Serosorting assumptions and HIV risk behavior in men who have sex with men

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Men who have sex with men (MSM) are the group most affected by HIV in the United States.

In response, MSM have developed a variety of strategies to reduce their risk for HIV, including:

- Abstinence
- Consistent condom use
- Monogamy
- Strategic positioning
- Serosorting
Background

Serosorting has the potential to be an effective harm reduction strategy, provided that individuals
- Know their status
- Consistently have a disclosure conversation with partners
- Reveal their status accurately
Background

Prior work has pointed to the potential limitations of serosorting.

In a longitudinal study of harm reduction strategies practiced by MSM, Jin and colleagues (2009) found that among individuals who tested HIV-positive during a 6-month follow-up period, 29.8% reported serosorting with a partner believed to be HIV-negative.
Under some circumstances, social mores against HIV disclosure prevent conversations from occurring.

Some MSM may rely on methods other than direct conversations to determine partner status:
- Appearance
- Behaviors
Background

- 29% of MSM recruited online reported guessing about a partner’s HIV status
- An additional 42% reported having HIV status conversations after sexual activity

Horvath et al., 2009
Background

Formative qualitative work in Denver:

– “He must be [HIV] positive – he’s letting me [have sex with] him without a condom”
   - HIV-positive research participant

– “He’s not putting a condom on so he must be negative like me.”
  - HIV-negative research participant
Purpose of the present study

- Document men’s beliefs about who has primary responsibility for initiating HIV disclosure
- Determine the frequency of making assumptions about partner serostatus
- Examine associations between making unsafe assumptions and HIV risk behaviors
Method

- Participants (N = 350) were recruited at Gay Pride Festival in Denver, CO
- Anonymous, self-administered survey
- Incentive
- Over 70% of men approached agreed to participate
Participants

Mean age = 33.0 (SD = 13.8), range = 18-78
Mean education = 14.0 (SD = 2.4)

Race/Ethnicity
- White 65%
- Latino 14%
- African American 8%
- Native American 3%
- Asian American 2%
- Other/Mixed heritage 7%

HIV Status
- HIV-positive 8.2%
- HIV-negative 89.4%
- Don’t know 2.4%
Measures

- Demographics
- Substance use
- Sexual risk behavior
- Responsibility for initiating HIV disclosure conversations
- Assumptions about HIV status
Results: Perceptions of responsibility for initiating HIV disclosure

- Overall, 64% of participants indicated that if two serodiscordant people are going to have unprotected sex, HIV-positive persons have the primary responsibility for initiating a discussion about HIV with their sex partner.

- HIV-positive and HIV-negative participants did not differ significantly in their responses to this question.
In a hypothetical scenario in which the participant was going to have unprotected sex with a new partner, a plurality indicated that they would always have a disclosure discussion.

Smaller numbers of participants indicated they would make assumptions that their partner was HIV-negative or HIV-positive.
Results: Serosorting assumptions

- HIV-positive men were significantly less likely to indicate that they always discuss HIV status with their sexual partners than HIV-negative men,

\[ \chi^2 = 6.06, \ p < .05. \]
Results: Serosorting assumptions

Among those who indicated they would make an assumption about partner status, 89% of HIV-positive men would assume their partner was also positive and 75% of HIV-negative men would assume their partner was also negative.

The difference in assumptions was significant, $\chi^2 (1, N = 142) = 28.29$, $p < .001$. 

0 50 100
HIV+ Participants

Assume HIV+ Assume HIV-

0 50 100
HIV- Participants

Assume HIV+ Assume HIV-
Results: Serosorting assumptions

- Always Discuss
- Assume Serodiscordant
- Assume Seroconcordant

Assumptions

%
Results: Serosorting assumptions

- Overall, 57% reported they either never assume or assume partner is serodiscordant.
- 43% indicated they make potentially unsafe assumptions of seroconcordance.
Results: Serosorting assumptions and HIV risk behavior

![Bar chart showing the comparison between Partners and UAI, with categories 'No/Safe' and 'Unsafe'.]
Results: Serosorting assumptions and HIV risk behavior

![Bar chart showing % of No/Safe and Unsafe behaviors in Sex-Alcohol, Sex-Drugs, and STI categories.](chart_image)
Results: Serosorting assumptions and perceived risk

- Individuals who were HIV-negative were asked to estimate their likelihood of contracting HIV based on their behavior over the past 12 months.

- Despite having objectively higher risk behaviors, HIV-negative individuals who made assumptions about partner seroconcordance did not differ in their perceptions of the likelihood that they will contract HIV when compared to individuals who did not make these assumptions.
Conclusions

- The majority of MSM reported they would either have a conversation about HIV status prior to engaging in sexual activity or would assume their partner is serodiscordant.

- A substantial minority of men reported they would make potentially unsafe assumptions of seroconcordance.
Conclusions

- Men who made assumptions of serconcordance reported higher HIV risk behaviors
- Men who made assumptions of serconcordance did not perceive their likelihood of contracting HIV to be higher than men who did not make these assumptions
Conclusions

- The limitations of serosorting as a strategy—particularly in the context of incomplete or assumed information—should be included in HIV risk reduction interventions.

- Public health interventions to support disclosure and candid conversations are needed— even for HIV-negative men.
THANK YOU