

HIV Infection Disparities among Black MSM

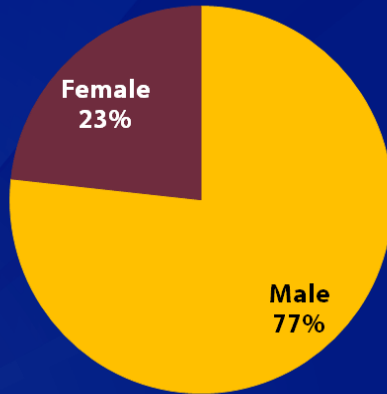
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November 27, 2012

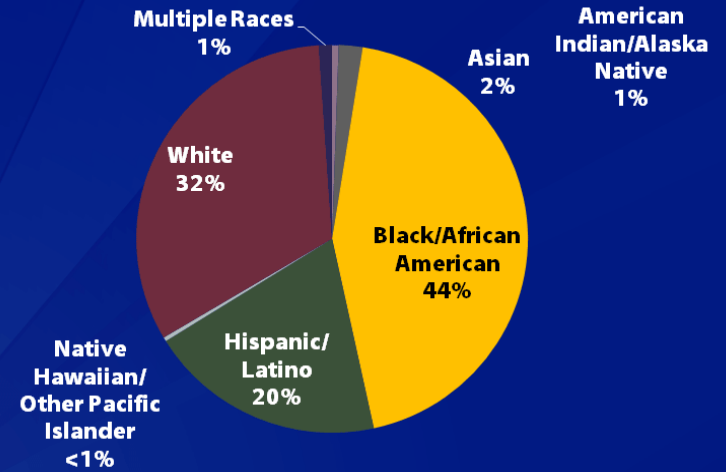
The findings and conclusions in this report are those of the authors and do not necessarily represent the views of the Centers for Disease Control and Prevention

HIV Incidence by Sex, United States - 2009

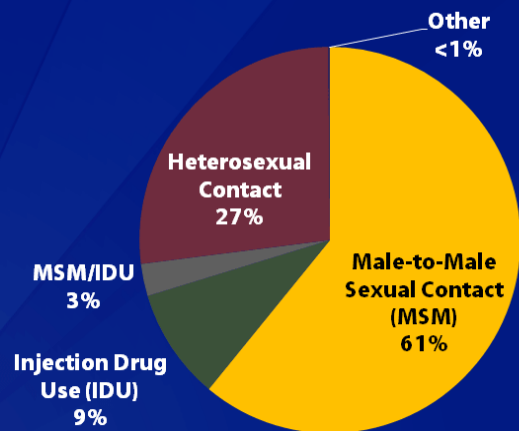


(Prejean, PLoS One, 2011)

HIV Incidence by Race/Ethnicity, United States - 2009



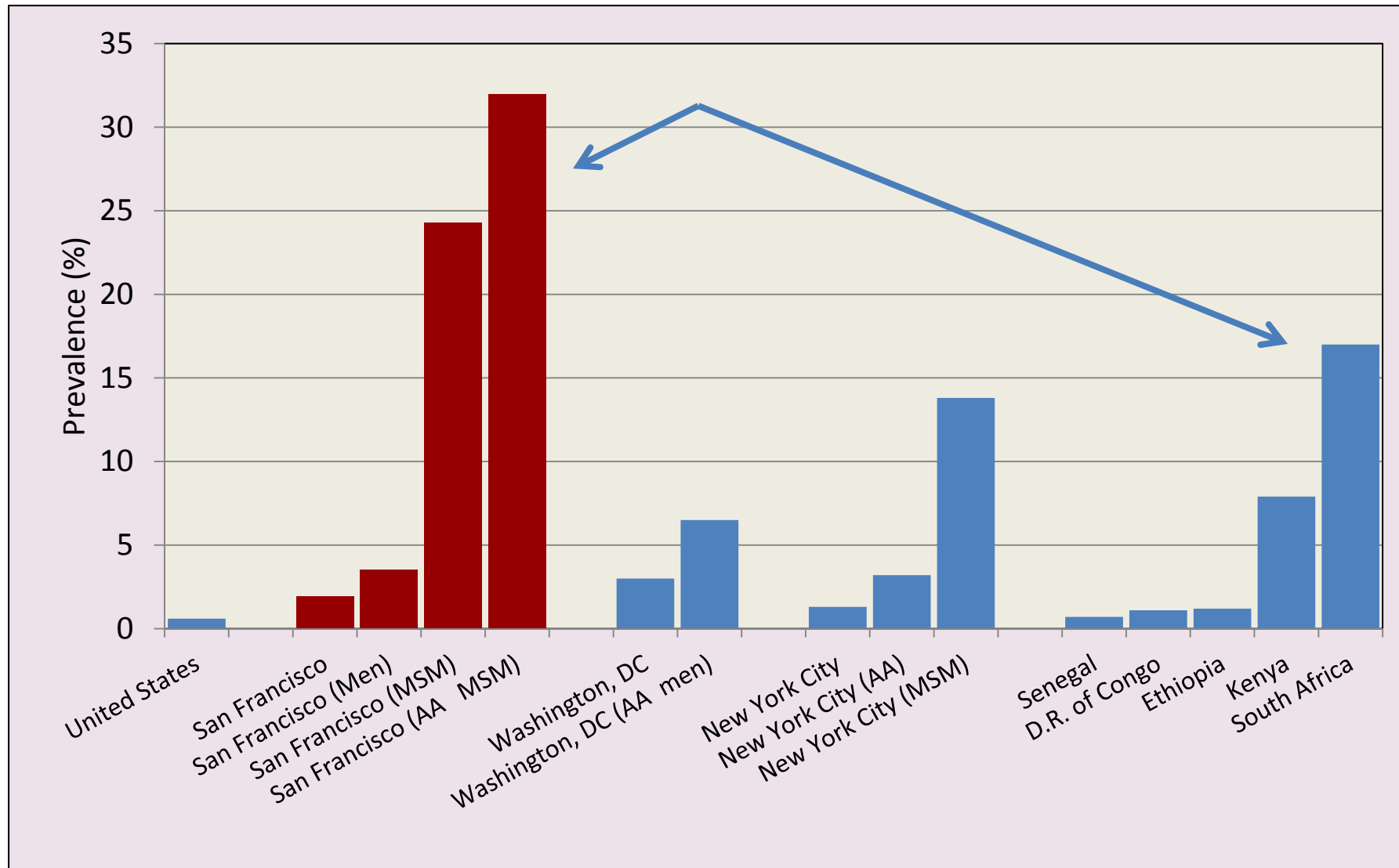
HIV Incidence by Transmission Category, United States - 2009



New HIV infections (2006-2009) concentrated among young black MSM

- Among ALL new infections in the US
 - Black MSM accounted for over a quarter of new infections from 2006 and 2009
- From 2006-2009, HIV incidence increased
 - 34% among young MSM
 - 48% among young black MSM
- Among all youth (ages 13-29)
 - MSM accounted for the majority of new infections from 2006 and 2009 (62%-69%)
- In 2009, new infections among young black MSM alone (aged 13 to 29) exceeded new infections among white MSM ages 13 to 29 and 30 to 39 combined

HIV Prevalence among U.S. Black MSM compared to Countries with Generalized Epidemics



Colfax, 2011 Adapted from: El-Sadr, et al., *NEJM*, 2010

HIV Prevalence Among Black MSM vs. Black Populations Across Diaspora

HIV status determination

Self-report (95% CI=2.7–8.6; k=12)

Test (95% CI=5.3–11.3; k=38)

Income level

Low-income countries (95% CI=1.8–6.0; k=8)

Middle-income countries (95% CI=4.7–11.5; k=)

High-income countries (95% CI=15.0–18.3; k=)

Region/country

S Africa region (95% CI=0.9–2.2; k=10)

E Africa region (95% CI=2.4–8.1; k=8)

United Kingdom (95% CI=7.1–12.1; k=10)

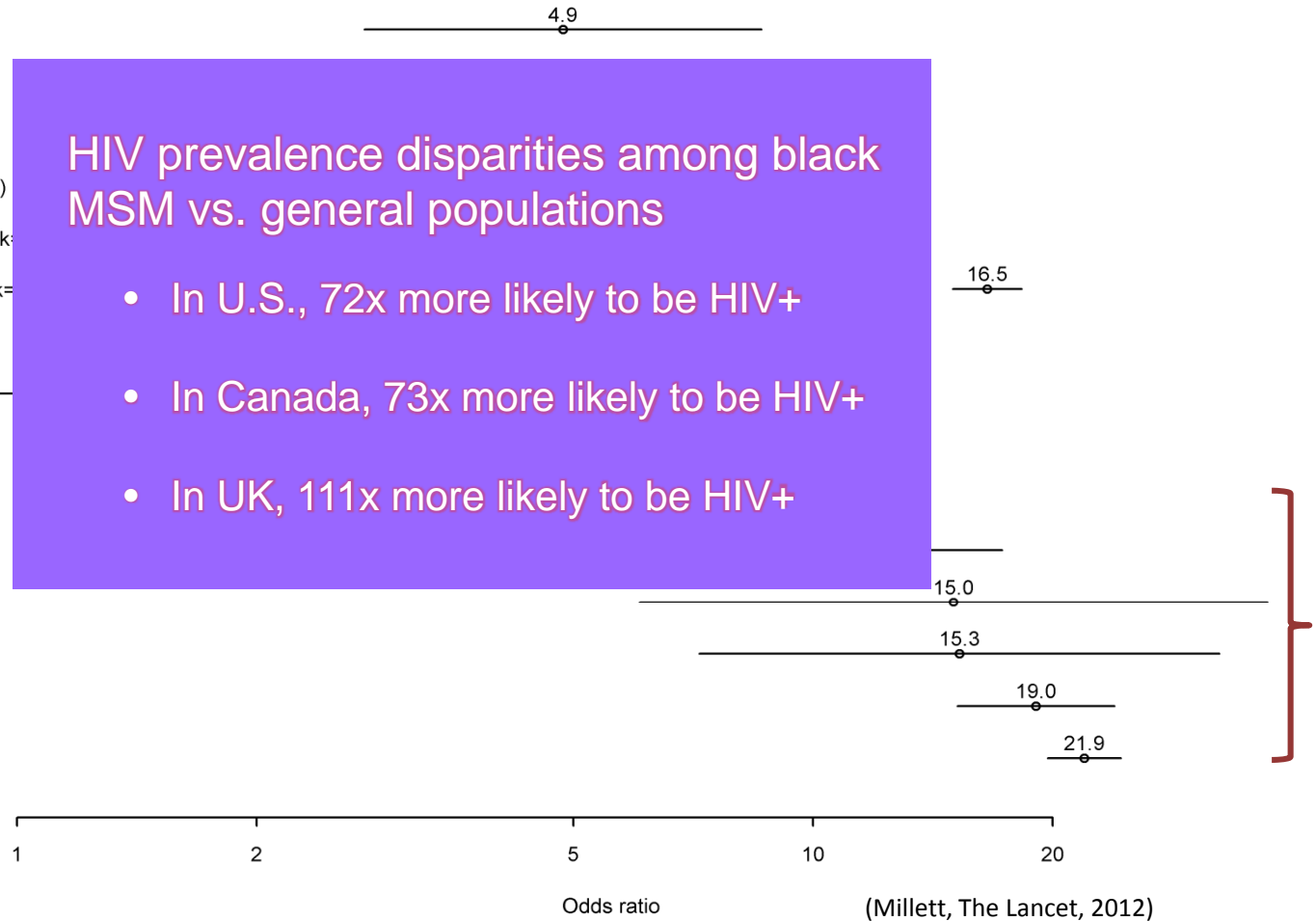
N Africa region (95% CI=5.1–17.3; k=7)

W Africa region (95% CI=6.1–37.2; k=7)

Canada (95% CI=7.2–32.4; k=3)

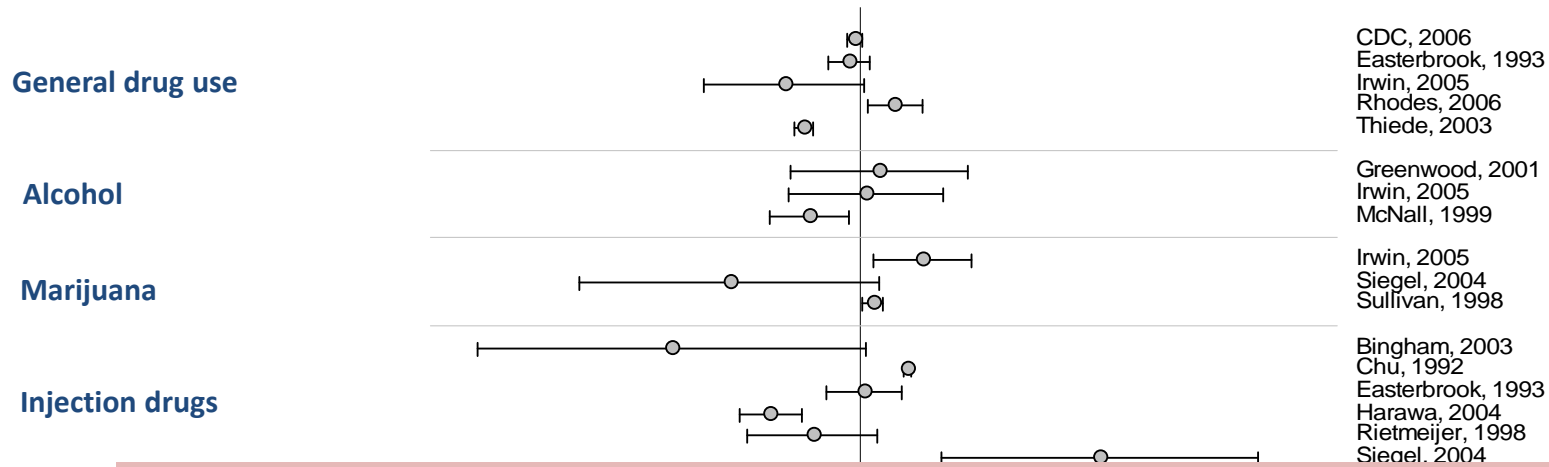
Caribbean (95% CI=15.2–23.9; k=15)

USA (95% CI=19.7–24.3; k=7)

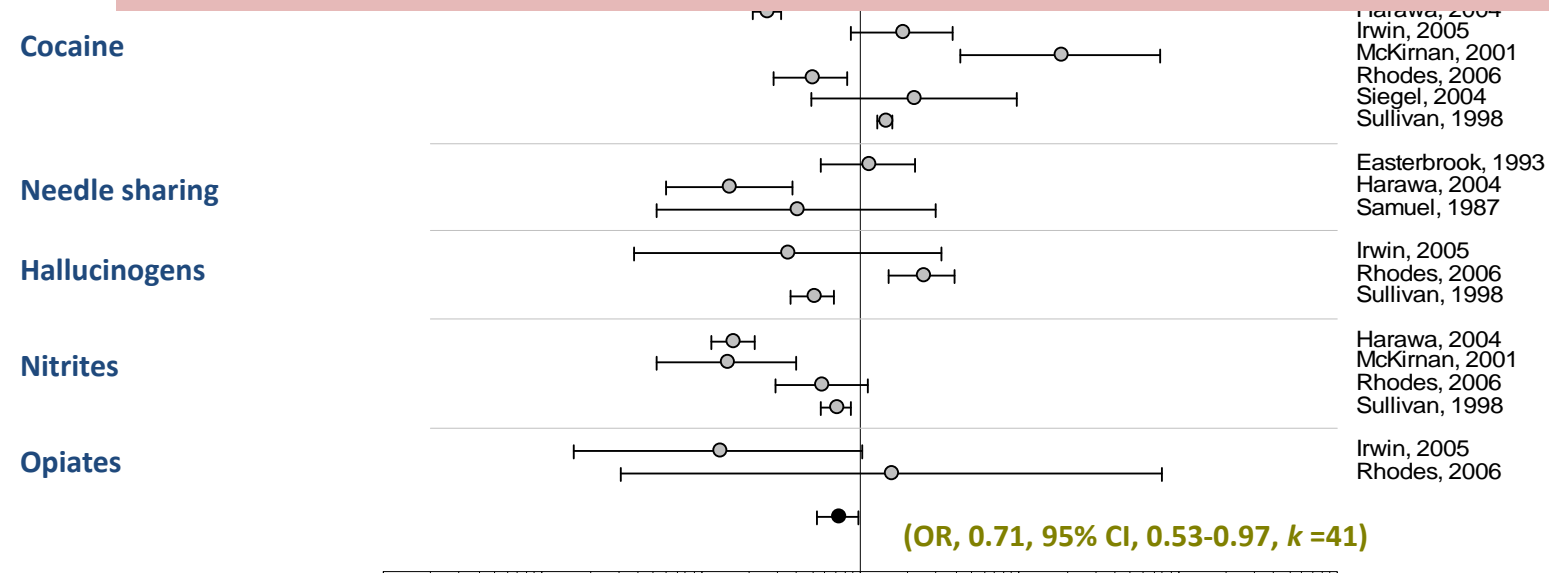


Reasons for Disparities

Reduced Odds ← → Greater Odds



Drugs¹ associated with HIV infection: OR, 0.64 (CI, 0.43-0.94); k= 27
 (¹IDU, amphetamines, crack/cocaine, needle sharing, opiates, nitrites)



(OR, 0.71, 95% CI, 0.53-0.97, k =41)

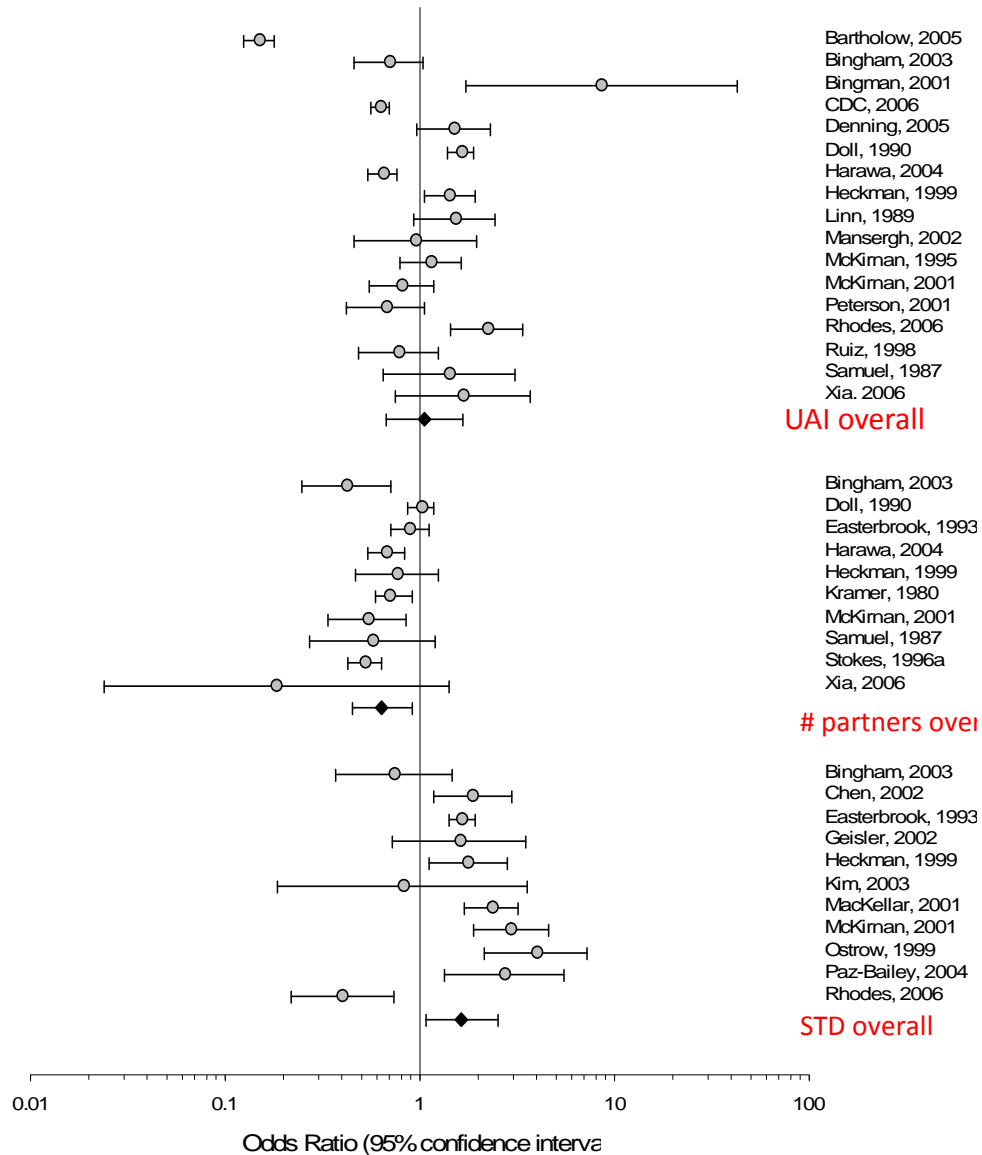
(Millett, 2007)

0.001 0.01 0.1 1 10 100 1000

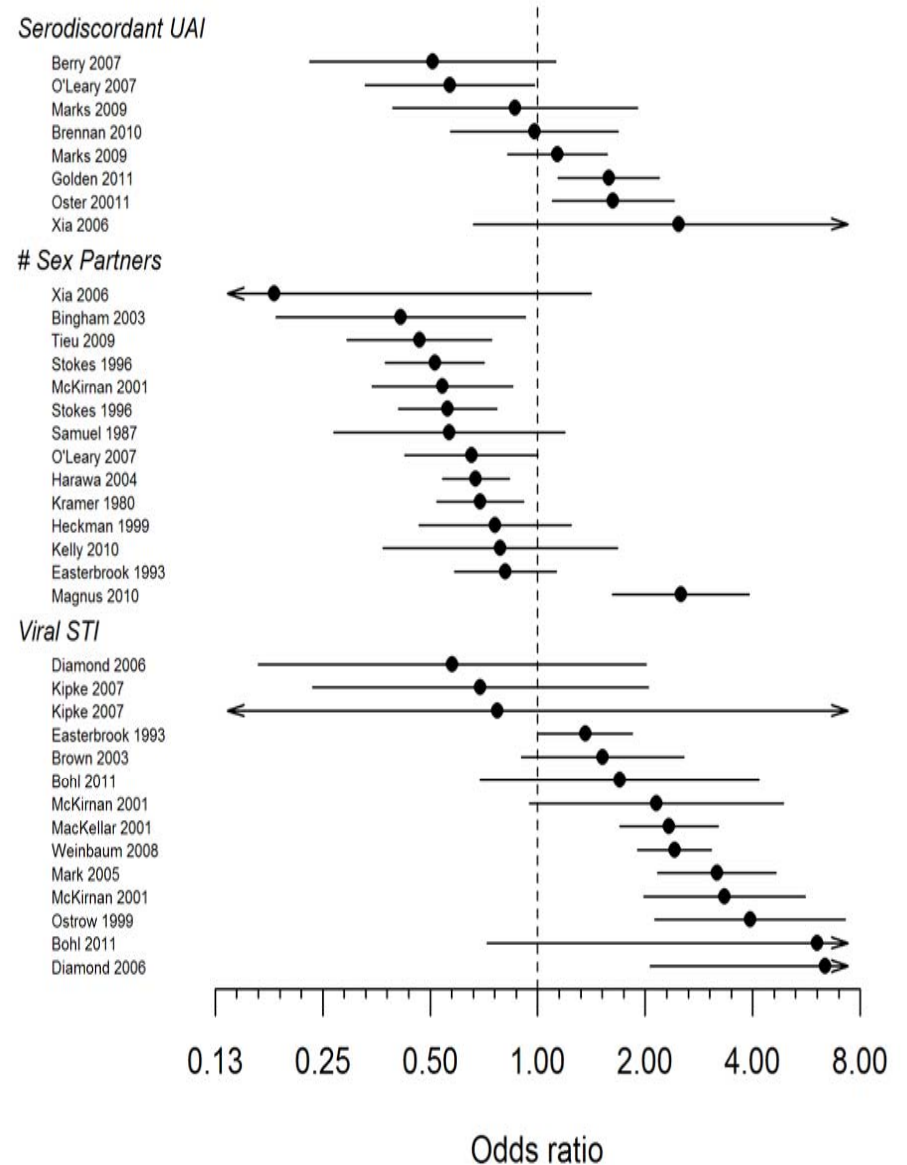
Odds Ratio (95% confidence interval)

Risk Behavior and STIs, Black MSM Relative to White MSM Across MSM Studies

(Millett et al., AIDS, 2007)



(Millett et al., Lancet, 2012)

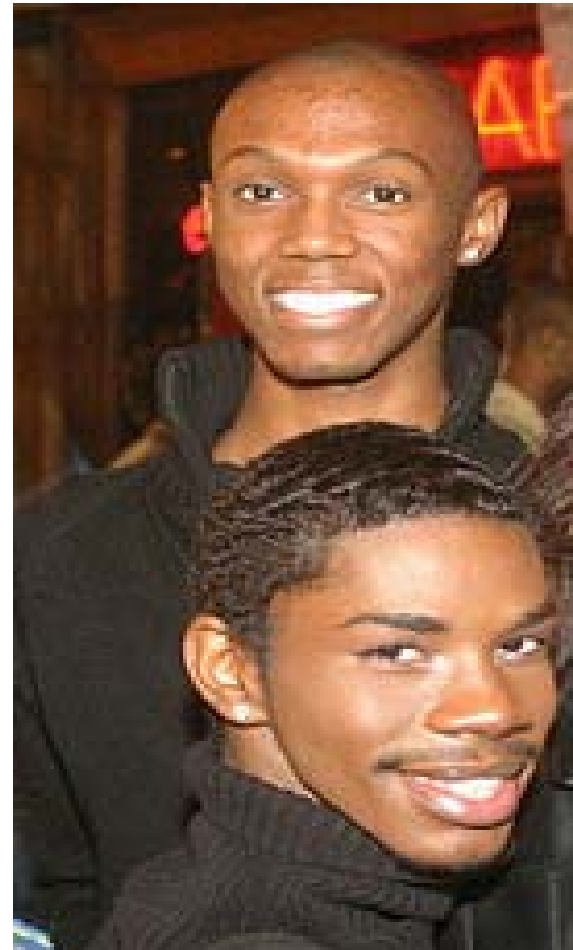


Meta-Analysis Findings for Young Black MSM vs Other MSM

THE LANCET

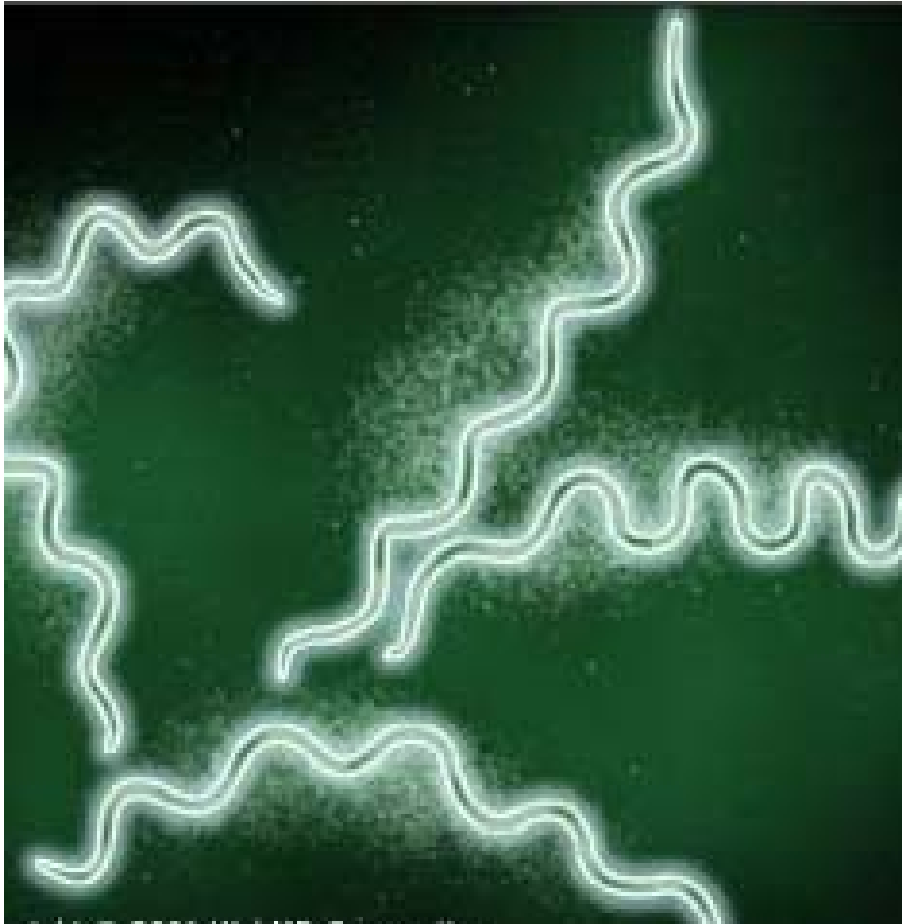
Young Black vs. Other Young MSM

- Comparable HIV testing
- Less likely to engage in
 - Recent UAI
 - Any substance use
 - Amphetamine use
 - Injection drug use
 - Crack cocaine use
 - Any drugs associated with HIV
- Yet, **5x** more likely to have HIV, **7x** more likely to have undiagnosed HIV, and **45%** greater likelihood of lifetime STI dx
- Factors contributing to HIV among young black MSM
 - Young sex debut (**65% greater**)
 - Childhood sexual abuse (**82% greater**)
 - Older sex partners (**52% greater**)
 - Low income (**3x**)



(Millett, The Lancet, 2012)

Elevated Syphilis Risk among Black vs Other MSM in US



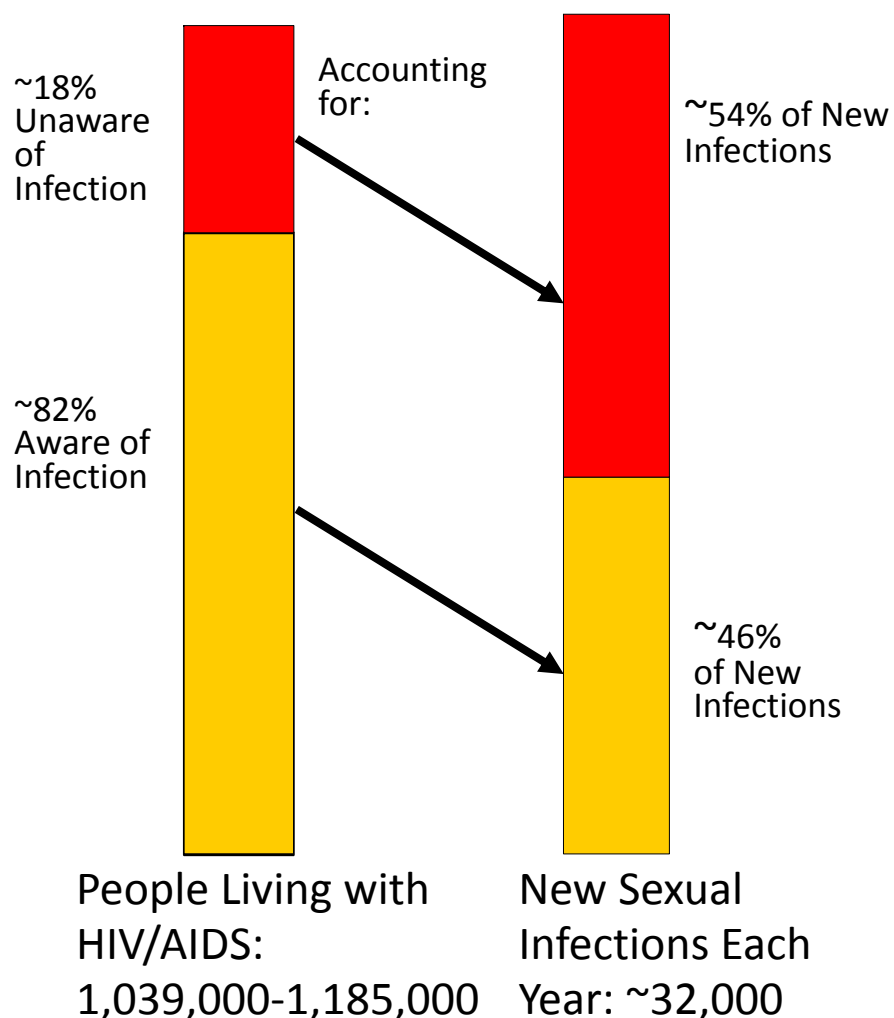
- CDC STD surveillance data 2005 to 2008, 27 states from all U.S. census regions
- Absolute increases in rates among black MSM 8x and Hispanic MSM 2x the rate among white MSM
 - Young black MSM at particularly high risk
- Greater HIV/syphilis coinfection among black MSM

STI Disparities by race/ethnicity

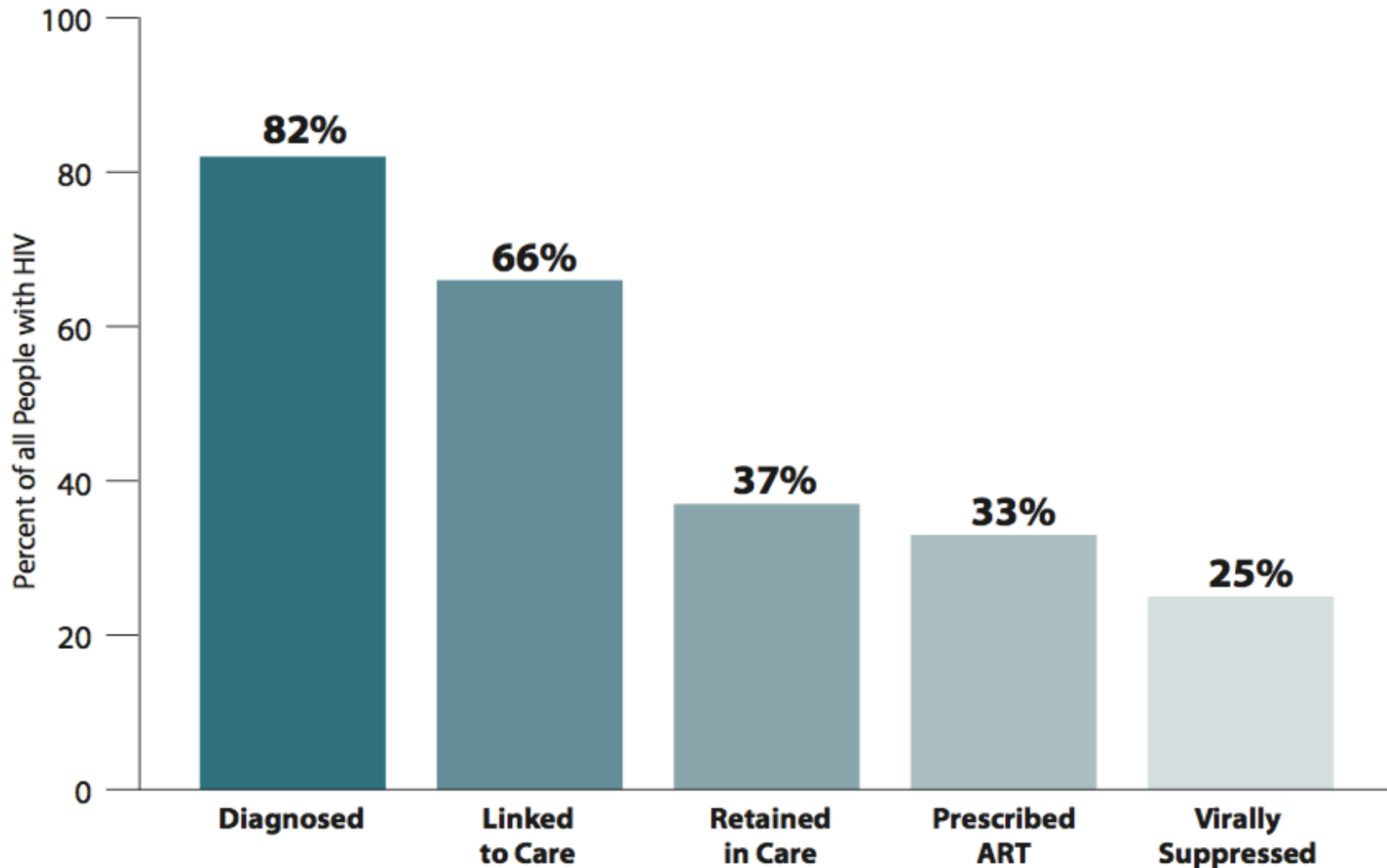
<i>STI (current, recent or lifetime dx)</i>	40	6.01 (5.39-6.72)*
Lifetime diagnosis	10	1.46 (1.04-2.05)*
Current diagnosis	18	8.00 (7.09-9.03)*
Gonorrhea dx	10	1.30 (0.85-1.99)
Syphilis dx	12	8.27 (7.31-9.34)*
Herpes Simplex Virus	4	2.14 (1.32-3.48)*
Chlamydia dx	6	1.52 (1.11-2.07)*
Hepatitis B dx	7	1.72 (0.89-3.33)
Hepatitis B immunization	4	0.99 (0.31-3.21)
Rectal STI dx	5	1.00 (0.74-1.36)
Urethral STI dx	3	2.13 (1.64-2.79)*
Pharyngeal STI dx	3	0.24 (0.09-0.61)*

Undiagnosed HIV Infection Contributes to Racial/Ethnic Disparities

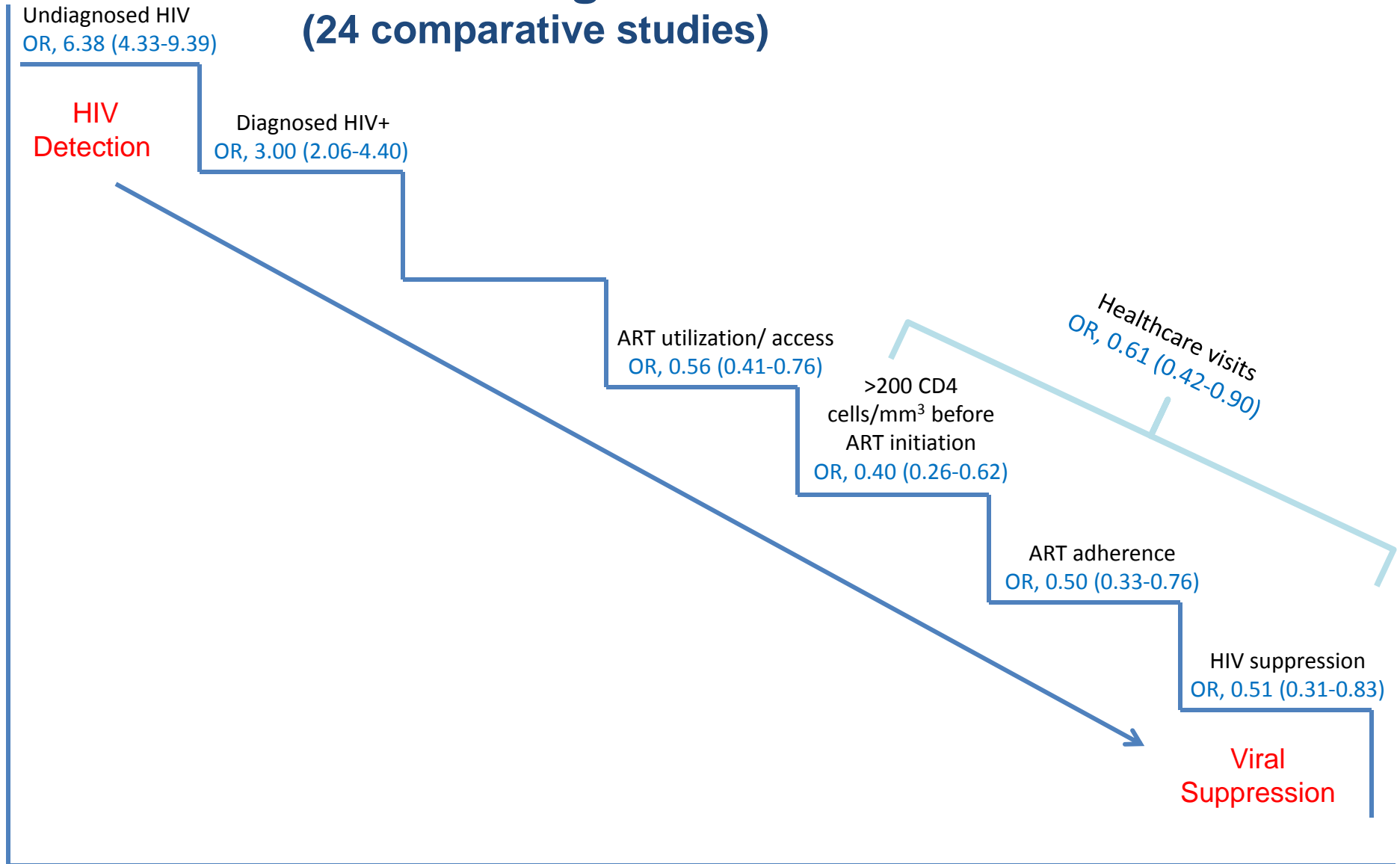
- HIV+ unaware responsible for most new HIV transmissions in the U.S.
- Black and Latino MSM are less likely to know that they are HIV+
 - CDC data 2008 (21 cities; 8,153 MSM)
 - Black 28% HIV+ (59% unaware)
 - Latino 18% HIV+ (46% unaware)
 - White 16% HIV+ (26% unaware)
 - Among 217 HIV+ young black MSM (18-29), 71% unaware of HIV status



Treatment Cascade, Medical Monitoring Project Data



Disparities persist between black and other MSM throughout treatment cascade (24 comparative studies)



(Millett, The Lancet, 2012)

Racial Differences in HIV-Related Beliefs

HIV/AIDS Conspiracy Belief	Black MSM (n=239) %	Latino MSM (n=152) %	White MSM (n=111) %
Pharmaceutical companies are hiding cure for HIV because of profits			42
HIV/AIDS drugs help more than help you			41
HIV does not cause AIDS			27
HIV is a man-made virus	50*	41*	35

High levels of mistrust is associated with not testing for HIV, not taking HIV medication and missing routine clinical care visits.

(Hutchinson, 2007)

* $P < .05$ versus White MSM

Differences in Beliefs by Race-- Antigay Attitudes

- **Belief that homosexuality is always wrong**
 - Among blacks, proportion who said homosexuality "always wrong" was 72.3% in 2008 and largely unchanged since the 1970s
 - Declined among whites from 70.8% in 1973 to 51.6% in 2008



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- **Examined link between social support and undiagnosed HIV infection among black and Latino MSM**
 - Black and Latino MSM with less social support were more likely to be diagnosed with HIV infection

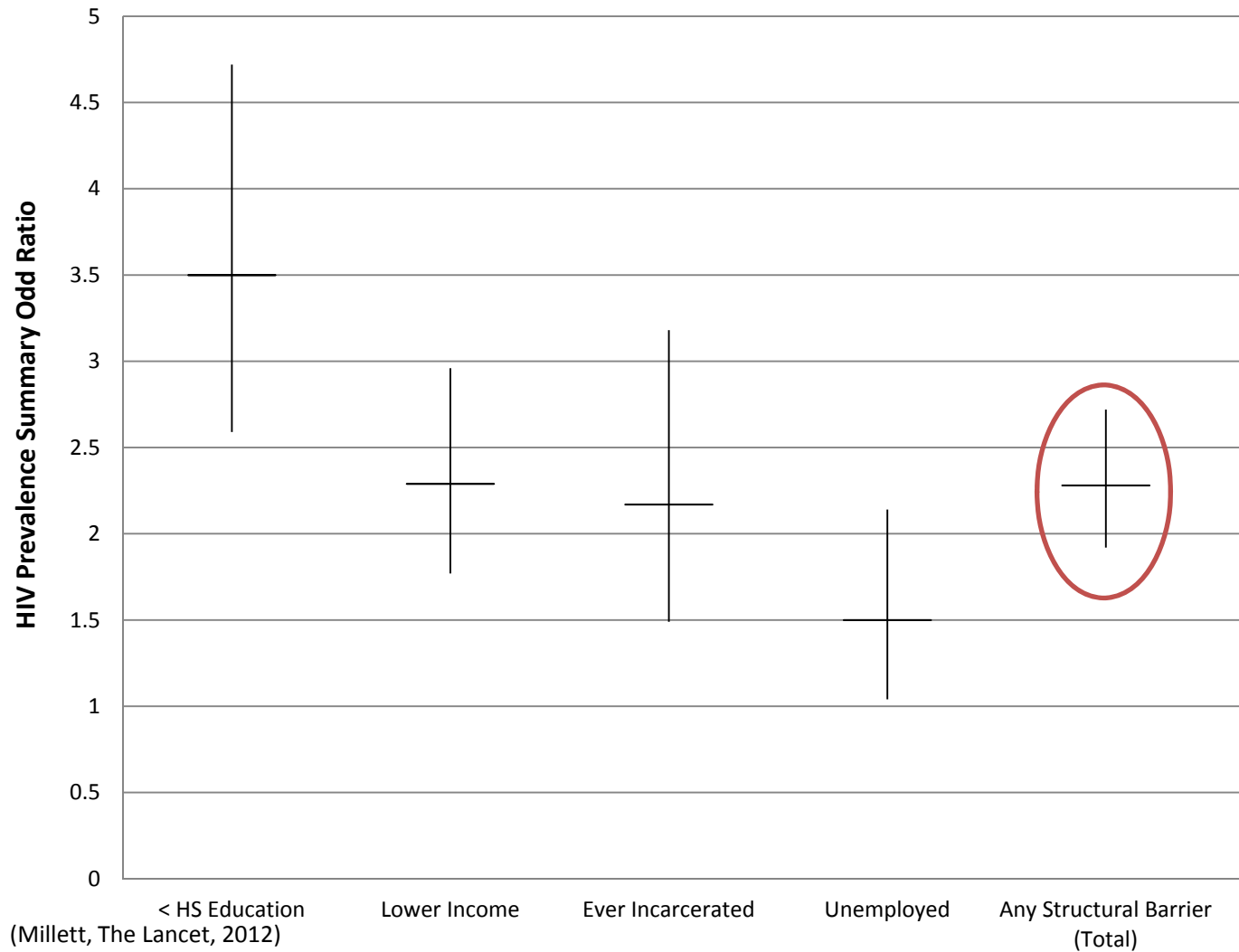


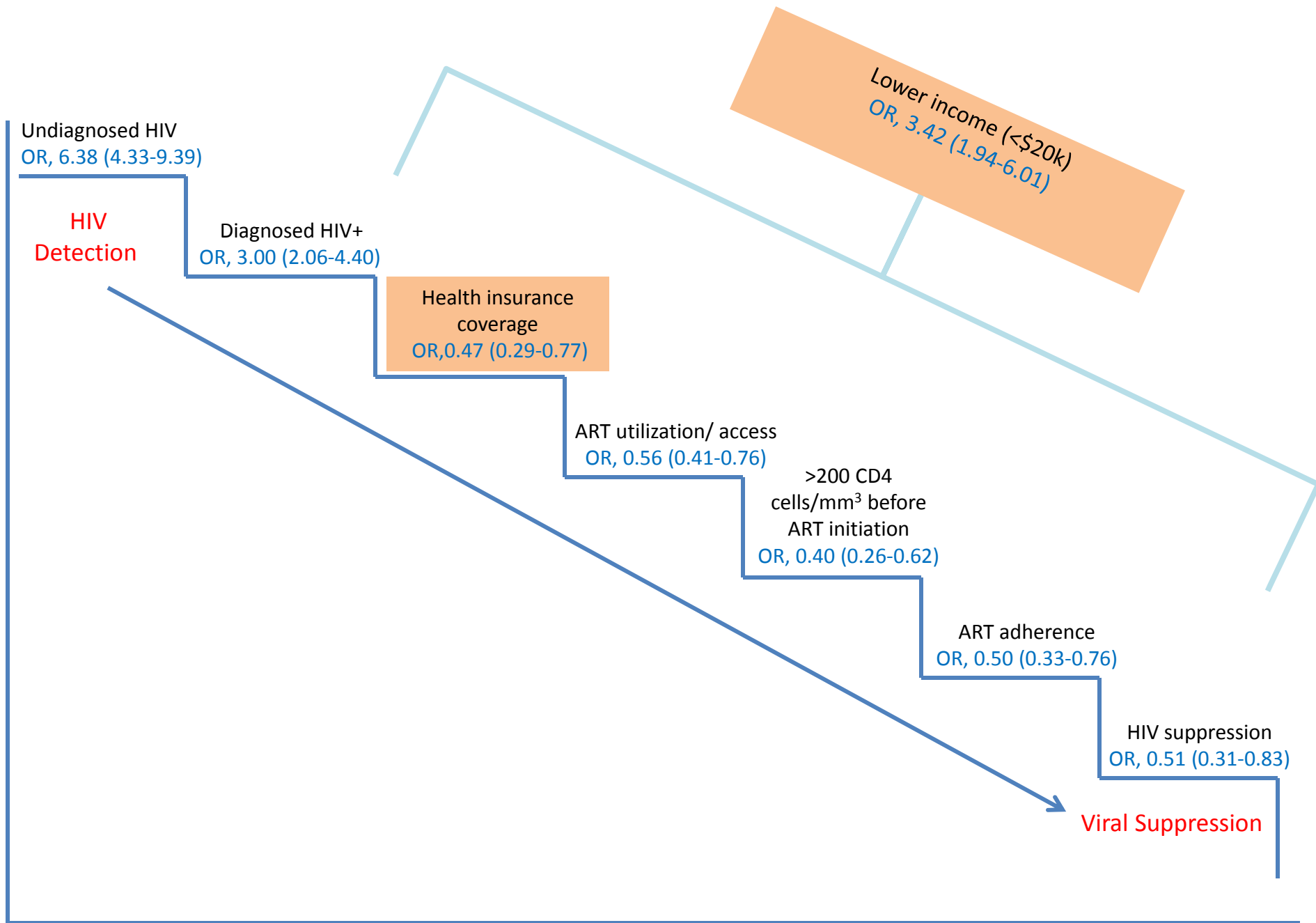
Social/Environmental Factors

- Social/ environmental factors associated with increased likelihood of HIV infection or poor virologic suppression
 - Low income
 - Low education
 - Incarceration hx
 - Unemployment
 - Uninsured

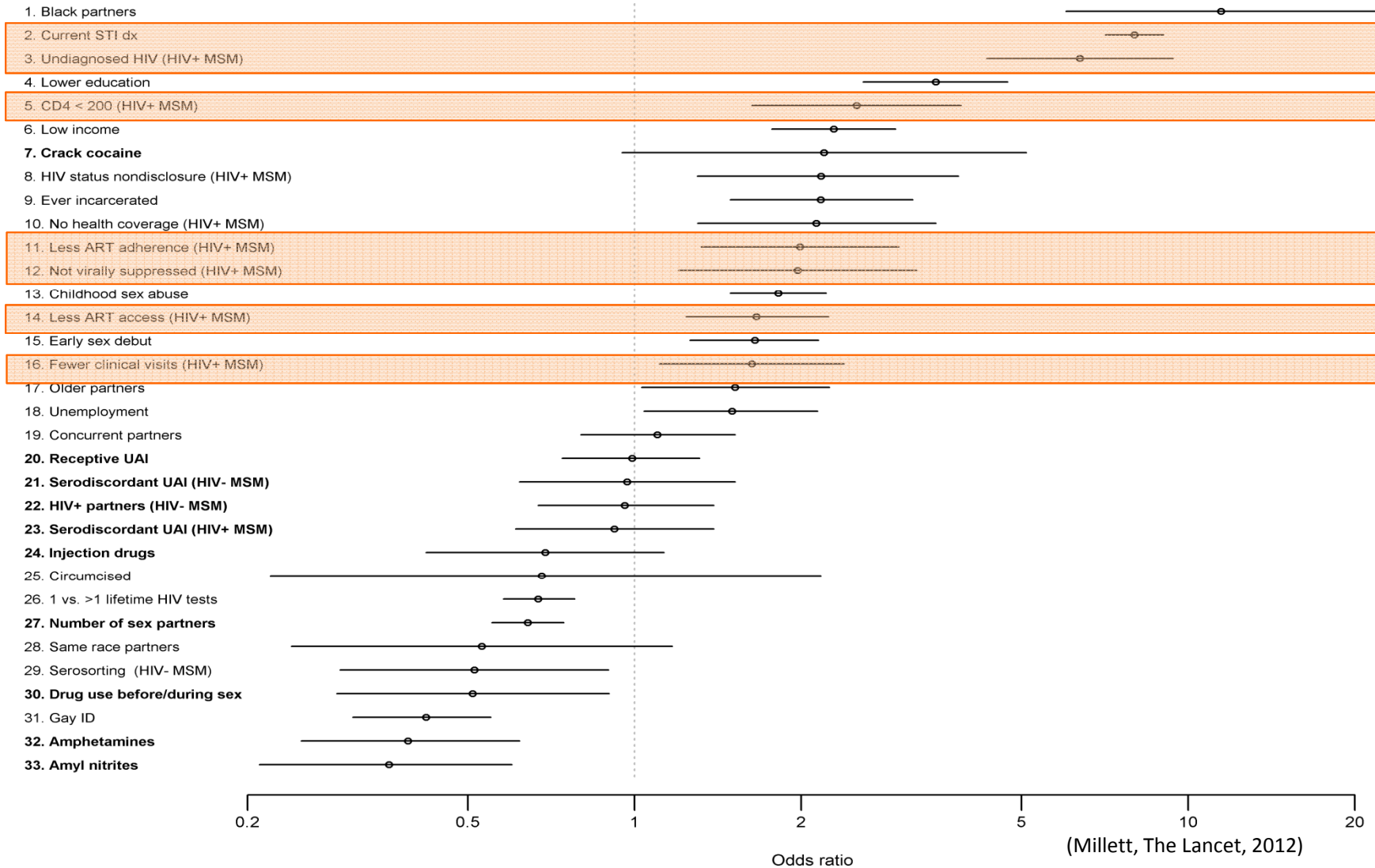


Social/ Environmental Challenges, HIV-Negative Black MSM vs. Other MSM

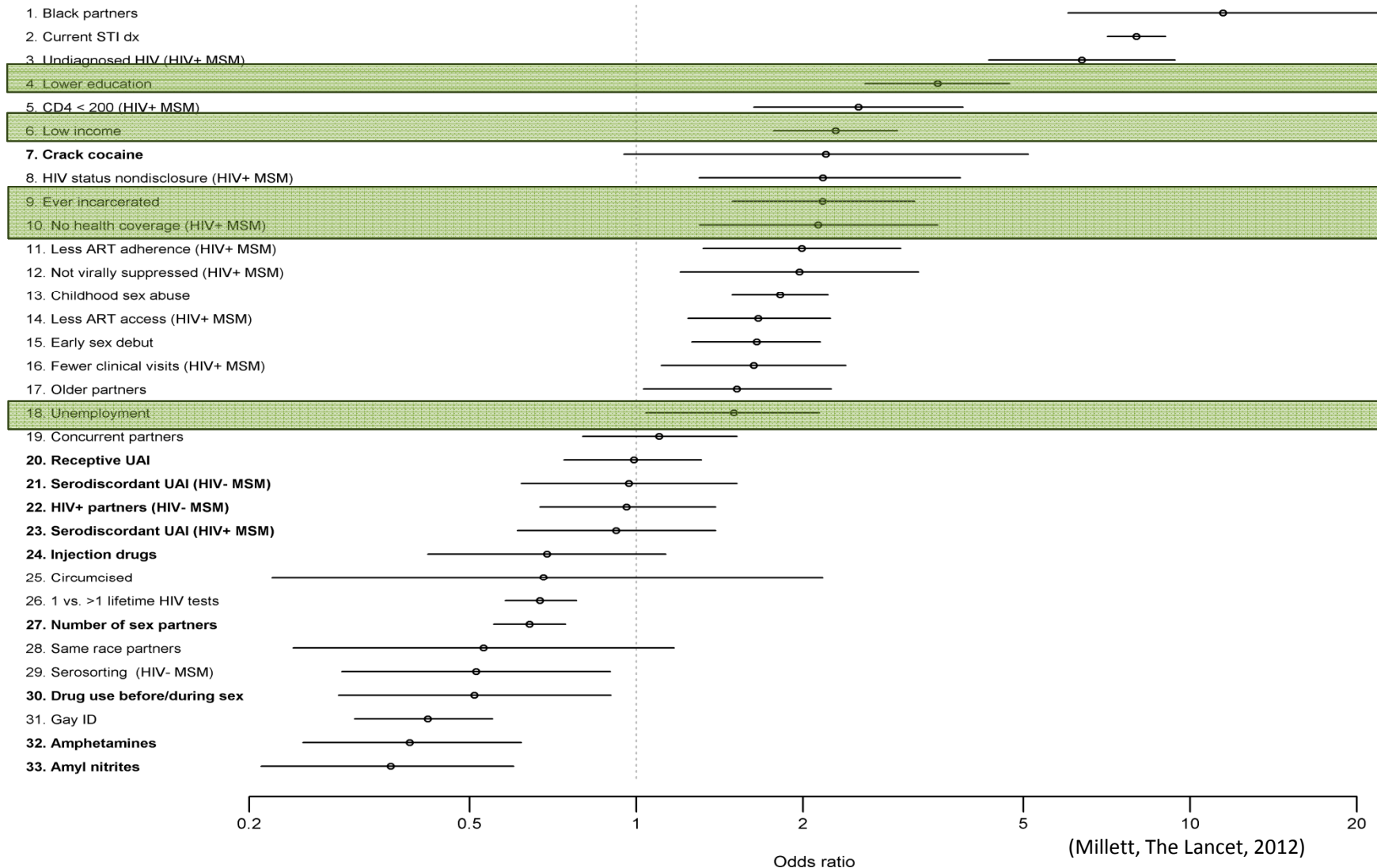




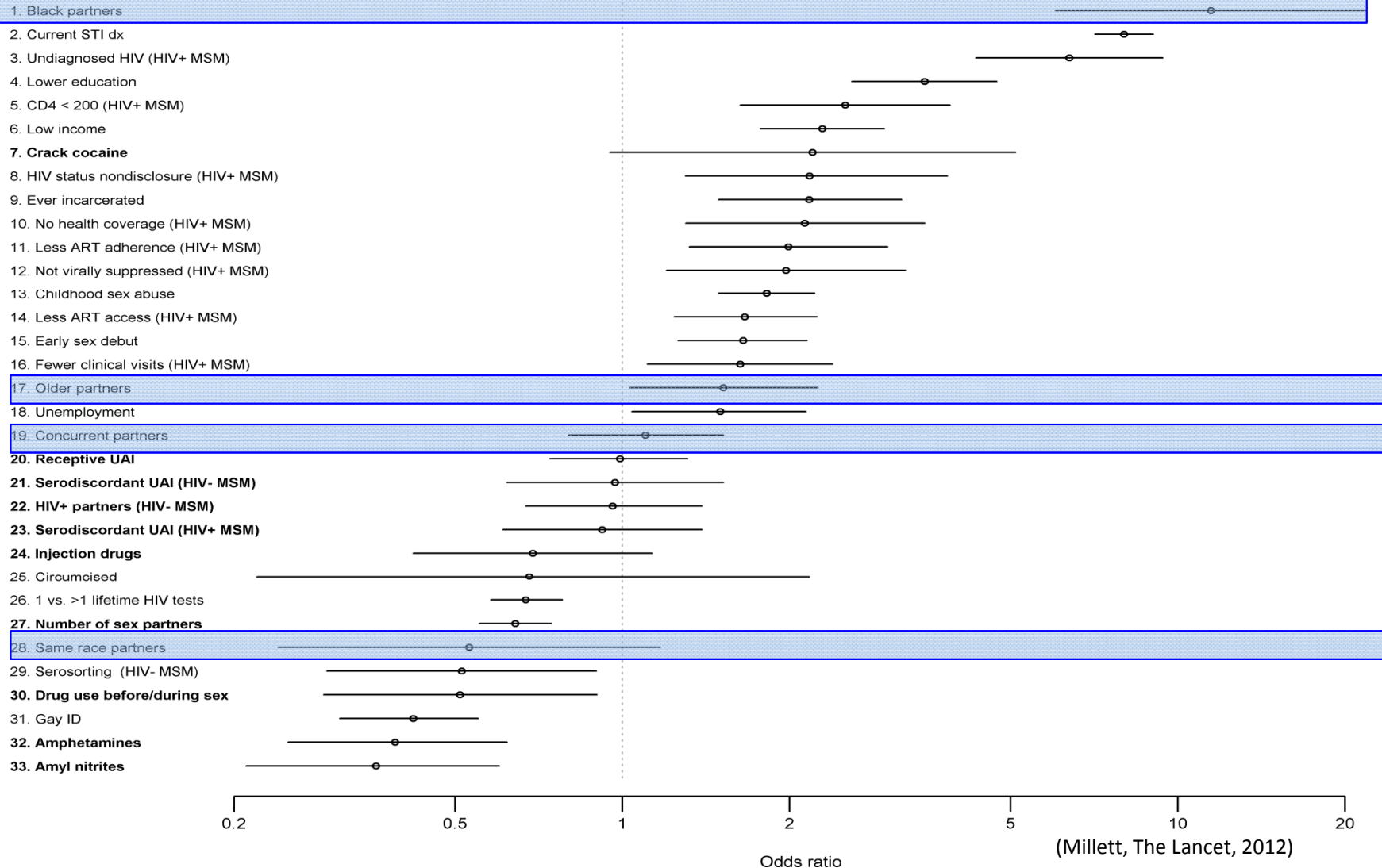
Where are HIV-Related Disparities Greatest Between Black vs. Other MSM?



HIV-Related Summary ORs of Evaluated Outcomes by Rank (Structural variables)



HIV-Related Summary ORs of Evaluated Outcomes by Rank (Network variables)



Summary

- Black MSM remain at center of US HIV epidemic
- Greater infection rates among black MSM persist despite comparable risk behaviors as other MSM
 - Characteristics of partners and sex networks only partially explain disparities
- Most HIV-related racial disparities among MSM are differences in HIV clinical outcomes followed by structural inequalities
 - Short-term: Focusing on clinical outcomes may reduce infection disparities
 - Long-term: Addressing structural inequalities may eradicate disparities
- Reducing racial/ethnic disparities can be accomplished in clinical settings

Thank You

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