

# HIV/AIDS epidemics among men who have sex with men (MSM) in Africa, Asia, Latin America and the Caribbean, and the CIS

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# Introduction

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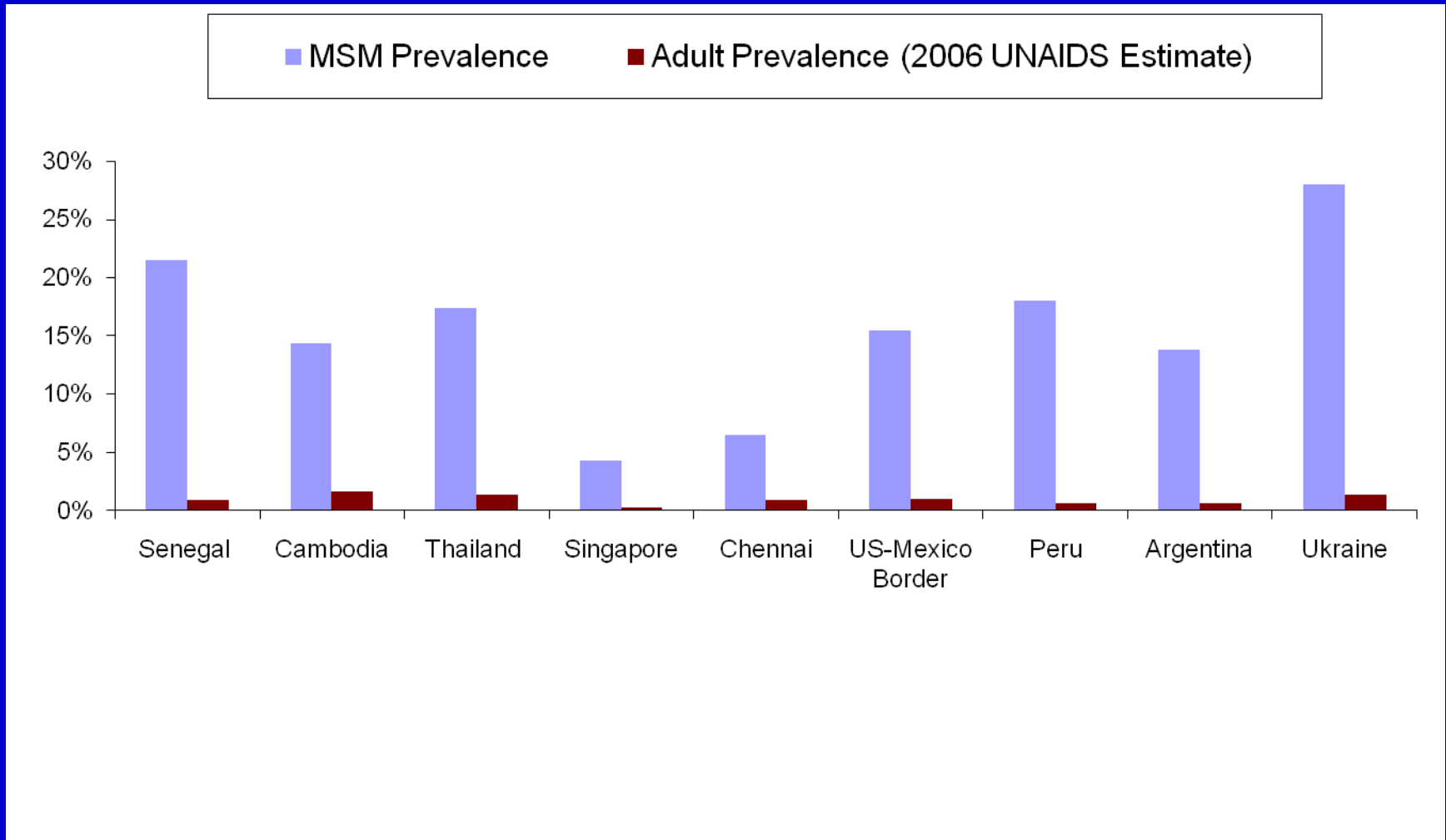
- HIV epidemic spread among MSM is occurring in both high and low income countries in 2008
- MSM HIV epidemics are underway in Latin America, Asia, Eastern Europe/FSU, and Africa
- Many MSM epidemics are occurring in “hidden” contexts of discrimination, stigma, criminalization, rights abrogation and limited HIV surveillance

# What do we mean by MSM?

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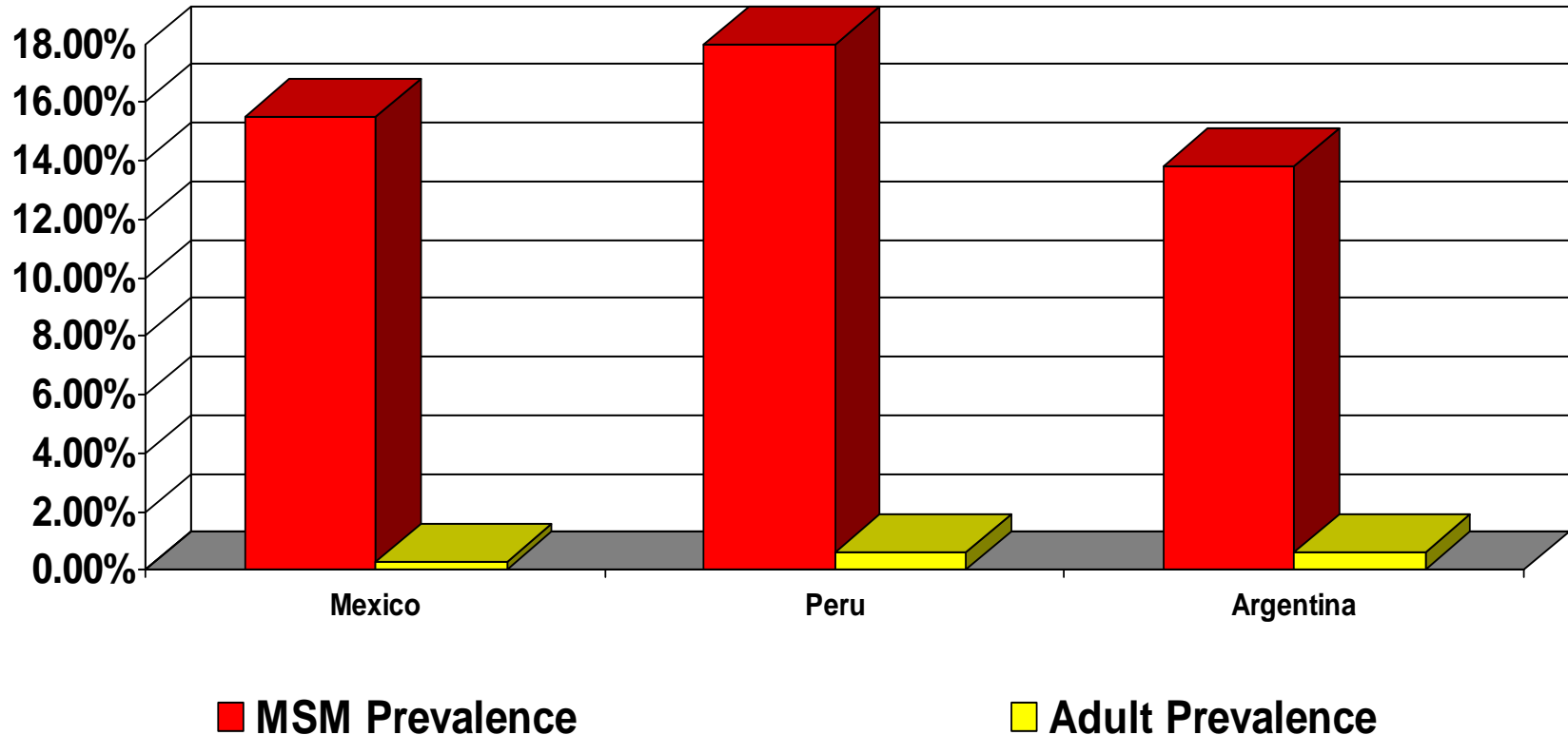
- MSM is a 1990s construct which tries to capture *behavior* and *not identity* or sexual orientation
- MSM includes gay and non-gay identified men, bisexual men, "situational" sex between men (prisons, schools, militaries), male sex workers, and some transgender persons
- MSM includes a wide array of traditional and local terms worldwide

# HIV prevalence among MSM in Selected settings



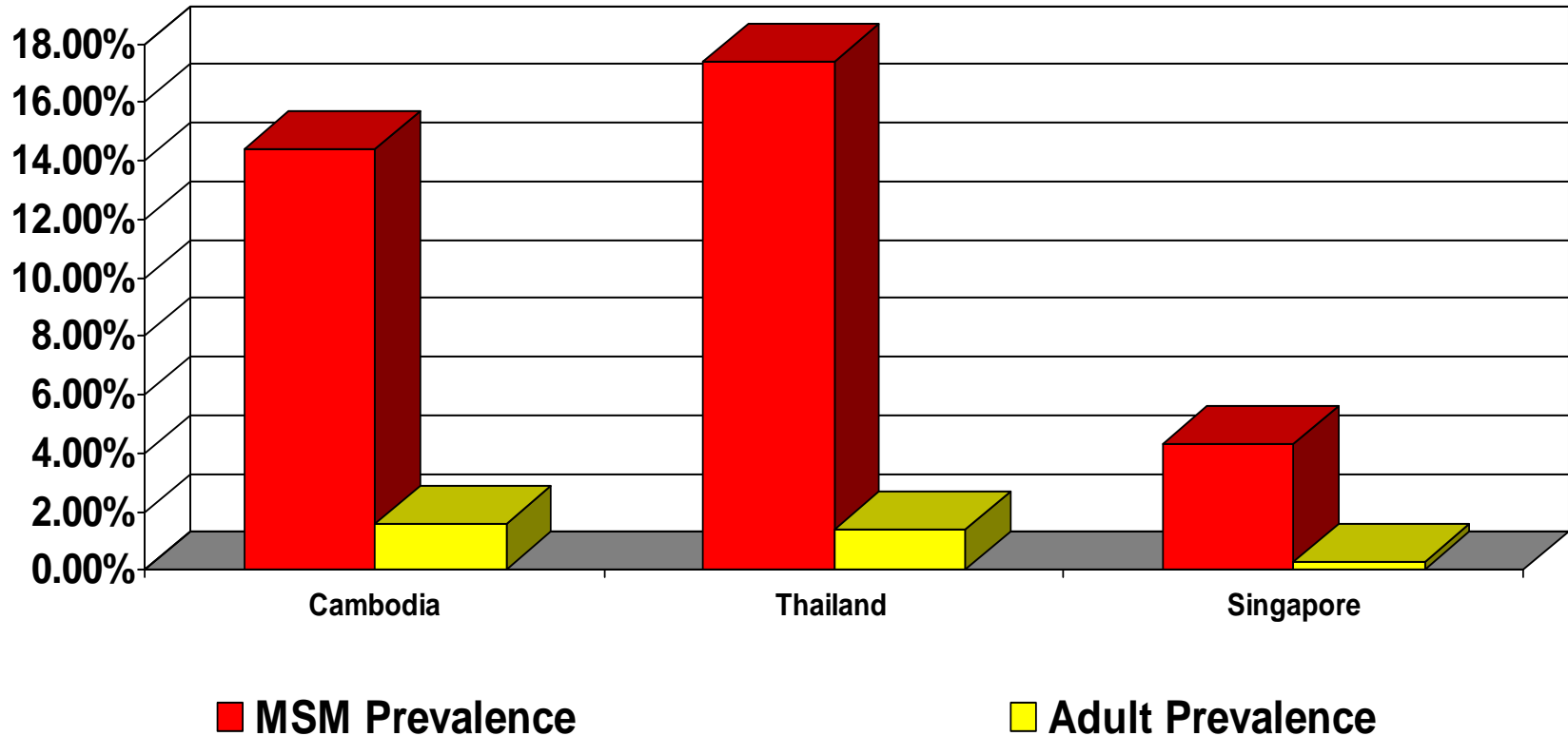
Source: Wade et al. 2005; Girault et al. 2004; van Grievsven et al. 2005; Action for AIDS Singapore, 2006, Go et al. 2004; Pando et al. 2006; UNAIDS, 2006; Caceres et al, 2005, Strathdee, et al, 2006. CENSIDA, CA State Office of AIDS; Patterson et al, IAS, 2006; Strathdee et al, pers. comm; Viani et al, 2006

# HIV Prevalence among MSM and general populations in selected Latin-American countries

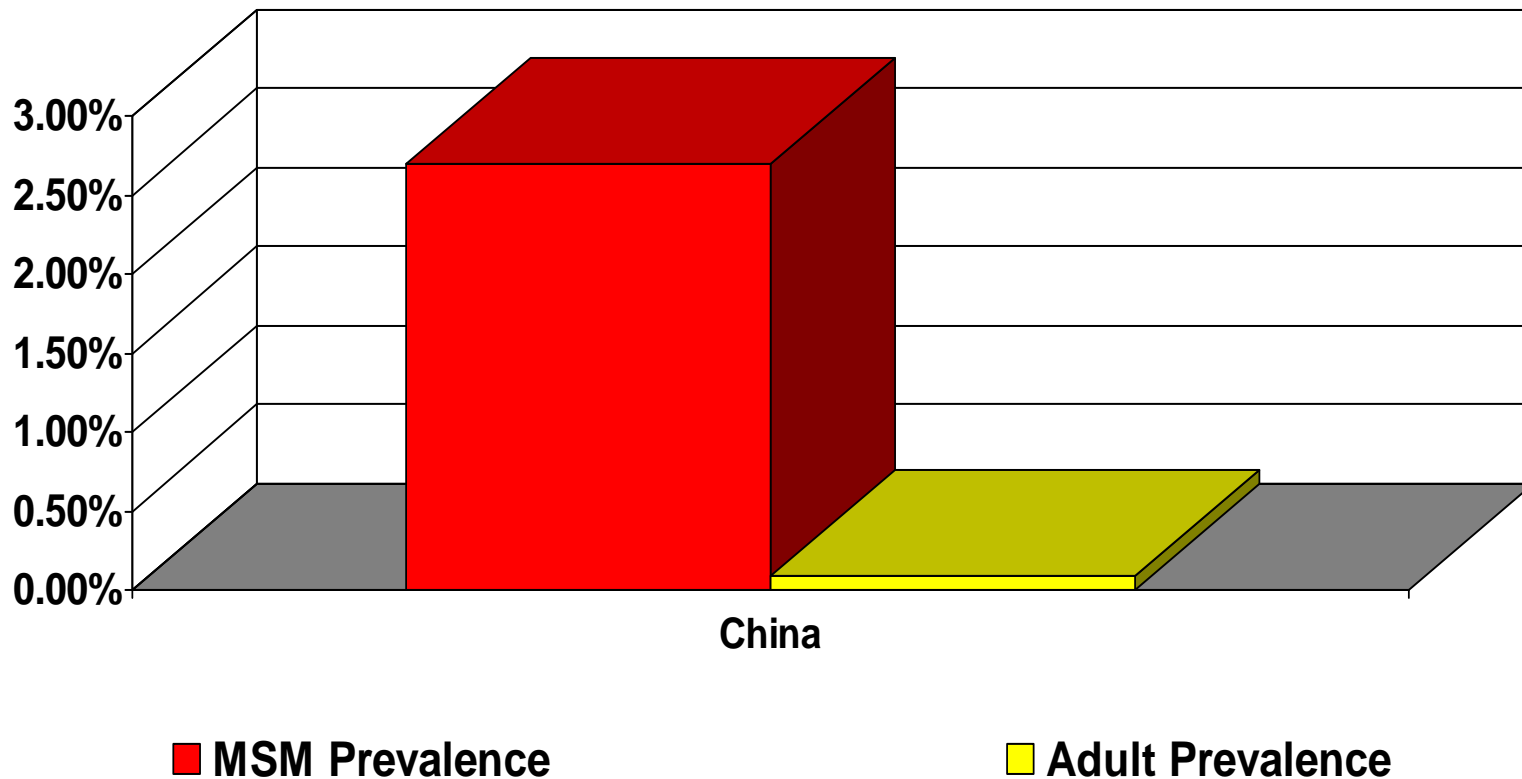


Source: Wade et al. 2005; Girault et al. 2004; van Grievsven et al. 2005; Action for AIDS Singapore, 2006, Go et al. 2004; Pando et al. 2006; UNAIDS, 2006; Caceres et al, 2005, Strathdee, et al, 2006. CENSIDA, CA State Office of AIDS; Patterson et al, IAS, 2006; Strathdee et al, pers. comm; Viani et al, 2006. For Mexico, National HIV Program. CENSIDA 2006

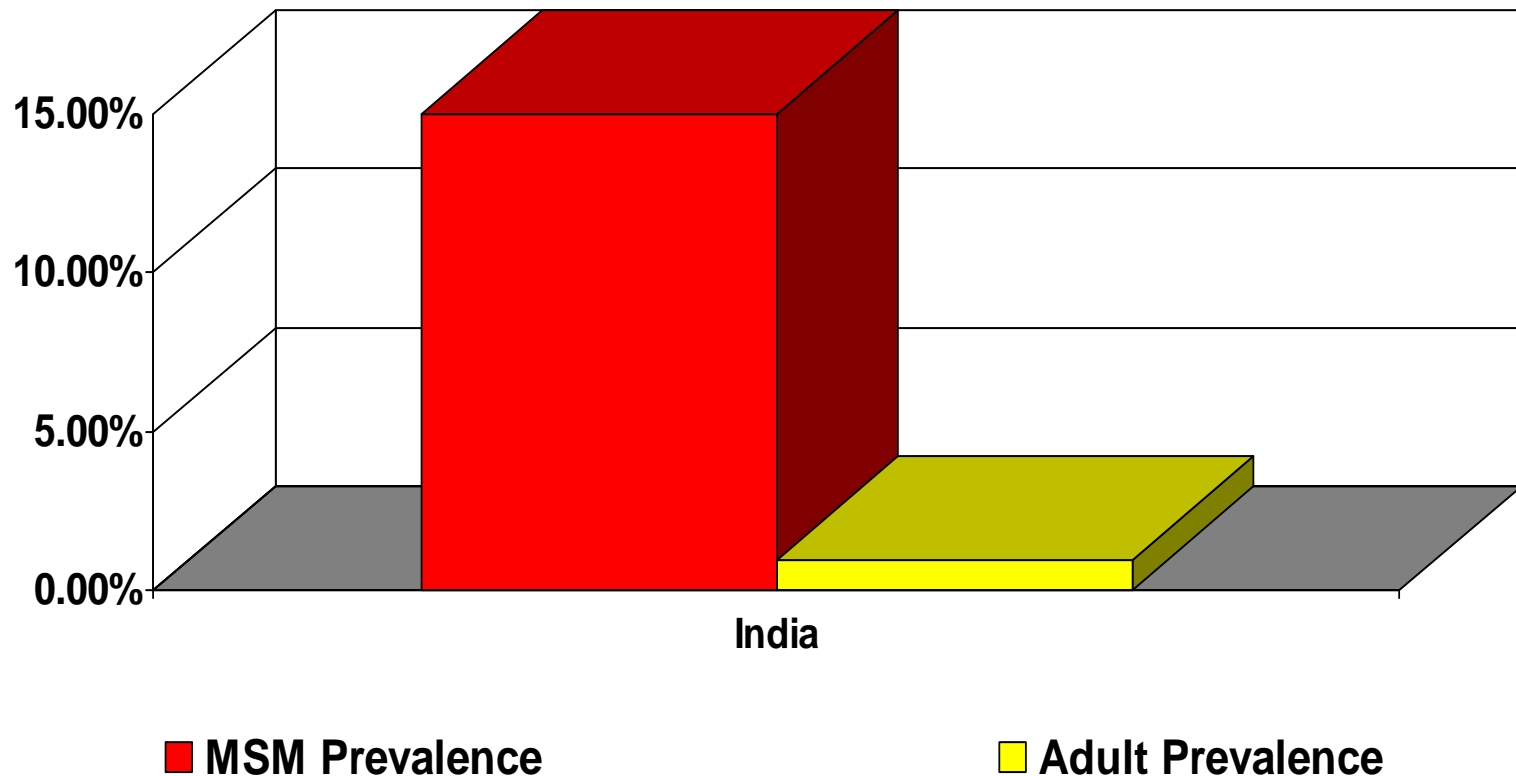
# HIV Prevalence among MSM and general populations in selected Southeast Asian countries



# HIV Prevalence among MSM and general populations in China

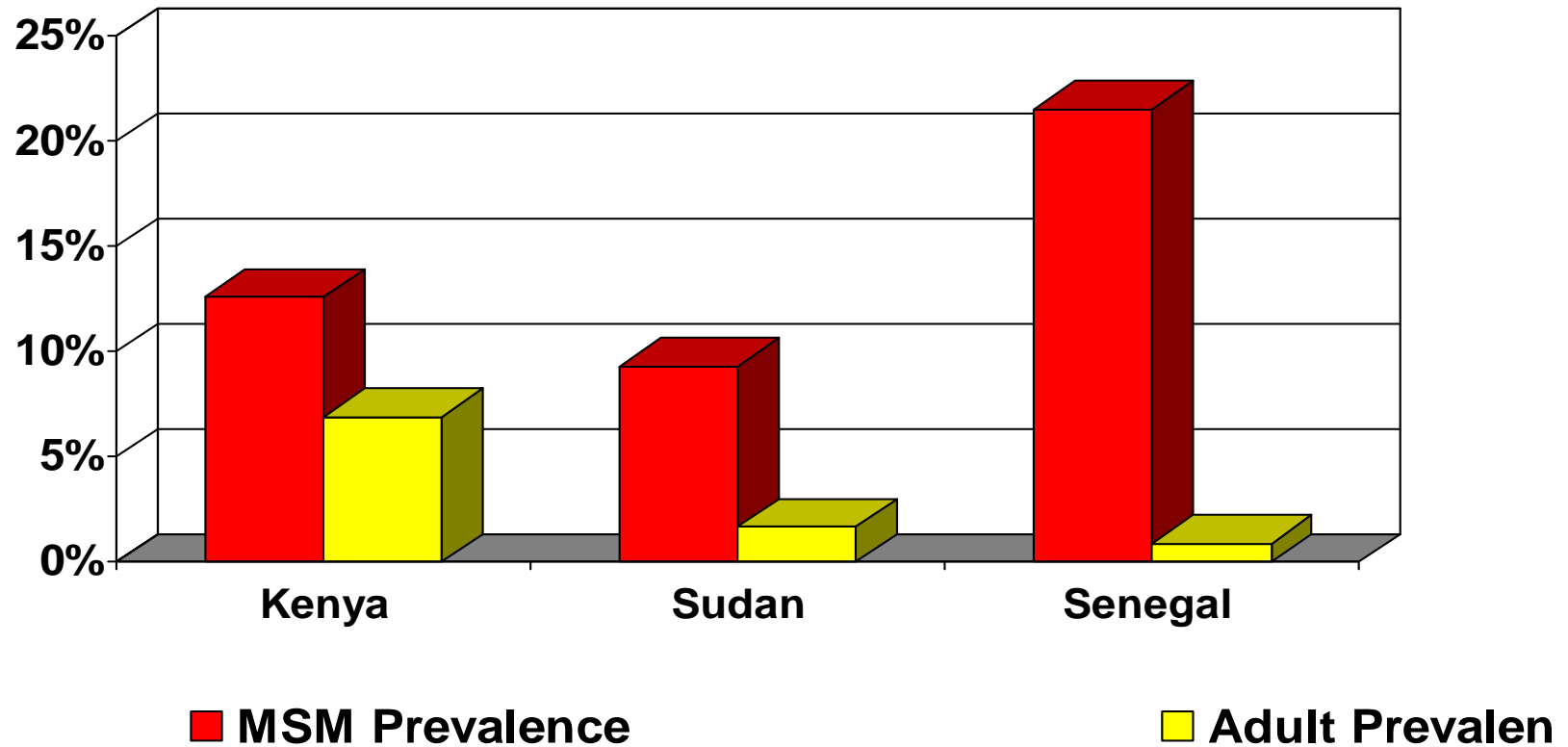


# HIV Prevalence among MSM and general populations in India



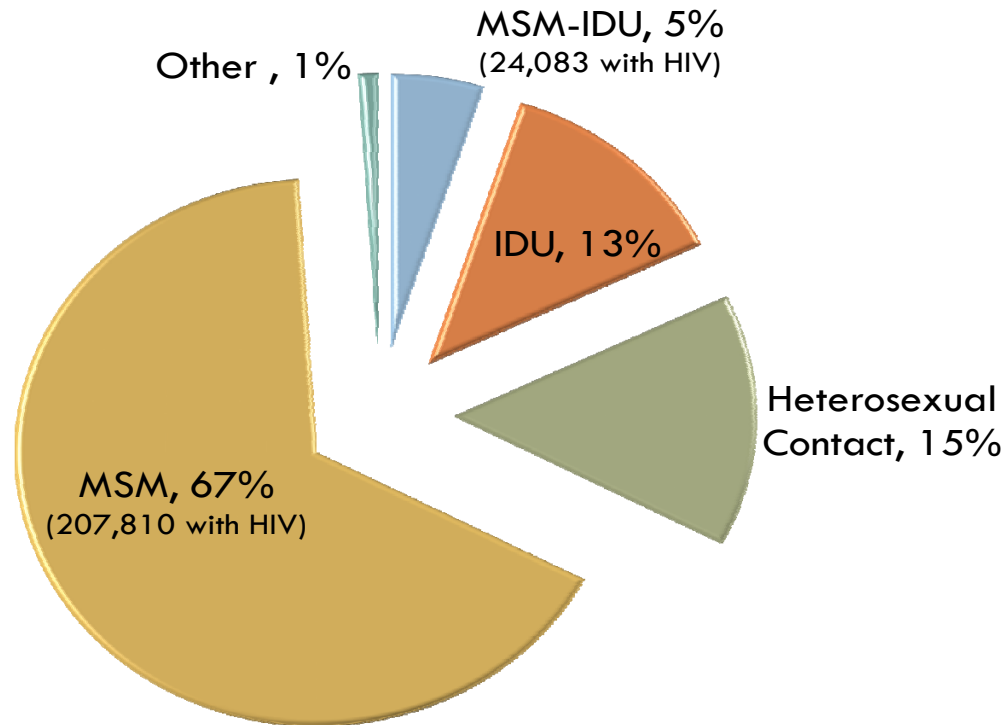
Source: Wade et al. 2005; Girault et al. 2004; van Grievsven et al. 2005; Action for AIDS Singapore, 2006, Go et al. 2004; Pando et al. 2006; UNAIDS, 2006; Caceres et al, 2005, Strathdee, et al, 2006. CENSIDA, CA State Office of AIDS; Patterson et al, IAS, 2006; Strathdee et al, pers. comm; Viani et al, 2006.

# HIV Prevalence among MSM and general populations in selected African countries



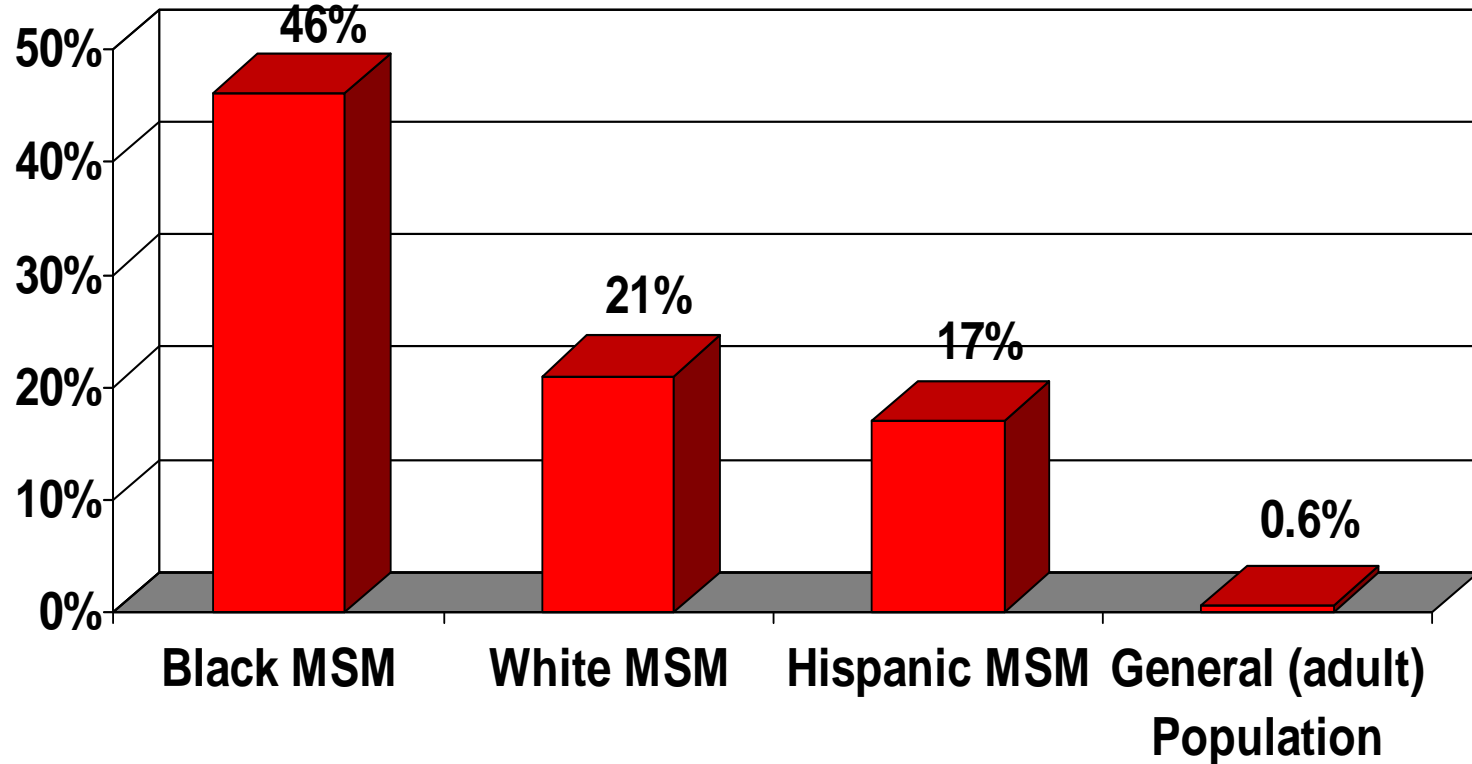
Source: Wade et al. 2005; Girault et al. 2004; van Grievsven et al. 2005; Action for AIDS Singapore, 2006, Go et al. 2004; Pando et al. 2006; UNAIDS, 2006; Caceres et al, 2005, Strathdee, et al, 2006. CENSIDA, CA State Office of AIDS; Patterson et al, IAS, 2006; Strathdee et al, pers. comm; Viani et al, 2006.

# HIV/AIDS Diagnoses by Transmission Category Among Males in 33 US Cities, 2005



Source: CDC. *HIV/AIDS Surveillance Report, 2005. Vol. 17.*

# HIV Prevalence rates in US MSM by racial/ethnic category, 2005



# Individual level determinants for HIV among MSM

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Unprotected anal intercourse ( ↑ risk with receptive UAI)

High frequency of male partners (>3 sexual contacts/ week)

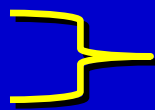
High number of lifetime male partners (>10)

Untreated STI (syphilis, HSV-2)

Injection drug use

Non injection drugs

Methamphetamines



**Mediated through increased sexual exposure**

Possible risk:

Lack of circumcision

# Interventions with known efficacy for MSM

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Education, behavioral interventions, peer outreach

Condom promotion and social marketing

HIV VCT

STI diagnosis and treatment (especially syphilis)

Structural interventions (providing MSM-friendly clinic services, reducing discrimination, training/educating police)

# Elevated Risk for HIV Infection among MSM in Low and Middle Income Countries 2000-2006: A Systematic Review

Stefan Baral, Sifakis F, Cleghorn F, Beyrer C.

*PLoS Medicine*,

Dec. 1, 2007

# Results

Total of 83 publications from 38 countries on HIV in MSM

US Bureau of Census and UNAIDS data to estimate general population levels of HIV in adults aged 15-49

Total sample: 63,538 individual men

**Pooled OR for HIV infection in MSM: 19.3**

In very low HIV Prevalence settings (<1/1000 adults with HIV)

**Pooled OR for MSM was 58.4**

In high prevalence settings (> 1/20 infected)

**Pooled OR for MSM was 9.6**

# Asia Prevalence

Country	Sample Size	MSM Prevalence (95% CI)	Population Prevalence	Odds Ratio
Thailand	3236	24.6 (23.1-26.1)	1.55	20.7 (19.1-22.4)
Vietnam	575	2.8 (1.4-4.1)	0.52	5.5 (3.4-9.1)
Cambodia	754	7.8 (5.9-9.7)	1.81	4.6 (3.5-6.0)
China	5734	2.7 (2.2-3.0)	0.09	45.1 (39.6-51.4)
Indonesia	770	9.0 (6.9-11.0)	0.14	72.8 (56.8-93.2)
India	3780	15.2 (14.0-16.3)	0.97	17.6 (16.0-19.3)
Nepal	358	4.8 (2.6-7.0)	0.54	9.2 (5.6-14.9)
East Timor	110	1.0 (0.0-2.6)	Unknown	Unknown
<b>Total</b>	<b>17146</b>	<b>10.6 (9.2-12.0)</b>		<b>18.7 (17.7-19.7)</b>

# Africa

Country	Sample Size	MSM Prevalence (95% CI)	Population Prevalence	Odds Ratios
Senegal	442	21.5 (17.7-25.3)	0.99	27.5 (21.9-34.5)
Kenya	840	12.6 (10.3-14.9)	6.93	1.6 (1.3-2.0)
Sudan	713	9.3 (7.1-11.4)	1.67	6.0 (4.7-7.7)
Egypt	73	0.01 (0.00-4.0)	0.01	108.9 (15.1-783.9)
<b>Total</b>	<b>2068</b>	<b>13.0 (8.9-17.0)</b>		<b>3.8 (3.3-4.3)</b>

# Latin America and the Caribbean

Country	Sample Size	MSM Prevalence (95% CI)	Population Prevalence	Odds Ratios
Ecuador	916	15.1 (12.8-17.4)	0.31	56.4 (47.0-67.6)
Peru	18843	12.2 (11.7-12.7)	0.61	22.6 (21.6-23.6)
Bolivia	520	21.2 (17.6-24.7)	0.15	178.8 (144.7-221)
Uruguay	736	18.9 (16.1-21.7)	0.56	41.0 (34.1-49.4)
Argentina	2410	12.1 (10.8-13.4)	0.65	21.0 (18.6-23.7)
Colombia	1274	19.4 (17.2-21.6)	0.69	34.5 (30.1-39.7)
Paraguay	92	13.0 (6.2-19.9)	0.42	35.4 (19.3-64.9)
Brazil	1456	14.4 (12.6-16.2)	0.58	28.7 (24.8-33.3)
Honduras	569	13.0 (10.2-15.8)	1.72	8.6 (6.7-10.9)
Panama	235	10.6 (6.7-14.6)	1.03	11.5 (7.6-17.4)
Guatemala	165	11.5 (6.7-16.4)	1.04	12.4 (7.7-20.0)
El Salvador	293	7.9 (4.8-10.9)	1.04	8.1 (5.3-12.4)
Nicaragua	162	9.3 (4.8-13.7)	0.25	40.8 (24.0-69.5)
Mexico	9422	25.6 (24.8-26.5)	0.32	109.0 (104-114.1)
Puerto Rico	685	6.0 (4.2-7.7)	Unknown	Unknown
Trinidad and Tobago	235	20.4 (15.3-25.6)	4.28	5.7 (4.2-7.9)
<b>Total</b>	<b>38013</b>	<b>16.1 (15.1-17.0)</b>		<b>33.3 (32.3-34.2)</b>

# Systematic Review of HIV among MSM in Low and Middle Income Countries

	Number of Countries	Odds Ratios	95% Confidence Interval
<b>Region</b>			
Americas	15	<b>33.3</b>	32.3-34.2
Asia	7	<b>18.7</b>	17.7-19.7
Eastern Europe	12	<b>1.3</b>	1.06-1.6
Africa	4	<b>3.8</b>	3.3-4.3
<b>Prevalence Level</b>			
Very Low Prevalence Countries	23	<b>58.4</b>	56.3-60.6
Low Prevalence	8	<b>14.1</b>	13.9-14.9
Medium/High Prevalence	7	<b>9.6</b>	9.0-10.2

What do these data tell us?

Why are we seeing such high HIV rates in MSM in 2008?

# Implications

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- MSM understudied in many emerging HIV epidemic contexts: MSM not included in national HIV surveillance in majority of low and middle income countries
- Africa most markedly understudied region
- Urgent need to include MSM risks in national HIV/AIDS surveillance, in STI measures, and *particularly* where culturally difficult
- Evidence based and rights based approaches to HIV both mandate that there be non-discrimination in services, access, and funding

# Conclusions

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- HIV epidemic spread among MSM is occurring in both high and low income settings in 2008
- MSM are at very high risk in the USA: Black and Hispanic MSM are the most affected
- Urgent need for MSM programs in HIV prevention, treatment and care