

HIV among Men Who Have Sex With Men: Challenges & Opportunities

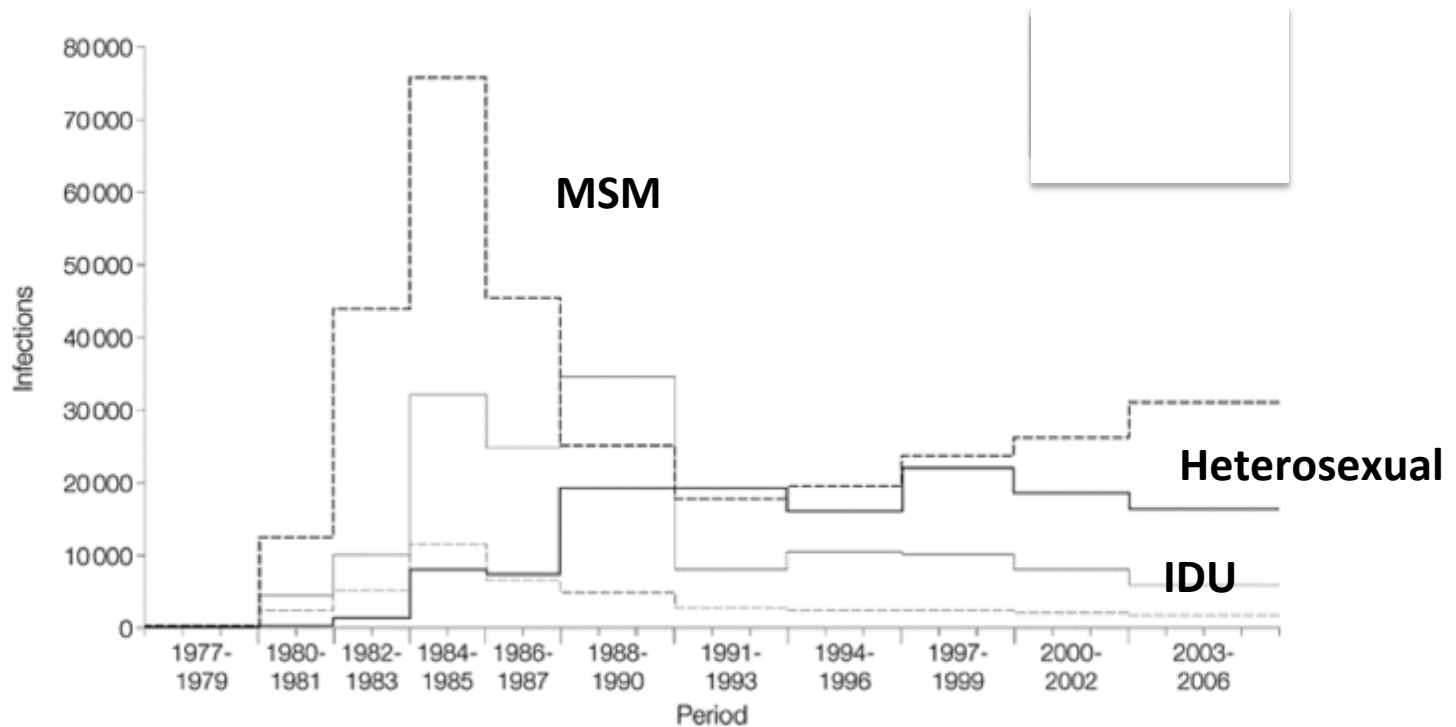
Greg Millett

Funders Concerned About AIDS

December 10, 2012

In the U.S., estimated numbers of new HIV infections are increasing for MSM while stabilizing or decreasing in other groups

Estimated New Human Immunodeficiency Virus (HIV) Infections by Transmission Category, Extended Back-Calculation Model, 50 US States and the District of Columbia, 1977-2006

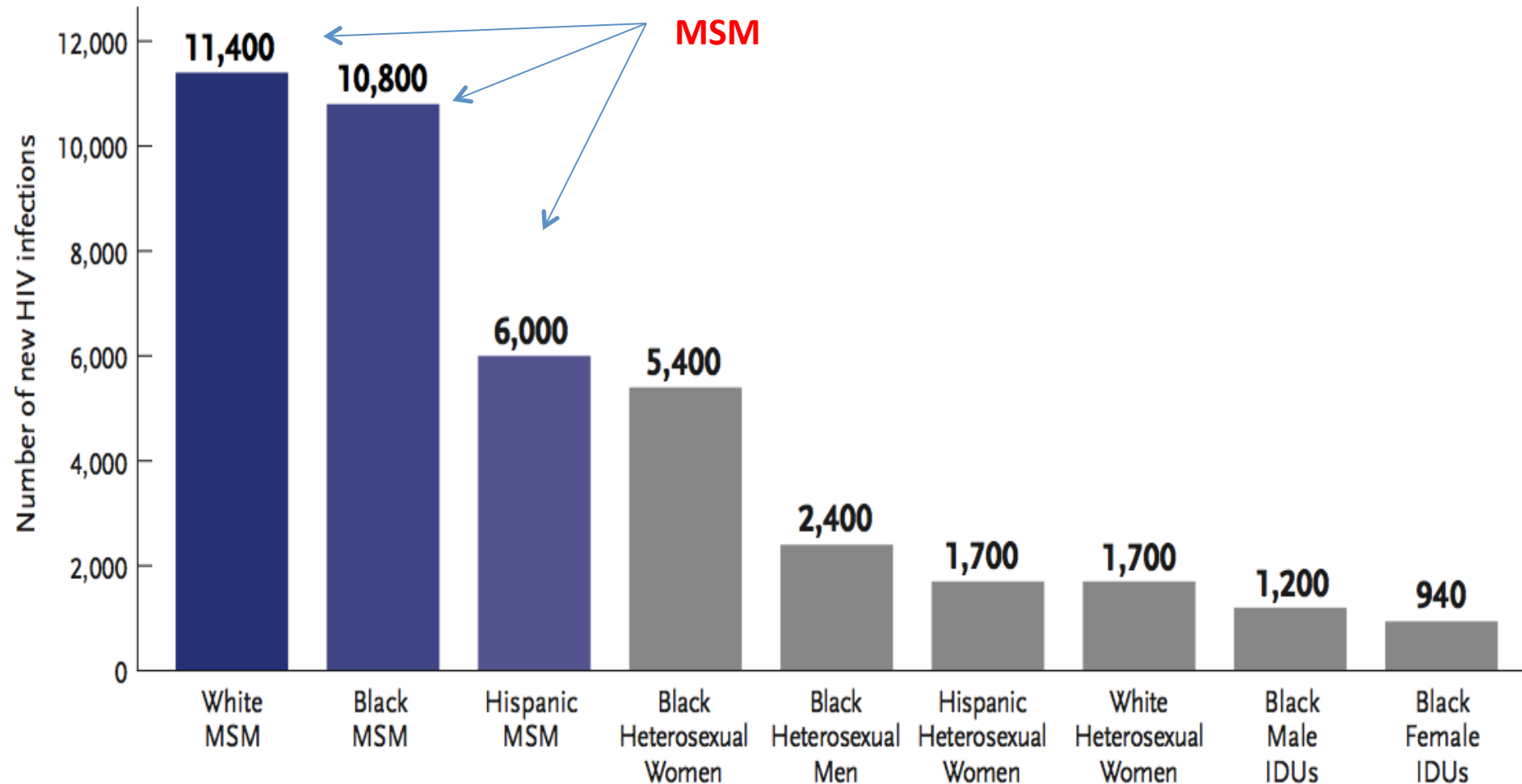


Hall, H. I. et al. JAMA 2008;300:520-529.

New HIV Infections in the U.S., 2009

Estimated New HIV Infections in the U.S., 2009, for the Most-Affected Subpopulations*

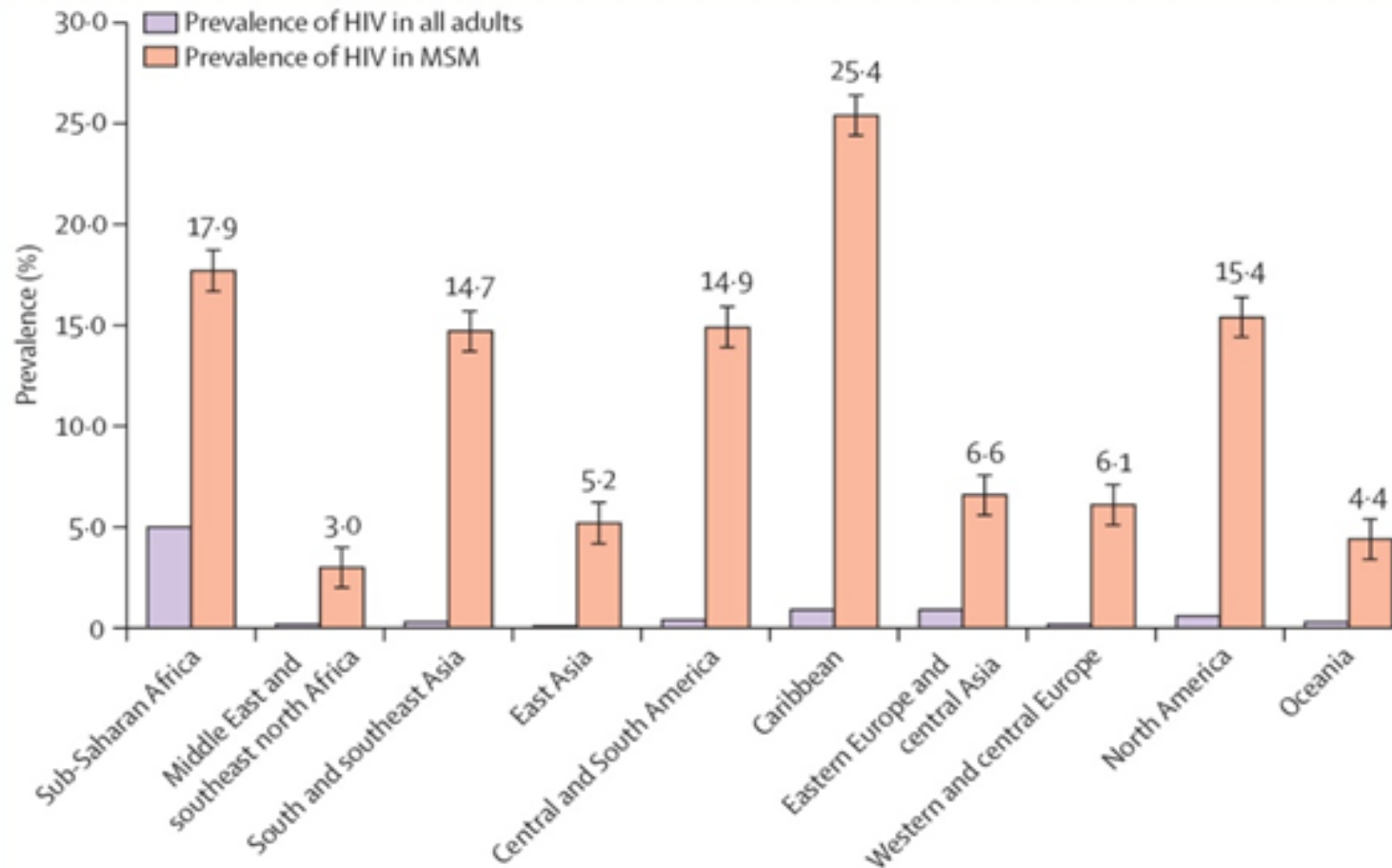
Gay and bisexual men of all races and black heterosexuals account for the greatest number of new HIV infections in the United States.



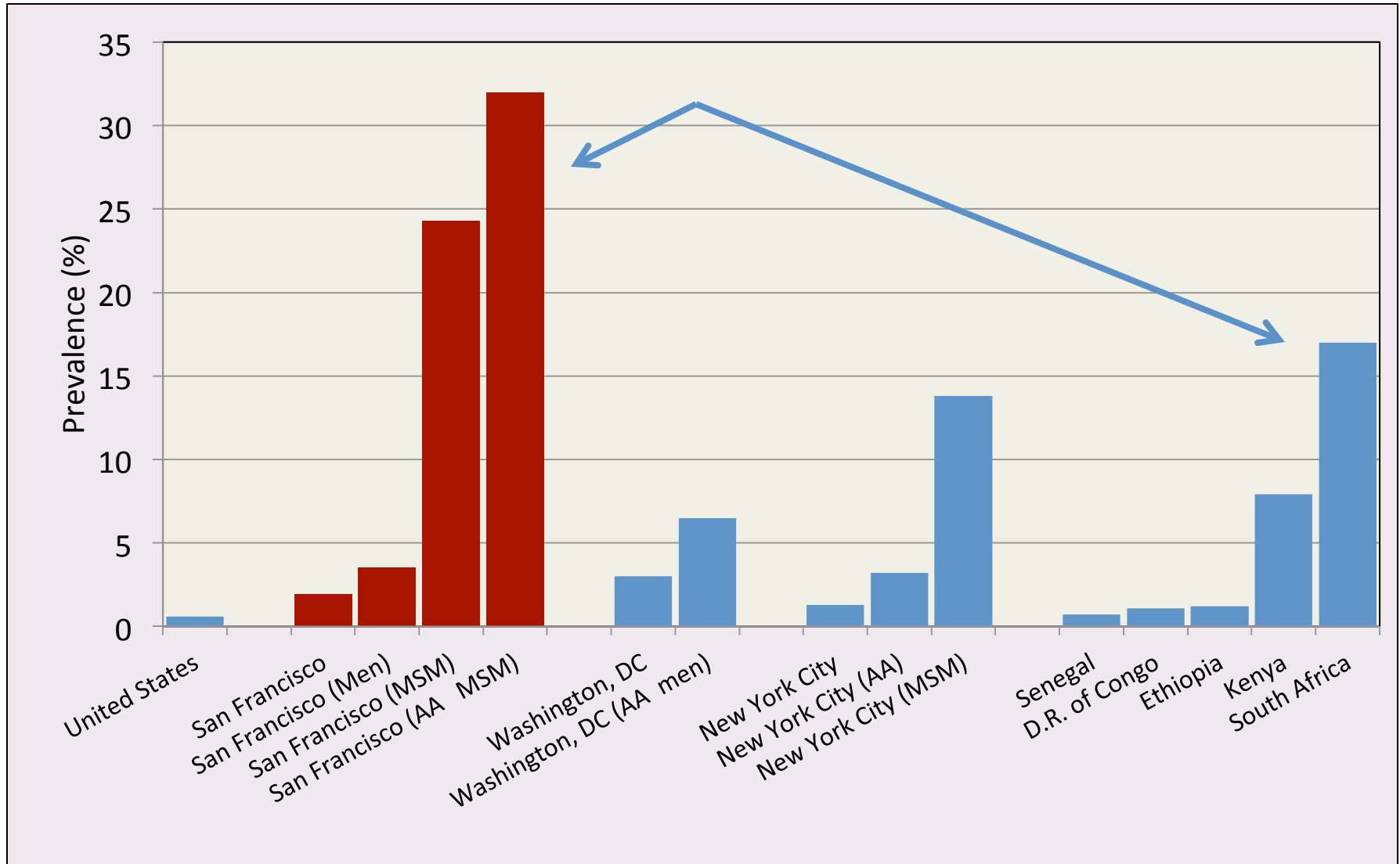
MSM epidemics in industrialized countries follow similar patterns

- Analysis of 8 industrialized countries (US, UK, the Netherlands, France, Germany, Spain, Australia, Canada)
 - Decrease in HIV diagnoses from 1996 through 2000
 - Increase in HIV diagnoses from 2000 through 2005
(Sullivan, 2009)

Global HIV prevalence of HIV in MSM compared with regional adult prevalence in 2011

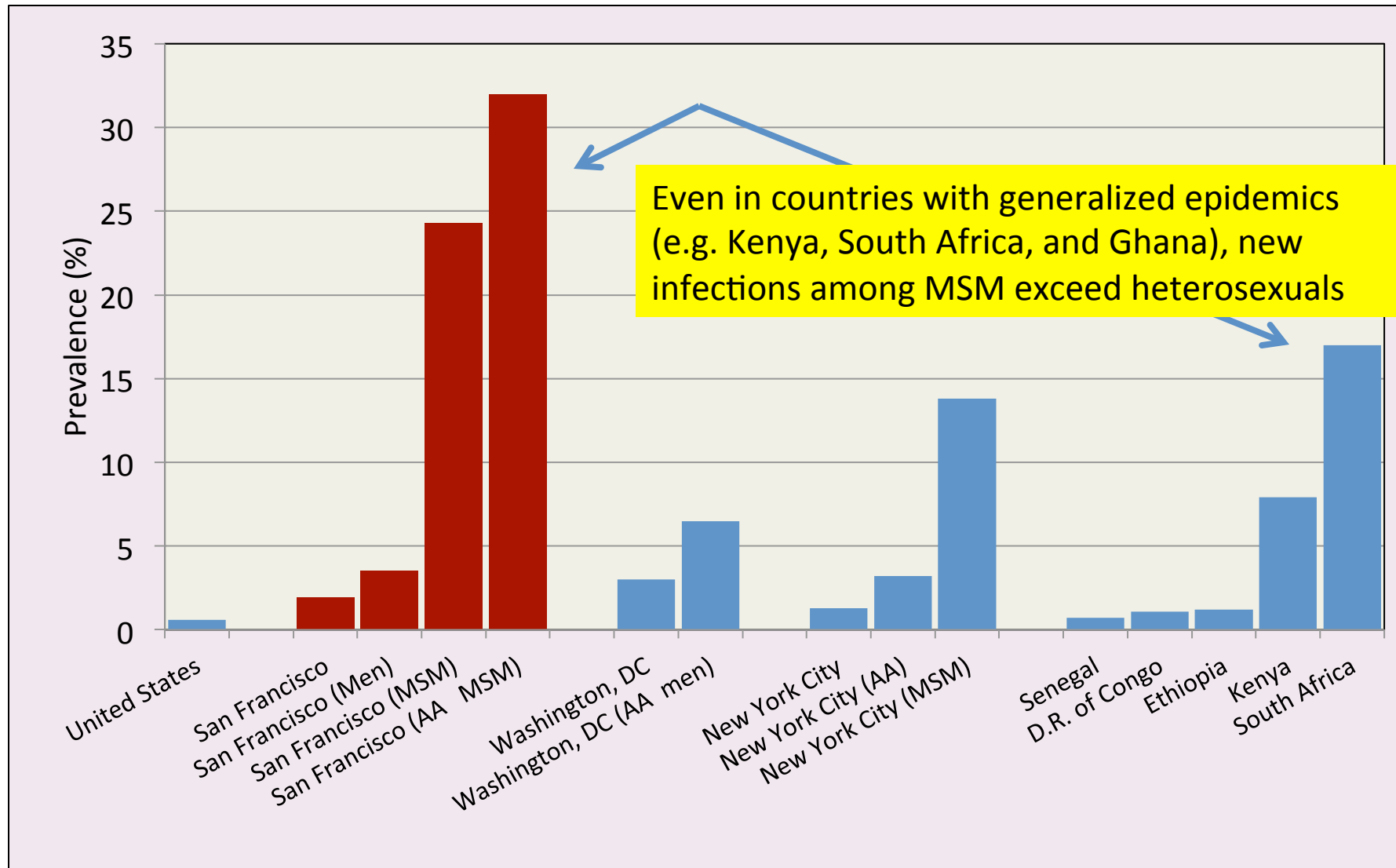


HIV Prevalence among U.S. Black MSM compared to Countries with Generalized Epidemics



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

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



Greater Odds of HIV Among MSM Compared to General Populations Across Black 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=35)

High-income countries (95% CI=15.0–18.3; k=25)

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)

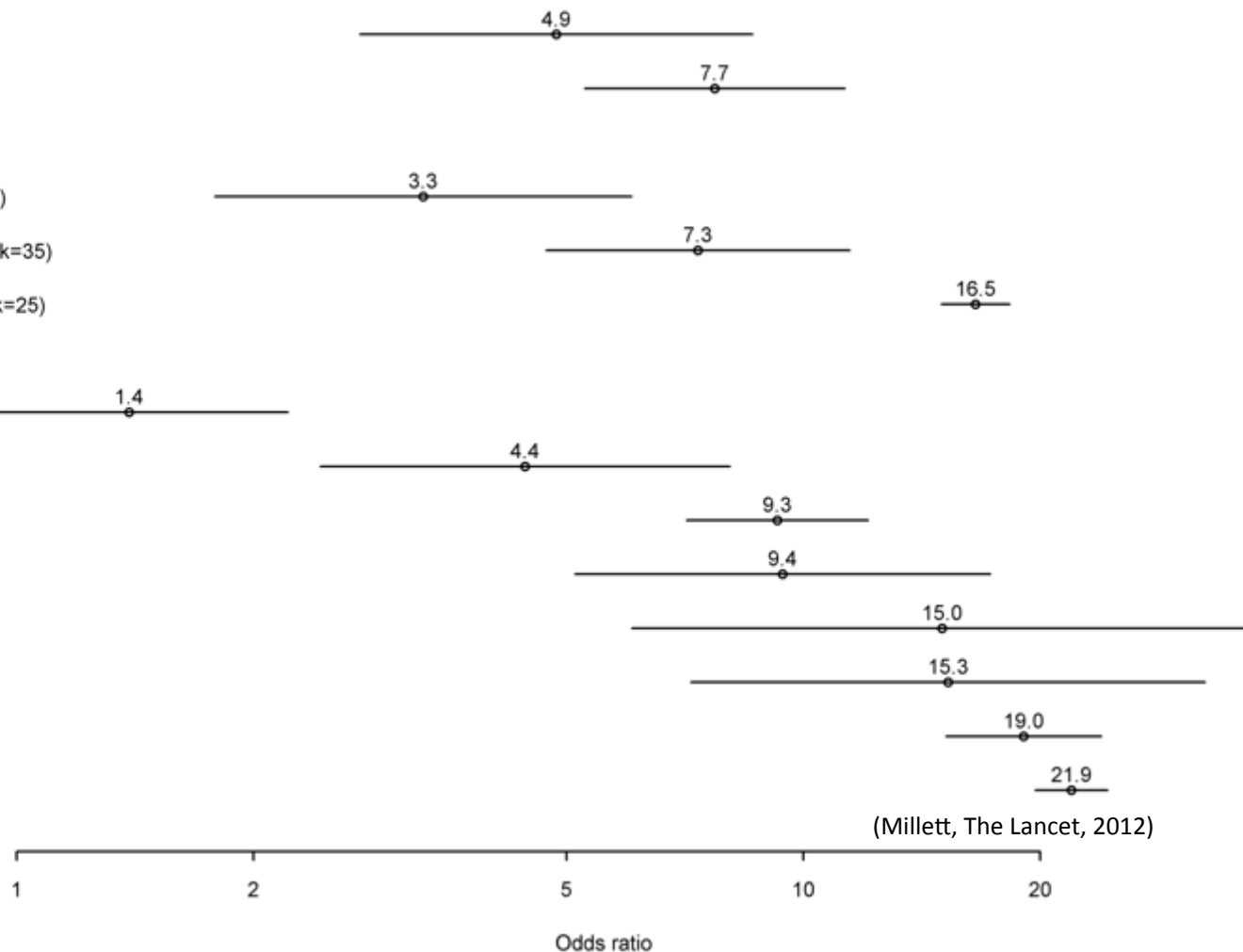
N Africa region (95% CI=5.1–17.3; k=7)

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)



(Millett, The Lancet, 2012)

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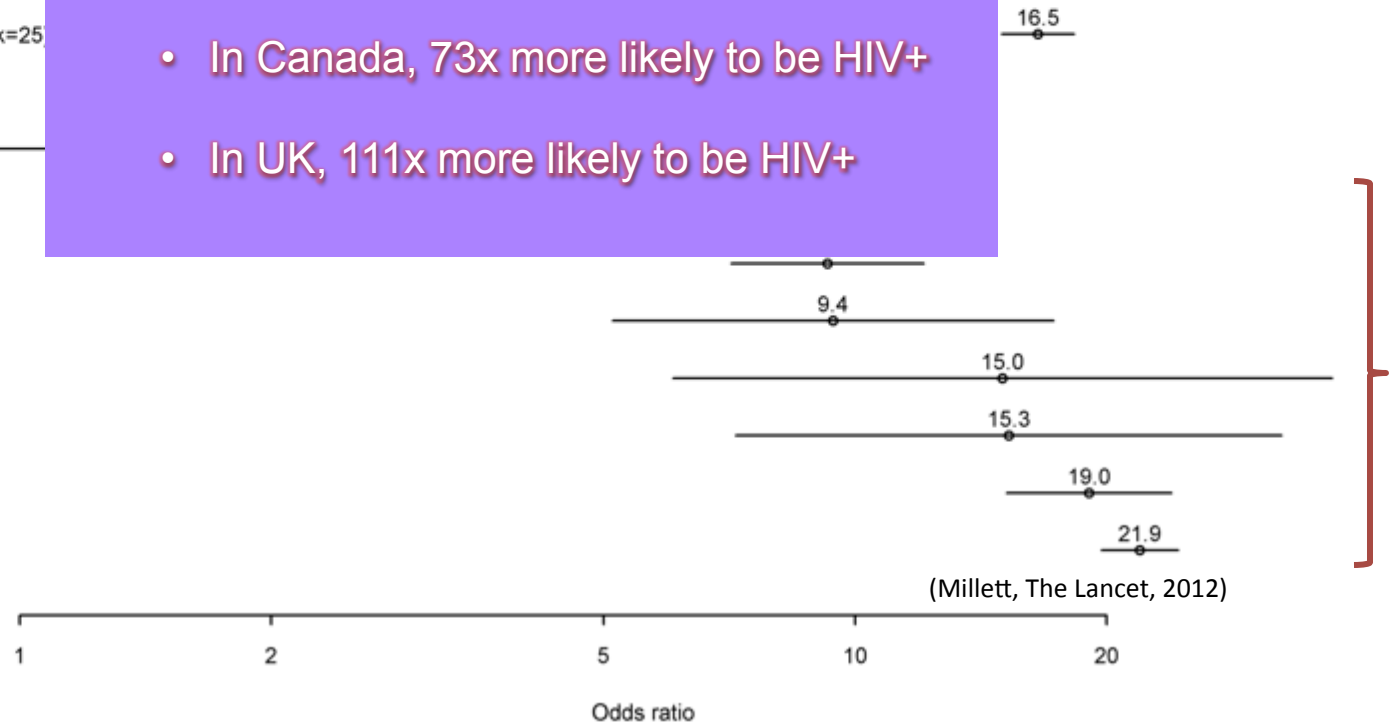
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HIV prevalence disparities among black MSM vs. general populations

- In U.S., 72x more likely to be HIV+
- In Canada, 73x more likely to be HIV+
- In UK, 111x more likely to be HIV+



Contributions of Biology and Stigma

The Diminishing Centrality of Risk

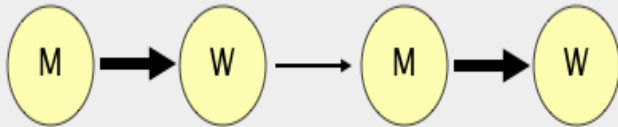
- Estimated 68% of HIV transmissions among MSM is sex with main partners
 - higher number of sex acts with main partners and lower condom use (Sullivan, AIDS, 2009)
- Even if US MSM and heterosexuals had similar number of sex partners, MSM would have an epidemic and heterosexuals would not (Goodreau, STI, 2007)
- Greater likelihood of infection during anal vs. vaginal sex
 - 18x greater



The Diminishing Centrality of Risk

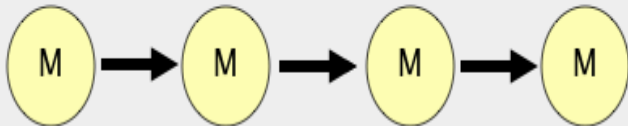
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A two-sex population creates transmission bottlenecks



- Estimated 68% of HIV transmission among MSM occur in context of a couple (Sullivan,

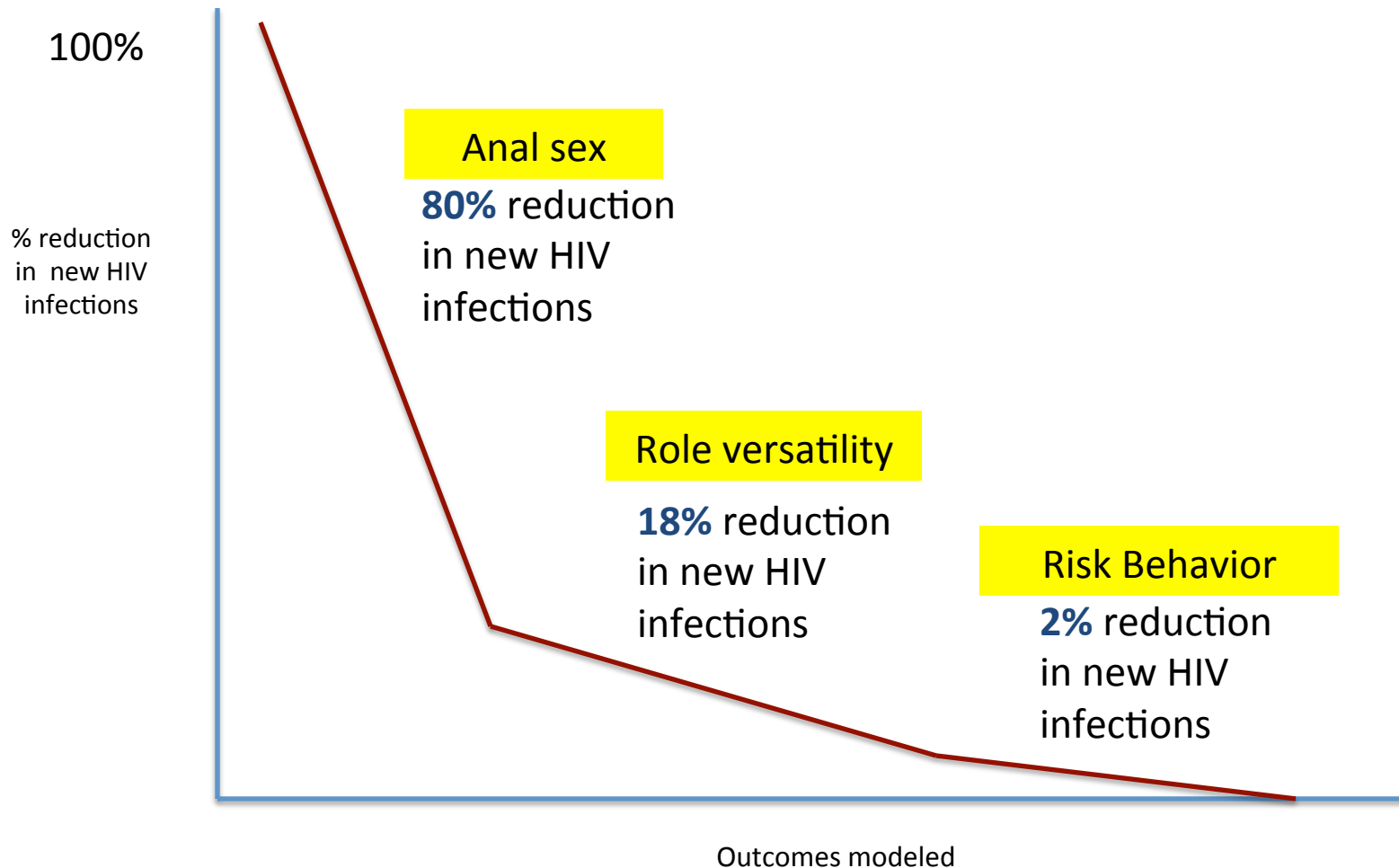
which a one-sex population can bypass through **role versatility**:



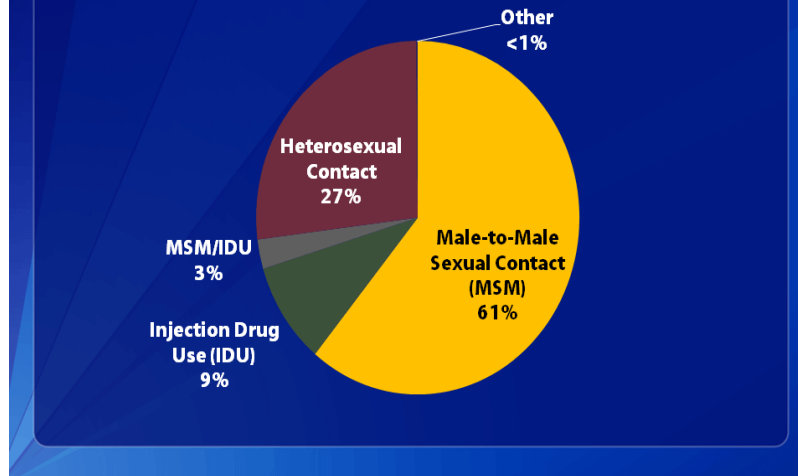
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Modeling reductions in HIV infection among MSM over 5 years



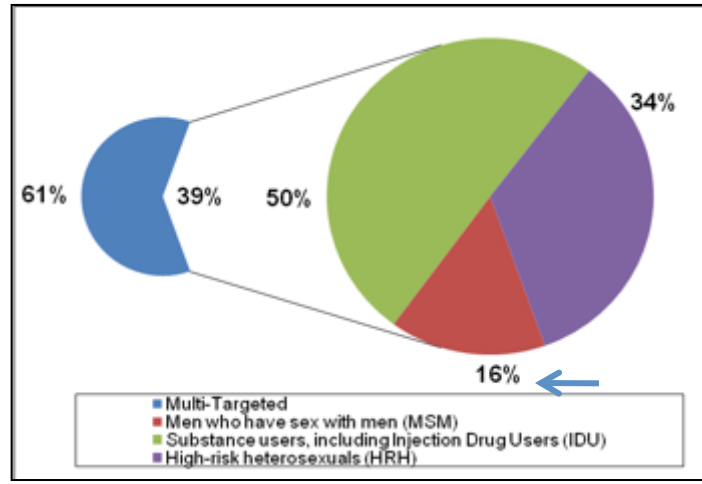
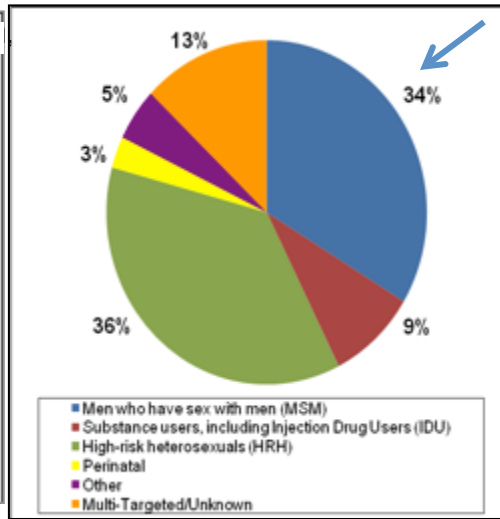
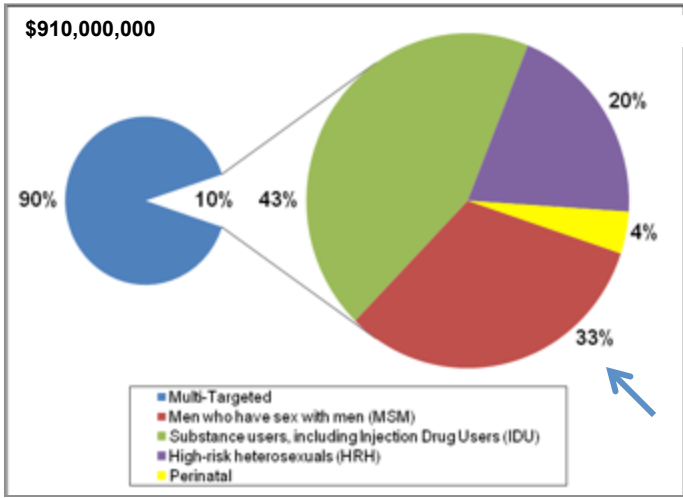
HIV Incidence by Transmission Category, United States - 2009



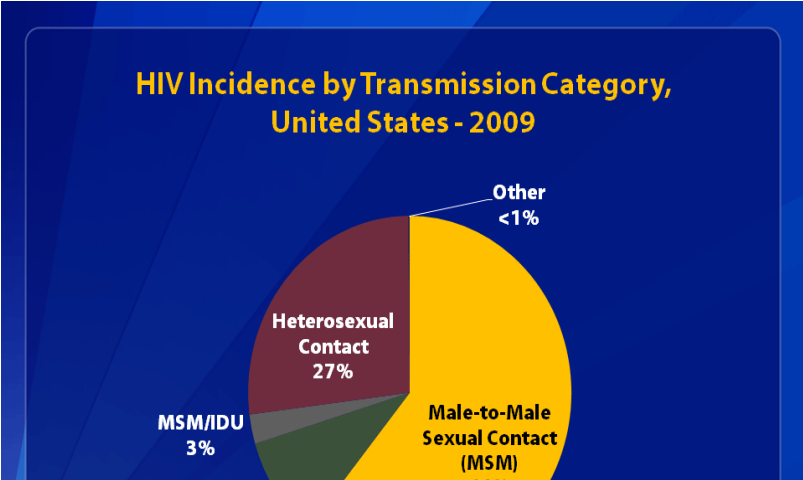
CDC, SAMHSA, IHS, OS

HRSA

NIH



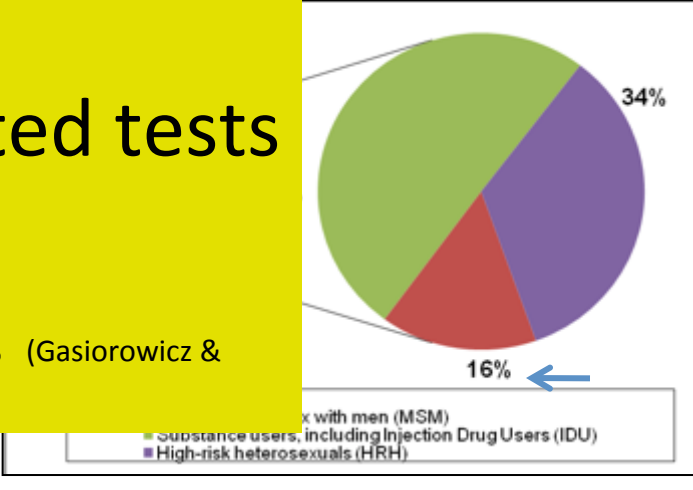
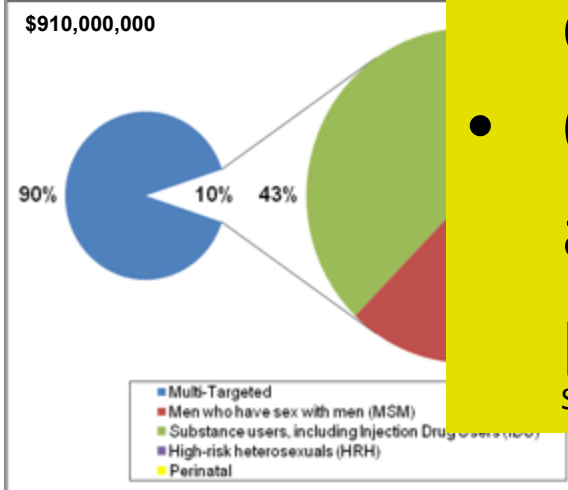
(HHS Operational Plan, 2011)



In Wisconsin, among Blacks:

- MSM 58% of HIV diagnoses
- Only 19% of targeted tests and 11% of HIV prevention clients. (Gasiorowicz & Stodola, 2011)

CDC, SAMHSA, IHS, OS



Inadequate HIV funding for MSM Internationally

- Of 38 developing countries that reported any programming for MSM
 - 0.6% of global prevention expenditures targeted MSM
 - More countries reported that MSM programs were “not applicable” to their HIV/AIDS response (Beyrer, 2010)
- Most countries in Asia spend less than 1% of their HIV budget on MSM, despite MSM comprising 5% to 20% of new infections. (AmFAR, 2009)
- Programs targeting MSM in Latin America comprise less than 1% of total HIV prevention spending , despite comprising 25% of people living with HIV. (AmFAR, 2008)

Negative Attitudes and MSM HIV Risk

- **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



Antigay Stigma: Syndemics and Amplification of HIV Risk

“AIDS prevention among MSM has overwhelmingly focused on sexual risk alone. Other health problems among MSM not only are important in their own right, but also may interact to increase HIV risk. HIV prevention might become more effective by addressing the broader health concerns of MSM while also focusing on sexual risks.” (Stall, AJP, 2003)

Psychosocial health problems

- Poly drug use
- Depression
- Childhood sexual abuse history
- Partner violence

	0 %	1 %	2 %	3+ %
HIV prevalence	13.0	20.9	27.2	22.4

P<.001

Anti-Gay Stigma and Its Consequences– Globally

- MSM in Malawi, Namibia, and Botswana: Disclosure of homosexuality to health-care providers
 - associated with being denied health care or being bribed
 - 42% MSM described 1 or more human rights abuses (blackmail, denied housing, healthcare, etc) (Baral, 2009)
- Fewer than 40% of Caribbean MSM reached by prevention programs (UNAIDS,2010)
 - Antigay stigma in Jamaica prevents access to prevention services
- Homophobic abuse associated with HIV infection among Uganda MSM (aOR 5.38, 95% CI 1.95-14.79) (Hladik, 2012)

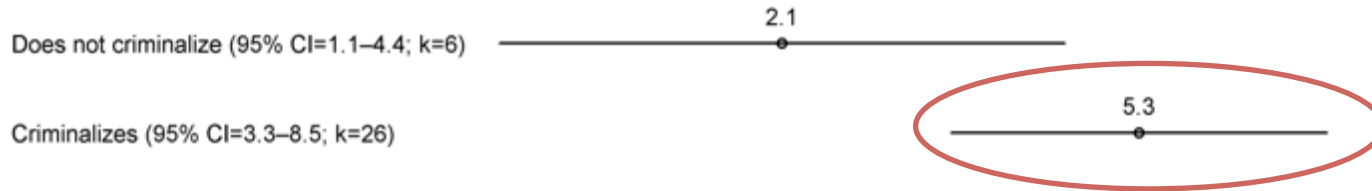


State-Sponsored Anti-Homosexual Criminalization – Globally

- 86 member states of the United Nations still criminalize consensual same sex acts among adults (ILGA, 2008)
 - In 21 countries, male-male sex is punishable by prison sentences of 10 years
 - 7 have legal provisions with death penalty as punishment
 - Authorized and encouraged by heads of state (e.g. Gambia, Uganda)

Criminalization of homosexuality & HIV prevalence among MSM in African and Caribbean countries

African countries, by criminal status



Caribbean countries, by criminal status

Does not criminalize (95% CI=9.6–16.4; k=7)

Criminalizes (95% CI=19.9–29.6; k=8)

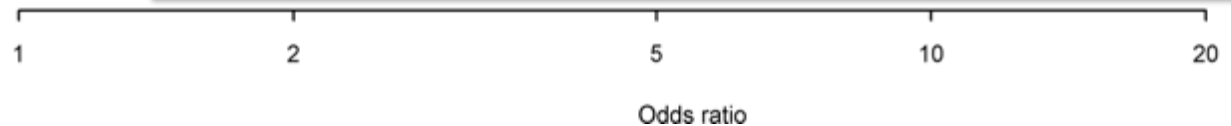
All countries, by sentencing severity

Does not criminalize (95% CI=2.4–9.7; k=13)

5 years or less (95% CI=3.1–20.6; k=12)

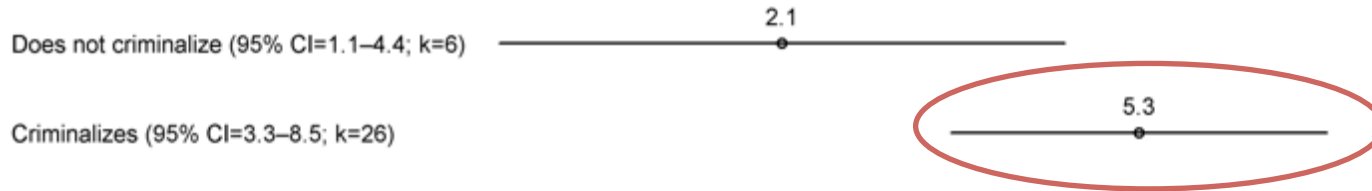
10-14 years (95% CI=4.8–13.9; k=14)

25 years to life, or death (95% CI=4.3–21.7; k=7)



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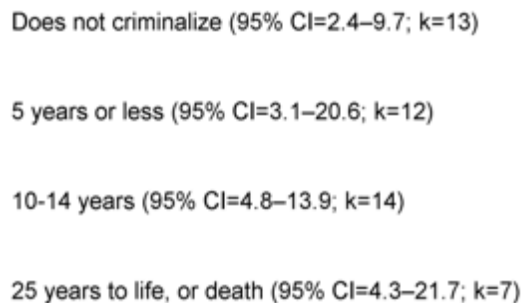
African countries, by criminal status



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All countries, by sentencing severity

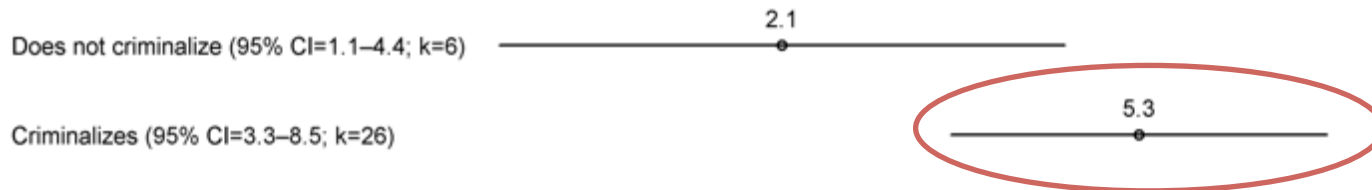


1 2 5 10 20

Odds ratio

Criminalization of homosexuality & HIV prevalence among MSM in African and Caribbean countries

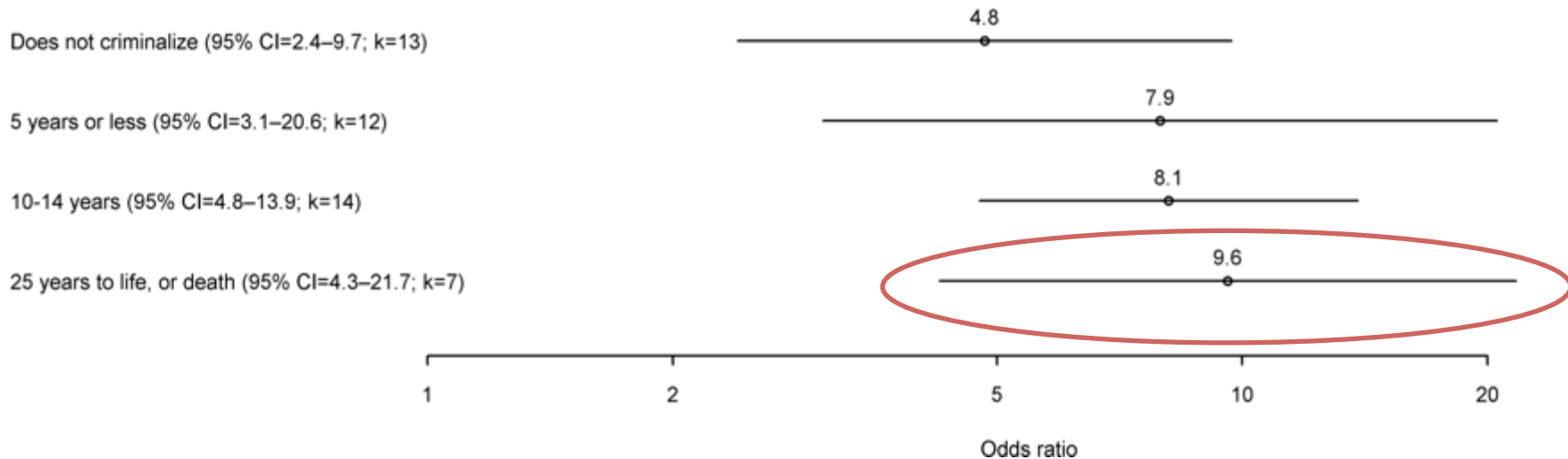
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Criminalization of homosexuality & HIV prevalence among MSM in African and Caribbean countries

African countries, by criminal status

Does not criminalize (95% CI=1.1–4.4; k=6) 2.1

Criminalizes (95% CI=3.3–8.5; k=26)

Caribbean countries, by criminal status

Does not criminalize (95% CI=9.6–16.0) 12.6

Criminalizes (95% CI=19.9–29.6; k=8) 24.3

All countries, by sentencing severity

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10-14 years (95% CI=4.8–13.9; k=14)

25 years to life, or death (95% CI=4.3–21.7; k=7) 10.0



Odds ratio

- Countries that criminalize same-sex behavior
 1. spend less on MSM services
 2. less likely to conduct HIV surveillance for MSM (amFAR, 2011)

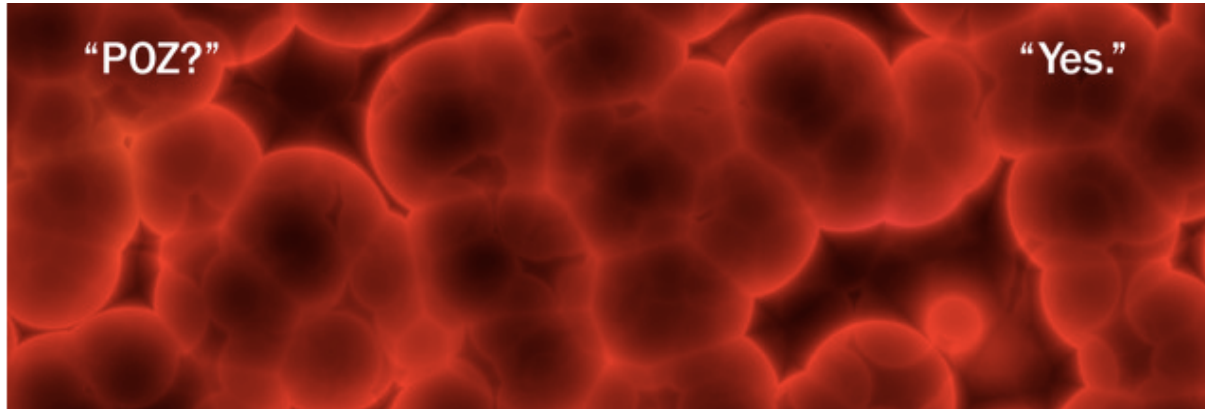
Criminalization – U.S.

- Sodomy laws
 - Inclusive of oral sex and anal sex
 - Considered a felony in certain states
 - Applied disproportionately to LGBT couples vs. heterosexual couples
- Bowers vs. Hardwick (1986)
 - Supreme Court : No constitutional right to sexual privacy for GLBT individuals
- Lawrence vs. Texas (2003)
 - Invalidated 1986 Supreme Court decision
 - Struck down laws remaining on book in 15 states

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- Section 2500 Public Health Service Act:
 - *Content of program- advise re: 'harmful effects of promiscuous sexual activity...and the benefits of abstaining from such activities.'*
 - *Limitation- 'None of the funds ...may be used to provide education or information designed to promote or encourage...homosexual or heterosexual sexual activity...'* (MMWR, 1988)
- Inequality in Federal laws
 - Workplace discrimination
 - Marriage
 - Recognition of parental rights
 - Inheritance rights
 - Partner visitation in healthcare settings

HIV Stigma in the Gay Community



PRIDE AND SHAME

Please Don't Infect Me, I'm Sorry

Op-ed: Reluctant Social Commentary of a Newly HIV-Positive 20-Something

What runs through the mind of a 28-year-old newly diagnosed with HIV?

BY TYLER CURRY DECEMBER 03 2012 6:00 AM ET



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2.3k



3



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In the modern homo-arena of fabulous fundraisers, extravagant vacations and Cross-fit courses, the conversation of HIV has almost become associated with bad social etiquette. After all, the insidious connotations associated with HIV have seemed to all but fade away. We can all remember the horror stories about funeral after funeral, with half of the faces at Sunday brunch disappearing within a matter of months...but that was then. Now, our Sunday brunch tables

Opportunities

The promise of pre-exposure prophylaxis

- 44% reduction HIV infection
(Grant, NEJM, 2010)
- Greater reduction (92%) in HIV acquisition risk in adherent men
- Targeting 25% of high-risk MSM in New York City is cost-effective in long term
 - could prevent 4%-23% of 19,510 predicted HIV infections in 5 years. (Desai, AIDS, 2008)



“Just because something is cost effective, does not make it affordable”

-David Paltiel

Cost of HIV Prevention for Global MSM Epidemic

- Cost to decrease new HIV infections among MSM by 25% over 10 years
 - Oral PrEP global scale → \$26B
 - Early ART for dx positives → \$26B

(Beyrer, 2012)

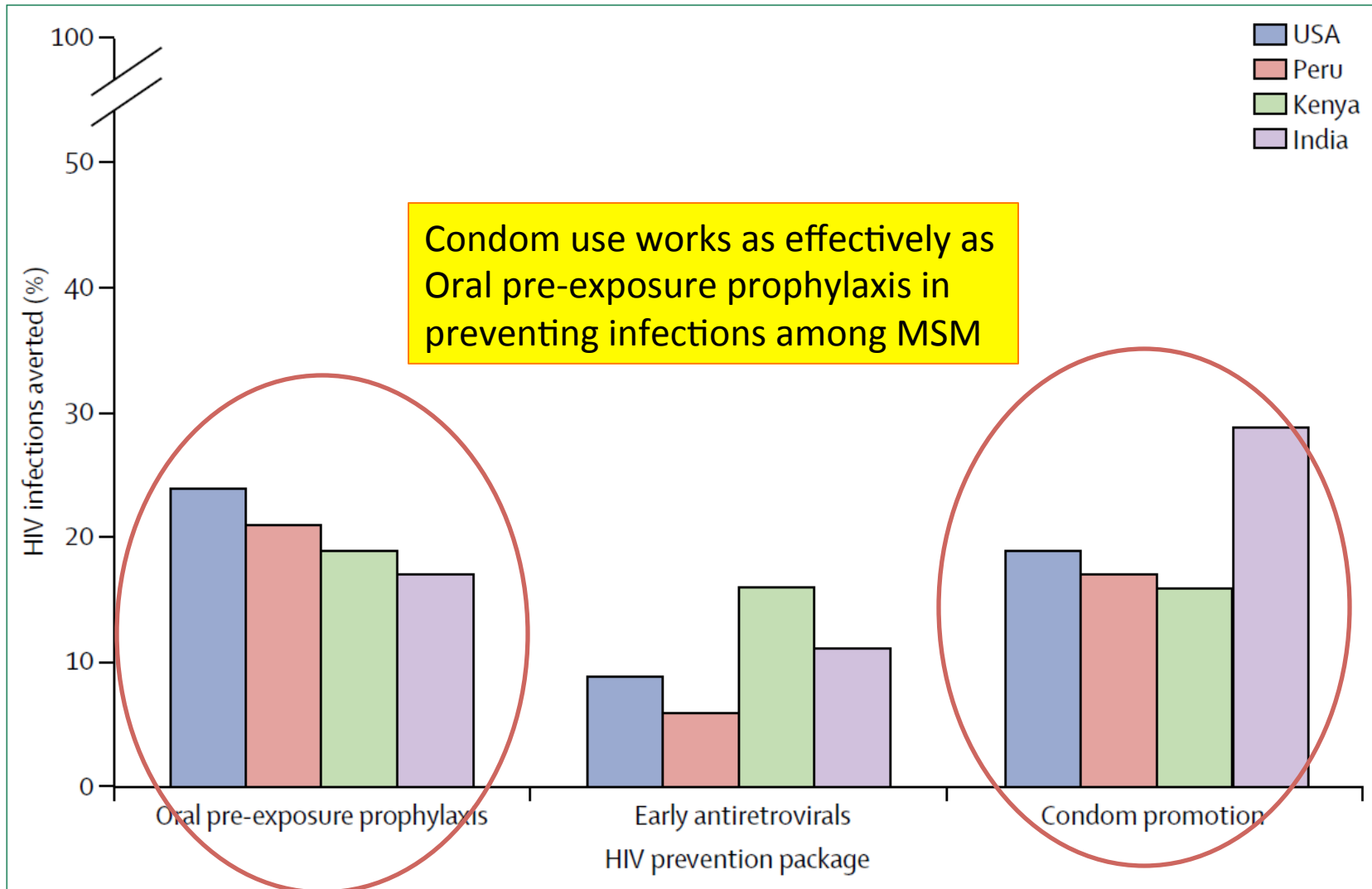
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 - **Provision of latex condoms and water-based lubricant → \$134M**

(Beyrer, 2012)



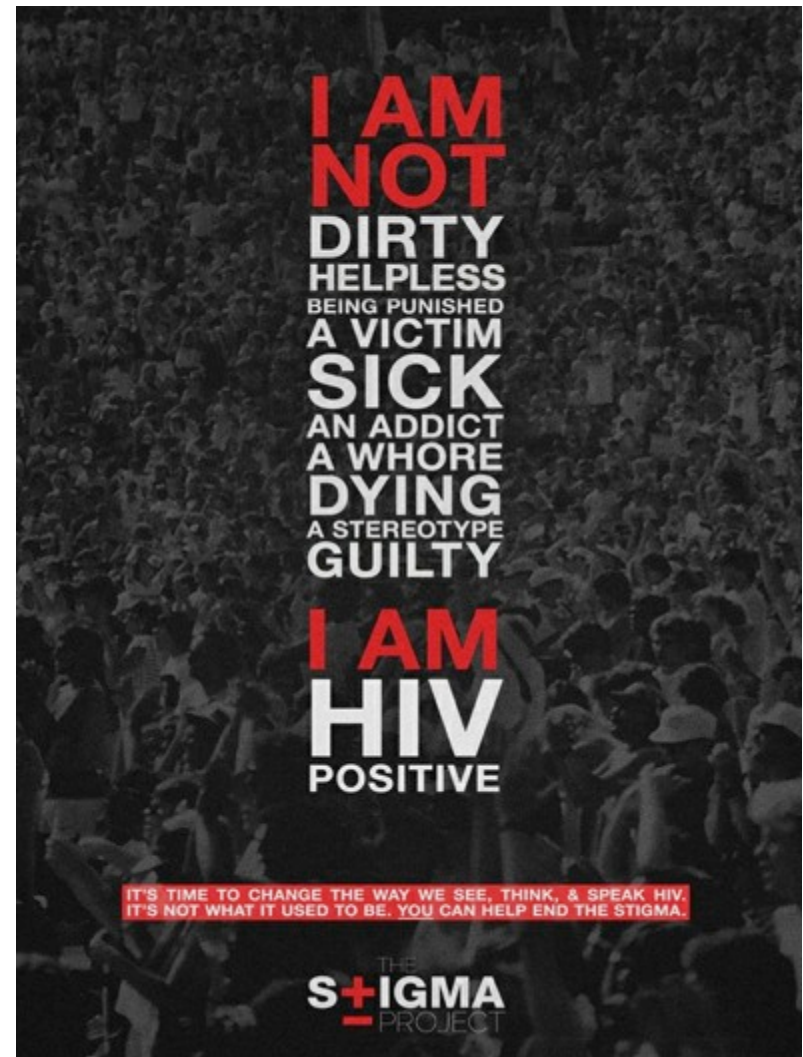
Estimated percent of new HIV infections among MSM prevented by three prevention approaches, four countries




Documented Lack of Access to Condoms or Lubricant

- MSM Global Forum Survey
 - 3,875 MSM
 - Three-quarters from low- and middle-income countries.
 - 39 % reported having access to free condoms
 - 25 % reported having access to free lubricant
- Kenyan MSM sex workers
 - 29% used no lubricant
 - 36% used oil-based lubricant w condoms (Geibel, 2008)

Raising Awareness & Reducing Stigma



Raising Awareness & Reducing Stigma



**“CLEAN
U B 2.”**

*DIRTY IS FOR LAUNDRY,
NOT YOUR HIV STATUS.*

THE
S+IGMA
-PROJECT

LIVE HIV NEUTRAL. LIKE US ON FACEBOOK



**REMOVE THE
ELEPHAN+.**

**YOU DON'T HAVE TO WHISPER.
IT'S OKAY TO TALK ABOUT HIV.
YOU MIGHT EVEN LEARN SOMETHING.**

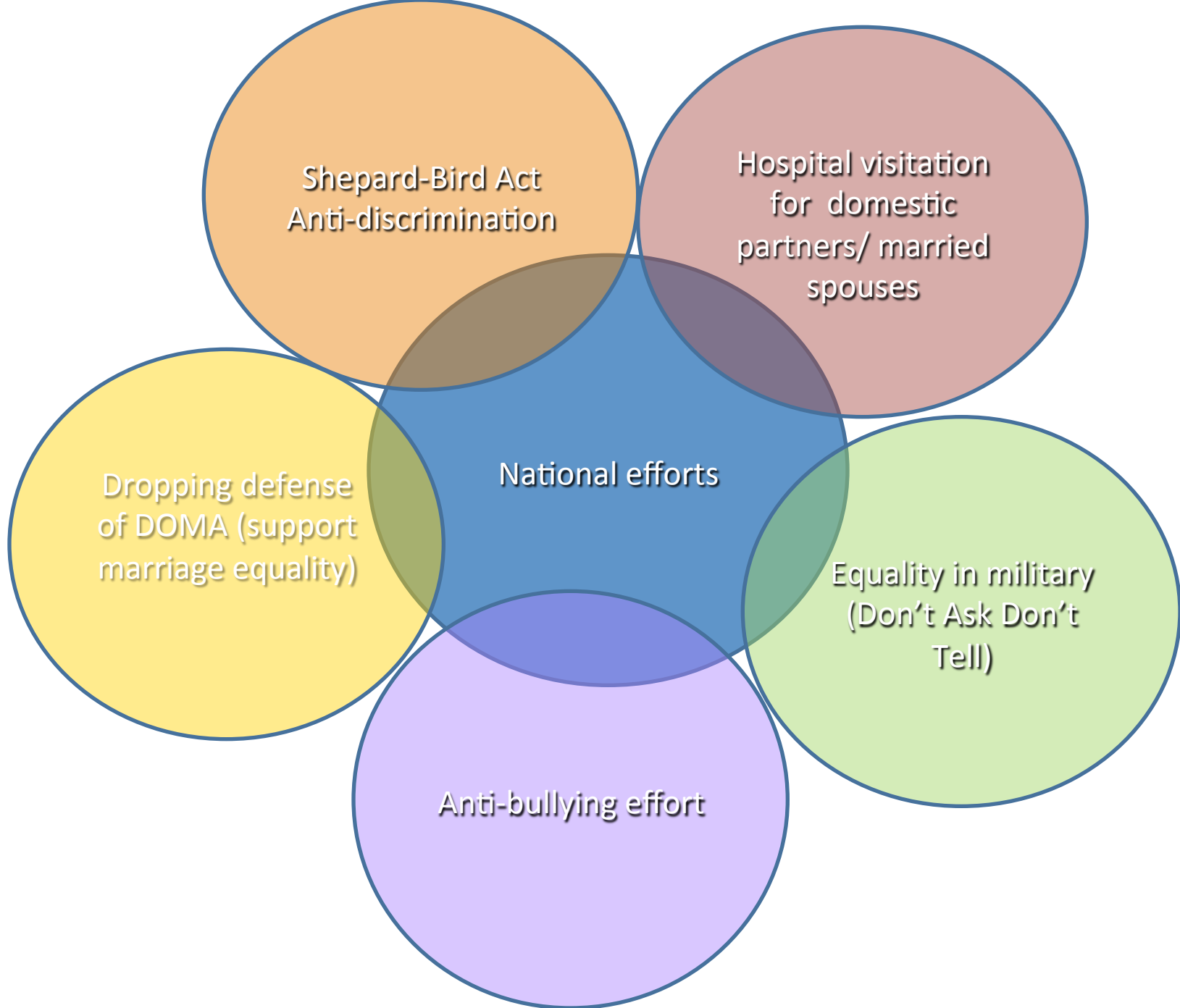
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Combating HIV Stigma– From Top Down



- “But the fight is not over – not by a long shot.... ***When new infections among young black gay men increase by nearly 50 percent in 3 years, we need to do more to show them that their lives matter.***”



Shepard-Bird Act
Anti-discrimination

Hospital visitation
for domestic
partners / married

President's National HIV/AIDS Strategy:

- “The United States cannot reduce the number of HIV infections nationally without better addressing HIV among gay and bisexual men. Our national commitment to this population has not always reached a level of HIV prevention funding reflective of their risk.”

Dropping de
of DOMA (s
marriage ec

cy in military
t Ask Don't
Tell)

Anti-bullying effort

President's statement in response to David Kato's murder

“I am deeply saddened to learn of the murder of David Kato...The United States mourns his murder, and we recommit ourselves to David's work... LGBT rights are not special rights; they are human rights. My Administration will continue to strongly support human rights and assistance work on behalf of LGBT persons abroad. We do this because we recognize the threat faced by leaders like David Kato, and we share their commitment to advancing freedom, fairness, and equality for all.”

-President Barack Obama, 1/27/11

Combating anti-gay discrimination abroad

US will use foreign aid to defend gay rights abroad, Clinton, Obama declare: culture no excuse

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By Associated Press, Updated: Wednesday, December 7, 2:48 PM

SAN FRANCISCO — The Obama administration's declaration that it plans to use foreign assistance, international diplomacy and political asylum to promote gay rights abroad is a momentous step that could dangerously backfire if not pursued with delicacy and an appreciation of how the challenges faced by gays and lesbians vary by nation, human rights activists said.

President Barack Obama, in a memorandum to executive departments, and Secretary of State Hillary Rodham Clinton, during a speech before the U.N. Human Rights Council, issued a coordinated denunciation Tuesday of anti-gay discrimination, stating that equal treatment of gay, lesbian and transgender people was an explicit U.S. foreign policy goal.



