Racial Disparities in HIV/STI in the United States

Gregorio A. Millett amfAR AIDS Clinical Conference August 20, 2019



Disclosures

The information or content or conclusions are those of the author and should not be construed as the official position or policy of nor should any endorsements be inferred by HRSA, HHS or the U.S. Government.

Presentation Objectives

- Understand the current status or racial/ ethnic HIV/STI disparities in the US
- Understand the role of structural issues in contributing to and remedying infection disparities
- 3. Identify successes in combatting HIV/STI disparities

HIV Diagnoses Trends 2005-2014 By Race/Ethnicity

- American Indian/Alaska Native
- Asian American
- Black/African American
- Hispanic/Latino
- Native Hawaiian/Other Pacific Islander
- White
- Multiple races

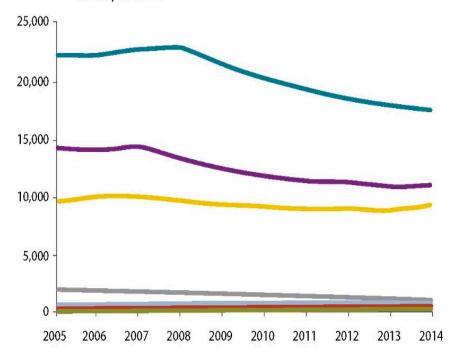
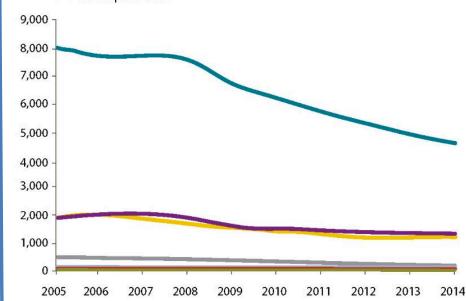


Figure 2. HIV Diagnoses among Women by Race/Ethnicity, 2005-2014

- American Indian/Alaska Native
- Asian American
- Black/African American
- Hispanic/Latino
- Native Hawaiian/Other Pacific Islander
- White
- Multiple races



PrEP in the US: Good News

PrEP approved Starting P in Chicago



Liz Highleyman Published: 21 May 2018

The US Food and Drug Administration (PrEP) for adolescents, which will likely

with a disproportionately high risk of infection.

Merck & Co. is dev this one, which is ι

New implemental prevention

By Jon Cohen Jul.

HEALTH ▶

New York City Adopts PrEP "On Demand" as Acceptable Prevention Strategy



The practice of taking PrEP specifically around sexual intercourse is officially an option for those

HIV treatment advances

Four days on, three days off HIV treatment just as effective as continuous therapy

Keith Alcorn | 25 July 2019



Getting to Zero Efforts are Accelerating

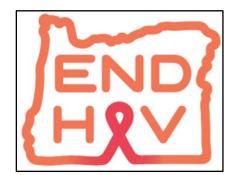


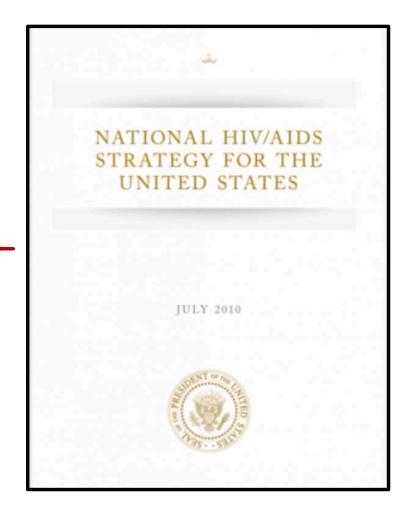












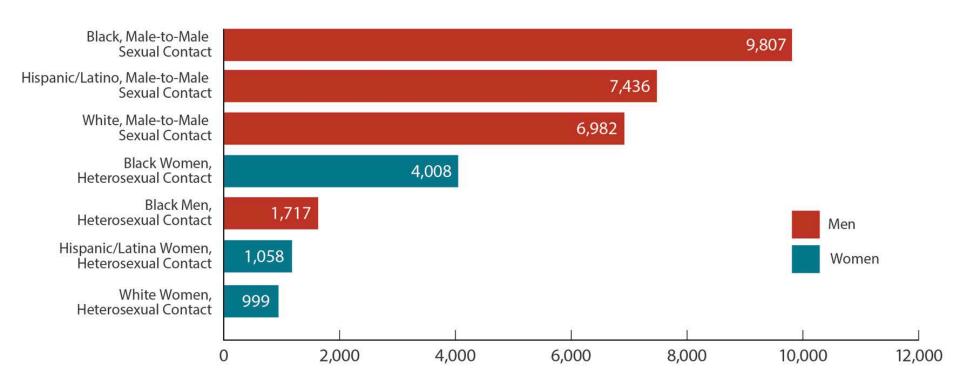
Ending the HIV Epidemic Plan



- Scale up
 - HIV testing
 - Needle exchange programs
 - PrEP
 - Treatment linkage
- Focus on priority populations

Plus Ça Change, Plus C'est la Même Chose

New HIV Diagnoses in the US and Dependent Areas for the Most-Affected Subpopulations, 2017

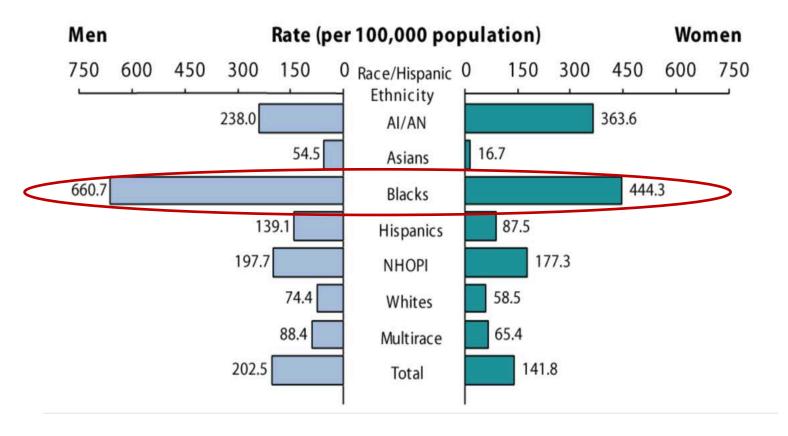


In 2017, 38,739 people received an HIV diagnosis in the US. The annual number of new HIV diagnoses remained stable between 2012 and 2016.

dis-par-i-ty (d-spr-t)

- n. pl. dis-par-i-ties
- 1. The condition or fact of being unequal, as in age, rank, or degree; difference

Gonorrhea — Rates of Reported Cases by Race/Ethnicity and Sex, United States, 2017

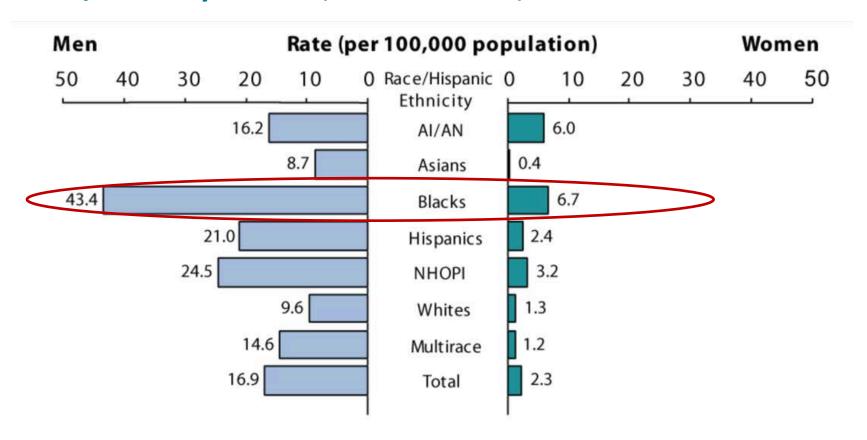


^{*} AI/AN = American Indians/Alaska Natives; NHOPI = Native Hawaiians/Other Pacific Islanders.

NOTE: Includes 50 states and the District of Columbia reporting race/ethnicity data in Office of Management and Budget compliant formats in 2016.



Primary and Secondary Syphilis — Rates of Reported Cases by Race/Ethnicity and Sex, United States, 2016



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Lifetime Risk of HIV Diagnosis by Race



Estimating the Lifetime Risk of a Diagnosis of the HIV Infection in 33 States, 2004-2005

H. Irene Hall, PhD, MPH,* Qian An, MS,† Angela B. Hutchinson, PhD, MPH,* and Stephanie Sansom, PhD, MPP, MPH*

Purpose: We estimated lifetime risk and age-conditional risk of being diagnosed with HIV in 33 states with name-based HIV

Methods: We used vital statistics data on general and HIV-specific mortality, census data, and HIV surveillance data to calculate crosssectional, period-specific (2004-2005), and age-specific probabilities of an HIV diagnosis. The probabilities were applied to a hypothetical cohort of 10 million live births, and estimates were derived for the lifetime risk, from birth, of being diagnosed with HIV.

Results: The estimated lifetime risk of being diagnosed with HIV was 1.87% for males (95% confidence limit: 1.86 to 1.89) or 1 in 53 males and 0.71% for females (95% confidence limit: 0.70-0.72) or 1 in 141 females. Blacks and Hispanics experienced higher estimated lifetime risk of HIV than whites: 6.23% or 1 in 16 for blacks, 2.88% or 1 in 35 for Hispanics, 0.96% or 1 in 104 for white males; 3.29% or 1 in 30 for blacks, 0.88% or 1 in 114 for Hispanics, and 0.17% or 1 in 588 for white females. The highest risk of HIV diagnosis was observed among people in their 30s.

Conclusions: These estimates may help to communicate the risk of HIV infection to affected communities, increase public awareness, and promote early detection and prevention efforts for HIV

(J Acquir Immune Defic Syndr 2008;49:294-297)

An estimated 1 million people are living with HIV in the United States, and about a quarter of them do not know that they are infected.1 The burden of disease is unevenly distributed among the US subpopulations; blacks and

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J Acquir Immune Defic Syndr • Volume 49, Number 3, November 1, 2008

METHODS

that have had name-based HIV reporting since 2001.

Hispanics comprise about 13% and 14% of the US population,

but about 47% and 17% of persons living with HIV/AIDS are

blacks and Hispanics, respectively.2 The majority of persons living with HIV/AIDS are men (72%). Lack of knowledge

about the risk for HIV infection may contribute to increased

risk behaviors for HIV transmission, lack of HIV testing and corresponding awareness of HIV status, and late diagnosis

and treatment of HIV. Thirty-nine percent of persons diag-

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HIV diagnosis, and the proportion of blacks and Hispanics

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general public. Age-conditional risk estimates allow identifi-

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diseases. However, there has been little use of the method to estimate the burden of HIV infection. This study estimates

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Although previous reports describe the burden of

larger than for whites.2

Cross-sectional, age-specific HIV diagnosis, mortality, and population data were used to derive lifetime and agespecific risk estimates of being diagnosed with HIV. Data on HIV diagnoses were obtained from the Centers for Disease Control and Prevention's (CDC's) national HIV/AIDS Reporting System. In 1994, the CDC implemented a uniform system for national, integrated HIV and AIDS surveillance, and 25 states began submitting data to CDC from confidential, name-based HIV reporting systems. Since 2001, data have been available from 33 states (Alabama, Alaska, Arkansas, Arizona, Colorado, Florida, Idaho, Indiana, Iowa, Kansas, Louisiana, Michigan, Minnesota, Missouri, Mississippi, North Carolina, North Dakota, New Jersey, Nebraska, New Mexico,

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JOURNAL OF ACQUIRED IMMUNE DEFICIENCY SYNDROMES

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Hispanics

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- 1 in 5 MSM
- 1 in 114 for women

Blacks

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- 1 in 3 MSM
- 1 in 30 for women

Hall et al. JAIDS, 2008; 49: 294-297; MMWR, 2011

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Although previous reports describe the burden of disease in terms of prevalence among population subgroups, estimating lifetime risk may be an additional useful method for assessing the burden of a disease in a population. Moreover, it offers a powerful tool for clinicians, researchers, and policy makers to highlight and communicate more effectively the risk of a disease to nontechnical audiences. Lifetime risk, which is often expressed in terms of the number of people who would need to be followed throughout their lives to observe 1 occurrence of the disease, is more easily understood by the general public. Age-conditional risk estimates allow identification of age categories where the burden of the disease is greatest. Lifetime risk estimates are commonly reported in the popular press and scientific literature for cancer and other diseases. However, there has been little use of the method to estimate the burden of HIV infection. This study estimates lifetime risk and age-conditional risk of being diagnosed with HIV for age, sex, and racial/ethnic subgroups in the 33 states that have had name-based HIV reporting since 2001.

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- 1 in 588 for women
- 1 in 6 transwomen

Hispanics

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- 1 in 5 MSM
- 1 in 114 for women
- 1 in 3 to 6 transwomen

Blacks

- 1 in 16 for men
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- 1 in 30 for women
- 1 in 2 transwomen

Hall et al. JAIDS. 2008; 49: 294-297; MMWR, 2011; Rapues, AJPH, 2013; Herbst, AIDS Behav, 2008.

A mystery illness killed a boy in 1969. Years later, doctors believed they'd learned what it was: AIDS.

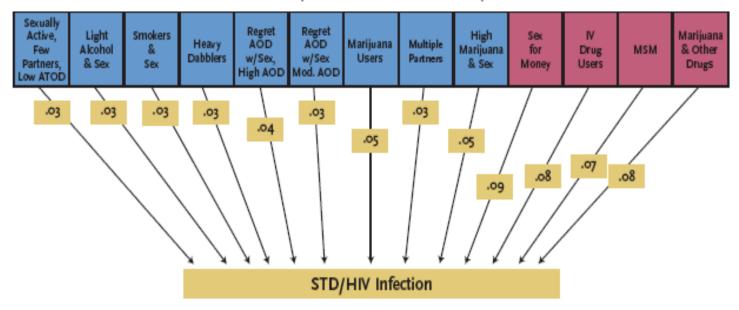
Robert Rayford challenged the narrative about the epidemic



Risk Behavior & HIV/STI Racial Disparities

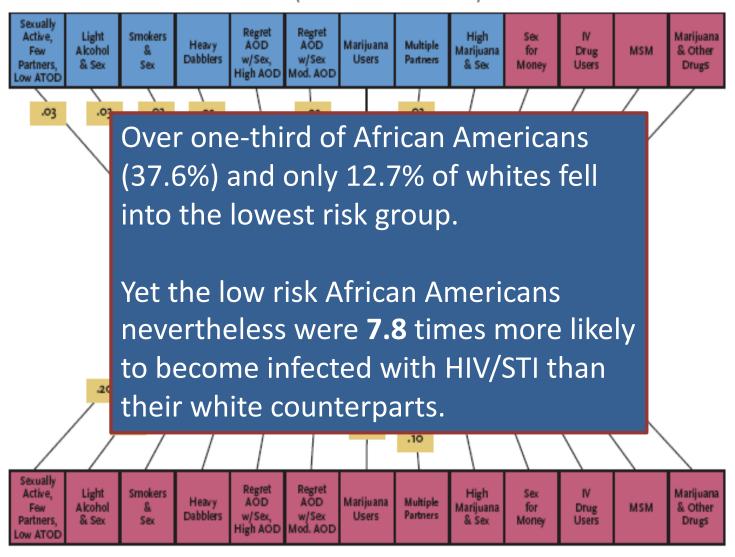
Higher Rates of Infection among Young Black Adults Irrespective of Risk Behavior

Whites (red clusters = infection rates >.o6)



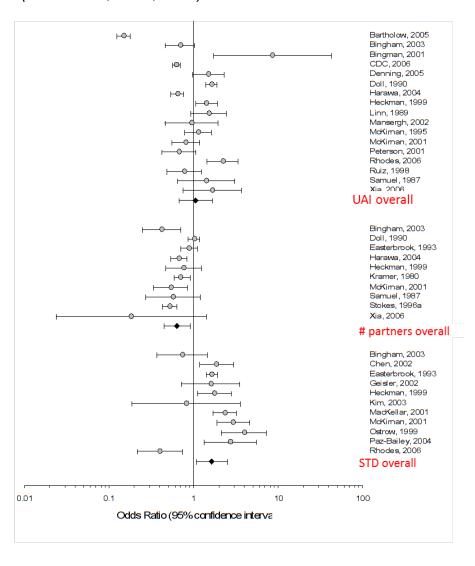
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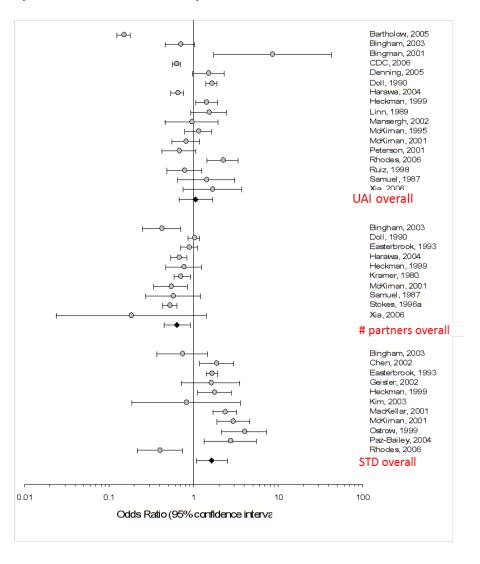
Risk Behavior and STIs, Black MSM Relative to White MSM Across MSM Studies

(Millett et al., AIDS, 2007)

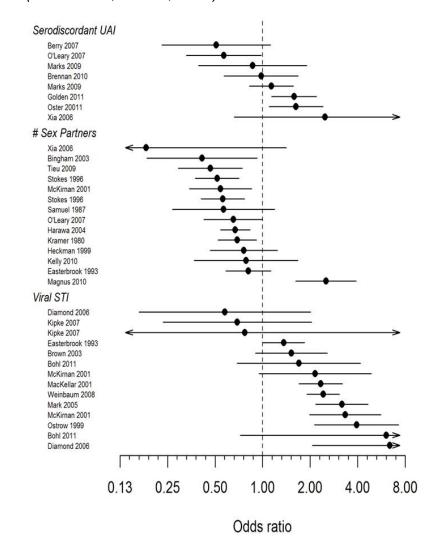


Risk Behavior and STIs, Black MSM Relative to White MSM Across MSM Studies

(Millett et al., AIDS, 2007)



(Millett et al., Lancet, 2012)



Greater HIV/STI Prevalence Increases Transmission Risk

General Public

U.S. MSM

U.S. Black community

Factors Associated with Disparities

Geography and Racial Disparities

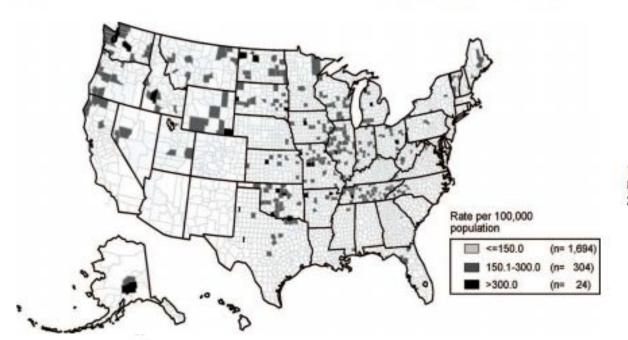
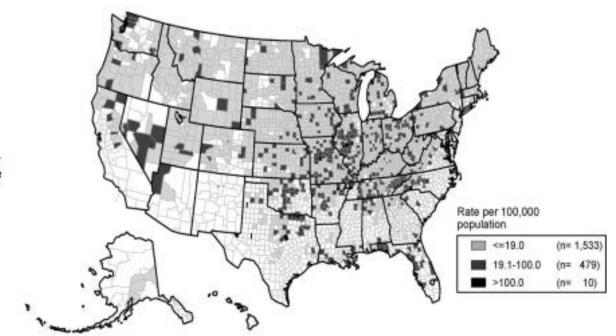


Fig. 10. Chlamydial infection rates per 100,000 population in counties where at least 80% of the population is white, United States, 2005.

Fig. 8. Gonorrhea rates per 100,000 population in counties where at least 80% of the population is white, United States, 2005.



(Leichleiter, 2012)

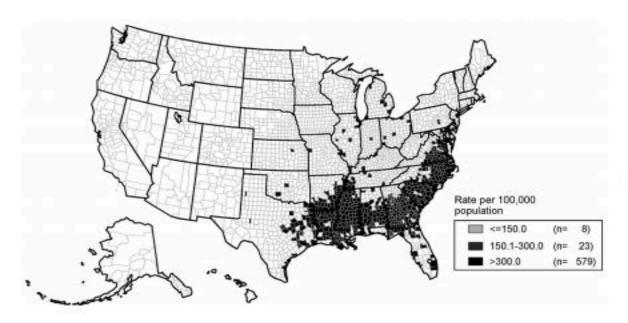
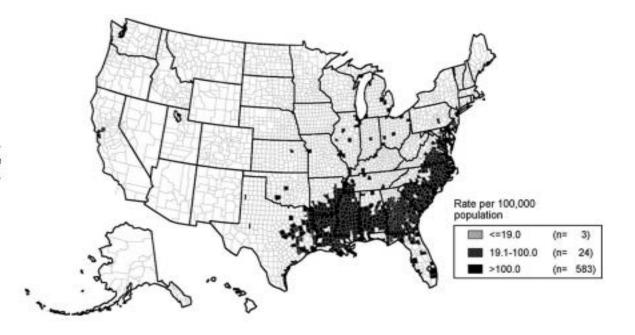
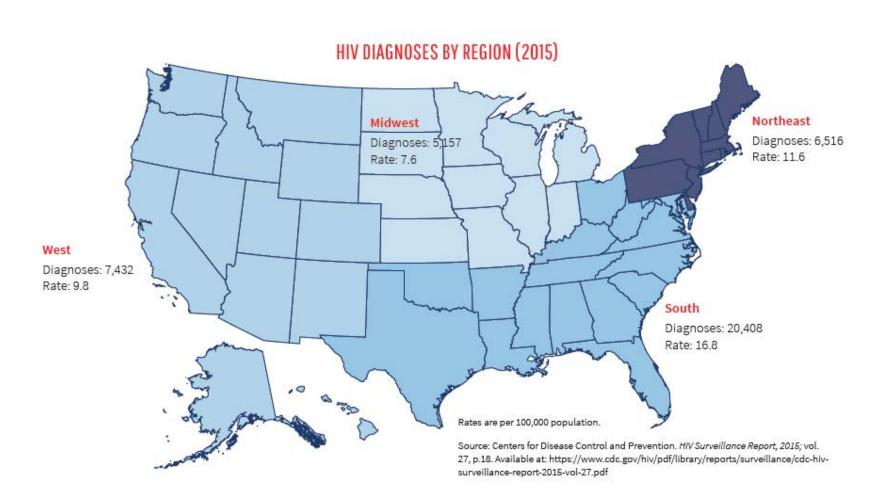


Fig. 9. Chlamydial infection rates per 100,000 population in counties where at least 15% of the population is African American, United States, 2005.

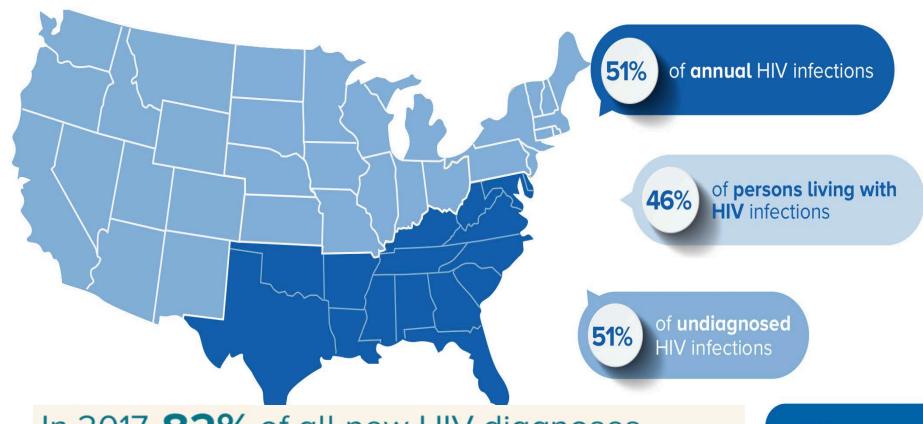
Fig. 7. Gonorrhea rates per 100,000 population in counties where at least 15% of the population is African American, United States, 2005.



HIV Diagnoses, 2015 By Region



Southern states account for **38%** of the US population but bear the highest burden of HIV infection.



In 2017, **82%** of all new HIV diagnoses in the South were among:



Geography and HIV Transmission Risk

Geography Should Not Be Destiny: Focusing HIV/AIDS Implementation Research and Programs on Microepidemics in US Neighborhoods

African Americans and Hispanics are disproportionately affected by the HIV/AIDS epidemic. Within the most heavily affected cities, a few neighborhoods account for a large share of new HIV infections.

Addressing racial and economic disparities in HIV infection requires an implementation program and research agenda that assess the impact of HIV prevention interventions focused on increasing HIV testing, treatment, and retention in care in the most heavily affected neighborhoods in urban areas of the United States.

Neighborhood-based implementation research should evaluate programs that focus on community mobilization, media campaigns, routine testing, linkage to and retention in care, and block-by-block outreach strategies. (Am J Public Health. 2014; 104:775–780. doi:10.2105/AJPH.2013.301864)

Amy Nunn, MS, ScD, Annajane Yolken, Blayne Cutler, MD, PhD, Stacey Trooskin, MD, PhD, Phill Wilson, Susan Little. MD, and Kenneth Maver. MD

ALTHOUGH HIV INCIDENCE IN

the United States has remained relatively stable since the mid-1990s, rates among African Americans and Hispanics are 8 and 3 times those among Whites. respectively.1 Approximately 65% of new HIV infections in the United States occur in non-White populations. Individual behavioral risk factors, including unprotected sex and substance use, do not fully explain racial disparities in HIV infection; minority populations do not engage in higher rates of HIV risk behaviors than individuals of other races.2

GEOGRAPHIC AND RACIAL DISPARITIES IN HIV INFECTION

New research underscores the pivotal role that sexual networks, structural factors, and geography play in potentiating HIV risks; a recent study published in Morbidity and Mortality Weekly Report revealed strong associations between HIV and poverty, low socioeconomic status (SES), unemployment, and lower educational attainment in 24 US cities. A subsequent article published in the same journal showed that AIDS prevalence was 2.3% overall in urban census tracts

with high poverty rates.4 Similarly, new mapping tools (for examples, see www.aidsvu.org) help visualize associations between low SES, race, and geographic clustering of HIV infections in these same heavily affected communities. HIV prevalence rates in certain urban neighborhoods rival those of some sub-Saharan African countries. Within the most highly affected US cities, a discrete number of specific neighborhoods account for a large share of HIV infections and AIDS-related mortality.

For example, in Washington, DC, 2.7% of the general population is infected with HIV, but the epidemic is most heavily concentrated in wards 5, 6, 7, and 8, where residents are predominantly African American and of low SES, and where the HIV prevalence rate is as high as 3.1%. This is a stark contrast with ward 3, where residents are predominantly White and of higher SES, and the HIV prevalence rate is 0.4%.5

Similarly, although New York City has an overall HIV prevalence rate of 1.4% the predominantly African American and Hispanic neighborhoods of East Harlem, Central Harlem, High-Bridge Morrisania, and Hunts Point-Mott Haven, as well as predominantly White Chelsea, have rates ranging from 2.4% to 4.5% (Figure 1). However, AIDS related mortality rates in the predominantly White neighborhood of Chelsea, which has a large gay population, are far lower than those in other predominantly African American and Hispanic neighborhoods with high infection rates.

Finally, Philadelphia's HIV infection rate of 114 per 100 000 is five times the national average. Although HIV prevalence in Philadelphia is high among residents of Center City, an affluent, predominantly White neighborhood with a large gay community, AIDS-related mortality in Center City is far lower than that in predominantly African American neighborhoods with high rates of infection (Figure 2).6 These higher rates of HIV infection and AIDSrelated mortality in inner-city communities exemplify many of the public health challenges our nation faces in addressing domestic HIV/AIDS microepidemics.

The National HIV/AIDS Strategy (NHAS) calls for reducing HIV incidence, increasing access to care, reducing HIV-related health disparities, and distributing resources to the most heavily

Washington, DC

- General HIV prevalence2.7%
 - White neighborhoods (0.3%)
 - Black neighborhoods (3.1%)

New York City

- General HIV prevalence1.7%
 - Upper East Side (0.2%-0.5%)
 - Harlem/ Bronx (1.8%-4.3%)

Geography and HIV Transmission Risk

Using census track data, researchers found segregation by neighborhood of residence and sex

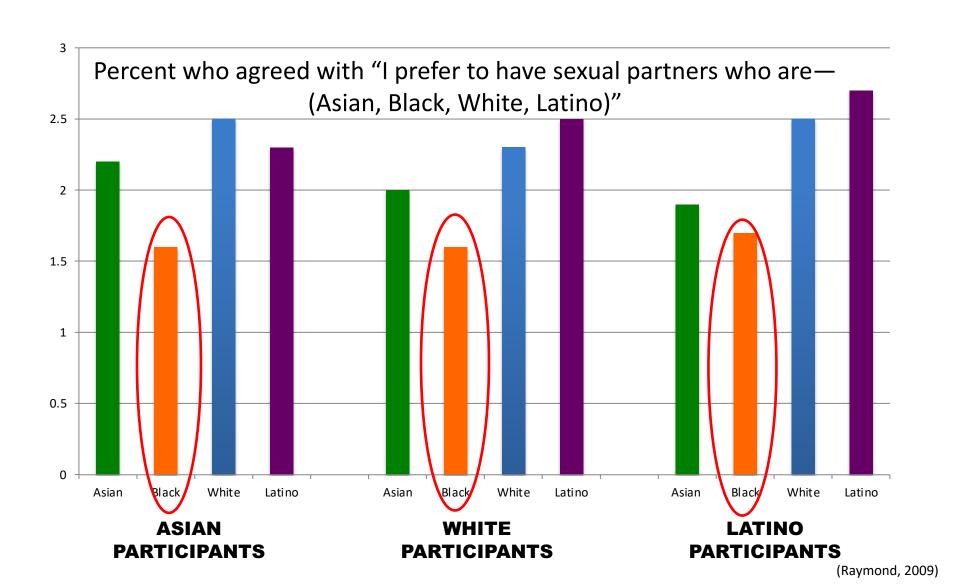
- Most Black MSM lived in Brooklyn (42%) and the Bronx (21%)
- Most white MSM lived in Manhattan (54%)

Most neighborhoods where MSM had sex did not overlap

MSM across races in NYC socialize in the same places, but <u>live and have sex in different neighborhoods</u>



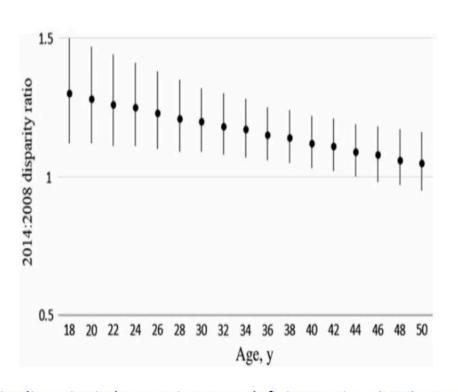
Partner Preference by Race: Marginalization and HIV Risk



Healthcare Access and Disparities

Racial disparities are increasing

NHBS: Disparity in HIV
 prevalence between black
 and white MSM increased
 from 2008 to 2014,
 especially among young
 MSM



Change in disparity in human immunodeficiency virus (HIV) prevalence from 2008 to 2014 between black and white men who have sex with men (MSM), by age, National HIV Behavioral Surveillance, 20 US cities.

PrEP Access- Innovation & Disparities



of people who could potentially benefit from PrEP are African American – approximately 500,000 people...





of people who could potentially benefit from PrEP are Latino – nearly 300,000 people... ...but only 3% of those – 7,600 Latinos – were prescribed PrEP*



PrEP Access Is Increasing, BUT So Are Disparities





Morbidity and Mortality Weekly Report (*MMWR*)

Changes in HIV Preexposure Prophylaxis Awareness and Use Among Men Who Have Sex with Men — 20 Urban Areas, 2014 and 2017

Weekly / July 12, 2019 / 68(27);597-603

Summary

What is already known about this topic?

Men who have sex with men (MSM) can reduce their risk for human immunodeficiency virus (HIV) infection by using preexposure prophylaxis (PrEP) consistently. Increasing PrEP use is a principal strategy of the Ending the HIV Epidemic initiative.

What is added by this report?

From 2014 to 2017, PrEP awareness among MSM in 20 urban areas increased from 60% to 90%, and PrEP use increased from 6% to 35%. PrEP use increased in almost all demographic subgroups but remains lower among black and Hispanic MSM.

- PrEP use 2014
 - White MSM (8.3%)
 - Black MSM (3.8%)
- PrEP use 2017
 - White MSM (42.4%)
 - Black MSM (26.2%)

PrEP use difference black /white MSM controlling for income, health insurance and region

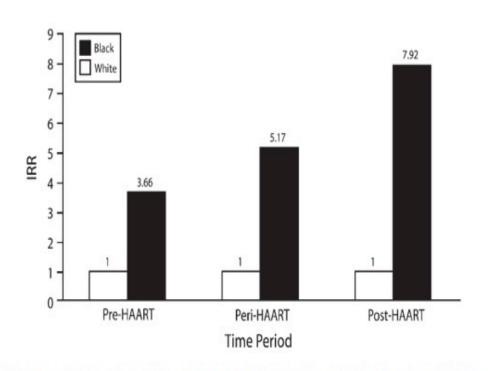
aPR = 0.78; 95% CI = 0.66–0.92

AIDS Mortality Disparities

- AIDS deaths have declined least in the ART era
 - Among black and Latino MSM relative to white MSM
 - Among black
 women compared
 to white men
 - Among Latinos
 compared to blacks
 or whites

Mortality incident rate-ratios between blacks and whites have increased since availability of ART

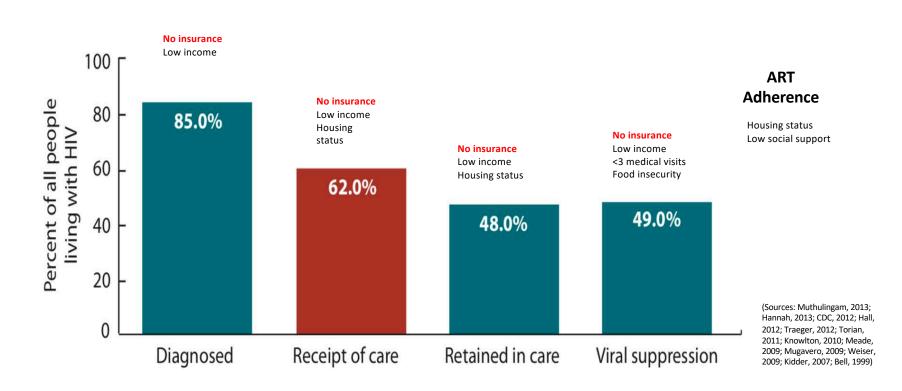
Reason: Less access to healthcare in racial minority communities



Note. HAART = highly active antiretroviral therapy; IRR = incident rate ratio. For each period, the results from the model were adjusted for age, gender, and urbanicity. Whites were the reference group.

(Levine, 2007)

Structural Factors and Poor Treatment Cascade Outcomes



Disparities persist between black and other MSM throughout treatment cascade (24 comparative studies) Lower income (7\$20k) **Undiagnosed HIV** OR, 6.38 (4.33-9.39) HIV Diagnosed HIV+ Detection OR, 3.00 (2.06-4.40) ART utilization/ access OR, 0.56 (0.41-0.76) >200 CD4 Health insurance OR, 0.47 (0.29-0.77) cells/mm³ before ART initiation OR, 0.40 (0.26-0.62) Healthcare visits OR, 0.61 (0.42-0.90) ART adherence OR, 0.50 (0.33-0.76) **HIV** suppression OR, 0.51 (0.31-0.83) **Viral Suppression**

Physician Expertise and HIV+ Patients of Color

Racial and Ethnic Disparities in Access to Physicians with HIV-related Expertise Findings from a Nationally Representative Study

Kevin C. Heslin, PhD,¹ Ronald M. Andersen, PhD,² Susan L. Ettner, PhD,^{2,3} William E. Cunningham, MD, MPH^{2,3}

¹Research Center in Minority Institutions, Charles R. Drew University of Medicine and Science, ²Department of Health Services, UCLA School of Public Health, and ³Department of General Internal Medicine and Health Services Research, The David Geffen School of Medicine, University of California at Los Angeles, Los Angeles, CA, USA.

- Prospective cohort study: 2,207 HIV+ persons linked with cross-sectional survey of 404 attending physicians.
- Multivariate analysis estimated the association of patient race/ethnicity with the experience and training of their physicians
- Compared with white patients
 - African Americans less likely to have an infectious diseases specialist as a regular source of care (OR, 0.60; 95% confidence interval CI, 0.37 to 0.95).
 - Persons of Alaskan Native, American Indian, Asian, Pacific Islander, or mixed racial background also less likely than whites to have an infectious diseases specialist (OR, 0.44; 95% CI, 0.23 to 0.83).

 Importance of these data: Greater provider expertise is associated with lower risk risk of death for patients living with HIV.

CDC MMWR Sustained Viral Suppression

TABLE 1. Sustained viral suppression* among persons aged >13 years with human immunodeficiency virus (HIV) infection diagnosed through 2013 who were alive at the end of 2014, by race/ethnicity and selected characteristics† — National HIV Surveillance System, 37 states and the District of Columbia, §,¶ 2014

	Racial/Ethnic group, No. (%)								
	All groups**		Black		Hispanic/Latino		White		
Characteristic	Total	Sustained viral suppression	Total	Sustained viral suppression	Total	Sustained viral suppression	Total	Sustained viral suppression	
Total	651,811 (100.0)	315,390 (48.4)	263,588 (100.0)	107,438 (40.8)	149,117 (100.0)	74,721 (50.1)	199,700 (100.0)	112,413 (56.3)	
Sex									
Male	500,057 (76.7)	246,950 (49.4)	175,170 (66.5)	70,398 (40.2)	118,621 (79.5)	59,235 (49.9)	175,690 (88.0)	100,820 (57.4)	
Female	151,754 (23.3)	68,440 (45.1)	88,418 (33.5)	37,040 (41.9)	30,496 (20.5)	15,486 (50.8)	24,010 (12.0)	11,593 (48.3)	
Age group at diagnosi	s (yrs)								
13-24	27,825 (4.3)	9,380 (33.7)	16,328 (6.2)	4,769 (29.2)	6,086 (4.1)	2,470 (40.6)	3,544 (1.8)	1,461 (41.2)	
25-34	95,460 (14.6)	38,714 (40.6)	45,207 (17.2)	15,297 (33.8)	24,744 (16.6)	11,022 (44.5)	19,058 (9.5)	9,389 (49.3)	
35-44	144,068 (22.1)	66,250 (46.0)	58,074 (22.0)	22,885 (39.4)	38,286 (25.7)	18,469 (48.2)	37,869 (19)	19,819 (52.3)	
45-54	223,990 (34.4)	114,726 (51.2)	83,043 (31.5)	36,480 (43.9)	49,524 (33.2)	25,893 (52.3)	78,538 (39.3)	45,208 (57.6)	
≥55	160,468 (24.6)	86,320 (53.8)	60,936 (23.1)	28,007 (46.0)	30,477 (20.4)	16,867 (55.3)	60,691 (30.4)	36,536 (60.2)	
Transmission category	ř.								
Male									
Male-to-male sexual contact	357,258 (54.8)	185,535 (51.9)	107,769 (40.9)	44,248 (41.1)	82,991 (55.7)	43,790 (52.8)	144,148 (72.2)	85,041 (59.0)	
Injection drug use	54,485 (8.4)	21,559 (39.6)	26,708 (10.1)	9,815 (36.7)	15,971 (10.7)	6,346 (39.7)	9,338 (4.7)	4,201 (45.0)	
Male-to-male sexual contact and injection drug use	39,225 (6.0)	18,530 (47.2)	11,747 (4.5)	4,796 (40.8)	8,724 (5.9)	4,030 (46.2)	15,640 (7.8)	8,192 (52.4)	
Heterosexual contact	43,859 (6.7)	19,313 (44.0)	26,749 (10.1)	10,886 (40.7)	9,674 (6.5)	4,566 (47.2)	5,156 (2.6)	2,687 (52.1)	
Female									
Heterosexual contact	110,865 (17.0)	51,331 (46.3)	67,415 (25.6)	28,851 (42.8)	21,754 (14.6)	11,563 (53.2)	15,459 (7.7)	7,774 (50.3)	
Injection drug use	36,267 (5.6)	15,472 (42.7)	18,556 (7.0)	7,426 (40.0)	7,580 (5.1)	3,481 (45.9)	7,846 (3.9)	3,511 (44.7)	
Other	9,853 (1.5)	3,651 (37.1)	4,644 (1.8)	1,417 (30.5)	2,424 (1.6)	945 (39.0)	2,112 (1.1)	1,007 (47.7)	

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Foreign-Born Latinos & HIV Diagnosis

Factors in the Delayed HIV Presentation of Immigrants in Northern California: Implications for Voluntary Counseling and Testing Programs

Vivian Levy · Diane Prentiss · Gladys Balmas · Sanny Chen · Dennis Israelski · David Katzenstein Kimberly Page-Shafer

Table 1 Demographic characteristics, CD4+ count at entry into AIDS program and prevalence of opportunistic infections (OIs) at HIV diagnosis among immigrant and U.S.-born patients in the San Mateo County AIDS program, Northern California 2000–2002 (n = 391)

Variable	Immigrants $(n = 94) N(\%)$ or median (IQR)	U.SBorn ^a $(n = 297) N(\%)$ or median (IQR)	p-value
Male ^b	71 (75.5%)	219 (73.7%)	0.649
Median age	31 (27-38)	35 (29-41)	0.001
Hispanic ethnicity	74 (78.7%)	20 (6.7%)	<.001
Monolingual (non-English) ^c	66 (70.2%)	1 (0.34%)	<.001
Country of birth			
Mexico	57 (61.3%)		
Central America	13 (14.0%)		
Asia	12 (12.9%)		
Other	11 (11.8%)		
Mean initial CD4+ count	287 cells/mm ³	333 cells/mm ³	0.143
Prevalence of OIs	28 (29.8%)	51 (17.2%)	0.009
Hospitalizations $(n = 59)$	19 (20.2%)	37 (12.5%)	0.064

Table 2 Independent associations with opportunistic infection (OI) at first HIV diagnosis (multivariate analysis) for 391 patients entering San Mateo County AIDS Program, California 2000–2002

	Adjusted OR (95% CI)			
Immigrants Monolingual status Hispanic	2.98 (1.21–7.38) 1.17 (0.40–3.43) 0.51 (0.19–1.34)			

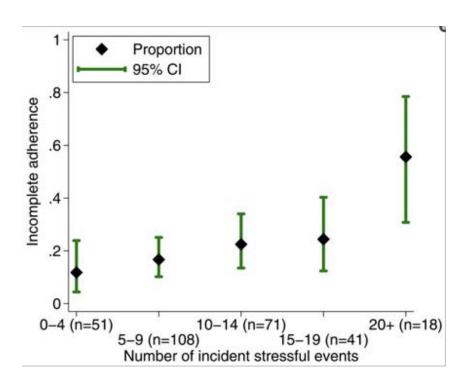
US-Mexico border: 46% Latinos dx late vs. 37% Whites (Espinoza, 2009)

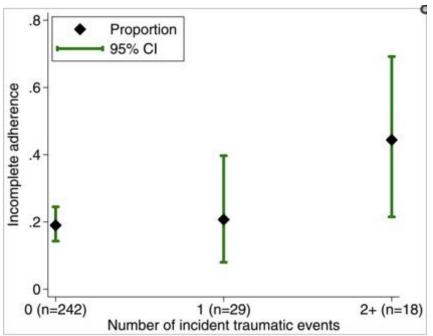
- higher proportion of late diagnoses among foreignborn compared to US-born Latinos (51% vs. 39%)
- increased risk of delayed diagnosis among foreign-born vs. US-born males (AOR 1.7, 95% CI 1.4–2.2)

LA County Spanish-speaking Latinos 3x more likely to present late compared to English-speaking Latinos (Wohl, 2009)

Overload: The Impact of Incident Stressful Events on Antiretroviral Medication Adherence and Virologic Failure in a Longitudinal, Multi-site HIV Cohort Study

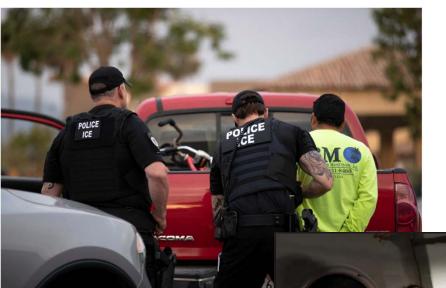
Michael J. Mugavero, MD, MHSc¹, James L. Raper, DSN, CRNP, JD, FAANP¹, Susan Reif, PhD, MSW², Kathryn Whetten, PhD, MPH^{2,3}, Jane Leserman, PhD⁴, Nathan M. Thielman, MD, MPH⁵, and Brian Wells Pence, PhD, MPH^{2,3}





Trump Administration Expands Fast-Tracked Deportations for Undocumented Immigrants

160 DETAINED IN IMMIGRATION RAIDS



The Trump administration is making legal immigration harder, too

Delays at U.S. Citizenship and Immigration Services are getting worse.



DACA 'DREAMER' MURDERED IN MEXICO THREE WEEKS AFTER HE WAS SENT BACK BY ICE

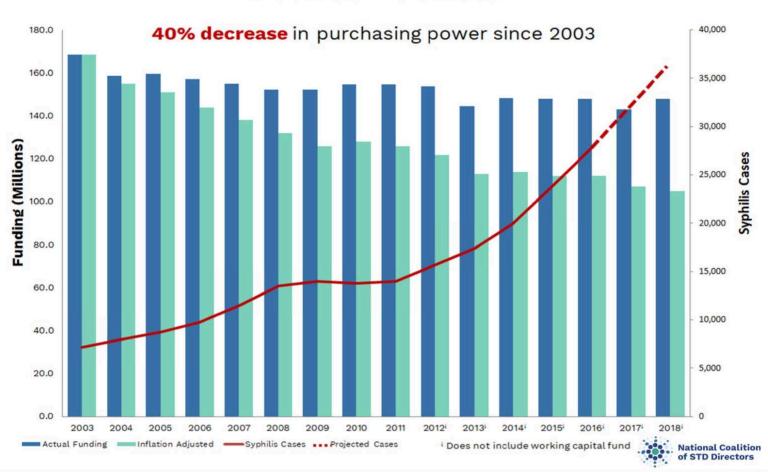
He Delivered Pizza to an Army Base in Brooklyn. Now He Faces Deportation.

Veteran who served two tours in Afghanistan is deported to Mexico

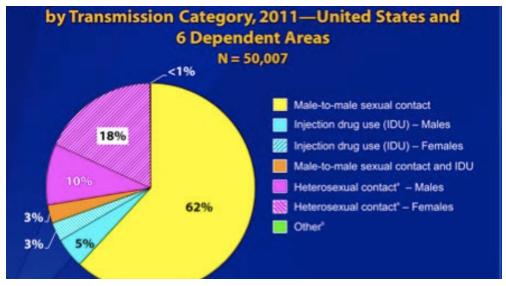
Funding and Disparities

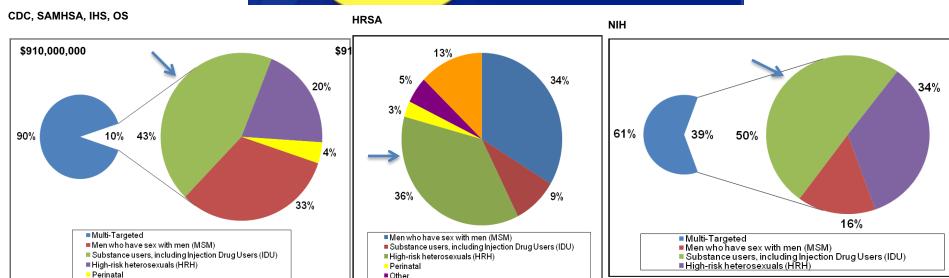
STD Prevention Funding is Declining Despite Rise in STIs

Annual CDC - STD Prevention Budget FY 2003 - FY 2018



Are Federal and State Dollars Aligned with the Epidemic?



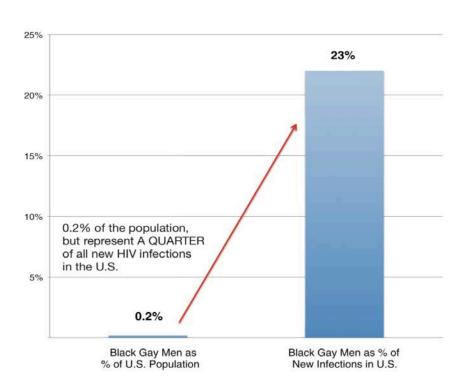


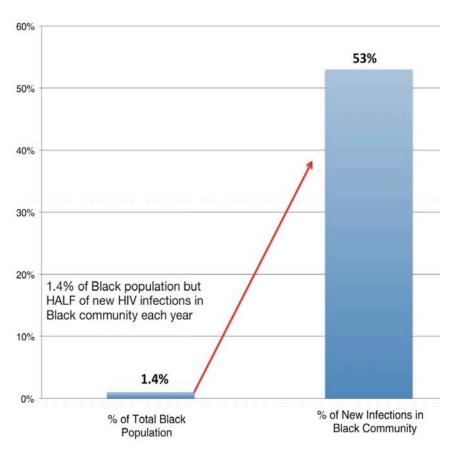
(HHS Operational Plan, 2011)

Multi-Targeted/Unknown

Black MSM: A Small Population at Very High Risk

The proportion of new HIV infections nationally among Black gay men in the U.S. is **100 times larger** than their relative population size.





Source: http://www.amfar.org/uploadedFiles/ amfarorg/Articles/On The Hill/2016/Black-Gay-Men-and-HIV.pdf



Mismatch Between Targeted HIV Tests and Diagnoses

Morbidity and Mortality Weekly Report

HIV Testing, Linkage to HIV Medical Care, and Interviews for Partner Services Among Black Men Who Have Sex with Men — Non-Health Care Facilities, 20 Southern U.S. Jurisdictions, 2016

Mariette Marano, MPH¹; Renee Stein, PhD¹; Wei Song, PhD¹; Deesha Patel, MPH¹; Nicole Taylor-Aidoo, MS²; Songli Xu, PhD¹; Lamont Scales, MA¹

Identifying HIV-infected persons who are unaware of their human immunodeficiency virus (HIV) infection status, linking information on linkage of persons with newly or previously identified HIV infection to medical care within 90 days,† and

Black MSM 36% of HIV diagnoses in these localities, but only 6% of HIV tests

(2,3). African American or black (black) MSM accounted for 38% of all new diagnoses of HIV infection among MSM (2). Nearly two thirds (63%) of all U.S. black MSM with diagnosed HIV infection reside in the southern United States (2), making targeted HIV prevention activities for black MSM in this region critical. Analysis of CDC-funded HIV testing

care facilities routinely collect HIV-related risk information from all clients, whereas health care facilities are only required to collect HIV risk information from HIV-positive clients. Data were stratified by the following characteristics: age group, first-time tested, and urbanicity. Urbanicity was based on the 2013 Urban-Rural Classification Scheme for Counties of the National

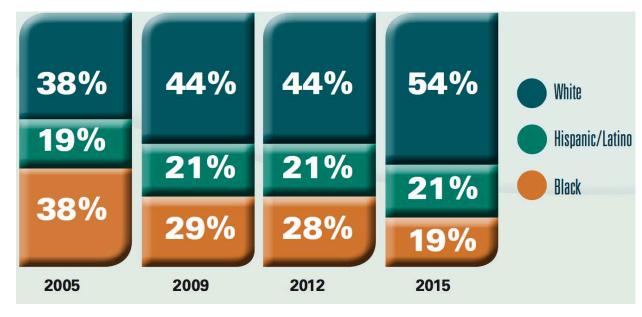
Are Disparities Static?

Demographics of New Injectors in the U.S.



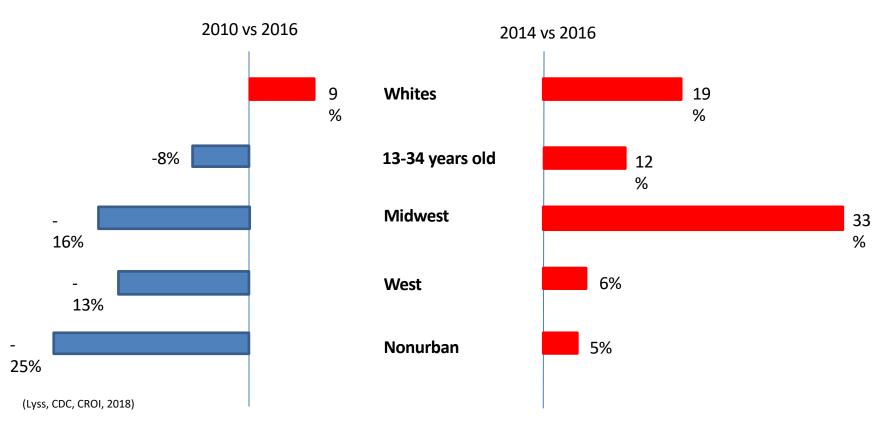


Fewer Blacks and more Whites are starting to inject drugs

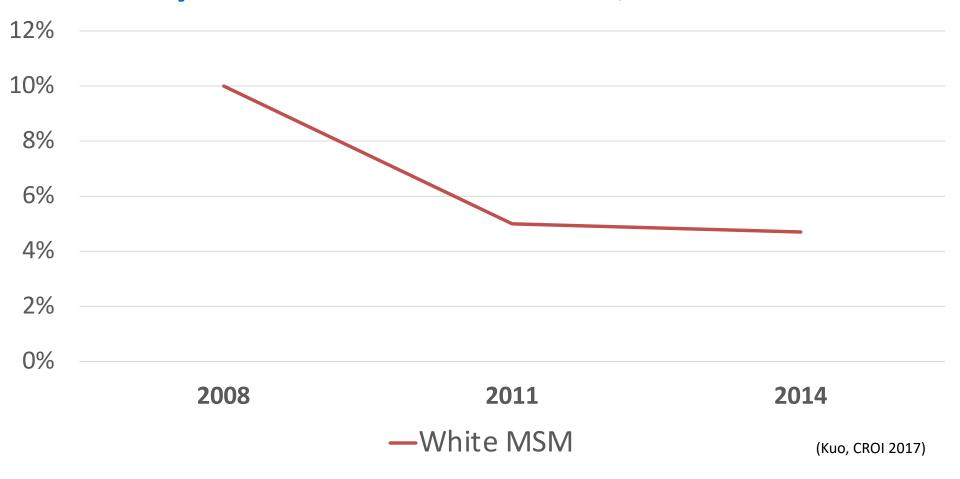


HIV and PWID, National Trends

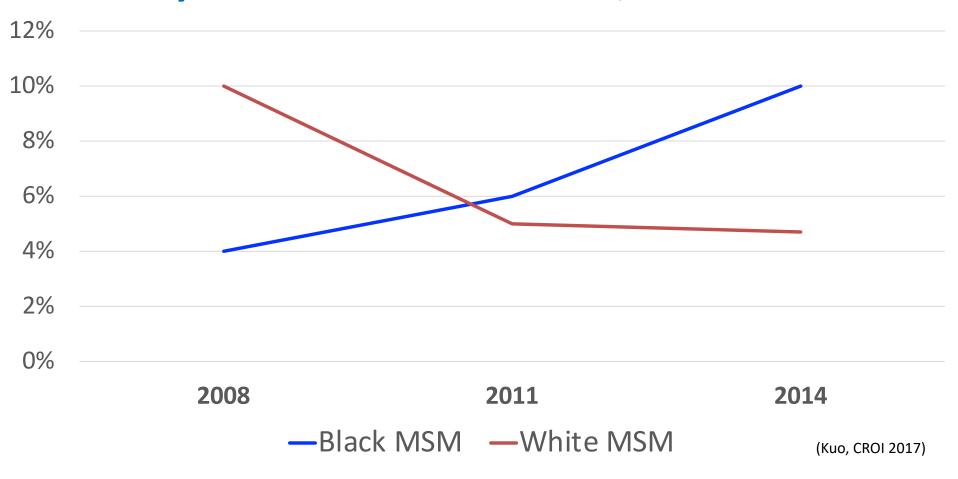
Differential Changes



Crystal Meth Use- DC NHBS, 2008-2014

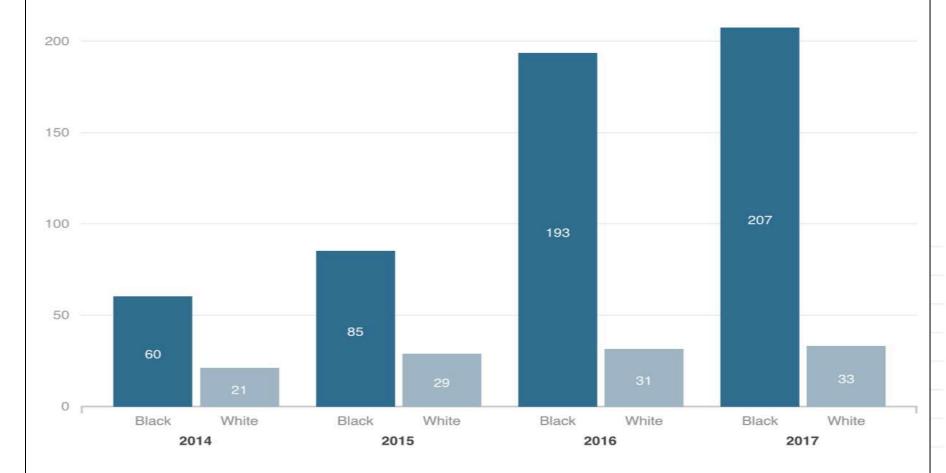


Crystal Meth Use- DC NHBS, 2008-2014



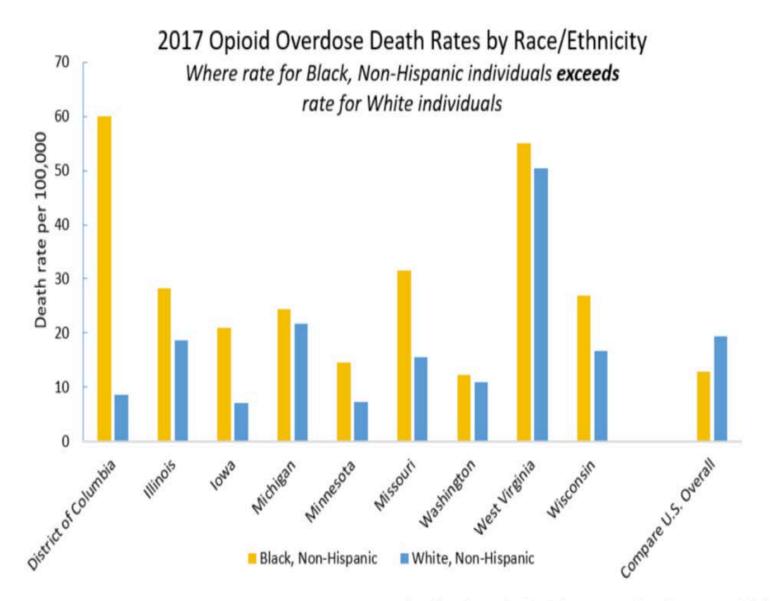
More Than 80 Percent Of D.C. Opioid Deaths Are Among Blacks

The number of opioid overdose deaths among blacks in D.C. more than tripled between 2014 and 2017.



Source: District of Columbia Office of the Chief Medical Examiner

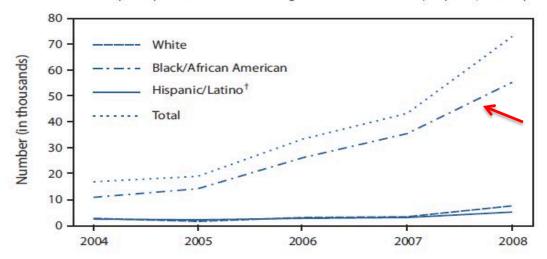
Credit: Katie Park/NPR



Are Racial Disparities a fait accompli?

Expanded HIV Testing and Trends in Diagnoses of HIV Infection --- District of Columbia, 2004--2008

FIGURE. Number of publicly funded HIV tests among adults and adolescents,* by race/ethnicity --- District of Columbia, 2004--2008



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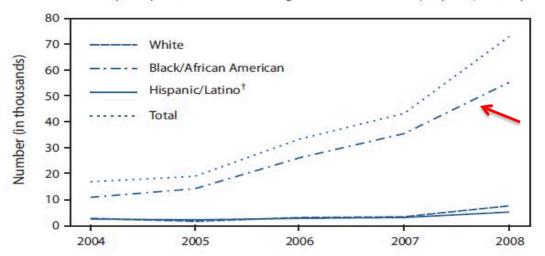
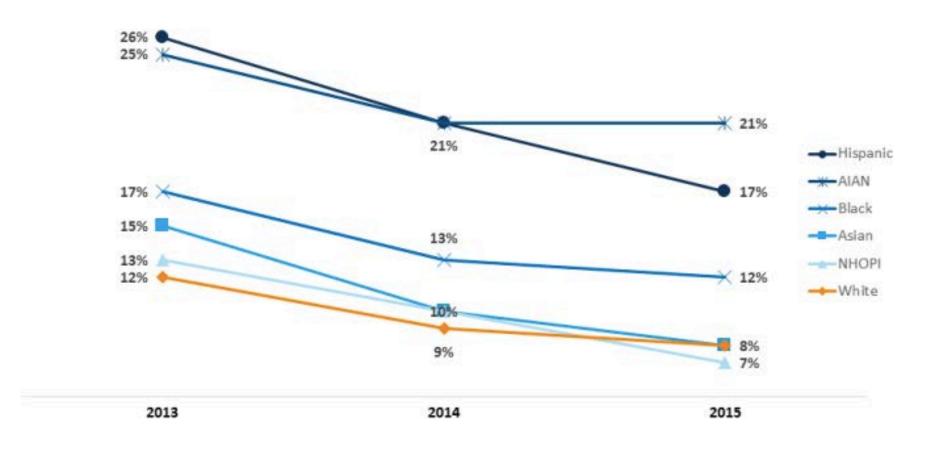
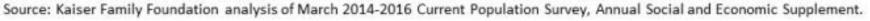


TABLE 1. Number and rate* of adults and adolescents* newly diagnosed with AIDS, by race/ethnicity and sex --- District of Columbia, 2004--Characteristic Total no. 2004--2008 EAPC1 p-value** No. Rate No. Rate Rate No. Rate No. Rate Black/African American 2,836 86.0 573 213 164 -7.1 0.002 -7.8 Males 1,857 56.0 < 0.001 -5.3 Females 30.0 0.050 Hispanic/Latino^{††} 5.0 -17.8 < 0.001 Males 4.0 -15.4 <0.001 Females 1.0 -21.6 0.004

Uninsured Rate Among Nonelderly Individuals by Race/Ethnicity, 2013-2015













New HIV cases in Louisiana hit decade low in 2018; health officials hopeful for epidemic's end

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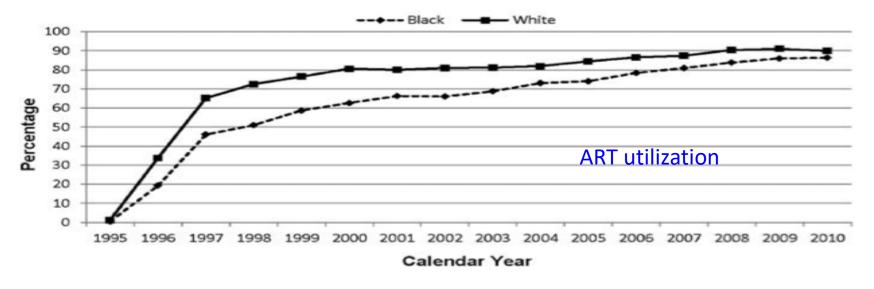
BY EMILY WOODRUFF | STAFF WRITER JUL 3, 2019 - 3:30 PM

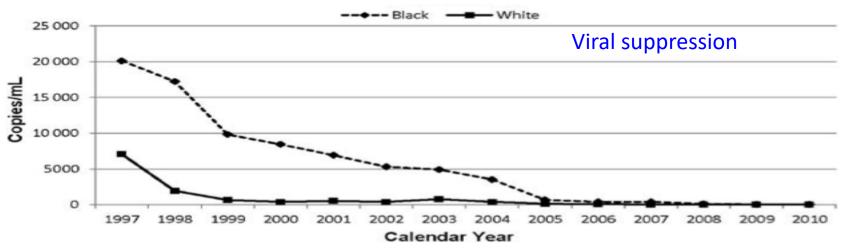


Improvement in the Health of HIV-Infected Persons in Care: Reducing Disparities

Richard D. Moore, Jeanne C. Keruly, and John G. Bartlett

Department of Medicine, Johns Hopkins University School of Medicine, Baltimore, Maryland





New Technologies and Unknown Questions

- 1. What effects will the EtE initiative have on HIV disparities?
 - Will some localities outstrip others or will the initiative help the southern US catch up?
 - Will various policies exacerbate racial/ ethnic HIV disparities?
 - How will HIV disparities be affected if EtE funding recedes/ ceases?
- 2. Will the approval of F/TAF for MSM and transwomen, but not women have implications for HIV disparities among women?
 - Will long-acting injectables amplify HIV infection disparities by race?

Greg Millett

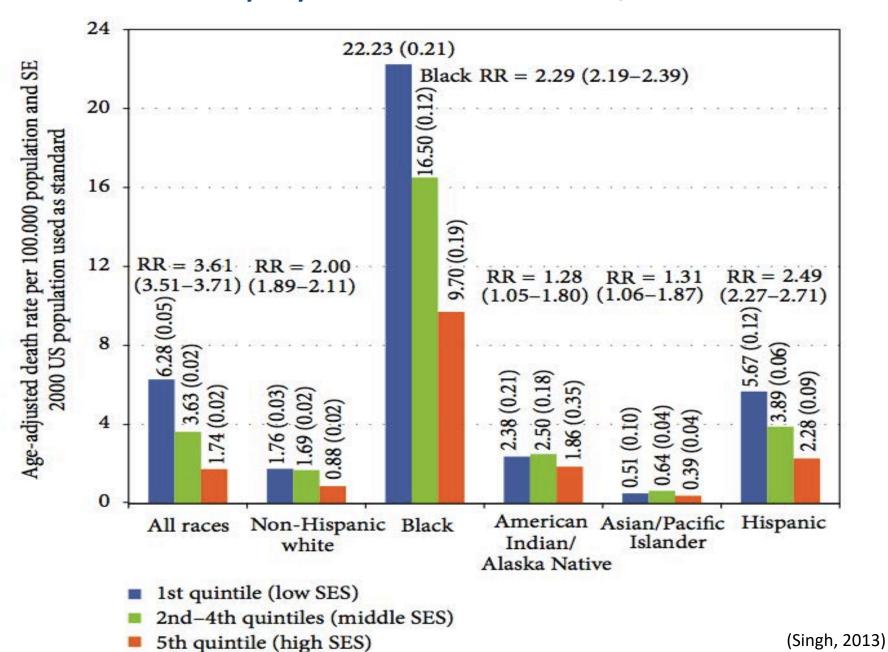
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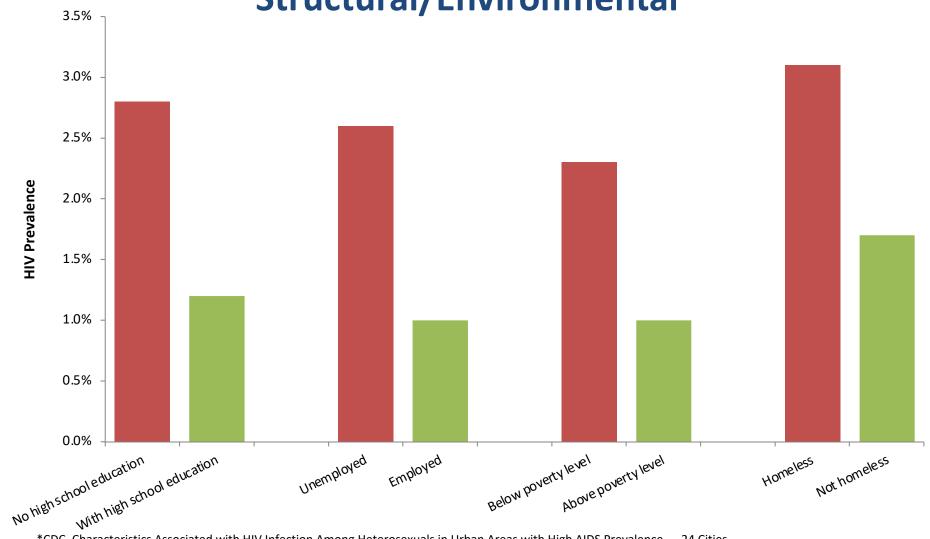
Greg.Millett@amfar.org

OVERFLOW!!!

AIDS Mortality by Race and Income, 1987-2011

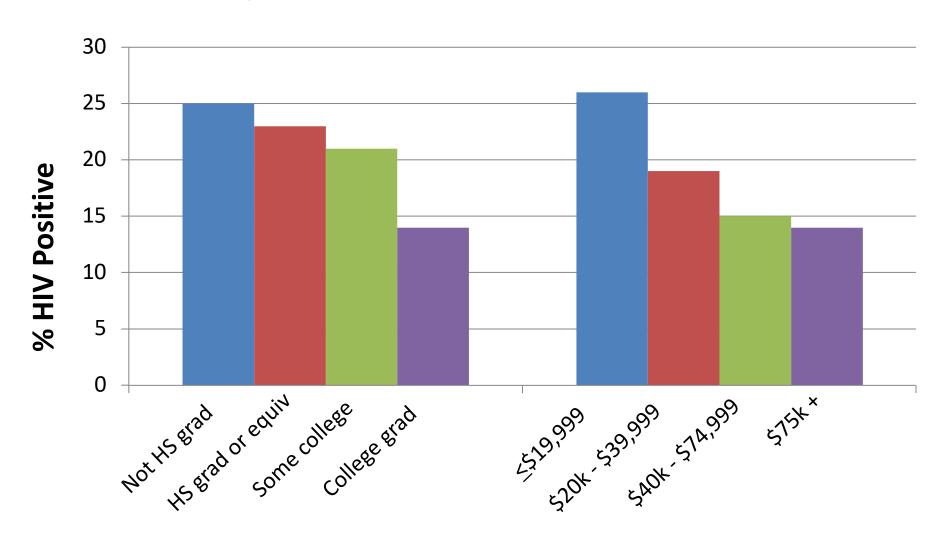


HIV Infection Among Heterosexuals in Urban Areas, by Socio-Economic Indicators, 2006-2007, N=14,837Structural/Environmental



^{*}CDC. Characteristics Associated with HIV Infection Among Heterosexuals in Urban Areas with High AIDS Prevalence --- 24 Cities, United States, 2006--2007. MMWR 2011;60:1045-1049.

Marginalization and HIV Infection among MSM, 21 US Cities (N = 8,153)



Biology and Risk: African Americans

CCR5 base 32 allele

- Protective against HIV
 infection (Marmor, 2001; Stephenson, 2001)
- Slower disease progression (Huang, 1996; Michael, 1997)
- <.1% of non-Whites (Martinson, 2000)</p>

Duffy Antigen

- Genetic mutation protects against malaria
- 40% greater risk of acquiring HIV
- Prevalence: 90% of Black
 West Africans; 60% of African-Americans



HIV Prevention Interventions for Adolescents and Young Adults: What About the Needs of Gay and Bisexual Males?

Gary W. Harper · Andrew J. Riplinger

96 intervention studies

Selection criteria

- (1) been published between 1991 and 2010 (inclusive)
- (2) Interventions for HIVnegative youth (13-24 yrs)
- MSM overwhelming majority new HIV infections among youth
- MSM only group where HIV rates increasing

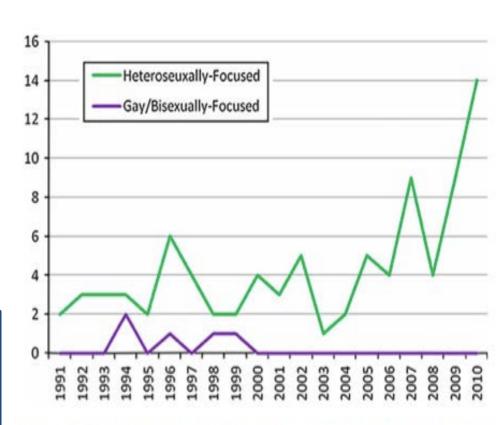


Fig. 1 HIV prevention intervention articles focused on heterosexual adolescents and young adults versus gay/bisexual male adolescents and young adults (1991–2010)

PrEP Acceptance among Black MSM

Online survey of Black MSM recruited from 4 Deep South States 71% reported at least 1 instance of unprotected sex in past 6 months

PrEP Acceptance Based upon Pe Effectiveness	rceived
Acceptance if 100% effective	71%
Acceptance if 75% effective	43%
Acceptance if 50% effective	21%

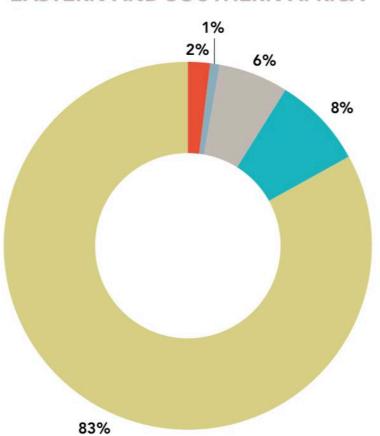
PrEP Acceptance among Black MSM

Online survey of Black MSM recruited from 4 Deep South States 71% reported at least 1 instance of unprotected sex in past 6 months

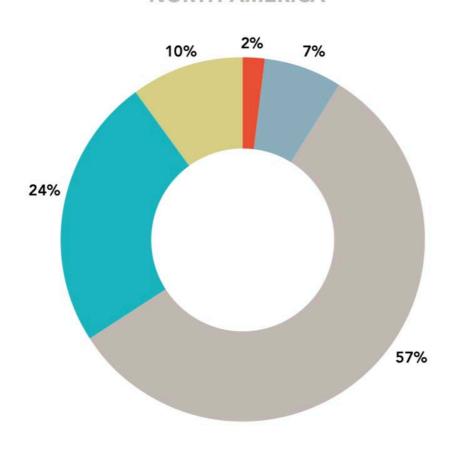
PrEP Acceptance Based upon Perceived Effectiveness				
Acceptance if 100% effective	71%			
Acceptance if 75% effective	43%			
Acceptance if 50% effective	21%			

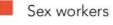
PrEP Acceptance Based upon Perceived Costs				
Acceptance if free	61%			
Acceptance if \$100/month	19%			
Acceptance if \$500/month	17%			
Acceptance if \$1000/month	14%			

EASTERN AND SOUTHERN AFRICA



WESTERN AND CENTRAL EUROPE AND **NORTH AMERICA**







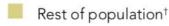


People who inject drugs Gay men and other men who have sex with men

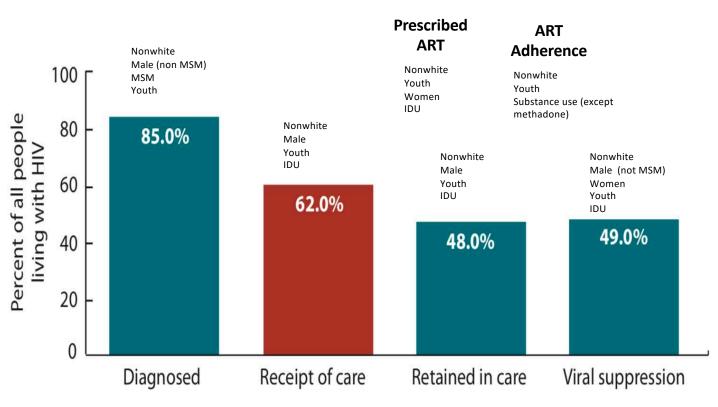


Transgender women*

Clients of sex workers and other sexual partners of key populations

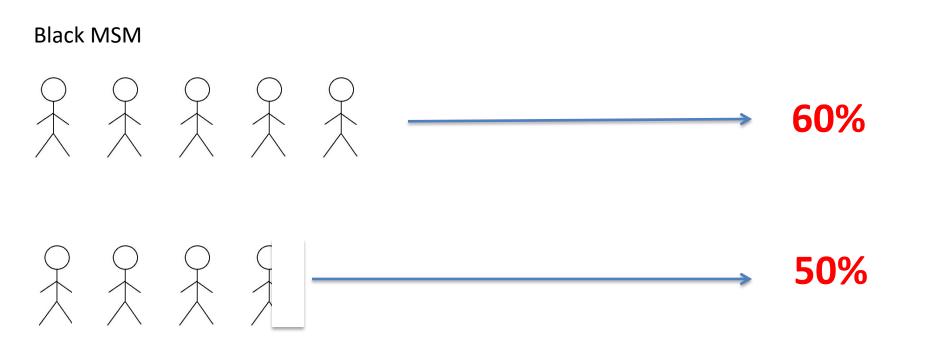


Demographic Disparities Across the Cascade

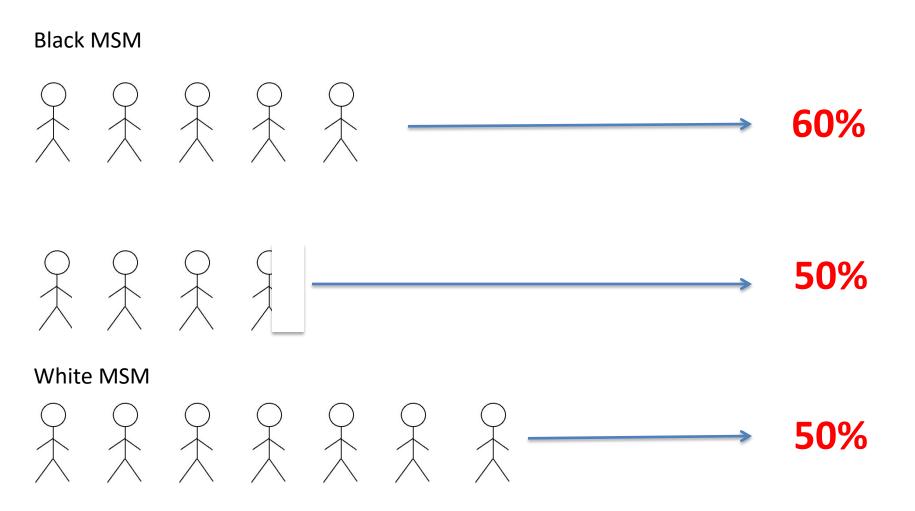


(Sources: Rebeiro, 2013; Muthulingam, 2013; Hannah, 2013; CDC, 2012; Hall, 2012; Traeger, 2012; Dennis, 2011; Hartzell, 2011; Torian, 2011; Tripathi, 2011; Campsmith, 2010; Giordano, 2010; Knowlton, 2010; Geetanjali, 2009; Lemly, 2009; Mugavero, 2009; Weintrop, 2009; Anaston, 2005; Giordano, 2005; Klein, 2003)

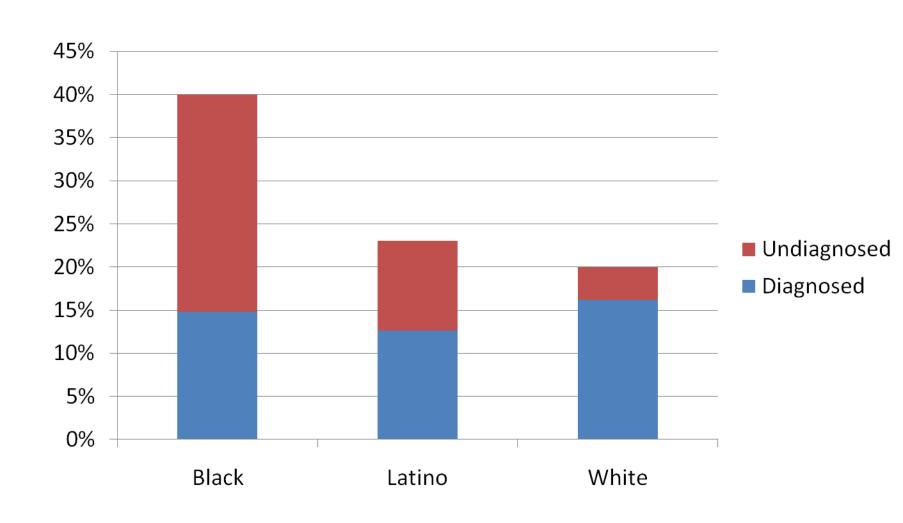
Estimated probability of being exposed to HIV by at least 1 partner



Estimated probability of being exposed to HIV by at least 1 partner

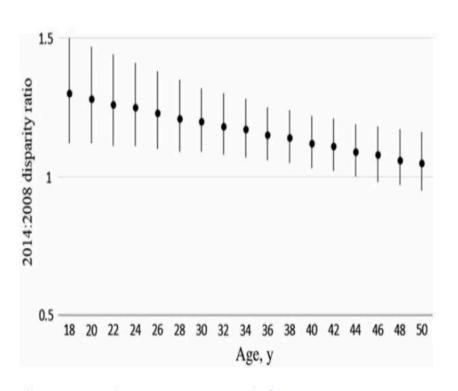


The Role of Undiagnosed HIV Infection in Transmission Risk



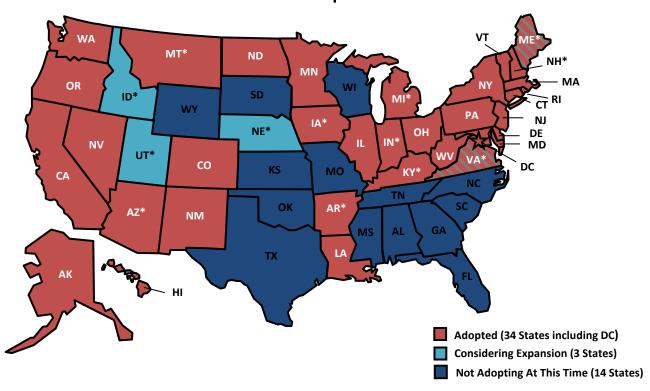
Racial disparities are increasing

 NHBS: Disparity in HIV prevalence between black and white MSM increased from 2008 to 2014, especially among young MSM



Change in disparity in human immunodeficiency virus (HIV) prevalence from 2008 to 2014 between black and white men who have sex with men (MSM), by age, National HIV Behavioral Surveillance, 20 US cities.

Status of State Medicaid Expansion Decisions



ACA Implementation, PLWAs and Medicaid Expansion

	2012		2014	
Medicaid Status	Ехр	Non	Ехр	Non
Uninsured	13%	26%	7 %	26%
Ryan White services	42%	42%	42%	55%
Viral suppression	77%	77%	83%	81%

The Affordable Care Act and MSM

- National HIV Behavioral Surveillance MSM, 2003-2005, 21 cities
 - 66% had private insurance
 - 4% had public insurance
 - 25% had no insurance
- National HIV Behavioral Surveillance MSM 2008, 2011 & 2014, 20 U.S. cities.
 - MSM with health insurance rose 16 % from 68 % 2008 to 79 % in 2014
- MMP: HIV+ MSM and ART use
 - Rose from 69% in 2008 to 88% in 2013



Thank you



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