# Sex, HIV, and the Internet: What the Online Profiles of MSM Tell Us about Norms and Expectations Surrounding Sex and HIV

## **Background**

In recent years, the practice of seeking sex partners via the Internet has been increasing in popularity, particularly among men who have sex with men (MSM). Chat rooms and sexual networking websites provide an easy, discrete, and convenient means of connecting with and screening potential partners. Studies have found that men who use the Internet to find sex partners are more likely to engage in risky sexual behavior, have more partners, and contract sexually transmitted infections. Additionally, evidence suggests that the practice of barebacking – intentionally seeking unprotected anal intercourse with casual partners – is growing in popularity and is associated with online sexual networking. These trends are concerning, particularly in light of increasing rates of HIV among MSM. To contribute to an understanding of the factors driving these practices, this study examines patterns in what men report in their online profiles.

### Methods

Data for this observational study were passively collected from two popular online hookup websites for MSM. Using 2010 HIV surveillance data for mean statistical areas (MSAs) in the United States, five cities were randomly selected from the lowest HIV prevalence tertile, five from the middle tertile, and five from the highest tertile, for a total of fifteen cities. During the months of July and August 2012, staff members systematically collected data on age, race, preferred position, reported HIV status, and safer sex preferences from the profiles of 400 men in each city (200 from each website) who had logged on in the preceding two weeks.

Of the original 6,000 profiles screened, 412 were excluded from analysis due to missing data on age, race, or on all variables of interest. Age was categorized into five groups ranging from 18-24 to 55-64. Race was coded as black, white, Hispanic, or Asian, and a fifth category of "other" was created to represent the small number of men reporting a race other than these four. Preferred positions of "jerking off," "oral," or "foreplay" were combined into a single non-penetrative category, and preferred positions of "top/versatile" or "bottom/versatile" were categorized as "versatile." For both sites, men had the option of indicating whether they were looking for "safer sex only." On one of the sites, men could select "anything goes" as an alternative. For this analysis, men who indicated, "anything goes," were combined with those who stated a preferences for barebacking or "raw" sex in the narrative sections of their profiles.

Data were analyzed through chi-square tests to look for variations in the indicators across cities and by demographic characteristics. Where twenty percent of cells or more had an expected cell count less than five, Fisher's exact tests were performed instead. All analysis was conducted using STATA version 12.0 (StataCorp LP, 2011).

#### Results

The mean age of the sample was 36 years, ranging from 18 to 64. The majority of men were white (70.1%), ten percent were black, nine percent were Hispanic, three percent were Asian, and eight percent were classified as "other." The majority of the sample indicated their preferred position as either fully or partially versatile. Fifteen percent classified themselves as "tops" only, eleven percent as "bottoms" only, three percent indicated a preference for some form of non-penetrative sex, and eighteen percent did not list a position. In the field for HIV serostatus, eighty-three percent reported that they were negative, four percent stated that they were positive, and thirteen percent did not list their status. Less than five percent of the sample (4.6%) stated that they were looking for bareback or "raw" sex or selected the option "anything goes." In contrast, over half of the men (55.8%) selected "safer sex only," and the remaining forty percent did not indicate a preference.

These characteristics were all found to vary significantly by city. A large amount of variation was observed in racial diversity, with the proportion of white men ranging from fifty to eighty-five percent. Although the majority of men reported a negative HIV serostatus in all cities, the percent listing a positive status ranged from a low of 1.3 percent in New Orleans to a high of nine percent in San Francisco. The percent not listing an HIV status also varied significantly from nine percent in Syracuse to nearly nineteen percent in Philadelphia. Reported safer sex preferences showed geographical variation as well, with a low of fifty-two percent requesting safer sex only in Oklahoma City and a high of sixty-three percent in Philadelphia. No differences in safer sex preferences were found between cities across the three HIV prevalence tertiles, however.

The percent of men who listed an HIV serostatus (positive or negative) and the percent who reported a preference for safer sex only (Table 1, below) were found to vary significantly by age group, race, and preferred sexual position in the sample as a whole. Stratifying the sample by city, these differences were not observed across the board. Listing of HIV status varied by age in four cities, by race in three, and by position in all cities. The proportion looking for safer sex only was associated with age in five cities, with race in eight, and with position in thirteen cities.

### **Discussion**

These results indicate that the demographics of men seeking sex online vary by city, and the differences in HIV reporting and preferences for safer sex point to differences in the norms and expectations surrounding sex and HIV in the different cities. Although the data are based on self-report on profiles and hence subject to misreporting, what men report speaks to what they perceive as normative and expected. Although relatively few men were found to be looking for bareback sex, the large proportion who left the field on safer sex empty is concerning. The geographical and demographic patterns observed point to specific populations that could be targeted with tailored health messages or other interventions.

				Low F	HV Prev	Low HIV Prevalence Cities	Cities					Medium	1 HIV Pr	Medium HIV Prevalence Cities	Cities	
	Day	Dayton	Des M	Des Moines	Providence	dence	Salt La	Salt Lake City	Syracuse	cuse	Louis	Louisville	Oklahoma City	ma City	Portland	and
	Safer sex	p- value†	Safer sex	p- value†	Safer sex	p- value†	Safer sex	p- value†	Safer sex	p- value†	Safer sex	p- value†	Safer sex	p- value†	Safer sex	p- value†
Age	(%)	0.521	(%)	0.381	(%)	0.117	(%)	0.041**	(%)	0.380	(%)	0.071*	(%)	0.537	(%)	0.215
18-24	56.36		52.24		63.79		50.85		65.28		63.64		51.32		68.09	
25-34	57.32		57.76		61.24		48.94		52.38		41.94		51.55		56.45	
45-54	56.04		50.75		59.38		43.40		58.14		58.43		52.38		50.57	
55-64	59.26		72.00		26.67		90.91		45.83		60.87		73.33		63.16	
Race		0.817		0.764		0.008**		0.148		0.640		0.038**		0.188		0.810
Black	56.82		57.69		60.00		42.86		66.67		68.89		55.88 49.93		62.50	
Hispanic	71.43		58.82		84.21		70.27		55.56		66.67		65.22		61.11	
Asian Other	100.00 50.00		36.36 61.54		40.00 50.00		75.00 50.00		83.33 60.00		50.00 69.23		85.71 55.88		54.55 63.64	
Preferred		0.011**		0.001**		0.003**		0.005**		0.033**		0.006**		0.012**		0.030**
J0/0ral/forepla	53.85		57.14		45.45		55.56		69.23		63.16		66.67		71.43	
Bottom only	56.52		47.06		51.35		46.15		51.92		50.00		54.55		54.76	
Versatile	58.06		61.79		65.63		59.01		63.44		60.54		57.14		53.85	
Top only	64.10		59.32		71.43		49.09		46.67		53.85		54.39		69.23	
Unlisted	35.21		31.03		43.24		32.81		44.93		34.33		34.94		41.07	
Total	53.80		55.14		59.78		52.13		56.44		53.66		51.85		55.03	

	Me	Medium HIV Prevalence Cities	Preval ies	ence				High I	HIV Pre	High HIV Prevalence Cii	Cities					
	Sant	Santa Ana	St I	St Louis	Det	Detroit	Hou	Houston	New Orleans	rleans	Philadelphia	elphia	San Francisco	ancisco	To	Total
	Safer sex	p- value†	Safer sex	p- value†	Safer sex	p- value†	Safer sex	p- value†	Safer sex	p- value†	Safer sex	p- value†	Safer sex	p- value†	Safer sex	p- value†
<b>A</b>	(%)	0.143	(%)	0.012**	(%)	0.244	(%)	0.283	(%)	0.583	(%)	0.097*	(%)	0.016**	(%)	<0.001**
18-24	61.70		76.47		59.49		66.67		55.81		69.77		65.38		61.50	
25-34	64.10		59.60		55.65		53.54		51.67		66.67		65.35		56.39	
35-44 45-54	54.65 45.00		47.46 59.57		48.35 66.67		53.76 55.81		54.26 55.06		58.49 50.00		47.69 44.94		52.39 54.05	
55-64	58.33		52.63		57.89		38.89		71.43		71.43		61.54		59.72	
Race		0.033**		0.006**		<0.001**		0.085*		0.085**		0.003**		0.862		<0.001**
Black	58.33		75.36		75.53		64.81		67.86		77.22		40.00		67.47	
Wnite Hispanic	66.45		33.33		48.10 44.44		48.15 62.50		35.71		55.98 81.48		54.86 54.55		52.58 64.48	
Asian Other	57.14 61.29		66.67 56.52		71.43 65.52		56.25 61.29		50.00 65.00		61.90 57.14		55.00 52.78		58.94 58.09	
Preferred		0.004**		0.445		0.063*		0.031*		0.155		0.001**		0.001**		<0.001**
j0/0ral/forepla	80.00		64.29		80.00		62.50		88.89		61.11		80.00		64.92	
y Bottom only	62.75		62.50		54.55		60.53		46.88		78.85		34.38		55.28	
Versatile	63.54		60.78		59.39		54.73		56.45		66.85		60.00		60.00	
Top only Unlisted	56.36 38.89		52.24 50.00		58.33 43.66		66.67 38.60		56.16 47.76		60.32 41.79		55.88 30.95		58.30 39.51	
	57.99		57.74		56.65		55.29		54.77		62.70		54.03		55.80	