

History of Inconsistent Condom Use with Known HIV-Positive Partners Among Recently Diagnosed HIV-Positive Men Who Have Sex With Men in New York City, 2013-2014

Nicole Burton, MPH; Kavita Misra, PhD, MPH; Sharmila Shah, MD MPH; Rodolfo Gutierrez; Chi-Chi Udeagu, MPH
New York City Department of Health and Mental Hygiene



Background

- Men who have sex with men (MSM) frequently report condomless anal intercourse (CAI) in known HIV-serodiscordant sexual partnerships
- One in four HIV-positive MSM report CAI with HIV-unknown or negative sexual partners
- Factors associated with inconsistent condom use need to be examined to inform:

- Programs for prevention with positives
 - Risk management among uninfected MSM
- Field Services Unit - Bureau of HIV/AIDS Prevention and Control conducts partner services interviews with newly HIV diagnosed individuals in New York City

Objective

- To describe inconsistent condom use prior to HIV diagnosis among recently diagnosed HIV-positive MSM who report anal sex with known HIV-positive partners

Methods

- June 2013 to Oct 2014: data collected on supplement to standard case investigation form
- Population: Newly HIV diagnosed MSM reporting anal sex with known HIV-positive male partner in lifetime
- Variables: Pre-HIV diagnosis risk behavior and sociodemographic information
- Bivariate analysis (chi-square test of proportions, Fisher's exact test, and Wilcoxon rank-sum test)
- Crude and adjusted odds ratios (OR and aOR) and 95% confidence intervals (CI)

Results

- 95 eligible MSM interviewed
- High level of inconsistent condom use with last known and all HIV-positive sex partner(s)
- Lifetime number of HIV-positive sex partners and feelings of love or emotional attachment for partners were associated with inconsistent condom use with HIV-positive sex partners

Table 1: Study Population Demographics (N=95)

| Demographic Characteristics | n | % |
|-----------------------------------|----|------|
| Age Group (years) | | |
| ≤30 | 42 | 44.2 |
| >30 | 53 | 55.8 |
| Race | | |
| Non-Hispanic White | 36 | 37.9 |
| Non-Hispanic Black | 32 | 33.7 |
| Hispanic | 23 | 24.2 |
| Other | 4 | 4.2 |
| Country of Birth | | |
| United States and Dependencies | 71 | 74.7 |
| Other | 24 | 25.3 |
| Education | | |
| ≤High School/GED or Equivalent | 25 | 26.3 |
| Some College | 22 | 23.1 |
| Bachelor's/Post Graduate | 43 | 45.3 |
| Missing | 5 | 5.3 |
| Ever Used Drugs | 51 | 53.7 |
| Ever Injected Drugs (N=51) | 5 | 9.8 |

Table 2: Sexual Risk Behavior (N=95)

| | | |
|---------------------------------------------------------------------------------------------------------------|----|------|
| History of an STD | 58 | 61.1 |
| Sex in Exchange for Money or Drugs | 13 | 13.7 |
| Did something to reduce the chances of getting HIV when engaging in anal sex with HIV-positive man/men | 71 | 74.7 |
| HIV prevention techniques used (N=71) | | |
| Withdrawal Method | 28 | 39.4 |
| Used Condoms Some of the Time | 27 | 38.0 |
| Used Condoms All of the Time | 26 | 36.6 |
| Used lubrication to reduce friction | 25 | 35.2 |
| Did not have a lot of HIV-positive sex partners | 18 | 25.4 |
| Visual inspection for signs of an STD | 14 | 19.7 |
| Always on top | 13 | 18.3 |
| Other | 4 | 5.6 |

| Relationship Type of HIV-Positive Partner/s | Median | Min, Max |
|-----------------------------------------------------------------|--------|----------|
| Main Partner/s | 30 | 31.6 |
| Not Main Partner/s | 65 | 68.4 |
| Number of HIV-Positive Sex Partners Before HIV Diagnosis | 2 | 1,1000 |

Last Known HIV-Positive Sex Partner

Table 3: Comparison of Consistent Condom Users with No or Inconsistent Condom Users with Last Known-HIV Positive Sex Partner (N=94)

| | No or Inconsistent Condom Use N=62 | Consistent Condom Use N=32 | p value |
|----------------------------------------------------|------------------------------------|----------------------------|---------|
| | Median (Min, Max) | Median (Min, Max) | |
| Number of HIV-Positive Male Partners | 3 (1, 1000) | 2 (1, 24) | 0.04 |
| Age Group (years) | | | .24 |
| ≤30 | 25 (40.3) | 17 (53.1) | |
| >30 | 37 (59.7) | 15 (46.9) | |
| Sex in Exchange for Money or Drugs | 10 (16.1) | 3 (9.4) | .53 |
| History of an STD | 40 (64.5) | 17 (53.1) | .44 |
| Relationship Type of HIV-Positive Partner/s | | | |
| Main Partner/s | 22 (35.5) | 8 (25.0) | |
| Not Main Partner/s | 40 (64.5) | 24 (75.0) | |

Figure 1: Reasons for having sex with last known HIV-positive sex partner



*Statistically significant
 ■ No or Inconsistent Condom Use with last HIV+ Sex Partner
 ■ Consistent Condom Use with Last HIV+ Sex Partner

Table 4: No or Inconsistent Condom Use with Last Known HIV+ Partner

| Variable | OR | 95% CI | aOR* | 95% CI |
|----------------------------------------------------|------|------------|------|------------|
| In Love/Didn't want the relationship to end | 2.56 | 1.02, 6.40 | 2.53 | 0.85, 7.59 |
| Total Number of HIV Partners | 1.07 | 0.97, 1.19 | 1.09 | 0.97, 1.22 |

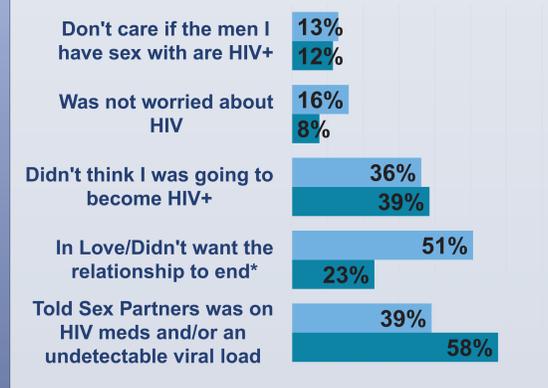
*Adjusting for age and most recent relationship type

All Known HIV-Positive Sex Partners

Table 5: Comparison of Consistent Condom Users with No or Inconsistent Condom Users with All HIV-Positive Sex Partners ((N=95)

| | No or Inconsistent Condom Use N=69 | Consistent Condom Use N=26 | p value |
|---------------------------------------------------|------------------------------------|----------------------------|---------|
| | Median (Min, Max) | Median (Min, Max) | |
| Number of HIV+ Male Partners | 3 (1, 1000) | 2 (1, 12) | 0.01 |
| Age Group (years) | | | 0.25 |
| ≤30 | 28 (40.6) | 14 (53.8) | |
| >30 | 41 (59.4) | 12 (46.2) | |
| Sex in Exchange for Money or Drugs | 10 (14.5) | 3 (11.5) | 1.00 |
| History of an STD | 46 (66.7) | 12 (46.2) | 0.14 |
| Relationship Type of HIV-Positive Partners | | | 0.27 |
| Main Partner/s | 24 (34.8) | 6 (20.0) | |
| Not Main Partner/s | 45 (65.2) | 20 (76.9) | |

Figure 2: Reasons for having sex with all known HIV-positive sex partners



*Statistically significant
 ■ No or Inconsistent Condom Use With All HIV+ Partners

Table 6: No or Inconsistent Condom Use with All HIV+ Partners

| Variable | OR | 95% CI | aOR* | 95% CI |
|----------------------------------------------------|------|------------|------|-------------|
| In Love/Didn't want the relationship to end | 3.43 | 1.23, 9.58 | 3.99 | 1.16, 13.66 |
| Total Number of HIV+ Partners | 1.20 | 0.99, 1.47 | 1.24 | 0.99, 1.54 |

*Adjusting for age and most recent relationship type

Conclusions

- Compared to MSM who used condoms consistently, inconsistent condom users were more likely to:
 - Have a greater number of lifetime HIV-positive partners
 - Cite feelings of love or emotional attachment to their partners
- Emotional connection and/or relationship type in serodiscordant partnerships - a key component of HIV risk management
- Findings highly relevant:
 - In the age of pre-exposure prophylaxis (PrEP)
 - For targeting and tailoring HIV-prevention messaging by providers and public health campaigns
 - To enhance literature on the topic of MSM couples in HIV-serodiscordant partnerships
- Comprehensive HIV prevention efforts must focus on combination of:
 - PrEP
 - Importance of consistent and correct condom-use
 - HIV treatment as prevention (TaSP)

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