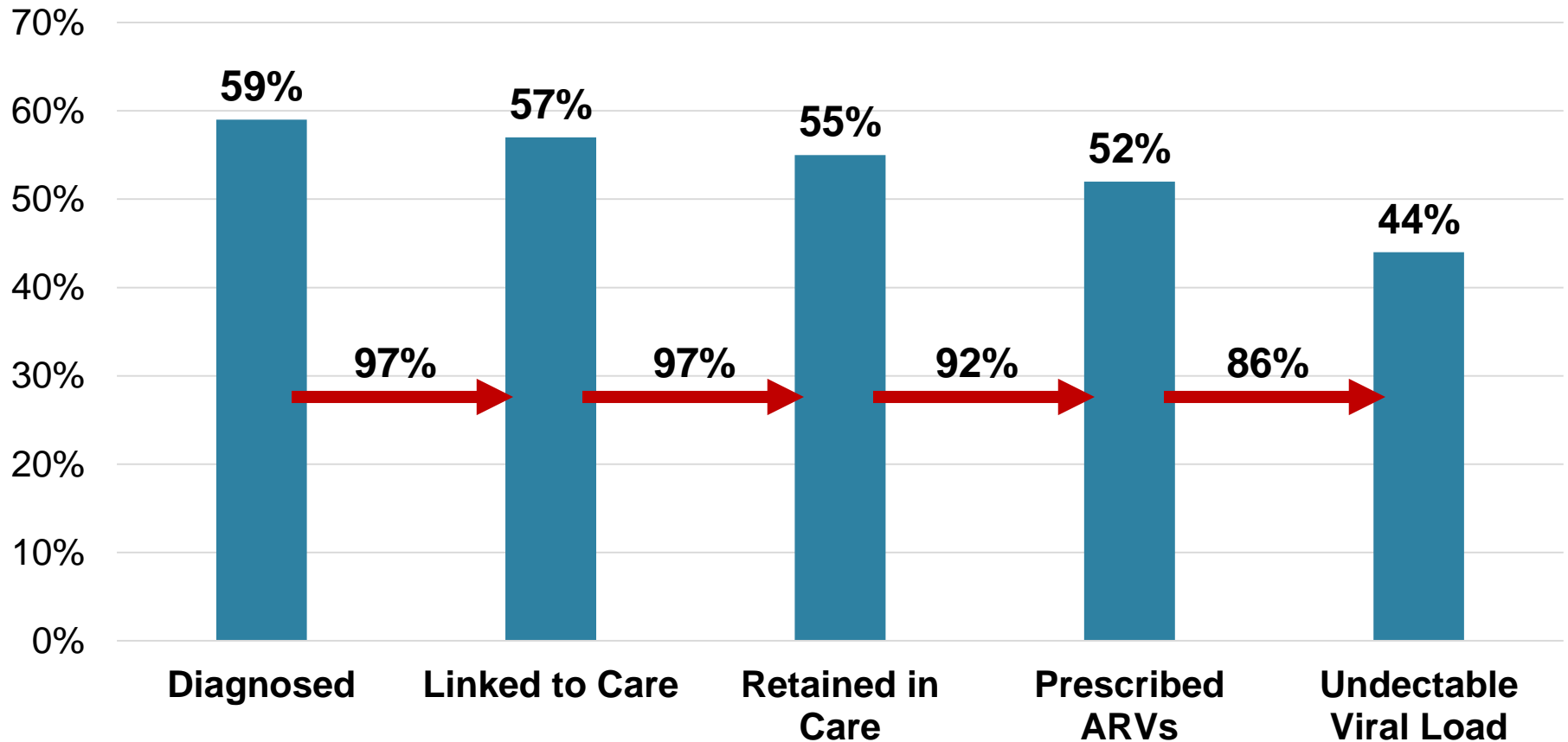
What factors are associated with an unknown HIV+ status?

Among HIV-positive individuals

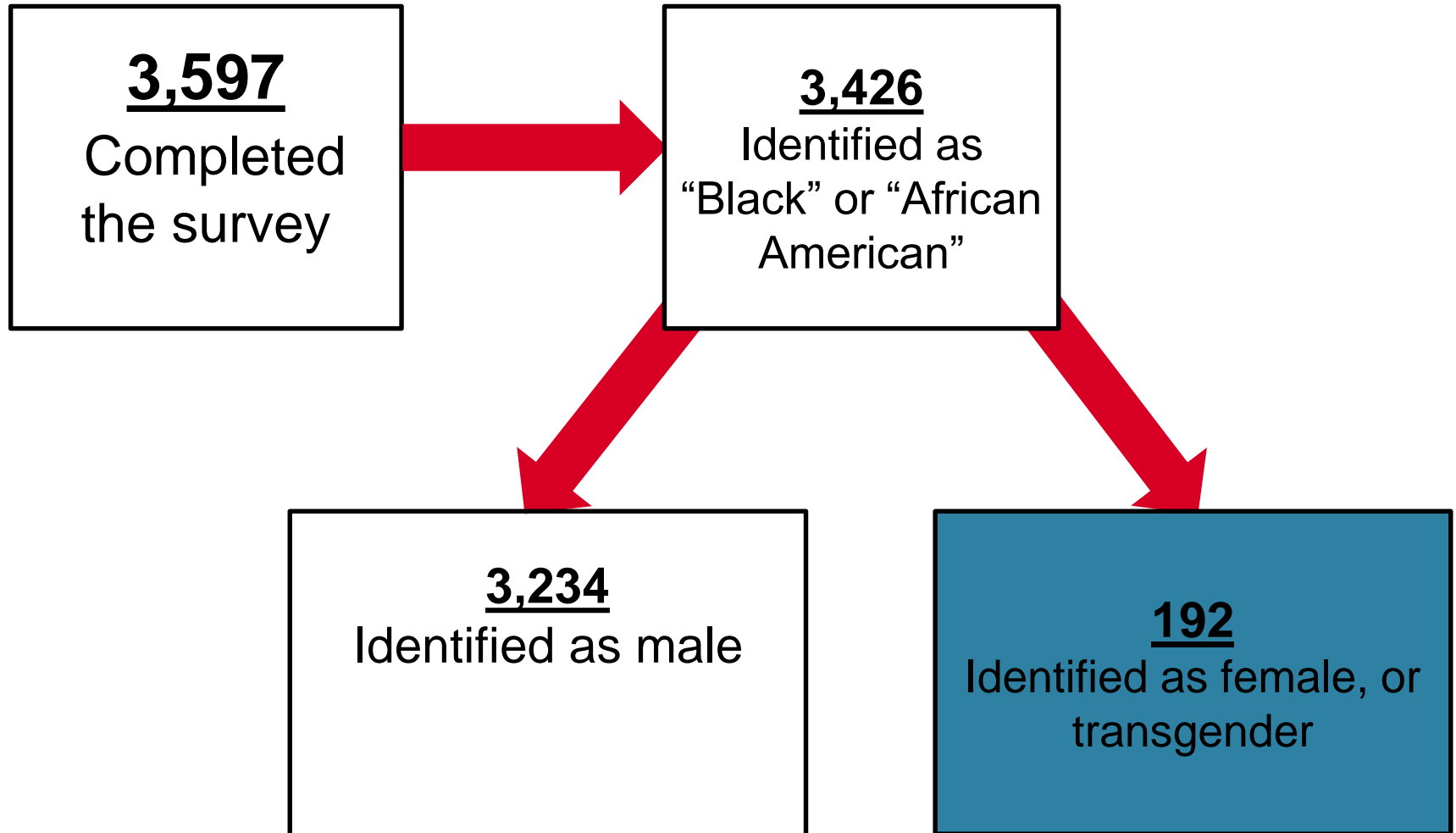
- Bisexual identify was associated with an increased odd of unknown HIV-positive status
 - AOR=2.15; 95% CI: 1.41, 3.31
- Age was associated with decreased odds of unknown HIV-positive status
 - AOR=.96; 95% CI: .95, .98
- Internalized homophobia was associated with increased odds of unknown HIV-positive status
 - AOR=1.03; 95% CI: 1.01, 1.04

Care Continuum: BMSM

HIV Care Continuum Among BMSM



Results: Black transgender women



Descriptive Statistics among Black transgender women

Descriptive Statistics: Black transgender women

Demographics

Age

30 (range: 18-84)

Education:

Less than high school: 27%

High school diploma: 32%

Some college: 23%

College diploma or more: 18%

Health care

Presence of health insurance/coverage: 80%

Unable to access care: 44%

Descriptive Statistics: Black transgender women

Psychosocial Outcomes

Depression: 50%

Violence/ Victimization

Physical assault: 46%

Intimate partner violence: 49%

Childhood sexual abuse: 54%

Poly-substance use: 24%

Homelessness: 42%

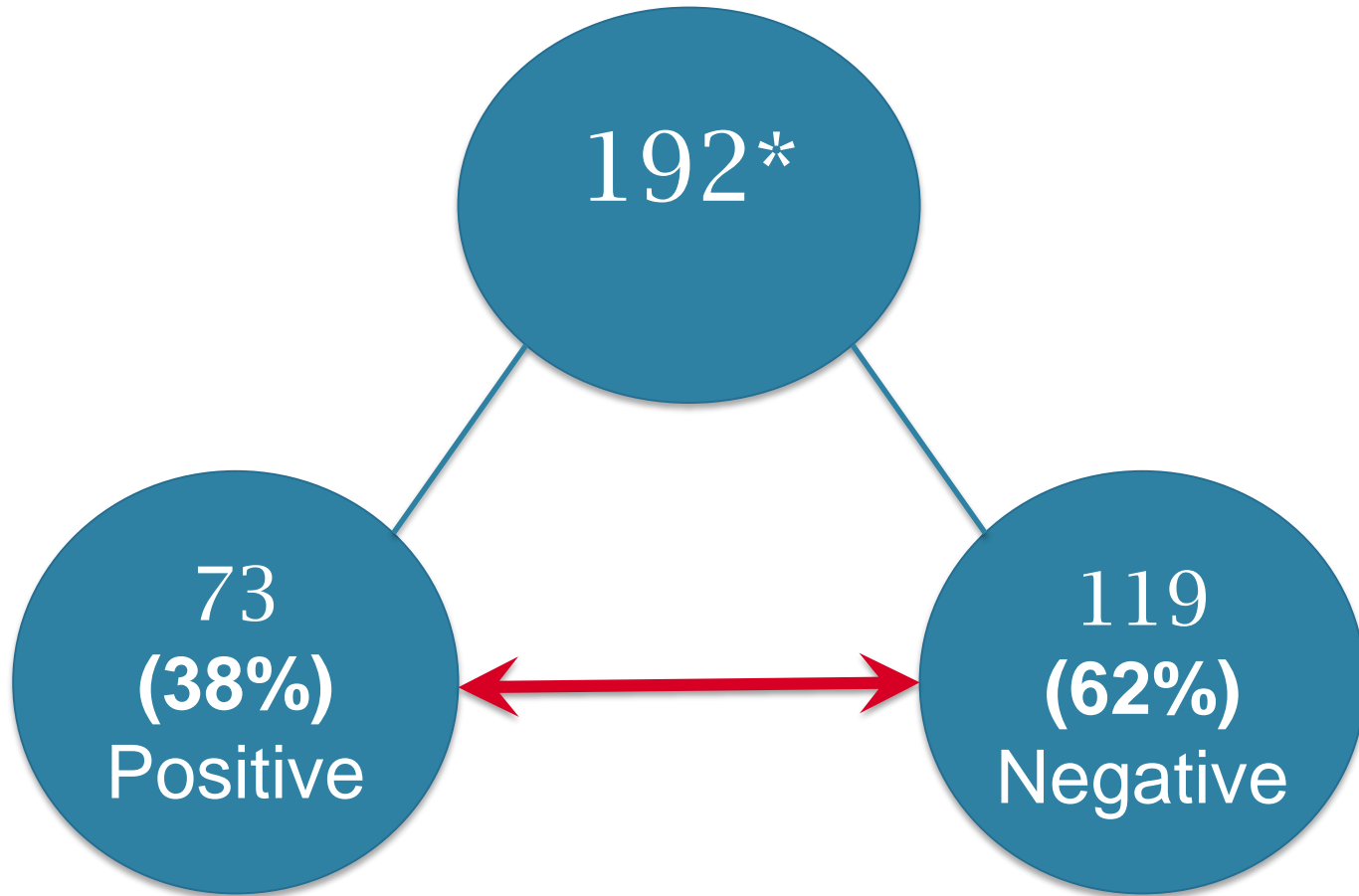
Incarceration

Past two-years: 35%

Engagement in sex work: 19%

HIV Prevalence among Black transgender women

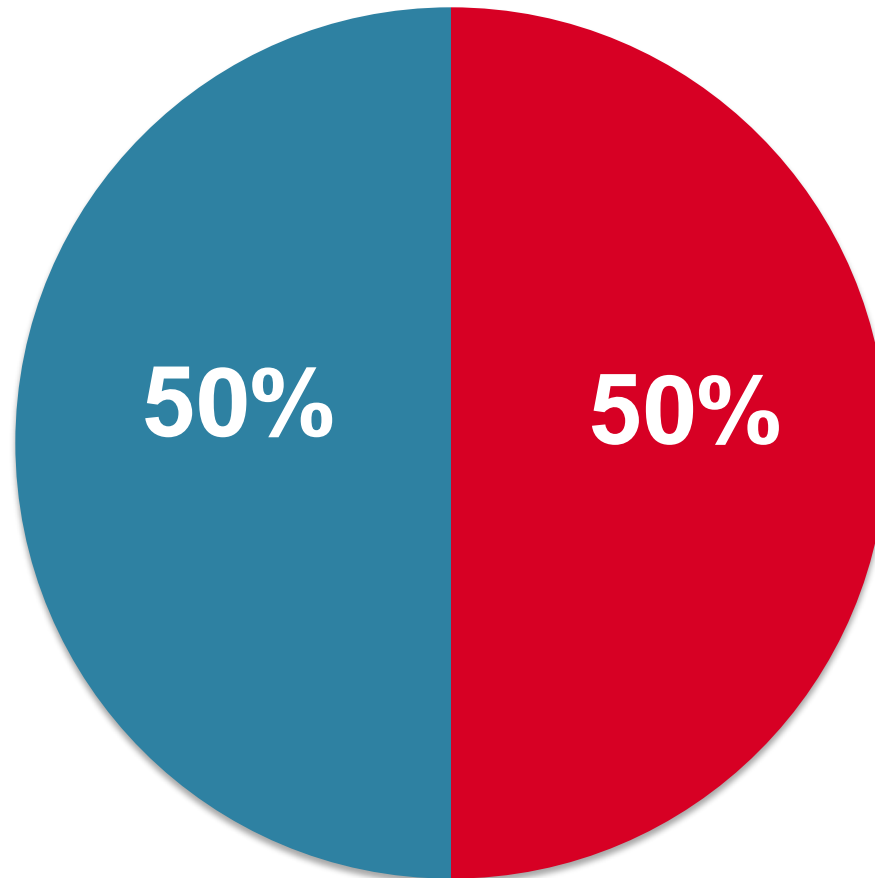
HIV Prevalence among Black transgender women



***Includes all self-reported positives and self-reported negatives who received an HIV test**

Treatment as Prevention among Black transgender women

Of all HIV+ Black transgender women, **50%** reported being unaware of their status.



HIV Care Continuum among Black transgender women

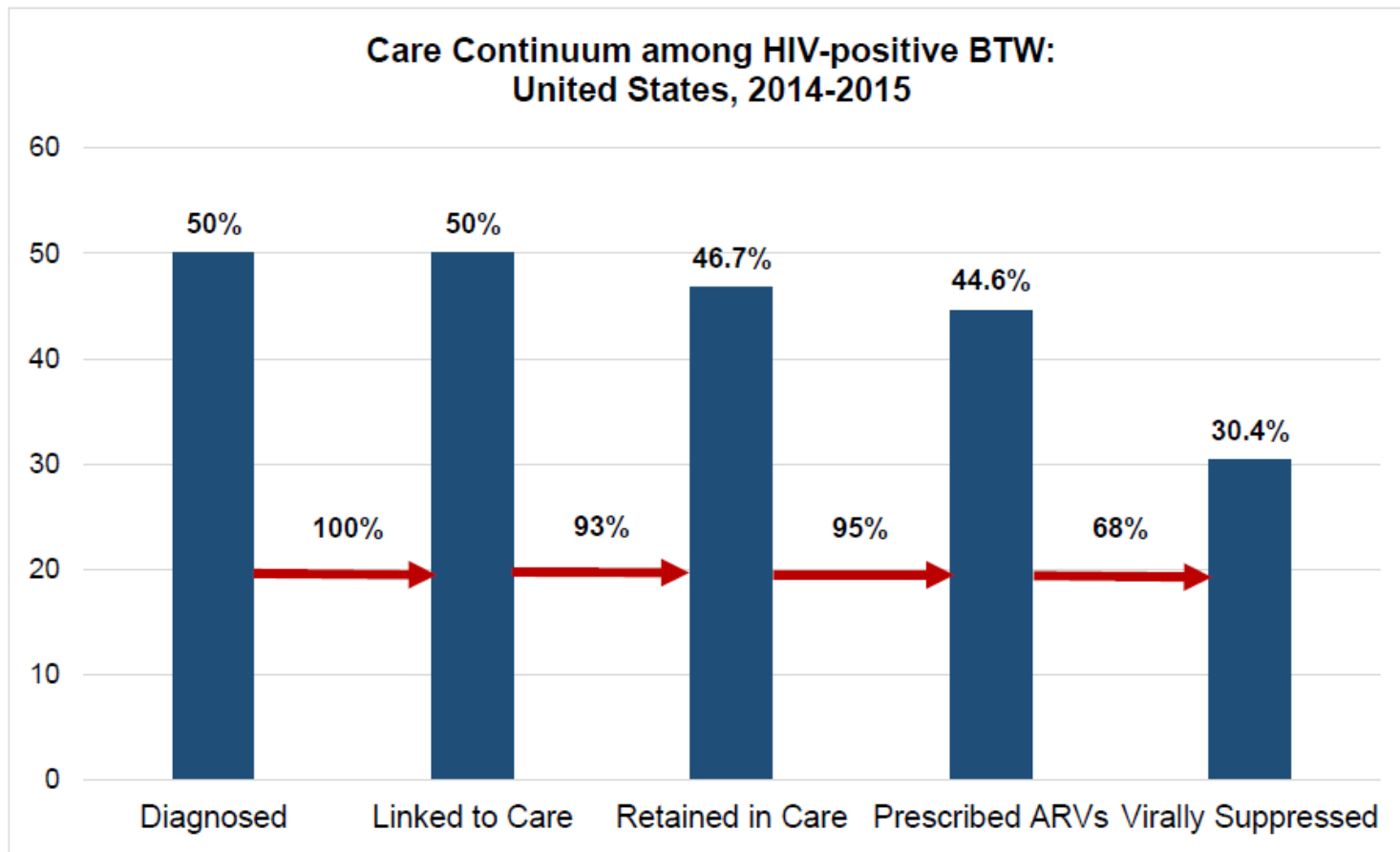


Figure 1: HIV care Continuum among HIV-positive Black transgender women (BTW) in our sample

Conclusions

If BMSM in the United States were able to form a country of their very own, that country would have the highest rate of HIV infection in the world.

**So What Are We Going
to Do About It?**

Continue to Underfund It

Pros

- We're good at it
- We have three decades of experience in underfunding HIV prevention for BMSM.

Cons

- We've tried it and it hasn't worked
- Continuing to underfund prevention and research will ensure that new generations of young BMSM will have high HIV infection rates.
- The epidemic will continue to spin out of control

Create a New Country for BMSM and Address the Epidemic Through PEPFAR



Use PEPFAR as a Mechanism

Pros

- We'd finally have a mechanism that could address the epidemic among BMSM

Cons

- PEPFAR funds are limited
- It is a violation of human rights to have to give up citizenship rights to access medical care & prevention services
- The question of whether South Carolina can leave the Union was settled at Appomattox.

Take It Seriously

- Work with community leaders to design interventions to:
 1. Identify HIV+ BMSM
 2. Link HIV+ men to care
 3. Help HIV+ BMSM stay healthy across their life course by supporting adherence
 4. Help HIV- BMSM access PEP and PrEP
 5. Harness resiliencies to raise levels of health
- Address the multiple health problems that afflict BMSM
- Address the many ways that racism and homophobia compromise the health of BMSM.

Conclusions

- HIV infection rates among BMSM in the US are among the highest of any group in the world
- The epidemic among BMSM continues to spiral out of control and constitutes a national scandal
- Future historians of the AIDS epidemic will doubtless conduct analyses to try and explain how we allowed the epidemic among BMSM to go unaddressed over the past 3 decades.

Conclusions

- Lack of an incisive theory to explain greater vulnerability of BMSM is one of the reasons for our failure at epidemic control
- Millett's theoretical framework showing how the combination of racism, lack of access to medical care, and basic HIV biology create a perfect storm that increases transmission offers many possible intervention targets.

Conclusion

- **These targets include:**
 - Getting HIV positive men into medical care
 - Supportive services to help men achieve undetectable viral loads
 - Helping HIV negative men access PrEP and PEP
 - Special prevention efforts to reach very young BMSM, with PrEP a probably component of these efforts
 - Efforts to raise levels of co-occurring health problems among BMSM that also drive HIV risk

Conclusion

- These efforts cannot be successful unless we train new generations of scholars in ways to create interventions to stop the epidemic
- We cannot end the HIV epidemic in our country unless we place the prevention care care needs of BMSM front and center in this struggle
- We now have many of the tools to end the epidemic; this knowledge also makes it our responsibility to use these tools to their full extent so that HIV will end among BMSM.

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Community Partner Organizations



"Changing Risky Behavior"



...helping people affected by HIV/AIDS live well...



Questions?

Please contact **Leigh Bukowski** at
lab108@pitt.edu.