

## HIV Infection and Black MSM: Implications from HIV research

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*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*



## Learning Objectives

At the conclusion of this interactive session, participants should be able to:

- Review the epidemiology of HIV/AIDS among MSM of color in order to identify potential implications for clinical practice strategies.
- Identify possible interventions for factors associated with HIV/AIDS disparities among MSM of color in order to apply appropriate interventions to the clinical practice setting.



## Outline

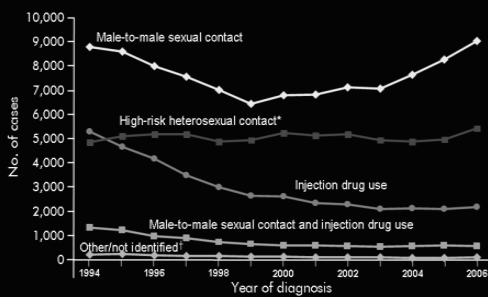
- Epidemiological overview
- Explanations for HIV infection racial disparities
- Implications
- Future research



## Epidemiology

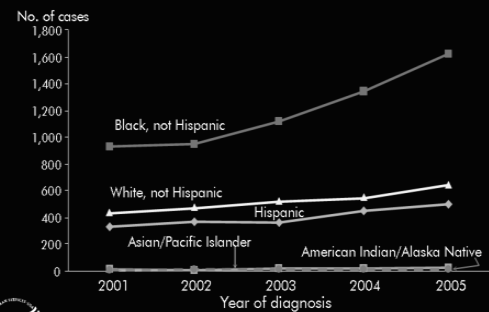


Estimated Number of HIV/AIDS Cases among Adults and Adolescents, by Transmission Category, 1994–2006—25 States



Note. The data have been adjusted for reporting delay and cases without risk factor information were proportionally redistributed.  
\*Heterosexual contact with a person known to have, or to be at high risk for, HIV infection.  
†Includes menophoria, blood transfusion, perinatal exposure, and risk factor not reported or not identified.

HIV/AIDS Cases among Men Who Have Sex with Men Aged 13–24, by Race/Ethnicity, 2001–2005—33 States



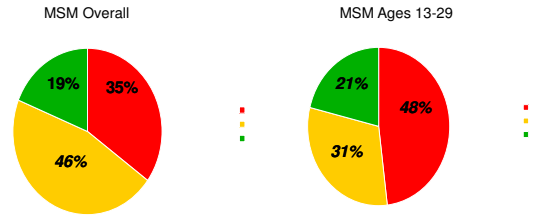
Note. Data statistically adjusted for reporting delays and redistribution of cases in persons initially reported without an identified risk.

### HIV Prevalence and Young Black MSM

- Initial dx of HIV among MSM ages 13-24
  - Black 16% ; Latino 13%; White 9% (MMWR, 1/14/00)

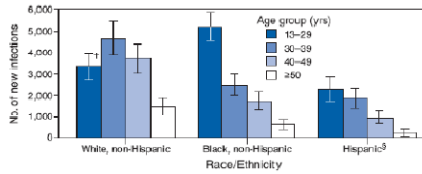
Age	HIV Prevalence
15-22	15%
23-29	32%
Median age 32	46%

### New HIV Infections among MSM by Race, 2006



Source: MMWR (2008)

FIGURE. Estimated number\* of persons with new human immunodeficiency virus (HIV) infections among men who have sex with men, by race/ethnicity and age group — United States, 2006



Source: MMWR (2008)

~~↑Risk behavior = HIV infection~~

### Young MSM (ages 15-22) Substance Use Behavior

Drug use past 6 months	Black (n=814) (%)	White (n=1259) (%)
Injection drug use	3.1	9.9*
Needle sharing	0.6	4.3*
Uppers/ speed	16.2	49.6*
Powder cocaine	11.6	38.8*
Crack cocaine	4.6	12.2*
Nitrites/ poppers	6.4	28.8*

(Harawa et al., 2004) \*P<.05

### Young MSM (ages 15-22) Sexual Risk Behavior

Sexual behavior past 6 months	Black (n=814) (%)	White (n=1259) (%)
Casual male sex partner	49.3	59.7*
IDU male sex partner	5.9	10.6*
HIV+ male sex partner	4.8	6.1*
UAI	48	59*

(Harawa et al., 2004) \*P<.05

## Research Paradox

**Prevalence of Human Immunodeficiency Virus Infection in Ethnic Minority Men**

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

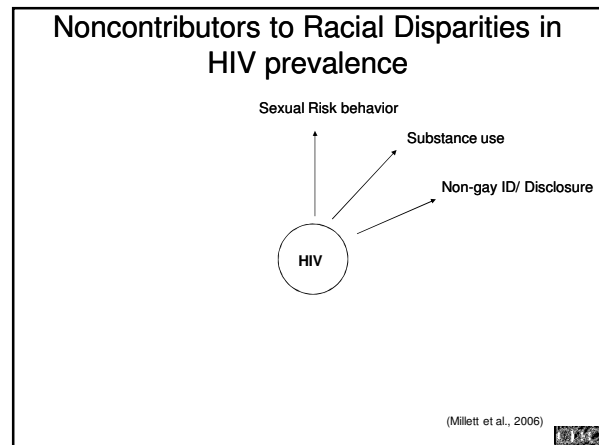
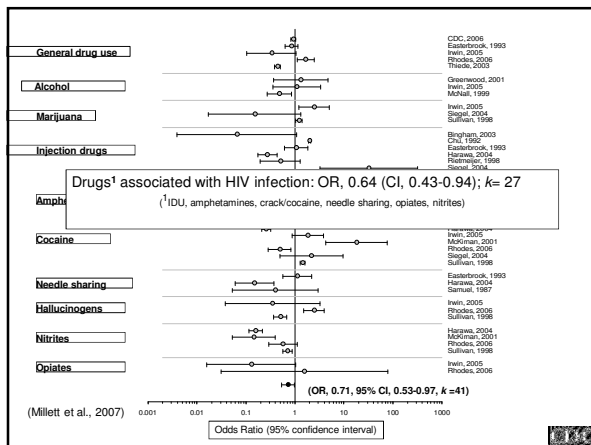
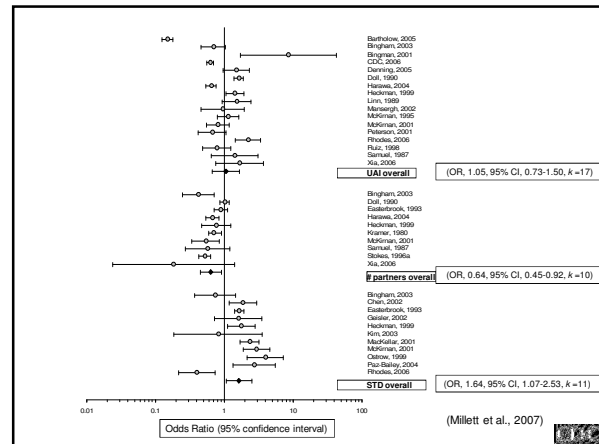
Samuel et al., 1987

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## Gay Identity

- Gay ID/ disclosure
  - Black MSM less likely to ID as gay, to disclose or read gay-related periodicals
  - Less likely to disclose same sex behavior to doctors (MMWR, 2009; Behel, 2008)
  - Nongay ID assoc w/
    - sex with women
    - exchange sex
    - drug use
    - < HIV testing
- Early in epidemic, gay ID less likely to engage in risk
- Today, gay ID men more likely to
  - engage in UAI
  - > # male sex partners
  - be HIV+
- Men who are ‘out’ are at greatest risk

## Why are African-American MSM at Greater Risk for HIV?

## 1) Healthcare access

## Poorer Health Outcomes

- Diagnosed later in infection (w/n 3 to 12 mos)  
(Wortley et al., 1995)
- Mortality (era after HAART)
  - 1996-1998 (Blair et al., 1995)
  - 1996-2002 (Hall et al., 2007)
- ART use [0.43 (0.30-0.61); N= 1174] (Millett et al., 2007)
  - Barrier to ART use: Lack of HIV diagnosis

## 2) Undiagnosed HIV Infection

## Undiagnosed HIV Infection

- Number of individuals with undiagnosed HIV infection decreased from 25% in 2003 to 21% in 2006
- Undiagnosed HIV infection rate among Blacks in 2006 was 9x that of Whites (380.3/100,000 vs. 42.2/ 100,000)
- Among youth living with HIV (ages 13-24) in 2006, 47.8% have undiagnosed HIV infection  
(MMWR, 2008)

HIV Prevalence and Proportion with Undiagnosed HIV Infection in MSM in 5 Cities – NHBS, 2004-2005

Characteristic	Total Tested	HIV Prevalence		Undiagnosed HIV Infection	
		N	(%)	N	(%)
<b>Total</b>	<b>1767</b>	<b>450</b>	<b>(25)</b>	<b>217</b>	<b>(48)</b>
<b>Age</b>					
18-24	410	57	(14)	45	(79)
25-29	303	53	(17)	37	(70)
30-39	585	171	(29)	83	(49)
40-49	367	137	(37)	41	(30)
≥ 50	102	32	(31)	11	(34)
<b>Race</b>					
White	616	127	(21)	23	(18)
Black	444	206	(46)	139	(67)
Hispanic	466	80	(17)	38	(48)
API	95	7	(7)	2	(29)
NA/AN	<10	<10	(29)	<10	(100)
Multiracial/Other	123	25	(20)	13	(52)

(MMWR, 6/24/05)

## Unrecognized HIV Infection and Young MSM

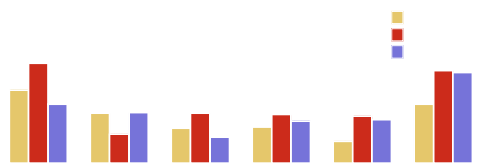
- Undiagnosed HIV infection among younger MSM
  - Ages 15-22: Black 91%; Latino 75%; White 75%
  - Ages 23-29: Black 91%; Latino 64%; White 56%  
(MacKellar et al., 2005)
- Among men with unrecognized infection, no differences by race in
  - Delayed HIV testing
  - Perceived risk for being HIV+
  - UAI(MacKellar et al., 2005)

## Unrecognized HIV Infection

- Known positives engage in fewer sexual risk behaviors with HIV-negative or unknown status partners (Collfax et al., 2002)
- Transmission rate of new HIV infections due to unrecognized infection 3.5x that of transmission rate of persons who know their positive status (Marks et al., 2006)

## 3) Sexually Transmitted Diseases

MSM Prevalence Monitoring Project — Test positivity for gonorrhea, chlamydia, and HIV and seroreactivity to syphilis among men who have sex with men, by race/ethnicity, STD clinics, 2005



\*Excludes persons previously known to be HIV-positive.  
†Seroreactivity.

## Meta-analysis STD Data Across MSM Studies, 1986-2005

Sexually transmitted diseases	<i>k</i>	OR	(95% CI)
STD ever	5	1.29	(0.63–2.66)
STD current dx	5	<b>2.12*</b>	(1.68–2.67)
STD, syphilis	4	<b>2.14*</b>	(1.70–2.69)
STD, gonorrhea	4	<b>1.53*</b>	(1.25–1.87)
STD, Hepatitis B	4	<b>2.48*</b>	(1.27–4.86)

\**P* < .05 (Millett et al., 2007)

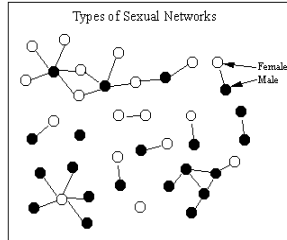
## HIV/STD Coinfection

- Among 4000 MSM tested between 1990 and 1999 in NYC (Torian et al., 2002)
  - HIV+ Black MSM more likely than HIV+ White MSM to be coinfecting with Gc, syphilis or nongonococcal urethritis (60% vs. 18%)

## 4) Sexual Partners and Networks

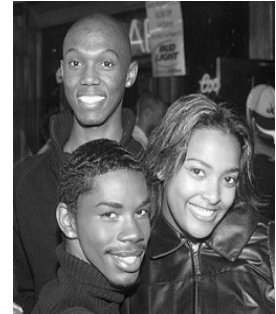
## Sex Partners/ Networks

- Sexual mixing by age and HIV infection risk (Blower, 1995)
- Black MSM more likely to have older partners (Berry et al., 2007; Bingham et al., 2003)
- Black MSM more likely to have Black partners (Berry et al., 2007; Bingham et al., 2003; MMWR, 2005)
  - HIV infection in Black MSM partially explained by partner characteristics (Bingham et al., 2003)



## Implications

- Annual HIV/STD screening is insufficient
- Access to care
  - Aggressive case mgmt for HIV+ MSM
- Black MSM must be even more vigilant in engaging in safer sex practices



## Sexual Risk Remains an Issue

Study	Black MSM N	Risk period	UAI Insertive	UAI Receptive	UAI Overall
D-Up	1190*	Past 3 mos	29.3%	32.4%	42%
Brothers y Hermanos	1154	Past 3 mos	45.5%	32.7%	40%
Black Men United Survey	480	Past year	41.5%	25.0%	-
CITY	2914	Past year	-	-	31%
NHBS	1739	Past year	-	-	42%

\*Represents number of responses not total number of men in the study

## Sexual Risk and HIV-Positive Black MSM

- % UAI (past 3 mos)
  - Any UAI: 45% (220/489)
  - Any insertive UAI : 36% (177/489)
  - Any receptive UAI : 30% (146/489)
- Half of reported UAI with at-risk partners
- UAI w/ at-risk partners by # years infected
  - Less than 6 years: 27%
  - 6-10 years: 26%
  - Over 10 years: 22%

(Marks et al., 2009)

## Sexual Risk and HIV-Positive Unaware Black MSM

- % UAI (past 3 mos)
  - Any UAI: 55% (60/110)
  - Any insertive UAI: 43% (47/110)
  - Any receptive UAI : 36% (40/110)
- Many reported UAI with at-risk partners
- % UAI with at-risk partners (past 3 mos)
  - Any insertive UAI: 44%
  - Any receptive UAI: 36%

(Marks et al., 2009)

## Where we can intervene: HIV-Negative Black MSM

- Demographics
  - Gay-identified men
  - Younger men
- Psychological
  - Depression
  - Social support
  - Perceived risk
- Networks
  - Partner age
  - HIV/STI screening
  - Safer sex norms
- Structural
  - Employment/Income

### Where we can intervene: HIV-Positive Black MSM

- Demographics
  - Gay-identified men
  - Older men
- Psychological
  - Depression
  - Social support
  - Treatment beliefs
- Networks
  - Partner age
  - Safer sex norms
- Structural
  - Healthcare access
    - ART access
    - ART Adherence
    - STI screening/ tx

### Partner Characteristics Sexual Networks

- Partner concurrency (NHBS)
- Acute HIV infection, genotyping, configuration of risky networks (SNAP)
- HPTN 061 (Brothers study)
  - Using social networks to recruit Black MSM
    - ID men with undiagnosed HIV infection
    - ID known positives who are not in care
    - Use peer health navigators for HIV+ MSM
    - Counseling and testing high risk negatives

### Behavioral Research

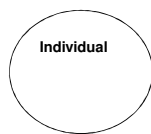
- No effective behavioral interventions for HIV+ Black MSM
- Sexual risk outcomes
  - Serosorting
  - Strategic positioning
- Health care utilization
  - Linkage to care for known positives
  - Adherence

### Beliefs as Barriers to Healthcare Utilization....

HIV/AIDS Conspiracy Belief	Black MSM (n=239)	Latino MSM (n=152)	White MSM (n=111)
	%	%	%
Pharmaceutical companies hiding cure for HIV/AIDS because of profits	58*	50	42
HIV/AIDS drugs harm you more than help you	56*	48*	41
HIV does not cause AIDS	54*	48	27
HIV is a man-made virus	50*	41	35

(Hutchinson, 2007) \*P<.05 versus White MSM

### Past HIV Research with Black MSM



### Future HIV Research with Black MSM

