



Measuring sexual orientation and related STD rates in US women aged 15-44 years

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Background

- The lesbian or female homosexual population has been defined by the Institute of Medicine (IOM) as women who have sex or primary emotional partnerships with women.
- One IOM priority is to better understand how to define sexual orientation by sexual identity, behavior, attraction or desire, or some combination of these.
- An IOM recommendation is to add sexual orientation items to large-scale probability surveys to determine the range of expression of sexual orientation among all women and the prevalence of various risk and protective factors for health by sexual orientation.
- Sexual orientation questions were added into the National Survey of Family Growth (NSFG) in 2002.

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Objectives

- To estimate the proportion of lesbian and bisexual women classified by different combinations of self-reported sexual identity and behavior;
- To estimate self-reported STD rates for those classified lesbian and bisexual women.

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Methods

- The 2002 NSFG was used in this study: including a nationally representative sample of 7,643 women aged 15–44 years interviewed between March 2002 and March 2003.
- The overall response rate was 80% for women.
- All women were included in this study.

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Sexual Behavior

There are 4 questions in NSFG:

- Male/female partners in entire life/past 12 months

- One of questions:
 - Thinking about your entire life, how many female sex partners have you had?
Number_____

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Sexual Identity

There is 1 question in NSFG:

- Do you think of yourself as heterosexual, homosexual, bisexual, or something else?
 1. Heterosexual
 2. Homosexual
 3. Bisexual
 4. Something else
 5. Don't know.

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Viral STDs

There are 2 questions in NSFG:

- At any time in your life, have you ever been told by a doctor or other medical care provider that you had genital herpes?
 1. Yes
 2. No

- At any time in your life, have you ever been told by a doctor or other medical care provider that you had genital warts?
 1. Yes
 2. No

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Classification of women's sexual orientation



- Category 1: sexual behavior:
 - ◆ Lesbians: only female partners in past 12 months
 - ◆ Bisexual: male and female partners in past 12 months

- Category 2: sexual identity:
 - ◆ Lesbians: *homosexual*
 - ◆ Bisexual: *bisexual*.

- Category 3: combined sexual identify and behavior
 - ◆ Lesbian:
 - ◆ Bisexual:

- Category 4: combined sexual behavior and identity
 - ◆ Lesbian:
 - ◆ Bisexual:

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Classification of women's past STDs

Reported ever having had either genital herpes or
genital warts.

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Methods

- SAS and SUDAAN were used in analyzing the 2002 NSFG.
- Bivariate analyses and logistic regression models were used.
- A statistically significant difference was defined as a 2-tailed probability of <0.05 .

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Results

		Identity		
		Lesbian	Bisexual	Others
Sex	Lesbian	0.6	0.4	0.3
	Bisexual	0.1	1.2	1.8
	Never sex	0.1	0.1	9.5
Behavior	No sex in 12 months	0.1	0.2	5.7
	Others	0.4	1.2	78.3

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Results

Category 1: sexual behavior

		Identity			Marginal
		Lesbian	Bisexual	Others	%
Sex Behavior	Lesbian	0.6	0.4	0.3	1.3
	Bisexual	0.1	1.2	1.8	3.1
	Never sex	0.1	0.1	9.5	9.7
	No sex in 12 months	0.1	0.2	5.7	6.0
	Others	0.4	1.2	78.3	79.9
					100

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Results

Category 2: sexual identity

		Identity			
		Lesbian	Bisexual	Others	
Sex Behavior	Lesbian	0.6	0.4	0.3	
	Bisexual	0.1	1.2	1.8	
	Never sex	0.1	0.1	9.5	
	No sex in 12 months	0.1	0.2	5.7	
	Others	0.4	1.2	78.3	
Marginal	%	1.3	3.1	95.6	100

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Results

Category 3: sexual identity, plus behavior

		Identity		
		Lesbian	Bisexual	Others
Sex Behavior	Lesbian	0.6	0.4	0.3
	Bisexual	0.1	1.2	1.8
	Never sex	0.1	0.1	9.5
	No sex in 12 months	0.1	0.2	5.7
	Others	0.4	1.2	78.3

Lesbian: 1.6%

Bisexual: 4.9%

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Results



Category 4: sexual behavior, plus identity

		Identity		
		Lesbian	Bisexual	Others
Sex	Lesbian	0.6	0.4	0.3
	Bisexual	0.1	1.2	1.8
	Never sex	0.1	0.1	9.5
Behavior	No sex in 12 months	0.1	0.2	5.7
	Others	0.4	1.2	78.3

Lesbian: 1.9%

Bisexual: 4.6%

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Results



	Proportion of women, by sexual orientation
Category 1: sexual behavior in the past 12 months	
Lesbian	<u>1.3 min %</u>
Bisexual	<u>3.1 min%</u>
Never had sex	9.7
Had no sex in the past 12 months	6.0
Had male partner only in the past 12 months	79.9
Category 2: sexual identity	
Lesbian	1.3
Bisexual	3.1
Heterosexual/others	95.6
Category 3: sexual identity, plus behavior	
Lesbian	1.6
Bisexual	<u>4.9 max%</u>
Heterosexual/others	93.5
Category 4: sexual behavior, plus identity	
Lesbian	<u>1.9 max%</u>
Bisexual	4.6
Heterosexual/others	93.5

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Result



	Proportion of women, by sexual orientation	Proportion of women having had viral STD
Category 1: sexual behavior in the past 12 months		
Lesbian	1.3	<u>6.7</u> max%
Bisexual	3.1	<u>15.0</u> min%
Never had sex	9.7	0.3
Had no sex in the past 12 months	6.0	7.2
Had male partner only in the past 12 months	79.9	10.0
Category 2: sexual identity		
Lesbian	1.3	<u>2.3</u> min%
Bisexual	3.1	<u>17.2</u> max%
Heterosexual/others	95.6	8.8
Category 3: sexual identity, plus behavior		
Lesbian	1.6	<u>2.6</u>
Bisexual	4.9	<u>16.2</u>
Heterosexual/others	93.5	8.7
Category 4: sexual behavior, plus identity		
Lesbian	1.9	<u>5.9</u>
Bisexual	4.6	<u>15.8</u>
Heterosexual/others	93.6	8.7

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Result



	Proportion of women having had viral STD	Proportion of women having had viral STD AOR (95% CI)
Category 1: sexual behavior in the past 12 months		
Lesbian	6.7	0.62 (0.19, 2.01)
Bisexual	15.0	2.13 (1.31, 3.46)*
Never had sex	0.3	0.05 (0.02, 0.17)*
Had no sex in the past 12 months	7.2	0.74 (0.49, 1.11)
Had male partner only in the past 12 months	10.0	1.00 (referent)
Category 2: sexual identity		
Lesbian	2.3	0.21 (0.07, 0.62)*
Bisexual	17.2	2.81 (1.85, 4.28)*
Heterosexual/others	8.8	1.00 (referent)
Category 3: sexual identity, plus behavior		
Lesbian	2.6	0.27 (0.10, 0.69)*
Bisexual	16.2	2.66 (1.83, 3.88)*
Heterosexual/others	8.7	1.00 (referent)
Category 4: sexual behavior, plus identity		
Lesbian	5.9	0.63 (0.23, 1.69)
Bisexual	15.8	2.62 (1.78, 3.87)*
Heterosexual/others	8.7	1.00 (referent)

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Limitations

- Recall and reporting errors may occur, including the recall errors of having had a sex partner in the past 12 months and self-reported viral STDs;
- Some women might not disclose their sexual orientation and STDs because of their discomfort or fear;
- The study did not consider sexual attraction;
- The NSFG data used did not have state or regional information.
- The study did not include self-reported bacterial STDs in the past 12 months because of a very low rate.

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Conclusions

- Estimated proportion of women aged 15-44 years in the United States:
 - ◆ 1.3%-1.9% for lesbian
 - ◆ 3.1%-4.9% for bisexual women
- Many ways to classify women's orientation according to women's responses to sexual behavior, identity, and attraction.
- Lesbian and bisexual women were not free from viral STDs, but the viral STD rates differed significantly:
 - ◆ 2.3%-6.7% for lesbian
 - ◆ 15.0%-17.2% for bisexual women
 - ◆ 8.7%-10.0% for heterosexual women
- Public health establishment should consider lesbian and bisexual women as separate population for STD prevention interventions.

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Thanks

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