

Inequitable Impact:

The HIV/AIDS Epidemic Among Gay and Bisexual Men and Other Men Who Have Sex with Men in Massachusetts

Second in a Series of Reports on the Status of the HIV/AIDS Epidemic in Massachusetts

**World AIDS Day
December 1, 2008**

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Timothy P. Murray, Lieutenant Governor
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Executive summary

This is the second in a series of reports examining the impact of the HIV/AIDS epidemic on residents of Massachusetts. The first report, *An Added Burden: The Impact of the HIV/AIDS Epidemic on Communities of Color in Massachusetts*, focused on the ongoing racial/ethnic disparities in HIV incidence and prevalence in the Commonwealth. This report examines one mode of HIV exposure, same-sex sexual behavior between men, and its role in an inequitable impact of HIV on gay/bisexual men and other men who have sex with men.

Efforts to reduce the transmission of HIV in Massachusetts have been successful in a number of populations at risk, including injection drug users and heterosexual men and women. However, less success can be reported from work with gay and bisexual men and other men who have sex with men (MSM), who represent over 50% of HIV cases reported among Massachusetts men between the years 2004 and 2006, and 39% of all HIV cases reported during this period. These rates of new infection are striking in light of the fact that only 4.3-9.4% of Massachusetts men (18-64 years old) report having had sex with men in the past twelve months on standardized behavioral surveys over the past seven years. These impacts represent an inequitable rate of infection that is nearly 25 times higher for men who have sex with men than for men who report only having had sex with women.

While the impact of HIV on MSM is most evident among white men, at 70% of new white male cases, MSM has emerged as a first- or second-ranked mode of exposure for black and Hispanic men in recent years. In half of the health service regions of the Commonwealth, MSM is the leading mode of exposure for persons recently reported with HIV, particularly evident in Boston, Metrowest, and Southeastern Massachusetts.

The inequitable impact of HIV on MSM is also seen among the youngest persons at risk, with 44% of individuals age 13-24 recently reported with HIV having MSM as their mode of exposure. Even among men not born in the US, MSM represents over a third of new HIV cases reported in Massachusetts.

While a number of encouraging signs may be found in the Commonwealth's behavioral surveillance studies, including increased condom use by adult men who have had sex with men at last intercourse (increasing from 34% in 2000 to 56% in 2006), the high current prevalence of HIV among MSM coupled with the relatively high efficiency of HIV transmission via unprotected anal intercourse are primary factors in the ongoing rates of new infection in these men.

Efforts to address the risk faced by gay and bisexual men and other MSM may be complicated by continued stigma and discrimination facing gay and bisexual men, the difficulty in addressing sexual risk with health care providers, and complications related to personal histories of trauma, violent victimization, and substance use.

Analysis of expenditures on prevention programs reveals an inequity of investment in prevention services directed toward gay/bisexual men and MSM at only 33% of all prevention resources (when MSM represent 39% of new cases in Massachusetts). A recent survey in Boston showed that no more than 18% had ever received a group or individual prevention intervention.

This report recommends the following steps to address the inequitable impact of HIV on gay/bisexual men and other men who have sex with men:

- Expanded and more equitable investment of prevention resources directed toward MSM
- Ongoing epidemiologic and behavioral inquiry to understand the contexts and factors influencing sexual and other risk in MSM
- Further prevention intervention research and evaluation of emerging approaches to prevention of HIV among MSM
- Targeted intervention research and evaluation for the multiple subsets of MSM, including white men, men of color, and immigrant and refugee populations of MSM
- Ongoing research, in collaboration with national and international efforts, into promising biomedical approaches to prevention that may be useful to MSM, including post-exposure prophylaxis, pre-exposure prophylaxis, rectal microbicides, and circumcision
- Widespread free condom availability to MSM, including high school-age MSM
- Further development of interventions rooted in a sexual harm reduction approach and utilizing a sexual health framework, delivered with sufficient intensity and sufficient length to effect behavior change
- Interventions that utilize skill-building around disclosure/discussion of HIV status with partners and the negotiation of sexual harm reduction, including condom use
- Linkage of prevention programs directed to MSM with substance abuse treatment, mental health supports, and sexual violence and other trauma recovery services
- Targeted prevention interventions serving young MSM

- Targeted prevention interventions serving HIV+ MSM
- Prevention interventions serving serodiscordant couples
- Location of prevention interventions serving MSM in public, private, and commercial sexual venues, including Internet-based interventions
- Maintenance or expansion of current levels of HIV testing targeting MSM, including anonymous HIV testing
- Expanded screening and vaccination for co-occurring conditions among MSM, including sexually transmitted infections and viral hepatitis
- Maintenance of current access to medical care and antiretroviral therapies for HIV+ MSM

- Improved strategies for recruiting MSM into proven effective individual and group prevention interventions, including social marketing and social network outreach
- Greater volume of targeted public information, community-building, and other community-level prevention interventions
- Legal, educational, and policy-level interventions to reduce social barriers and stigma surrounding same-sex sexual relationships
- Enforcement of legal protections for gay, lesbian, bisexual, and transgender individuals
- Expanded involvement of faith-based communities in the support of gay/bisexual men and other MSM



Introduction

The disease that ultimately came to be known as HIV/AIDS was first identified among gay and bisexual men on the East and West Coasts of the United States in 1981. HIV/AIDS has subsequently come to be understood as global pandemic affecting individuals and communities in virtually every country of the world, with significant disparities among the poor, communities of color, women of child-bearing age, injection drug users, and other communities at risk. Throughout the ensuing years, the epidemic continued to affect in large numbers members of the local and international gay and bisexual male community and other men who have sex with men (MSM). Selected sexual behaviors between men remain efficient means of viral transmission; this coupled with the high background prevalence of HIV in the population drive the ongoing high incidence of infection in MSM.

Effective behavioral, medical, and structural interventions applied in the United States have begun to make inroads into a number of sectors of the epidemic, most notably newborns and injection drug users, these groups seeing greatly reduced levels of new infections. On the other hand, gay and bisexual men and other men who have sex with men have continued to represent the largest proportion of both prevalent and incident cases of HIV infection nationally (at over 50% of new cases) and in Massachusetts. Such a seemingly intractable component of the HIV/AIDS epidemic commands special attention to and analysis of the factors influencing the risk of transmission. This report will describe the continuing disproportionate impact of HIV/AIDS on men who have sex with men, examine the sub-populations of MSM at greatest risk, and propose public health approaches holding the potential to improve the health and well-being of these communities.



Examining Health Inequity Among MSM

In the recently published anthology *Unequal Opportunity: Health Disparities Affecting Gay and Bisexual Men in the United States* (Oxford University Press, New York, 2008) editors Richard J. Wolitski, Ron Stall, and Ronald O. Valdeseri apply the following definition: “Health disparities are measurable differences in the incidence or prevalence of disease, physical or mental health, quality of life, or longevity between members of one group and those of another,” and go on to present evidence of the effect of seemingly distinct health conditions, including infectious disease, violent victimization, sexual abuse, substance abuse, and mental illness on the overall health of gay and bisexual men in the United States. They and the contributing authors frame a set of underlying factors linking these conditions, such as minority group status, social isolation, personal and interpersonal

stressors, legal constraints, active prejudice and discrimination, and socioeconomic status which in turn interact with age, race/ethnicity, and geography to produce specific health-relevant effects on this population. Rather than setting personal psychosexual identity apart from these traditionally analyzed demographic categories, the authors aim for an integrated model of health inequity that includes sexual orientation and related sexual behaviors as necessary to a full analysis of health disparities. Using this approach, the current report makes the case for understanding a specific health condition, HIV infection, as representing a serious health inequity affecting a large group of Massachusetts residents: gay and bisexual men and other men who have sex with men.



In examining sexual identity and behavior as factors in health inequity we must face the challenges of defining the focus of our analysis. While respecting the self-definition of the large number of individuals who refer to themselves as *gay*, *bisexual*, and other terms of sexual identity (as well as respecting the cultural and political importance of these terms), an appropriate public health analysis must also address and include the purely behavioral manifestations of sexual orientation and sexual behavior that may not correlate with personal identity but which still contribute to the health outcomes in question. Therefore, when describing the population of men who have sex with men we will use the shorthand *MSM* as a purely behavioral designation (and name specific sexual practices when relevant), and restrict the terms *gay*

and *bisexual* to refer to self-applied individual and community identities. This constrained distinction may be more useful in the context of HIV/AIDS than when discussing other health issues, such as violent victimization or mental health concerns. As the authors of the anthology note in their introduction, “It is possible that a behavioral definition of MSM may best permit the identification of disparities that are associated with sexual transmission of viruses or other pathogens, whereas a behavioral definition might fail to capture disparities that are a result of the stigma and discrimination faced by openly gay men or the stress experienced by some individuals whose identity is inconsistent with their sexual behavior or attraction.”



Background of the Massachusetts HIV/AIDS Epidemic

As of May 1, 2008, 29,318 cases of HIV and AIDS had been reported to the Massachusetts Department of Public Health (MDPH) since the start of HIV/AIDS surveillance, with 17,295 individuals reported as living with HIV/AIDS on that date. The prevalence of HIV/AIDS in Massachusetts is higher today than at any point in the history of the epidemic, and continues to grow at a steady rate of approximately 6% per year (Figure 1).

HIV/AIDS prevalence is a function of previously and newly reported cases minus deaths among persons with HIV/AIDS. From 2001 to 2004, reported HIV incidence remained at 900-1,000 cases per year with deaths ranging from 300-400 per year. More recently, annual incidence has fallen below this level. In 2005 and 2006 reported incidence was 886 and 744, respectively (Figure 2).

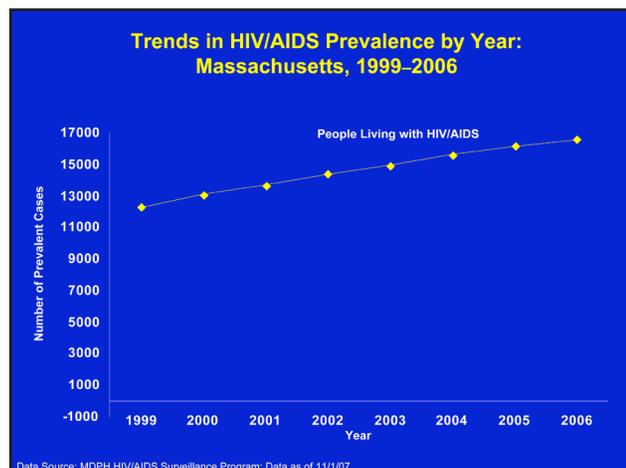


Figure 1

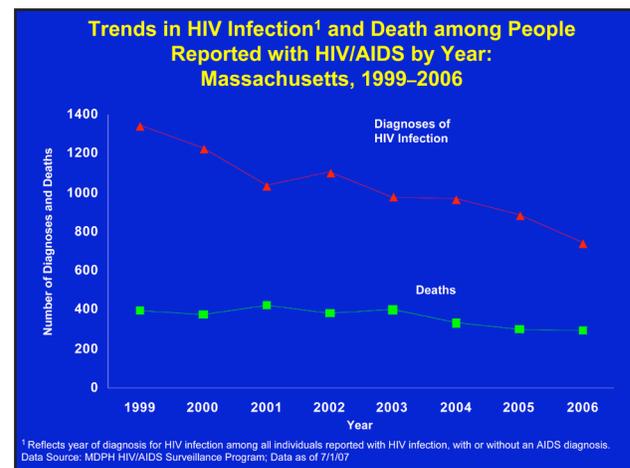


Figure 2



Sex, Race, and Ethnicity

HIV has also consistently affected men to a greater degree than women (Figure 3) and had an impact on communities of color disproportionate to their representation in the general population (Figure 4).

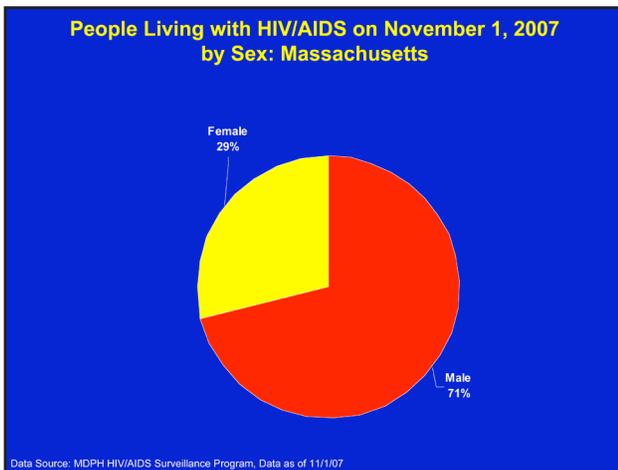


Figure 3

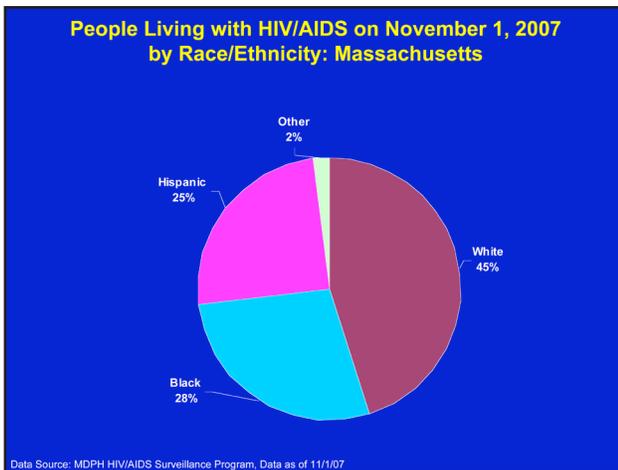


Figure 4

Age-adjusted HIV/AIDS prevalence rates indicate an impact of HIV/AIDS among black and Hispanic residents of Massachusetts 11 and 9 times that of white residents (Figure 5). Further information on racial and ethnic disparities regarding HIV/AIDS may be found in the report *An Added Burden: The Impact of the HIV/AIDS Epidemic on Communities of Color in Massachusetts* (available at www.state.ma.us/dph/aids).

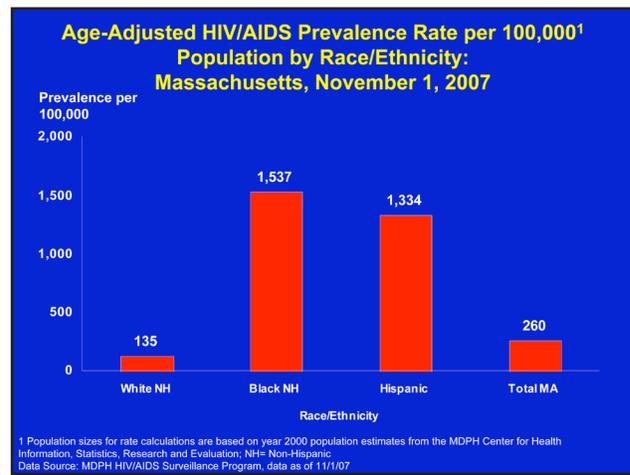


Figure 5

The relative proportions of black and Latino/a residents living with HIV/AIDS vary by sex with the majority of prevalent male cases being white and the largest proportion of female cases being black (Figure 6). Differential modes of exposure between men and women in Massachusetts may partially explain this distinction. As will be explored below, same-sex sexual behavior between men is a major contributing factor in the prevalence of HIV/AIDS in all racial/ethnic categories of men.

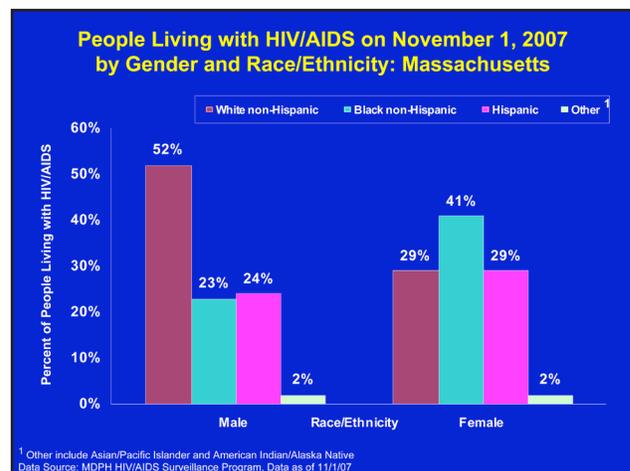


Figure 6



Mode of Exposure

The relative distribution of modes of HIV exposure among all persons recently diagnosed with HIV is described in Figure 7. Same-sex sexual behavior between men remains the largest single exposure mode in Massachusetts, even when women's exposure is factored into the analysis. To fully assess the impact of sex between men we must examine both the categories MSM and MSM/IDU, the latter representing persons diagnosed with HIV or AIDS who reported both MSM and injection drug use histories. Taken together, MSM and MSM/IDU represent 39% of all reported prevalent cases.

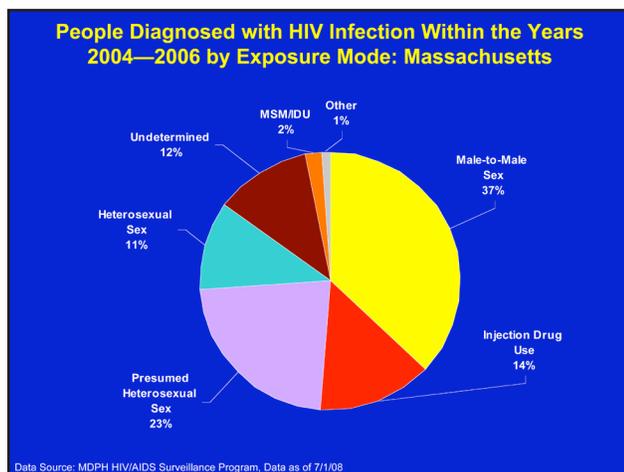


Figure 7

Figure 8 describes the male subset of persons recently diagnosed with HIV in Massachusetts. The effect of MSM behavior on HIV transmission in men becomes more evident, with an absolute majority of male cases (54%) being attributable to MSM or MSM/IDU. This is not surprising given the relatively high likelihood of HIV transmission of certain sexual behaviors common among gay, bisexual, and other men who have sex with men, in particular receptive anal intercourse. It also suggests why heterosexual intercourse is less frequently reported as an exposure mode in men, given the relative inefficiency of transmission from an HIV+ woman to an uninfected male partner during penile-vaginal intercourse or other heterosexual contact.

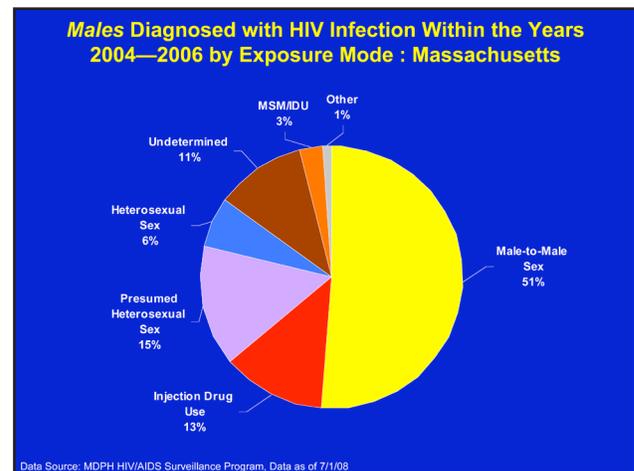


Figure 8

Figure 9 indicates that among all persons diagnosed following 1999 (when HIV infections became reportable to the Department of Public Health) MSM represents the largest proportion of all cases. There is also indication of an increasing proportion of MSM cases over time. In part this is attributable to the relative reduction in the number and proportion of cases with the exposure mode injection drug use (from 395 new cases in 1999 to 83 in 2006). Over the same period, with the exception of Undetermined (also known as No Identified Risk), every other mode of exposure has experienced a reduction in the absolute number of incident cases per year (e.g. Heterosexual cases went from 202 in 1999 to 77 in 2006). During this same period MSM cases remained essentially stable, having ranged between 306 and 382 cases and averaging at 336. In 2006, 306 cases were reported with MSM exposure mode with an additional 12 MSM/IDU cases. MSM represent a total of 43% of all cases, the largest population at risk in Massachusetts.

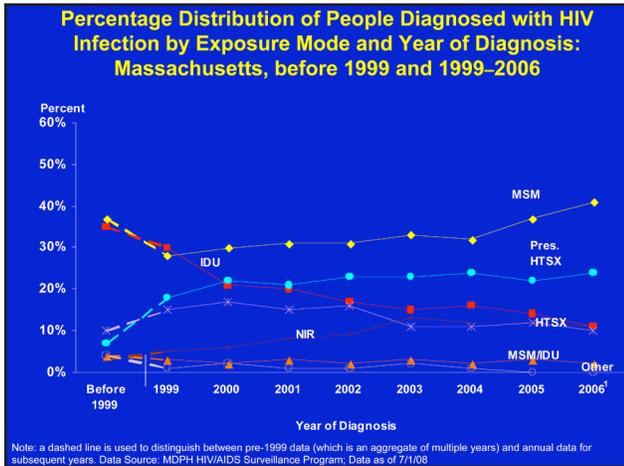


Figure 9

Figure 10 describes the male subset of incident cases of HIV infection, and the effect of a stable level of case reports with an MSM exposure mode becomes more evident against the backdrop of overall reductions in several other epidemiologic categories. By 2006 MSM and MSM/IDU taken together represented fully 59% of all male cases. Note that among men, the Heterosexual and Presumed Heterosexual categories remained stable in recent years.

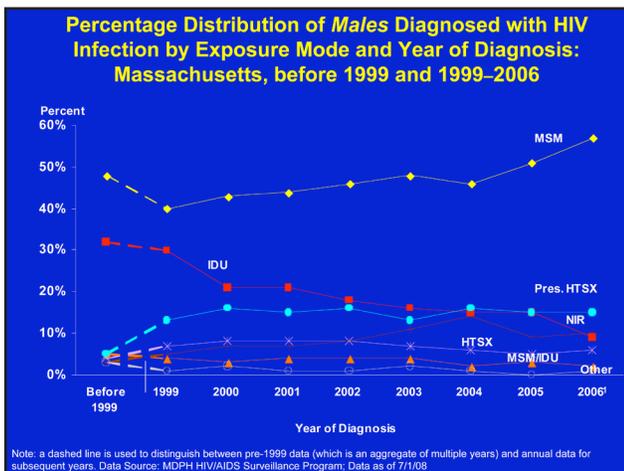


Figure 10

As referenced above, significant disparity in the prevalence and incidence of HIV/AIDS is evident among communities of color in Massachusetts. Same-sex sexual behavior between men is a significant contributing factor to the overall incidence and prevalence of HIV/AIDS in communities of color. Figures 11 and 12 below present prevalent HIV/AIDS and recent incident HIV cases (combined over three years) among men sorted by exposure mode and race/ethnicity. The distribution of MSM cases varies across racial/ethnic categories, but emerges as a primary mode of exposure in all racial/ethnic groups. Among white men, MSM is overwhelmingly the most frequently reported exposure mode in both prevalent and incident cases at 70% of male cases. Among Latinos, MSM emerges as the leading exposure mode in recently reported infections, replacing IDU.

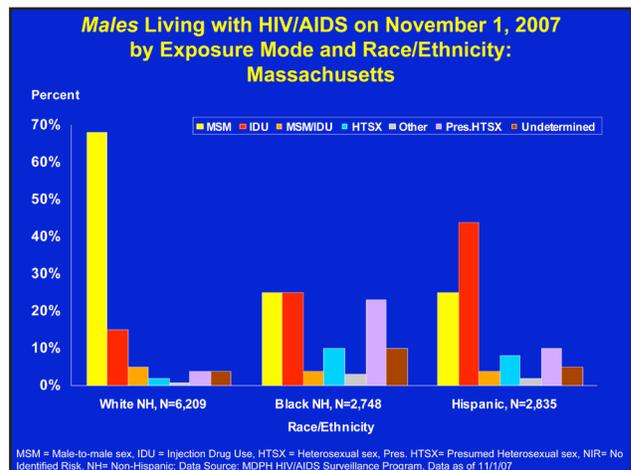


Figure 11

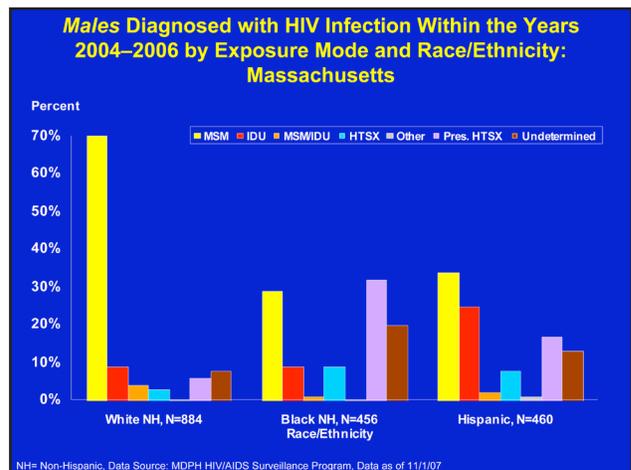


Figure 12

Among black men, where MSM and IDU are equally represented among living cases, MSM increases marginally among incident cases, while Presumed Heterosexual increases dramatically, as does Undetermined Risk. This poses a dilemma in correctly interpreting these data. Presumed Heterosexual is a Massachusetts-specific category designed to capture the risk of individuals who, absent MSM or IDU histories, believe themselves to have been exposed heterosexuality but are unable to indicate the known risk or HIV+ status of their heterosexual partner(s). It was created in part to better capture the likely heterosexual exposure of women who do not definitively know that at least one of their male sexual partners was HIV+, an MSM, or an IDU. Given the biology of HIV transmission and the epidemiology of HIV in the United States, high rates of heterosexual transmission from women

to men in Massachusetts are unlikely, raising questions about whether all of the male Presumed Heterosexual cases are correctly coded on case report forms. This perhaps is a result of incompletely taken or not fully reported sexual histories, possibly resulting in fewer MSM cases among black men being correctly assigned to this category. An additional factor may be the increase in the number of non-US born men more recently diagnosed and reported to the Massachusetts HIV/AIDS Surveillance Program. If increasing numbers of HIV+ men now living in Massachusetts previously lived in regions of the world where female-to-male heterosexual transmission is more common, this might partially explain the rise in Presumed Heterosexual, if not Undetermined, cases. Non-US born individuals and their modes of exposure are further explored below.



A Profound Inequity

When the effect of the epidemic is examined on populations of unequal size, epidemiologic analysis relies on the calculation of prevalence case rates. By calculating the relative prevalence of disease over a common denominator (generally per 100,000 individuals), fair comparisons can be made between populations. It can be a challenge to determine case rates for populations defined by identity, like gay/bisexual men, or by behavior, such as MSM, for whom standard census data do not exist. Even as measures such as the number of same-sex households are collected at the national level, given the fact that stigma and discrimination still surround homosexuality in this country, many individuals may be disinclined to have their gay/bisexual identities or related behaviors contained in identifiable demographic databases.

Massachusetts benefits from seven years of data collection through the Behavioral Risk Factor Surveillance System (BRFSS), a random digit dialed telephone survey of adults 18 and older cosponsored by the U.S. Centers for Disease Control and state health departments. In Massachusetts specific additional modules are administered to subsets of the large sample, including a sexual behavior module. One item asks the sex of sexual partner(s) in the past twelve months of all sexually active respondents. This response is linked to the sex of the respondent to generate the proportion of respondents reporting same-sex sexual behavior over the past twelve months. Over the seven years of administration, the proportion of men age 18-64

reporting sex with men in the previous twelve months has ranged from 4.3% to 9.4%, with a seven-year average of 6.6%. This range is consistent with other samples and estimation methodologies in the published literature, many clustering around 6% of adult men. Taking the lowest end of this range, 4.3%, the year 2001 proportion, and applying it to the proportion of Massachusetts men over 25 (the age at which significant numbers of MSM cases begin to be reported) derived from the 2000 Massachusetts census (n=2,263,524), one obtains a minimal working estimate of the number of MSM in Massachusetts of 97,332. Using this figure in a case-rate calculation of prevalent MSM and MSM/IDU HIV/AIDS cases on November 1, 2007 (6,267 men) yields a rate of 6,438 per 100,000 MSM. When other elements of the calculation are adjusted, such as using the high end of the BRFSS MSM range, 9.4%, the lowest obtained prevalence case rate for MSM is 2,945/100,000. The seven-year average of 6.6% of men yields a rate of 4,206/100,000. These rates compare to the rate of 265 HIV/AIDS per 100,000 non-MSM men, and an 11 to 25 times greater HIV/AIDS risk for men who have had sex with men relative to men who have not (Figure 13).

Like all efforts to estimate the size of the MSM population, this method carries limitations. No standard scientific methodology for estimating the MSM population has yet been validated, though several similar approaches have been proposed by U.S. researchers. This method relies on 2000 census data, which may introduce distortion in the number of men over 25 in Massachusetts. Random digit dial health surveys may not be fully representative of the Massachusetts population and their actual behaviors, given the requirement to own a landline telephone, choose to participate in the survey, and provide complete and accurate self-reports of personal behaviors. Responses may be compromised by fear of disclosure of stigmatized behaviors and identities to the interviewer or by misunderstanding of the question being asked. These factors may result in a lower than accurate denominator of MSM. Incomplete or inaccurate reporting of HIV/AIDS case exposure modes may compromise the precision of the prevalence data being used in the calculation, which may result in a lower MSM or MSM/IDU HIV+ numerator.

Even taking these limitations into account, it is difficult to escape the conclusion that MSM experience inequity around HIV/AIDS greatly disproportionate to other men, a fact that commands serious attention and demands vigorous public health response.

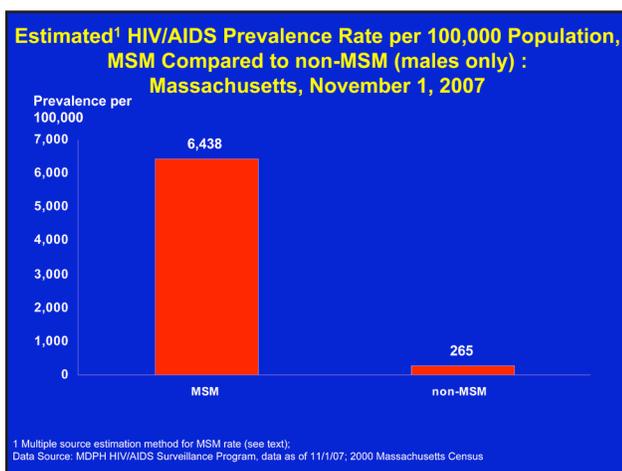


Figure 13



Geography

MSM is the predominant mode of exposure for recently reported cases of HIV infection in half of the regions of the Commonwealth, in particular in the Boston region from which 33% of all cases are reported, the Metrowest region, and the Southeast region. Only in Western Massachusetts does the IDU proportion exceed MSM, while in Central and Northeast Massachusetts Presumed Heterosexual predominates (Figure 14).

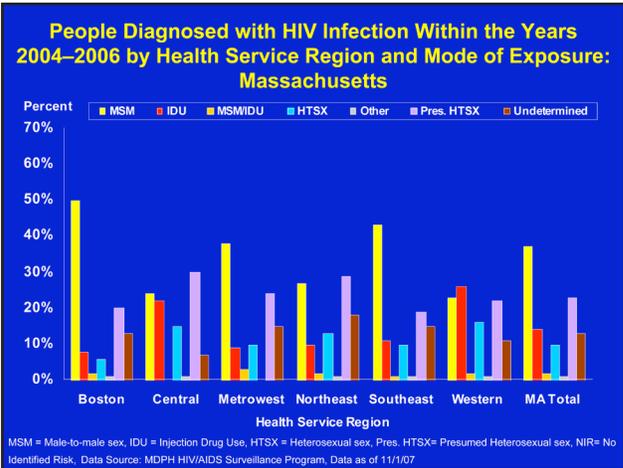


Figure 14



Age

Figure 15 indicates that as in the past, newly reported HIV infections occur across age groups, clustering in the 35-39 and 40-44 age groups. Adolescent cases are still relatively infrequently reported, no more than 8% of cases being reported in the 13-24 year old age group. This is perhaps due to HIV risk being accumulated over time through repeated exposure and possibly

also to low levels of HIV testing among at-risk adolescents. However, Figure 16 shows that even among this smaller group of HIV+ individuals, MSM exposure emerges as a major risk factor, representing 44% of all cases 13-24 years old compared to 36% of cases in the over-25 age group.

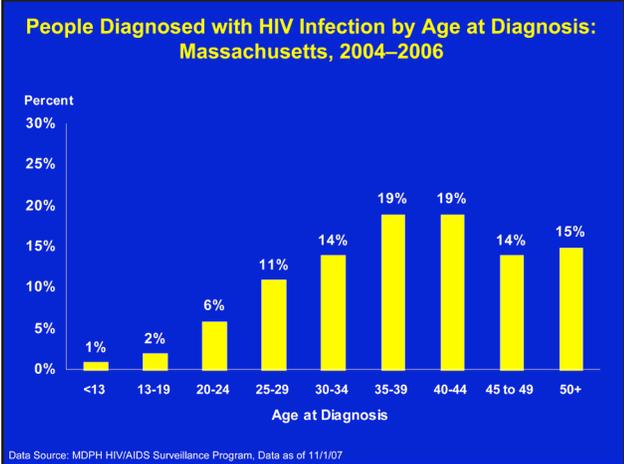


Figure 15

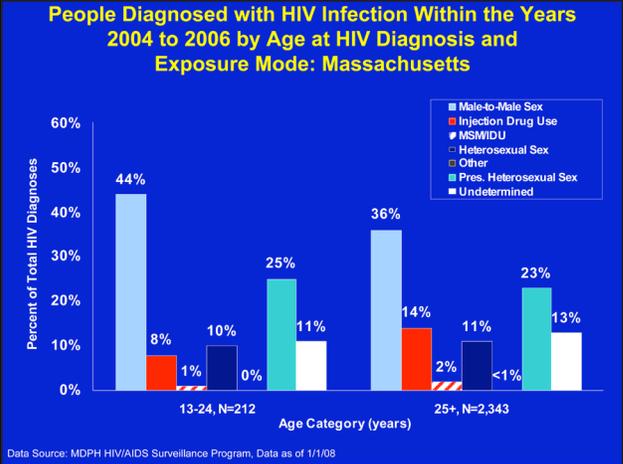


Figure 16



Non-US born men

Individuals born in countries other than the United States represent a growing proportion of persons living with HIV/AIDS (19%) and recently diagnosed with HIV infection (30%). The majority of recently diagnosed non-US born individuals are men (55%), with equivalent proportions reporting MSM and Presumed Heterosexual (34% each), and a large proportion (17%) of Undetermined exposure mode. Injection drug use is rarely reported (3%) in this population of men (Figure 17).

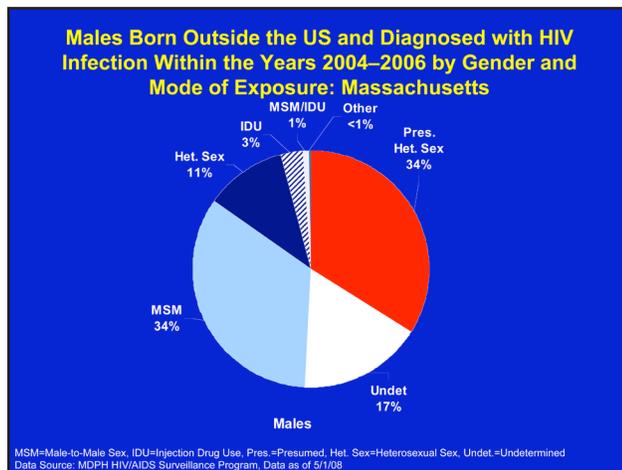


Figure 17

The proportion of non-US born men reporting MSM varies widely by world region of origin. While 63% of recently diagnosed men from Central and South America report MSM as their exposure mode, only 14% of men from the Caribbean Basin and 5% of men from sub-Saharan Africa do so. On the other hand, 60% of sub-Saharan African men recently diagnosed with HIV reported Presumed Heterosexual exposure mode, 48% of men from the Caribbean Basin, and only 13% of men from Central and South America. These patterns are difficult to fully interpret as surveillance data do not distinguish between infections acquired in the country of origin and those acquired while living in the U.S. Also, little is known about the frequency of same-sex sexual behavior internationally. Finally, men from various regions of the world may have varying motivations and opportunities to migrate to the U.S. Despite these limitations, given the high rates of Undetermined and Presumed Heterosexual exposure and the low rates of confirmed Heterosexual cases (8-15% across all regions) it may be that cultural, political, and legal factors are suppressing the true dimensions of the MSM epidemic among non-US born men.



What other sources of data exist about MSM?

Massachusetts is rich in available data sources about same-sex sexual behavior and the contexts of MSM. Since the early 1990s supplemental survey items regarding sexual behavior and sexual identity have been included in the school-based Massachusetts Youth Risk Behavior Survey (MYRBS), and for the past seven years of administration, equivalent items have been components of the adult Massachusetts Behavioral Risk Factor Surveillance System (BRFSS). These surveys permit estimation of the actual levels of same-sex sexual behavior and gay/bisexual identification in youth and adults in Massachusetts, as well as correlation of these behaviors and identities with other important health-related behaviors. Some of these findings are summarized below:

- From 2000 to 2006, the proportion of male respondents to the Massachusetts Behavioral Risk Factor Surveillance System (BRFSS) reporting sex with males in the past 12 months ranged from 4.3% to 9.4%.
- The proportion of BRFSS respondents reporting male-to-male sex who used a condom at last sexual encounter increased from 34% in 2000 to 46% in 2002, decreased to 39% in 2003, and then increased to 56% in 2005 and 2006.
- Forty-three percent of respondents to the 2005 and 2006 BRFSS who reported male-to-male sex reported two or more sex partners, compared to 13% of male respondents with exclusively female sex partners.

- Fifty-six percent of respondents to the 2005 and 2006 BRFSS who reported male-to-male sex reported condom use at last sexual encounter, compared to 23% of male respondents with exclusively female sex partners.
- From 1993 to 2005 (data collected in odd-numbered years), the proportion of male respondents to the Massachusetts Youth Risk Behavior Survey (YRBS) reporting male-to-male sex at any point in their lifetime ranged from 2.5% to 4.9%.
- Among high school-aged respondents to the 2005 YRBS reporting male-to-male sex:
 - 57% used a condom at last intercourse, compared to 73% of sexually active males with only female partners;
 - 35% reported alcohol/drug use at last intercourse, compared to 26% of exclusively heterosexually active males;
 - 38% reported having four or more lifetime sexual partners, compared to 24% of exclusively heterosexually active males;
 - 13% reported having ever been diagnosed with an STD, compared to 6% of exclusively heterosexually active males; and
 - 25% reported having sexual intercourse before age 13, compared to 13% of exclusively heterosexually active males.

Note: The statistics above should be interpreted with caution due to the small sample sizes (number of male respondents reporting same-sex sexual behavior ranged from 39-94 over the years of BRFSS administration and 44 to 79 over the years of MYRBS administration).

In 2004, Massachusetts began its participation in the U.S. Centers for Disease Control and Prevention-sponsored National HIV Behavioral Survey (NHBS), which in annual rounds of surveying is assessing the risk behaviors and risk contexts of MSM, IDU, and high-risk Heterosexuals. The 2004 round was a venue-based sample of over 800 MSM accessed through social spaces, businesses, events, and public areas known to be frequented by MSM in the Greater Boston area, with strategic over-sampling of MSM of color in Boston proper. While a full exploration of the findings of this survey is beyond the scope of this report, the following selected findings may be useful to the current discussion:

- Sixty-three percent of respondents were white, 11% black, 15% Latino, 3% Asian/Pacific Islander, and 4% multiracial.
- Eighty-five percent of the sample identify as gay or homosexual, 13% as bisexual, 2% as heterosexual, and 8% by some other designation.
- Among black men, 65% identify as gay or homosexual, 28% as bisexual, 1% as heterosexual, and 6% other.
- Among Latino men, 72% identify as gay or homosexual, 25% bisexual, 1% heterosexual, and 2% other.
- The sample was highly educated, with 35% having attended some college following high school, 19% graduating from college, and 27% receiving post-graduate education.
- Many were “out” about their sexuality to friends and family, with 48% having told virtually everyone in their lives, another 21% having told everyone except their spouse or partner. Notably, 6% had told everyone in their lives except their health care provider.
- While 88% had visited a health care provider in the past year, only 42% had had an HIV test recommended by their provider.
- Of those with a main partner, 60% had engaged in unprotected anal intercourse with their main partner in the past twelve months, 42% had had receptive anal intercourse with their main partner; of those with multiple partners, 47% had engaged in unprotected anal intercourse with multiple partners.
- Twelve percent had also had sex with one or more women in the past twelve months.
- Ninety-two percent had been tested for HIV in their lifetime, 64% having tested once or twice in the past two years, and 36% more frequently.
- Forty percent chose to be tested anonymously the last time they were tested.
- While 2/3 had discussed HIV status with their most recent main partner, 1/3 had not.
- While 81% knew the HIV status of their most recent main partner, only 35% knew the status of their most recent non-main partner.
- Only 18% had received an individual level HIV prevention intervention and only 10% a group intervention.



The Availability of Effective Prevention Interventions

Patrick Sullivan and Richard Wolitski report in their article on HIV infection among gay and bisexual men in *Unequal Opportunity* that of 42 HIV prevention interventions identified as efficacious by CDC's Prevention Research Synthesis project, "only 7 (17%) were targeted to MSM at high risk." These interventions have demonstrated their capacity to help men reduce unprotected receptive anal intercourse as well as the number of sexual partners. Yet, as stated above, only a minority of MSM (10-18%) in the Greater Boston NHBS sample have received an individual or group-level HIV prevention intervention.

A review of current HIV prevention funding by the Massachusetts Department of Public Health HIV/AIDS Bureau shows that while 39% of recently reported HIV infections were among MSM, only 33% of current HIV prevention funding is targeted to this population. The majority of funded programs target African American, Latino, Portuguese-speaking, and Asian/Pacific Islander subsets of MSM. Relatively few make specific outreach to white MSM, despite the fact that 68% of MSM diagnosed with HIV between 2004 and 2006 are white men.

Counseling and testing programs funded by the MDPH HIV/AIDS Bureau are required to identify up to three priority populations for their outreach efforts. Sixty-six percent of these programs prioritize MSM along with other populations at risk. The data from NHBS that indicate a substantial proportion (40%) of MSM opted for anonymous testing should prompt a re-evaluation of the availability of anonymous testing in the Commonwealth. The trend over the past decade has been toward increasing levels of confidential testing to support linkage to care and other services. A further investigation of regional availability of MSM-targeting anonymous testing is warranted.

While testing services appear to be utilized at a level commensurate with the representation of MSM among the newly diagnosed, an increased level and equitable distribution of targeted prevention interventions appears necessary. The inability of current prevention efforts to stem the rates of new infections among gay/bisexual men and other men who have sex with men underscores this need.



Recommendations for further action

- Expanded and more equitable investment of prevention resources directed toward MSM
- Ongoing epidemiologic and behavioral inquiry to understand the contexts and factors influencing sexual and other risk in MSM
- Further prevention intervention research and evaluation of emerging approaches to prevention of HIV among MSM
- Targeted intervention research and evaluation for the multiple subsets of MSM, including white men, men of color, and immigrant and refugee populations of MSM
- Ongoing research, in collaboration with national and international efforts, into promising biomedical approaches to prevention that may be useful to MSM, including post-exposure prophylaxis, pre-exposure prophylaxis, rectal microbicides, and circumcision
- Widespread free condom availability to MSM, including high school-age MSM
- Further development of interventions rooted in a sexual harm reduction approach and utilizing a sexual health framework, delivered with sufficient intensity and of sufficient length to effect behavior change
- Interventions that utilize skill-building around disclosure/discussion of HIV status with partners and the negotiation of sexual harm reduction, including condom use
- Linkage of prevention programs directed to MSM with substance abuse treatment, mental health supports, and sexual violence and other trauma recovery services
- Targeted prevention interventions serving young MSM
- Targeted prevention interventions serving HIV+ MSM
- Prevention interventions serving serodiscordant couples
- Location of prevention interventions serving MSM in public, private, and commercial sexual venues, including Internet-based interventions
- Maintenance or expansion of current levels of HIV testing targeting MSM, including adequate anonymous HIV testing
- Expanded screening and vaccination for co-occurring conditions among MSM, including sexually transmitted infections and viral hepatitis
- Maintenance of current access to medical care and antiretroviral therapies for HIV+ MSM
- Improved strategies for recruiting MSM into proven effective individual and group prevention interventions, including social marketing and social network outreach
- Greater volume of targeted public information, community-building, and other community-level prevention interventions
- Legal, educational, and policy-level interventions to reduce social barriers and stigma surrounding same-sex sexual relationships
- Enforcement of legal protections for gay, lesbian, bisexual, and transgender individuals
- Expanded involvement of faith-based communities in the support of gay/bisexual men and other MSM

Massachusetts Department of Public Health
HIV/AIDS Bureau

