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HIV Serodisclosure and Sexual Behavior During International Travel

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Abstract

When traveling internationally, HIV serodisclosure and knowledge of partners' serostatus were hampered by the lack of a common language. Condomless anal intercourse was less likely to occur in partnerships where HIV serostatus was not disclosed or known. Taken together, these observations suggest that language barriers may affect sexual decision-making.

Short Summary

A probability-based sample of gay and bisexual men from the San Francisco Bay Area found that language barriers can complicate HIV prevention communication and behaviors during international travel.

Keywords

HIV; gay and bisexual men; serodisclosure; sexual behavior; international travel

A key component in HIV prevention strategies is serostatus disclosure between sexual partners. Some individuals may use serostatus information to select partners of the same serostatus, i.e., serosorting, while others may use it to negotiate sexual behaviors to reduce risk, i.e., strategic positioning.[1–3] Implementation of these HIV prevention strategies, however, depends upon serostatus disclosure between partners. HIV disclosure may be influenced by individual-level attributes such as age, sexual identity and HIV serostatus; partnership-level attributes such as partnership type and choice of sexual behaviors, such as anal intercourse with or without a condom; and environmental-level attributes such as where the sexual partner was met.[1, 4–8]

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International travel provides an opportunity for some gay and bisexual men to meet sexual partners while in the destination countries. Previous studies have described HIV and sexually transmitted infections (STIs) acquired during the course of international travel.[9–12] While Internet access has made it easier to develop sexual partnerships while traveling, travelers still face multiple challenges, such as unfamiliarity with the local surroundings and lack of fluency with the local language.[13] The ability to communicate in a common language is pivotal for HIV serodisclosure and sexual negotiations, and difficulties with communication could create situations that result in increased transmission risk.

We evaluated risk and preventive behaviors that gay and bisexual men engaged in during international travel. We specifically assessed respondents' knowledge of sexual partners' HIV status, disclosure of their own serostatus and ability to communicate in a common language with partners.

A probability-based sample of gay and bisexual men was recruited between 2009 and 2011 using an adapted respondent-driven sampling. A detailed description of the recruitment procedures has been previously reported.[14] Men were eligible if they were ≥18 years, San Francisco Bay Area residents and traveled internationally in the previous 12 months.

Respondents completed an interviewer-administered, computer-assisted survey. Demographic characteristics collected included age, race/ethnicity and sexual orientation. Respondents' HIV status was based on self-report of perceived HIV status at the interview.

Respondents were asked about sexual partners in the previous 12 months while traveling internationally. Detailed partnership-level data were collected for up to 3 sexual partnerships per country visited, for up to 2 countries. A partnership refers to a unique individual in each country. Partnership-level data collected included partners' gender, age, race and HIV status, HIV status disclosure to partner, partner type and sexual behaviors with the partner. This analysis focused on respondents' casual partners, i.e., individuals with whom respondents did not have a commitment or did not know well; and anonymous partners, i.e., individuals with whom respondents had one-time sex and did not know how to contact again. Partnerships were classified as HIV seroconcordant when partners were known to be of the same serostatus as the respondent.

Respondents reported how well they could communicate with each partner: “poorly, difficult to communicate”; “sufficiently, communication was difficult but possible”; “well, able to have a conversation easily”; or “fluently, both spoke the same language fluently”. We created two communication categories: poor versus sufficient or better.

Medians, inter-quartile ranges (IQRs) and percentages were calculated for various individual-level demographic, behavioral and trip variables. Individual-level survey weights were derived using RDSAT 7.1 to account for the sampling design. Age group was used to derive weights since age is a relatively visible trait, likely to influence recruitment. Individual-level weights were used as approximations for partnership-level weights. Using survey correction, i.e., weighting by aforementioned weights and clustering by respondent, we estimated the number and percentage of partnerships in partnership-level groups of interest, supplemented with survey-corrected Chi-squared tests. We fit survey-corrected

bivariate logistic regression models to examine associations between various partnership characteristics and partnership-level behavioral outcomes, stratified by partnership type. These models generated odds ratios (OR) for the outcomes of condomless anal intercourse (CAI), insertive CAI (CIAI), receptive CAI (CRAI), disclosure of the respondent's serostatus and knowing the partner's serostatus. With the exception of derivation of weights, all analyses were conducted in R using a significance level of 0.05 and a 95% confidence interval (CI).

Of the 501 total respondents, 303 men reported having casual and anonymous partners while traveling internationally. The demographic characteristics and self-reported HIV status for these 303 respondents are presented in Table 1. The median age was 40 years (IQR 31–47) and 26% of respondents were HIV-positive.

Detailed behavioral data were collected for 373 casual and 427 anonymous partnerships. Table 2 presents the partnership characteristics, weight adjusted. Nearly all the anonymous partners were met in the country being visited while some casual partners were met in the US or elsewhere. Anonymous partners were more commonly met at a bathhouse or sex club, whereas casual partners were met through the Internet.

Sexual behaviors varied significantly by partnership type. Mutual masturbation, finger-anal contact and oral-anal contact were most commonly reported, as shown in Table 2. Men were more likely to engage in finger-anal contact, oral-anal contact, anal fisting, CIAI, RAI and CRAI in casual partnerships than in anonymous partnerships. Men were less likely to know their partner's HIV status and disclose their own HIV status in anonymous partnerships than in casual partnerships. Men were able to communicate well or fluently in 86% of casual partnerships but had difficulties communicating in 30% of anonymous partnerships.

Fluency in a common language and venue type where respondents met the partners were considered with regards to the outcomes of respondents' HIV status disclosure to partners and knowledge of partners' HIV status, as shown in Table 3. Men were more likely to disclose their HIV status in both casual and anonymous partnerships with sufficient or better communication. They were more likely to know the partner's HIV status in anonymous partnerships with sufficient or better communication compared to partnerships with poor communication. Men were more likely to disclose their HIV status in anonymous partnerships met through the Internet compared to partnerships met at a bar or nightclub. In casual partnerships, men were more likely to know the HIV status of partners met through the Internet, at a sex club or bathhouse or on the street, at a park or at a public venue compared to partnerships met at a bar or nightclub.

HIV seroconcordancy, venue type where partners were met, respondent's HIV status disclosure to partner and knowledge of partner's HIV status were considered with regards to the outcomes of any CAI, CIAI and CRAI, as shown in Table 4. In casual partnerships, CRAI was more likely to occur with partners met on the street, at a park or at a public venue, at a sex club or bathhouse, on the Internet or introduced by friends compared to partners met at a bar or nightclub. CIAI was more likely to occur with partners of unknown HIV status than with partners of known HIV status. In anonymous partnerships, men were

less likely to engage in CAI or CRAI with HIV serodiscordant partners and in partnerships where the partner's HIV status was unknown. Overall, men disclosed their HIV status in 55 of 75 (73%) casual partnerships and 23 of 59 (39%) anonymous partnerships where CAI occurred.

Language barriers can complicate HIV prevention communication and behaviors. The men in our study who reported difficulties communicating in a common language with partners were less likely to disclose their own HIV status and to know the partner's HIV status. HIV status disclosure occurred less frequently and communication was more difficult in anonymous partnerships than in casual partnerships. Men were less likely to engage in CAI in partnerships where they did not disclose their own HIV status or did not know their partner's status, with a significant association detected in anonymous partnerships between CAI and knowledge of partner HIV status.

Since HIV serodisclosure and knowledge of partners' serostatus appeared to be hampered by the lack of a common language and CAI was less likely to occur in partnerships where HIV serostatus was not disclosed or known, taken together, these observations suggest that language barriers may affect sexual decision-making. Avoiding CAI with partners with whom communication was difficult may have represented a risk reduction strategy for some men. However, there was still substantial overlap in the lack of HIV disclosure and risk behavior, as HIV status disclosure did not take place in one-quarter of casual partnerships and one-third of anonymous partnerships in which CAI did occur. This observation suggests poor communication between partners could be contributing to risk dynamics.

One-quarter of anonymous and casual partners were met through the Internet, and HIV disclosure occurred in more than half of those partnerships. The Internet may facilitate HIV disclosure by making it possible to indicate serostatus in online profiles.[15- 16] However, one study found only one-quarter of HIV-positive gay and bisexual men disclosed their serostatus accurately online and three-quarters of men who had never been tested indicated they were HIV-negative.[17] Sexual negotiation based on inaccurate serostatus information poses a HIV transmission risk.

Potential limitations of the study include misreporting of high-risk sexual behavior due to social desirability bias and small cell sizes of some response categories. Viral load status may have influenced serostatus disclosure and sexual behavior. While HIV-positive men reported their most recent viral load date and results, we were unable to align these results with each sexual partnership and thus could not assess associations with viral load. We believe the study recruited a representative sample of the population of gay and bisexual men. We are not aware of any population-based data of MSM in the San Francisco Bay Area who travel internationally against which to compare our study sample.

Given the greatly variable nature of worldwide destinations, international travelers may not always possess the behavioral skills essential for negotiating safer sex practices and disclosing HIV serostatus. Factors such as not sharing a common language could inhibit risk reduction negotiations and result in behaviors that increase HIV transmission risk. To the best of our knowledge, this is the first study of gay and bisexual men assessing the impact of

language barriers on HIV disclosure with partners met while traveling internationally. More detailed examination of the situational dynamics and individual traits that lead to CAI despite difficulties in communicating could inform the development of targeted interventions for gay and bisexual men during international travel.

Supplementary Material

Refer to Web version on PubMed Central for supplementary material.

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REFERENCES

1. Parsons JT, Schrimshaw EW, Wolitski RJ, et al. Sexual harm reduction practices of HIV-seropositive gay and bisexual men: serosorting, strategic positioning, and withdrawal before ejaculation. *AIDS*. 2005; 19(suppl 1):S13–S25. [PubMed: 15838191]
2. Truong HM, Kellogg TA, Klausner JD, et al. Increases in sexually transmitted diseases and sexual risk behavior without a concurrent increase in HIV incidence among men who have sex with men, San Francisco: a suggestion of HIV serosorting? *Sex Transm Infect*. 2006; 82(6):461–466. [PubMed: 17151031]
3. McFarland W, Chen YH, Raymond HF, et al. HIV seroadaptation among individuals, within sexual dyads, and by sexual episodes, men who have sex with men, San Francisco, 2008. *AIDS Care*. 2011; 23(3):261–268. [PubMed: 21347888]
4. Simoni J, Pantalone D. Secrets and safety in the age of AIDS: does HIV disclosure lead to safer sex? *Top HIV Med*. 2004; 12(4):109–118. [PubMed: 15516708]
5. Parsons JT, Schrimshaw EW, Bambi DS, et al. Consistent, inconsistent, and non-disclosure to casual sexual partners among HIV-seropositive gay and bisexual men. *AIDS*. 2005; 19(suppl 1):S87–S97. [PubMed: 15838198]
6. Rosser BRS, Horvath KJ, Hatfield LA, Peterson JL, Jacoby SM. Positive Connections Team. Predictors of HIV disclosure and sexual risk behavior among a high-risk sample of HIV-positive MSM: results from six epicenters in the US. *AIDS Care*. 2008; 20(8):925–930. [PubMed: 18777221]
7. Rietmeijer C, Lloyd LV, McLean C. Discussing HIV serostatus with prospective sex partners: a potential HIV prevention strategy among high-risk men who have sex with men. *Sex Transm Dis*. 2007; 34(4):215–219. [PubMed: 17179774]
8. Pollock JA, Halkitis PN. Environmental factors in relation to unprotected sexual behavior among gay, bisexual, and other MSM. *AIDS Educ Prev*. 2009; 21(4):340–355. [PubMed: 19670969]
9. Rogstad KE. Sex, sun, sea, and STIs: sexually transmitted infections acquired on holiday. *BMJ*. 2004; 329(7459):214–217. [PubMed: 15271833]
10. Mercer CH, Fenton KA, Wellings K, Copas AJ, Erens B, Johnson AM. Sex partner acquisition while overseas: results from a British national probability survey. *Sex Transm Infect*. 2007; 83(7): 517–522. [PubMed: 17991687]
11. Truong HM, Kellogg T, Schwarcz S, Delgado V, Grant RM, Louie B, Ngo H, McFarland W. Frequent international travel by men who have sex with men recently diagnosed with HIV-1: potential for transmission of primary HIV-1 drug resistance. *J Travel Med*. 2008; 15(6):454–456. [PubMed: 19090802]
12. Vivancos R, Abubakar I, Hunter PR. Foreign travel, casual sex, and sexually transmitted infections: systematic review and meta-analysis. *Int J Infect Dis*. 2010; 14(10):e842–e851. [PubMed: 20580587]

13. Fenton KA, Imrie J. Increasing rates of sexually transmitted diseases in homosexual men in Western Europe and the United States: why? *Infect Dis Clin North Am.* 2005; 19(2):311–331. [PubMed: 15963874]
14. Truong HM, Grasso M, Chen YH, et al. Balancing theory and practice in respondent-driven sampling: a case study of innovations developed to overcome recruitment challenges. *PLoS One.* 2013; 8:e370344.
15. Marks G, Crepaz N. HIV-positive men’s sexual practices in the context of self-disclosure of HIV status. *JAIDS.* 2001; 27(1):79–85. [PubMed: 11404524]
16. Horvath KJ, Nygaard K, Rosser BRS. Ascertaining partner HIV status and its association with sexual risk behavior among Internet-using men who have sex with men. *AIDS Behav.* 2010; 14(6): 1376–1383. [PubMed: 19921419]
17. Horvath KJ, Oakes JM, Rosser BRS. Sexual negotiation and HIV serodisclosure among men who have sex with men with their online and offline partners. *J Urban Health.* 2008; 85(5):744–758. [PubMed: 18649141]

Table 1
Demographic characteristics and self-reported HIV serostatus of men who have sex with men who had casual and anonymous sexual partnerships while traveling internationally, San Francisco Bay Area, 2009–2011 (N=303 respondents)

	N	Crude %	Adjusted %	95% CI
Age				
18–25	24	7.9	13.9	6.4, 21.5
26–30	47	15.5	24.3	16.6, 31.9
31–35	42	13.9	10.7	4.3, 17.1
36–40	54	17.8	11.8	5.2, 18.5
41–45	50	16.5	18	10.9, 25.2
46–50	32	10.6	8	1.9, 14.2
51	54	17.8	13.2	7.0, 19.4
Race/Ethnicity				
White	195	64.4	54.1	44.1, 64.1
Asian/Pacific Islander	39	12.9	10.7	3.6, 17.8
Hispanic/Latino	45	14.9	26.1	16.5, 35.6
Black	7	2.3	3.2	2.0, 4.4
Other/Mixed	17	5.6	5.9	0.2, 11.5
Sexual Orientation				
Homosexual/Gay	290	95.7	84.7	79.1, 90.3
Bisexual	11	3.6	14.3	8.9, 19.6
Heterosexual/Straight/Something else	2	0.7	1	0.0, 2.7
Highest Education				
High school/GED	14	4.6	8.3	1.5, 15.0
Some college	42	13.9	16.9	11.7, 22.1
College degree	139	45.9	44.7	35.2, 54.2
Graduate school	108	35.6	30.2	20.3, 40.0
Employment Status				
Full time	183	60.4	54.2	44.2, 64.3
Part time	46	15.2	25.4	17.3, 33.4
Working intermittently	18	5.9	4	0.7, 7.3
Not working	25	8.3	7.9	1.1, 14.6

	N	Crude %	Adjusted %	95% CI
Relationship Status				
Retired	8	2.6	1.5	0.1, 2.8
Something else	23	7.6	7.1	0.6, 13.5
Single	184	60.7	74.5	65.9, 83.0
Committed relationship	54	17.8	12.6	6.7, 18.5
Domestic Partnership/Civil Union/Marriage	61	20.1	12.1	4.9, 19.2
Other	4	1.3	0.9	0.3, 1.6
HIV Serostatus				
Negative	220	72.6	73	63.8, 82.2
Positive	80	26.4	26.5	17.3, 35.7
Indeterminate/No previous result	3	1	0.5	0.0, 1.2

Table 2

Characteristics of casual and anonymous sexual partnerships while in the two most recently visited countries in the previous 12 months, weight adjusted, men who have sex with men who travel internationally, San Francisco Bay Area, 2009–2011 (N=800 partnerships)

	Casual Partner	Anonymous Partner		
	<u>Count (%)</u>	<u>Count (%)</u>	<u>F (ndf,ddf)</u>	<u>p</u>
Partner's gender				
Male	335 (97.5)	449 (98.6)		
Female	3 (0.7)	6 (1.4)	1.5 (1.5,448.1)	0.23
Male-to-female transgender	6 (1.8)	0 (0)		
Partner's race				
White	166 (48.4)	259 (56.7)		
Asian or PI	66 (19.1)	80 (17.6)		
Hispanic or Latino	62 (18)	88 (19.2)	2.2 (3.6,1094.3)	0.07
Black	9 (2.7)	4 (1)		
Other or mixed	41 (11.9)	20 (4.4)		
Don't know	0 (0.1)	5 (1.1)		
Partner's age				
18–19	6 (1.7)	10 (2.2)		
20–29	151 (43.9)	133 (29.3)		
30–39	116 (33.7)	159 (34.8)	1.9 (3.9,1185.6)	0.11
40–49	63 (18.4)	128 (28.1)		
50–69	8 (2.3)	22 (4.8)		
Don't know or skipped	0 (0)	4 (0.8)		
Partner's HIV status				
Negative	241 (70.2)	102 (22.4)		
Positive	23 (6.6)	20 (4.5)	28.7 (1.9,561.5)	< 0.01
Don't know	80 (23.2)	334 (73.2)		
HIV seroconcordancy				
Concordant	211 (61.2)	111 (24.3)	25.7 (1.0,302.0)	< 0.01
Discordant or Unknown	134 (38.8)	345 (75.7)		
Respondent disclosed HIV status to partner				
Yes	196 (57.1)	110 (24.1)		
No	148 (42.9)	345 (75.7)	20.8 (1.3,393.9)	< 0.01
Don't know or refused	0 (0)	1 (0.1)		
Respondent's fluency in the common language				
Poorly: communication difficult	14 (4.0)	34 (7.6)		
Sufficiently: communication difficult but possible	33 (9.7)	101 (22.1)		
Well: conversation easily	72 (21.1)	72 (15.9)	4.9 (3.9,1167.5)	< 0.01
Fluent: we both spoke the same language	224 (65.2)	213 (46.7)		
Don't know or skipped	0 (0)	36 (7.8)		
Country in which respondent met partner				

	Casual Partner	Anonymous Partner		
	Count (%)	Count (%)	F (ndf,ddf)	p
Country visited	281 (81.8)	447 (98.1)		
United States	55 (15.9)	0 (0)	14.8 (2.0,600.6)	< 0.01
Somewhere else	8 (2.3)	9 (1.9)		
Venue type where respondent met partner				
Bar or nightclub	60 (17.4)	86 (18.9)		
Internet	109 (31.7)	80 (17.6)		
Sex club or bathhouse	20 (5.9)	186 (40.7)	10.6 (4.6,1382.5)	< 0.01
Introduced by friends	53 (15.4)	19 (4.1)		
Street or park or public venue	24 (6.9)	42 (9.3)		
Other	78 (22.6)	43 (9.4)		
Sexual behaviors				
Mutual masturbation	265 (77.1)	286 (62.8)	3.5 (1.0,302.0)	0.06
Finger-anal contact	157 (45.6)	152 (33.3)	4.4 (1.0,302.0)	0.04
Oral-anal contact	120 (34.8)	100 (22.0)	5.0 (1.0,302.0)	0.03
Anal fisting	15 (4.2)	8 (1.9)	6.9 (1.0,302.0)	0.01
Oral intercourse	313 (91.0)	380 (83.4)	3.5 (1.0,302.0)	0.06
Insertive anal intercourse	142 (41.1)	138 (30.3)	2.4 (1.0,302.0)	0.12
Receptive anal intercourse	148 (43.0)	108 (23.7)	13.5 (1.0,302.0)	< 0.01
Condomless anal intercourse	76 (22.0)	48 (10.5)	8.3 (1.0,302.0)	< 0.01
Condomless insertive anal intercourse	54 (15.8)	30 (6.6)	6.6 (1.0,302.0)	0.01
Condomless receptive anal intercourse	51 (14.8)	23 (5.0)	11.0 (1.0,302.0)	< 0.01
Vaginal intercourse	2 (0.5)	6 (1.4)	1.4 (1.0,302.0)	0.24

F: F distribution
 ndf: numerator degrees of freedom
 ddf: denominator degrees of freedom

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Table 3

Bivariate associations between ability to communicate in a common language and HIV status disclosure and knowledge within casual and anonymous sexual partnerships while in the two most recently visited countries in the previous 12 months, of gay and bisexual men who travel internationally, San Francisco Bay Area, 2009-2011 (N=800 partnerships)

Casual Partnerships				
	<u>HIV Status Disclosure</u>		<u>Partner HIV Status Known</u>	
	%	OR (95% CI)	%	OR (95% CI)
<u>Ability to communicate with partner</u>				
Poor	5.1	Reference	56.3	Reference
Sufficient or better	59.2	27.0 (2.9,249.0)	77.6	2.7 (0.4,17.3)
<u>Venue type where partner met</u>				
Bar or nightclub	65.7	Reference	1.3	Reference
Internet	52.1	0.6 (0.2,1.5)	7.4	6.0 (1.2,29.1)
Sex club or bathhouse	46.6	0.5 (0.1,2.2)	13.6	11.8 (1.6,89.7)
Introduced by friends	57.3	0.7 (0.2,2.1)	5.9	4.7 (0.7,32.3)
Street or park or public venue	55.2	0.6 (0.1,2.8)	22.3	21.4 (3.0,151.7)
Other	60.5	0.8 (0.3,2.1)	3.5	27.0 (0.5,15.1)
Anonymous Partnerships				
	<u>HIV Status Disclosure</u>		<u>Partner HIV Status Known</u>	
	%	OR (95% CI)	%	OR (95% CI)
<u>Ability to communicate with partner</u>				
Poor	4.7	Reference	8.1	Reference
Sufficient or better	28.1	8.0 (1.3,50.1)	31.0	5.1 (1.4,18.3)
<u>Venue type where partner met</u>				
Bar or nightclub	19.1	Reference	2.8	Reference
Internet	60.9	6.6 (2,22)	11.3	4.5 (0.5,39.5)
Sex club or bathhouse	12.5	0.6 (0.2,1.8)	3.3	1.2 (0.2,8.0)
Introduced by friends	55.0	5.2 (0.7,35.9)	0	0
Street or park or public venue	17.0	0.9 (0.3,2.8)	2.1	0.8 (0.3,1.9)
Other	9.0	0.4 (0.1,1.3)	4.1	1.5 (0.2,12.8)

Bivariate associations between partnership characteristics and sexual behaviors within casual and anonymous sexual partnerships while in the two most recently visited countries in the previous 12 months, of men who have sex with men who travel internationally, San Francisco Bay Area, 2009–2011 (N=800 partnerships)

Table 4

	Casual Partnerships			
	%	CAI OR (95% CI)	CAI OR (95% CI)	CRAI OR (95% CI)
<u>HIV seroconcordancy</u>				
Concordant	21.9	Reference	Reference	Reference
Discordant or Unknown	22.1	1.0 (0.4, 2.4)	13.0 0.7 (0.2, 2.0)	19.4 1.8 (0.7, 4.7)
<u>Venue type where partner met</u>				
Bar or nightclub	15.7	Reference	Reference	Reference
Internet	18.6	1.2 (0.4, 3.5)	14.1 0.9 (0.3, 2.7)	9.6 9.6 (2.1, 44.7)
Sex club or bathhouse	43.1	4.1 (0.6, 26.4)	7.0 0.4 (0.1, 2.4)	36.1 51.0 (6.2, 420.8)
Introduced by friends	11.8	0.7 (0.2, 3.0)	9.2 0.6 (0.1, 2.4)	7.7 7.5 (1.3, 42.2)
Street or park or public venue	40.2	3.6 (0.9, 13.8)	17.7 1.2 (0.2, 6.8)	36.3 51.5 (11.6, 227.8)
Other	27.2	2.0 (0.5, 8.3)	24.9 1.9 (0.4, 8.4)	25.4 30.8 (6.5, 146.9)
<u>HIV Status Disclosure</u>				
Yes	27.0	Reference	Reference	Reference
No	15.3	0.5 (0.2, 1.2)	10.3 0.5 (0.2, 1.4)	13.2 0.8 (0.3, 2.1)
<u>Partner HIV Status Known</u>				
Yes	25.6	Reference	Reference	Reference
No	10.0	0.3 (0.1, 1.0)	3.8 0.2 (0.0, 0.8)	9.5 0.5 (0.2, 1.7)
			Anonymous Partnerships	
		CAI	CAI	CRAI
%	OR (95% CI)	%	OR (95% CI)	%
<u>HIV seroconcordancy</u>				
Concordant	21.0	Reference	Reference	Reference
Discordant or Unknown	7.1	0.3 (0.1, 0.8)	5.4 0.5 (0.2, 1.6)	2.1 0.1 (0, 0.4)
<u>Venue type where partner met</u>				
Bar or nightclub	8.2	Reference	Reference	Reference
Internet	20.2	2.8 (0.8, 10.7)	8.4 1.9 (0.4, 9.7)	13.9 4.5 (0.9, 23.7)

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Sex club or bathhouse	7.8	0.9 (0.3,3.0)	6.3	1.4 (0.3,5.9)	3.0	0.8 (0.2,4.0)
Introduced by friends	0	0	0	0	0	0
Street or park or public venue	16.5	2.2 (0.6,7.5)	12.8	3.0 (0.7,13.2)	4.1	1.2 (0.2,6.4)
Other	7.3	0.9 (0.2,3.9)	4.7	1.0 (0.2,5.6)	3.6	1.0 (0.1,8.7)
<u>HIV Status Disclosure</u>						
Yes	17.3	Reference	6.0	Reference	14.0	Reference
No	8.3	0.4 (0.2,1.2)	6.8	1.2 (0.4, 3.6)	2.2	0.1 (0.0, 0.4)
<u>Partner HIV Status Known</u>						
Yes	19.4	Reference	9.7	Reference	13.0	Reference
No	7.2	0.3 (0.1, 0.9)	5.4	0.5 (0.2, 1.7)	2.1	0.1 (0.0, 0.5)

CAI: any condomless anal intercourse

CIAI: condomless insertive anal intercourse

CRAI: condomless receptive anal intercourse