

# Male-to-Male Sex among MSM in Low & Middle-Income Countries: What do we know? What do we need to do?

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## Introduction

- Data on HIV transmission through sex between men, and on the incidence and prevalence of HIV and other STIs among MSM, are very poor in most of the developing world, perhaps with some exceptions.
- The most glaring data gaps are in Africa, Central Asia, Eastern Europe, and the Middle East. Even in South/East Asia, Latin America and the Caribbean, the contribution to the HIV/AIDS epidemic of male same-sex sexual behaviour is not fully appreciated, in part due to either a lack of data or lack of analysis of the available data.
- A limited number of more detailed recent epidemiological studies have shown that both prevalence of same-sex behaviour and prevalence of HIV among MSM are much higher than had previously been assumed.
- The prevalence of HIV and STI among MSM in the context of risk behaviour, vis-à-vis the limited focus on prevention and care in the health systems, suggests a serious gap that needs to be addressed.



## Objectives

To systematically bring together published and unpublished surveillance and research data on:

1. the prevalence of same-sex sexual activity among men, including transgender people and male sex workers, using appropriate definitions;
2. the prevalence of heterosexual activity among men who have sex with men;
3. the prevalence of condom use with male and female partners among MSM, and
4. the prevalence of HIV infection and other STIs among MSM;

in sub-Saharan Africa, Asia, the Middle East and North Africa, Eastern Europe, and Latin America and the Caribbean (low and middle-income countries)



## Methods: Data Collection

- Identification of indicators of potential interest possibly available in studies
- Design of a database in Access (with instructions for use)
- Definition of acceptable sources (accuracy to be estimated for each report)
- Division of regions in sub-areas, and work with focal points
  - Asia (East, South, South East),
  - MENA,
  - Eastern Europe/Central Asia,
  - Sub-Saharan Africa (West/Central; East/South),
  - Caribbean,
  - Latin America



## Methods: Data Collection

- Central searches in *pubmed*, conference databases, academic e-libraries, U.S. Census Bureau.
- Searches in general engines were complementary
- Data entered centrally by research team except f/China
- Background references collected (as html or pdf files)
- Development of Data Quality Assessment (5-point scale) as a function of peer-reviewed source, completeness and quality of methodological description.



## Methods: Data Analysis

1. Summary Tables and Identification of Estimate Ranges for key indicators from best quality studies:
  - 1.1. Prevalence of male same-sex behaviour
    - Ever sex with a man;
    - ever anal sex with a man;
    - sex w/man in last year
  - 1.2. Prevalence of selected characteristics among MSM
    - HIV infection
    - heterosexual sex (lifetime & last year),
    - condom use (last sex w/ man);
    - consistent condom use in sex w/men last year;
    - % of men who never used condom w/man,
    - proportion of married MSM




## Methods: Data Analysis (2)

2. Estimation of Proposed prevalence ranges for key indicators, by using 95% confidence intervals calculated for each value and excluding studies with special populations
3. Definition of “high risk MSM” and estimation of prevalence from a limited number of studies.




## Limitations

- To study MSM prevalence:
  - Concepts/definitions variable (e.g. “sex”, “men”)
  - Time frame varies (ever, last year, current, identity)
  - Practices studied not consistent (e.g. any practice vs. specifically anal sex)
  - Sampling: really general population samples vs. more specific samples
- To study characteristics of MSM:
  - Uncertainty about sampling strategies
  - Small sample sizes
  - Uncertain strategy to ask about condom use
- In general: Very small number of studies in some areas.




**Table 1: Number of studies included with selected variables**

Region	Total	Lifetime MSM Prevalence	Lifetime sex with women among MSM	HIV prevalence among MSM
SS Africa	8	1	1	0
S. Asia	128	21	8	33
SEAP	77	3	8	15
East Asia	30	5	11	8
MENA	31	0	0	14
Caribbean	21	3	2	2
Latin Am.	224	17	9	78
E Europe	42	2	2	11




**Table 2: Prevalence of Male-male sex, best entries available, 1990-2004**

Region	Lifetime MSM prevalence N (range)	Lifetime anal Sex w/men prev N (range)	Prev sex w/ men, last yr N (range)
SS Africa	n.d.	n.d.	n.d.
South Asia	2 (6-8%)	0 (n.d.)	1 (8%)
SEAP	2 (6.5-11.6%)	1 (2.8%)	1 (4.3%)
East Asia	1 (4.1%)	n.d.	n.d.
MENA	n.d.	n.d.	n.d.
Caribbean	3 (1 – 18%)	n.d.	n.d.
Latin Am.	11 (2.5-48.5%)	4 (4.8-9.2%)	1 (1 %)
E Europe	2 (6 – 27%)	n.d.	n.d.



**Table 3: Prevalence of Male-male sex, Estimated Ranges by Region, 1990-2004**

Region	Lifetime MSM prevalence	Last year Sex w/men prev	High Risk MSM, last year
SS Africa	n.d.	n.d.	n.d.
South Asia	6-10%	5-8%	4-7%
SEAP	6-12%	3-6%	1.2-3.3%
East Asia	3-5%	n.d.	0.75-1.25%
MENA	n.d.	n.d.	n.d.
Caribbean	1-4%	n.d.	n.d.
Latin America	6-20%	2-8%	1-4%
E Europe	6-15%	3-10%	1-5%



**Table 4: MSM characteristics, best entries available, 1996-2004**

Region	HIV prevalence N (range)	Consist. condom use, anal s w/men, last yr N (range)	Sex w/ women, lifetime N (range)
SS Africa	n.d.	1 (11.6%)	n.d.
South Asia	25 (0-24%)	1 (5%)	1 (20%)
SEAP	15 (0-33%)	1 (37%)	2 (22-33%)
East Asia	2 (2.5-3.1%)	2 (5.2-15.5%)	1 (56.8%)
MENA	14 (0-1.4%)	n.d.	n.d.
Caribbean	2 (11-30%)	2 (5.2-15.5%)	1 (56.8%)
Latin Am.	70 (0.3-36.5%)	4 (11-78%)	4 (7.5-22%)
E Europe	7 (0-7.7%)	1 (40%)	4 (7.5-22%)



**Table 5: MSM characteristics, estimated ranges by region, 1996-2004**

Region	HIV prevalence	Consist. condom use, anal s w/men, last yr	Sex w/ women, lifetime
SS Africa	n.d.	7-18%	40-50%
South Asia	0-15%	2-11%	30-50%
SEAP	0-15%	35-39%	40-50%
East Asia	1-4%	0-75%	60-70%
MENA	0-2%	n.d.	n.d.
Caribbean	n.d.	n.d.	n.d.
Latin Am.	10-20%	10-75%	10-50%
E Europe	0-10%	30-50%	20-40%



**Table 6: HIV Prevalence Estimates, Variations within Region, 1996-2004**

Region	HIV prevalence, general	Higher prevalence areas	Lower prevalence areas
SS Africa	n.d.	n.d.	n.d.
South Asia	0-15%	5-15% (India)	0-1% (Bangladesh, Pakistan)
SEAP	0-15%	10-15% (Cambodia, Thailand, Myanmar)	4-9 (Vietnam) 0-3 (Indon/Phillip)
East Asia	1-4%	n.d.	n.d.
MENA	0-2%	n.d.	n.d.
Caribbean	n.d.	n.d.	n.d.
Latin Am.	10-20%	Variable	Variable
E Europe	0-10%	6-10% (Poland, Chzech R)	0-6 (Belarus, Kazak, Russia, Ukr, Latvia)



## Conclusions

- Limited amount of data on prevalence of MSM activity and MSM characteristics in certain areas.
  - Particularly in SSA, MENA, Caribbean.
- Prevalence of MSM Activity for South and South-East Asia, Eastern Europe/Central Asia and Latin America:
  - Lifetime Estimates were similar, ranging from 6 to 20%.
  - Last-year Estimates figures were approximately half of lifetime prevalence figures.
  - Last-year prevalence of high-risk sex w/men was estimated to be 40-60% of last-year sex w/men in all regions [except South Asia, where it was 70-90% of last-year sex w/men prevalence estimates].



## Conclusions (cont).

- HIV prevalence estimates among MSM were the most widely available.
  - Low in MENA region (2% or less) and China (1-4%);
  - high in Latin America (10-20%); and
  - variable in South Asia (0-15%, higher in India),
  - SE Asia (0-15%, higher in Cambodia, Thailand and Myanmar)
  - E Europe/C Asia (0-10%, higher in Poland and Czech Rep.)
- 33-50% of MSM reported having used condoms consistently in anal sex with another man in last 12 months.
- 30-50% of MSM in all regions reported having had sex with a woman at least once in their lives, except for East Asia, where this proportion seemed higher (60-70%).



## Recommendations

- **More data is needed.** Multi-national, multi-regional and multi-disciplinary work on epidemiological, anthropological and social/political aspects of male-to-male sex and HIV/AIDS.
- **National behavioural surveys** (e.g. BSS, DHS) should ask men for sex with males. Culturally-appropriate, yet **standardized** questionnaires remain a crucial need.
- Focus should be on **areas with least data**. The enormous challenge of stigma in the study of MSM activity should be confronted.



## Recommendations (2)

- Recently available **ethnographies** should guide the development of adequate framework of epidemiological studies of MSM populations.
- **Special needs** of men in closed institutions, clients or sexual partners of male and transgender sex workers should be identified.
- **Diversity of HIV prevalence and risk** amongst MSM populations suggests group differences deserving the planning of more specific interventions.
- Epidemiological research must **avoid exposing MSM** individuals and groups to State and community violence.



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