CDC Study: Why the Disparities: The First National Look at HIV-Related Risk Behaviors Among Sexual Minority Male High School Students, United States, 2015 - High rates of injection drug use increases gay teens’ HIV risk- 7 times more likely to inject heroin, methamphetamines

Durban 2016 July 18-22

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High rates of injection drug use increases gay teens’ HIV risk

- Had ever had sexual intercourse (51 percent of gay/bisexual and 41 percent of heterosexual).
- Were currently sexually active (35 percent of gay/bisexual and 30 percent of heterosexual).
- Had had sexual intercourse with four or more partners (15 percent of gay/bisexual and 11 percent of heterosexual).
- Had used a condom the last time they had sex (48 percent of sexually active gay/bisexual and 58 percent of sexually active heterosexual).

Despite similar levels of these behaviors, young gay and bisexual males remain at substantially higher risk for HIV infection than heterosexual males, largely because of substantially higher HIV prevalence among their male sexual partners. HIV diagnosis rates are 57 times higher among men who have sex with men (MSM) than among heterosexual men. The higher level of HIV in a sexual network dramatically increases the risk of HIV exposure with every sexual encounter.

About 10 percent of gay and bisexual male students reported having ever injected drugs, compared with less than 2 percent of heterosexual male students. In addition to injection drug use, which can directly transmit HIV, CDC also found gay and bisexual male students are significantly more likely than heterosexual male students to have ever used a number of drugs that may contribute to increased sexual risk behavior, even if not injected, including:

- **Heroin:** eight times more likely (14 percent of gay/bisexual and 2 percent of heterosexual).
- **Methamphetamines:** six times more likely (15 percent of gay/bisexual and 2 percent of heterosexual).
- **Cocaine:** three times more likely (18 percent of gay/bisexual and 5 percent of heterosexual).
- And **prescription drugs without a doctor’s prescription:** two times more likely (30 percent of gay/bisexual and 17 percent of heterosexual).

“Sexual risk behaviors and substance use among gay and bisexual youth may be influenced by a number of complex and interrelated factors – not only education and peer
norms, but also social factors like stigma, discrimination, and lack of family or social support,” says Laura Kann, Ph.D., chief of the School-Based Surveillance Branch within CDC’s Division of Adolescent and School Health. “Although these new national data do not address why these behaviors occur, they are an important first step toward better understanding the level of risks that exist among these young males and developing solutions to address them in homes, schools, and communities.”

Conclusions

- Collecting high quality, national population-based data on the number of young sexual minority males is possible
- The prevalence of injected drug use among young sexual minority males is disturbing
- Prevalence of sexual behaviors alone that directly cause HIV infection are not causing disparities in rates of HIV diagnoses between young MSM and young males who have sex with females
  - Other factors to be considered
    - Sexual practices
    - Sexual networks
    - Social issues

The prevalence of injected drug use among young sexual minority males is disturbing and a cause for great concern because of the efficiency with which injected drug use transmits not only HIV infection, but hepatitis and other diseases.

Recommendations

- Address the social issues that result in social isolation, stress, and discrimination
- Conduct new research on injected drug use among young sexual minority males
- Improve access to HIV testing
- Improve linkage to and retention in medical care
- Provide more risk reduction education and HIV prevention strategies
- Offer more school-centered HIV prevention
- Continue measurement of health-risk behaviors among young sexual minority males through large, population-based surveys
In the United States, an estimated 22% of all new HIV diagnoses occur among 13-24 year olds and most of these diagnoses occur among males who have sex with males. This makes young males – an important focus for HIV prevention efforts. Key to these prevention efforts is a clear and accurate understanding of the number of young sexual minority males nationwide and an understanding of how HIV-related risk behaviors vary (or not) between young sexual minority and non-sexual minority males. To date, insufficient information has existed about both of these issues in the US.

**Background**

- 22% of all new HIV diagnoses in the US in 2014 occurred among 13-24 year olds
- Most of these diagnoses occurred among males who have sex with males (MSM)
- Insufficient information exists about
  - The number of young sexual minority males nationwide
  - How HIV-related risk behaviors vary between young sexual minority males and non-sexual minority males
Purpose

- To use 2015 National Youth Risk Behavior Survey (YRBS) data to describe
  - The number of sexual minority males in US high schools
  - How HIV-related risk behaviors vary between sexual minority and non-sexual minority males
    - Sexual behaviors directly related to HIV infection
    - Drug use directly related to and associated with HIV infection

Methods

Sample

- 3-stage cluster sample design
  - Schools selected with probability proportional to size
  - Classes selected randomly
  - All students in sampled classes included
- Nationally representative of public and private school students in grades 9-12 in the US

Sampling Outcome

- Response rates
  - School – 69%
  - Student – 86%
  - Overall – 60%
- Sample size - 15,624
This presentation will focus on selected sexual behaviors and alcohol and other drug use behaviors that are most closely linked with HIV infection.
In addition, starting with the 2015 national YRBS questionnaire 2 questions were added for the first time to measure sexual minority status. The first focused on sex of sexual contacts. The second question focused on sexual identity regardless of whether or not the student had had sexual contact.

Both constructs were deemed important for identifying sexual minority students and for gaining the most complete understanding of how HIV-related risk behaviors vary between sexual minority and non-sexual minority students. Because adolescence is a time when many people develop and explore their sexuality it is possible for dissonance to occur between sexual identity and sex of sexual contacts.

**Questionnaire Content: Measurement of Sexual Minority Status**

- Sex of sexual contacts
- Sexual identity

**Questionnaire Content: Measurement of Sex of Sexual Contacts**

During your life, with whom have you had sexual contact?

A. I have never had sexual contact
B. Females
C. Males
D. Females and males

This is the question used to measure sex of sexual contacts. Sexual contact was not defined but presumably students considered a wide range of sexual activities including, but not limited to, kissing, touching, and sexual intercourse as well as involuntary sexual activities.
For this analysis, male students who selected response option C (males) or response option D (females and males) were combined into a single sexual minority subgroup.
For this analysis, male students who selected response option B (gay) or response option C (bisexual) were combined into a single sexual minority subgroup.

And compared to male students who selected response option A (heterosexual or straight).

Questionnaire Content: Measurement of Sexual Identity

Which of the following best describes you?

A. Heterosexual (straight)
B. Gay or lesbian  Sexual minority
C. Bisexual
D. Not sure

Data Analysis

- Weighting
  - Based on student sex, race/ethnicity, and grade in school
  - Adjusted for non-response and oversampling of black and Hispanic students
- All females excluded
- T-tests to detect significant (p<0.05) pairwise differences in HIV-related risk behaviors by sexual identity and by sex of sexual contact subgroups

Results
Of the approximately 8 million male high school students in the US, 4.4% identify as gay or bisexual.

And about 3.2% have had sexual contact with only males or with both males and females.

The next slides show estimates for sexual behaviors that are directly related to HIV infection and drug use behaviors related to HIV infection directly (when injection is the mode of administration) and indirectly (when drug use increases the likelihood of unsafe
sexual behaviors).

These estimates are shown for male high school students by sexual identity and by sex of sexual contact subgroups. Red arrows indicate where statistically significant differences were identified.

**Behaviors related directly and indirectly to HIV infection**

Starting first with the sexual behaviors - This slide shows the percentage of male high school students by sexual identity who ever had sexual intercourse, had sexual intercourse with 4 or more persons, were currently sexually active, and who used a condom at last sexual intercourse. Sexual intercourse was not defined and could include vaginal, anal, or oral sex. None of these behaviors varied statistically between heterosexual and gay or bisexual male students.

![Percentage of male high school students who reported HIV-related sexual behaviors, by sexual identity, 2015](image)

Similarly, this slide shows the percentage of male high school students by sex of sexual contact who reported the same 4 sexual behaviors. Again, there were no statistical differences between the 2 sex of sexual contact subgroups.
However, when we look at the drug use behaviors we see a different story. This slide shows the percentage of male high school students who ever used a needle to inject any illegal drug into their body one or more times during their life by sexual identity and by sex of sexual contact subgroups. **Note that gay and bisexual male students were significantly more likely than heterosexual male students to have injected drugs and that male students who had sexual contact with only males or with both males and females were significantly more likely than the other 2 sexual contact subgroups to report injected drug use.**
This slide shows the percentage of male high school students who ever used heroin. Gay and bisexual male students and male students who had sexual contact with only males or with both males and females were significantly more likely than the other subgroups to report heroin use.
*Any form of cocaine (e.g., powder, crack, or freebase) one or more times during their life.

*One or more times during their life
As with all studies, this one has its limitations. Obviously, because this was a school-based survey, the results apply only to males who attend school and not all young males. While most young sexual minority males are in school other research also documents that sexual minority youth might represent a disproportionate percent of school dropouts.

Second, as is common with surveys like the YRBS, the extent of under and over reporting cannot be determined although the survey questions demonstrate good test-retest reliability.

Third, it is possible that some students may not know their sexual identity, may be unwilling to disclose it or label themselves, or may not have understood the question. However, we do not have evidence that the words used to describe various types of sexual identity are unclear to high school students in the US.