

Estimation of HIV Prevalence, Risk Factors, and Testing Frequency Among Sexually-Active Men Who Have Sex with Men Aged 18–64 Years — New York City, 2001



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Background

- Men who have sex with men (MSM) have been disproportionately affected by the HIV epidemic

- 47-80% of the estimated 525,000-750,000 males living with HIV in U.S. are MSM*

- MSM make up the largest proportion (40%) of annual new HIV infections in the U.S.*

- Using HIV surveillance information and census data, the prevalence of diagnosed HIV infection can be calculated

- Denominator data for high-risk groups (i.e. MSM) are generally not available

- HIV surveillance does not capture information on risk for HIV negative persons

- Other data sources are needed to calculate risk-group specific prevalence estimates

* Source: www.cdc.gov/hcstp/od/news/At-a-Glance.pdf

Objective

To derive HIV prevalence estimates for MSM in New York City (NYC) by combining two large population-based data sources

Ascertaining the number of HIV-infected MSM in NYC (the numerator)

18-64 year-old males who had been diagnosed, reported and were known to be living with HIV/AIDS in NYC as of December 31, 2001, and had a documented history of sex with another male

Estimation of the MSM population in NYC (the denominator)

- Estimated population of sexually-active 18-64 year-old MSM in NYC in 2001 from NYC Community Health Survey (CHS)

- Cross-sectional random digit dialed telephone survey of 9,674 non-institutionalized New Yorkers aged ≥ 18 years

- Males who responded "only with males" or "both males and females" to the question "during the past 12 months have you had sex with only males, only females, or with both males and females?" were included in denominator estimate

Methods: Analysis

Estimated HIV prevalence =

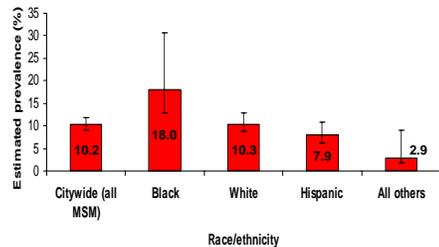
$\frac{\# \text{ MSM living with HIV/AIDS (Surveillance)}}{\# \text{ MSM population (NYC CHS)}}$

Results: Estimated MSM population aged 18-64 years and reported number of HIV infections, by demographic subgroup – NYC, 2001

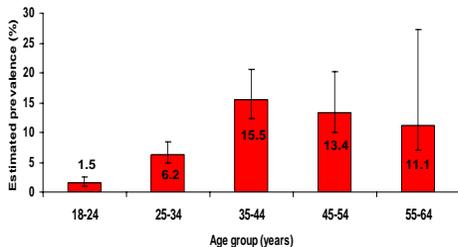
	Total # MSM	%	MSM diagnosed with HIV	%
MSM* aged 18-64 yrs	185,965	100	18,881	100
<i>Race/ethnicity</i>				
White	86,463	46	8,917	47
Hispanic	60,693	33	4,822	26
Black	26,594	14	4,788	25
All other	12,215	7	354	2
<i>Age group</i>				
18-24	25,517	14	371	2
25-34	52,200	28	3,221	17
35-44	54,131	29	8,396	44
45-54	39,006	21	5,210	28
55-64	15,111	8	1,683	9
<i>Borough of residence</i>				
Manhattan	65,152	35	9,977	53
Brooklyn	49,997	27	2,994	16
Queens	36,434	19	2,493	13
Bronx	31,308	17	1,892	10
Staten Island	3,074	2	210	1
Other/unknown	*	*	1,315	7

*Males reporting having had sex with another male in the previous 12 months

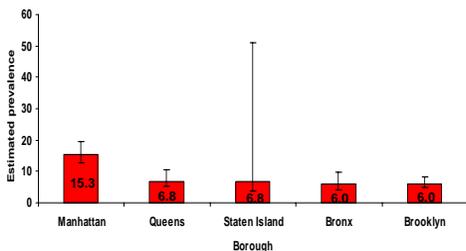
Estimated prevalence and 95% CI* of HIV infection among 18-64 year-old sexually-active MSM, by race/ethnicity - NYC, 2001



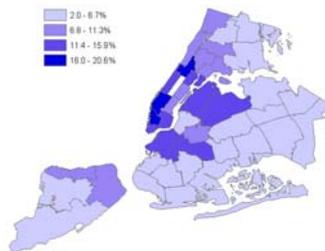
Estimated prevalence and 95% CI of HIV infection among 18-64 year-old sexually-active MSM, by age group - NYC, 2001



Estimated prevalence and 95% CI of HIV infection among 18-64 year-old sexually-active MSM, by borough of residence - NYC, 2001



Estimated prevalence of HIV infection among 18-64 year-old sexually-active MSM by neighborhood - NYC, 2001



Risk behaviors

- Less than half (45%) of MSM report that a condom was used at last sex
- More than one-third (35%) of MSM reported 2 or more sex partners in the past year
 - Among MSM with 2 or more sex partners, 36% reported that a condom was NOT used at last sex
- MSM report risk factors more frequently than other men (21% vs. 9%)
 - Risk factors include: 3+ sex partners in past year and no condom at last sex; iv drug use; STD in past 12 months; exchange of sex for money/drugs; or unprotected anal intercourse

HIV testing behaviors in NYC, 2001

- 71% of MSM reported ever having an HIV test
- 30% of MSM reported having an HIV test in the past year

Summary

- The HIV epidemic continues to severely impact the MSM population in NYC, particularly non-Hispanic black MSM and MSM aged >35 years
- There is significant geographic heterogeneity in the HIV epidemic among NYC MSM
 - Prevalence ranges from 2-20% across neighborhoods

Limitations

- HIV surveillance data might underestimate the number of HIV-infected MSM
 - HIV surveillance data likely not 100% complete
 - Transmission risk is unknown for 24% of males living with HIV/AIDS as of 12/31/01
 - Only males with documented histories of sex with another male were included in the analysis
- Underestimation of numerator would result in underestimation of prevalence

-25% of persons living with HIV/AIDS are unaware of their infection status

Limitations

- Denominator is limited to MSM aged 18-64 years who have been sexually active in the past year
 - Not all HIV infected MSM are sexually active
 - might not have had a sex partner in past year, or
 - might have been too sick to be sexually active
 - Men may choose not to disclose a history of sex with another male in a telephone survey (self-reporting bias)
- Underestimation of denominator would result in overestimation of prevalence

Discussion

- Combining complementary population-based data sources can provide useful information for HIV prevention planning among high-risk groups
- HIV prevention efforts should specifically target non-Hispanic black MSM and MSM residing in certain Manhattan neighborhoods, as well as their sex- and needle-sharing partners
- Increased testing and condom use should be encouraged among all MSM
- Data regarding risk behaviors among MSM are concerning, especially given the high HIV prevalence among this population

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