

Understanding LGBT Data Sources

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November 4, 2015

National Health and Nutrition Examination Survey (NHANES)

- Program of National Center for Health Statistics (CDC)
- Started in the early 1960's, continuous since 1999 in two-year cycles
 - Data on sexual orientation/behavior available since 1999
- Approximately 5,000 individuals/year (15 counties)
- Interviews and physical examinations
 - Interview: Demographic, socioeconomic, dietary, health
 - Examination: Medical, dental, physiological measurements
 - Lab tests administered by medical personnel



Identifying LGBT Populations in NHANES

Sexual Behavior Question (Age 20-69; 2007-current)

“In your lifetime, with how many men have you had sex?”

“Have you ever had [any kind of] sex with a man?”

Sexual Orientation Question (Age 20-69; 2007-current)

“Do you think of yourself as...heterosexual or straight (attracted to women), homosexual or gay (attracted to men), bisexual (attracted to men and women), something else, not sure?”

“Respondents from the LGBT community select “something else” when they use a different sexual identity label than those presented in the response options. However, those who aren’t part of the LGBT community select this answer because they are not familiar with what the response options mean.” --NHANES

Male Samples

Orientation	1999	2001	2003	2005	2007	2009	2011	2013
Straight	-	1,394	1,199	1,283	1,523	1,769	1,610	1,687
Gay	-	16	25	34	33	23	37	40
Bisexual	-	22	13	21	22	32	21	25
Something Else	-	1	0	6	9	10	8	10
Unsure/DK	-	28	28	16	21	30	21	21
Refused	-	1	1	2	2	7	5	7

Behavior	1999	2001	2003	2005	2007	2009	2011	2013
No	1,022	1,335	1,159	1,062	1,610	2,162	1,985	2,076
Yes	57	56	57	79	106	105	104	116
Refused	3	4	2	1	7	7	5	5
DK	3	1	1	1	5	7	3	1

2013-2014: 3.6% Gay/Bisexual, 5.3% Sex with Men

Female Samples

Orientation	1999	2001	2003	2005	2007	2009	2011	2013
Straight	-	1,494	1,287	1,471	1,522	1,686	1,469	1,707
Lesbian	-	16	19	13	22	28	23	23
Bisexual	-	31	25	42	55	83	66	101
Something Else	-	7	5	6	15	11	13	17
Unsure/DK	-	38	28	30	33	47	53	45
Refused	-	5	3	4	8	10	8	6

Behavior	1999	2001	2003	2005	2007	2009	2011	2013
No	1,262	1,444	1,247	1,344	1,424	2,084	1,826	2,131
Yes	64	73	75	120	135	185	185	201
Refused	3	3	1	4	7	2	3	4
DK	4	2	3	2	5	0	5	2

2013-2014: 6.5% Lesbian/Bisexual, 8.6% Sex with Women

■ **Benefits of NHANES:**

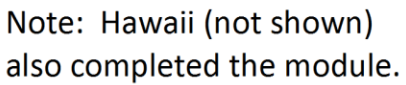
- Historical trend data, multiple years can be pooled
- Questions on both sexual identification and sexual behavior
- Complex sampling framework that allows for nationally representative estimates
- Only survey with examination/lab testing

■ **Limitations of NHANES:**

- Relatively small samples of LGB populations, compounded by alternative identification options
- No geographic detail (except restricted)
- Some limitation on identifying older LGB populations

Behavioral Risk Factor Surveillance System (BRFSS)

- Sponsored by CDC, administered by states
- Started in 1984 – nationwide in 1993
 - Data on LGBT populations available since 2014*
- Phone survey – cell phones added in 2011
 - Approximately 460,000 individuals/year (2014)
- All states complete a core questionnaire
 - Optional sexual orientation and gender identity module
 - States may also add their own questions
- Includes risk behaviors, chronic health conditions, and use of preventive services



Sexual Orientation Question:

“Do you consider yourself to be...straight, lesbian or gay, bisexual?”

Male		N*	%*
	Straight	59,950	94.0%
	Gay	1,082	1.9%
	Bisexual	698	1.3%
	Other	156	0.3%
	DK/Not Sure	400	0.8%
	Refused	923	1.7%

Female		N*	%*
	Straight	85,192	93.0%
	Lesbian	805	1.0%
	Bisexual	1,280	2.3%
	Other	306	0.4%
	DK/Not Sure	794	1.1%
	Refused	1,654	2.2%

- N only includes individuals answering this module
- Weighted percentages based on BRFSS sample design
- Approximately 3.2-3.3%% of males and females identify as LGB

Transgender Question:

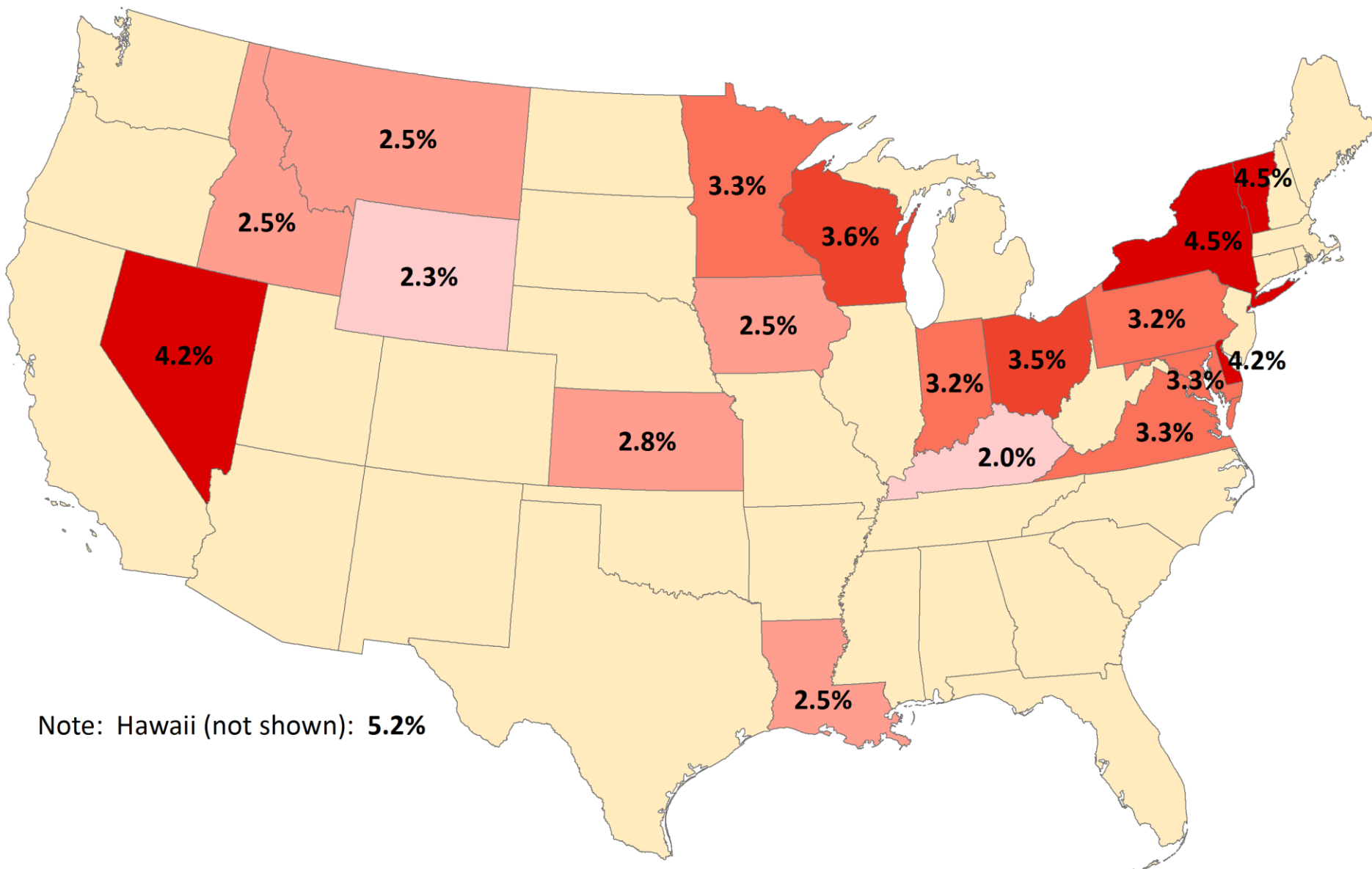
“Do you consider yourself to be transgender?”

“Do you consider yourself to be male-to-female, female-to-male, or gender non-conforming?”

Male		N*	%*
	No	62,086	97.5%
	Yes, M-to-F	244	0.4%
	Yes, F-to-M	52	0.1%
	Yes, non-conform	55	0.1%
	DK/Not Sure	502	0.9%
	Refused	569	1.0%

Female		N*	%*
	No	88,679	97.7%
	Yes, M-to-F	119	0.1%
	Yes, F-to-M	160	0.2%
	Yes, non-conform	61	0.1%
	DK/Not Sure	636	0.8%
	Refused	899	1.0%

Percent of Sample Identifying as Sexual Minority, 2014 BRFSS



Note: Hawaii (not shown): 5.2%

■ **Benefits of BRFSS:**

- Large sample
- Ability to identify sexual orientation and transgendered populations (and the type of transition)
- Nationally representative estimates, plus state- and regional-level estimates

■ **Limitations of BRFSS:**

- Telephone survey
- Complex survey design (core, modules, additional questions, multiple samples per year)
- Unable to identify individuals based on behavior
- Sporadic coverage of LGBT populations – prior to 2014 data must be obtained from individual states

National Health Interview Survey (NHIS)

- Program of NCHS/CDC
- Initiated in 1957, LGBT populations first identified in 2013
- In-person survey, nationally representative
 - Approximately 37,000 individuals/year (2014)
 - Adult conditional response rate 80.5%, total rate 58.9%
- Four core components
 - Household, Family, Sample Adult, Sample Child
- Health status, health care services, health-related behaviors

Sexual Identity Question:

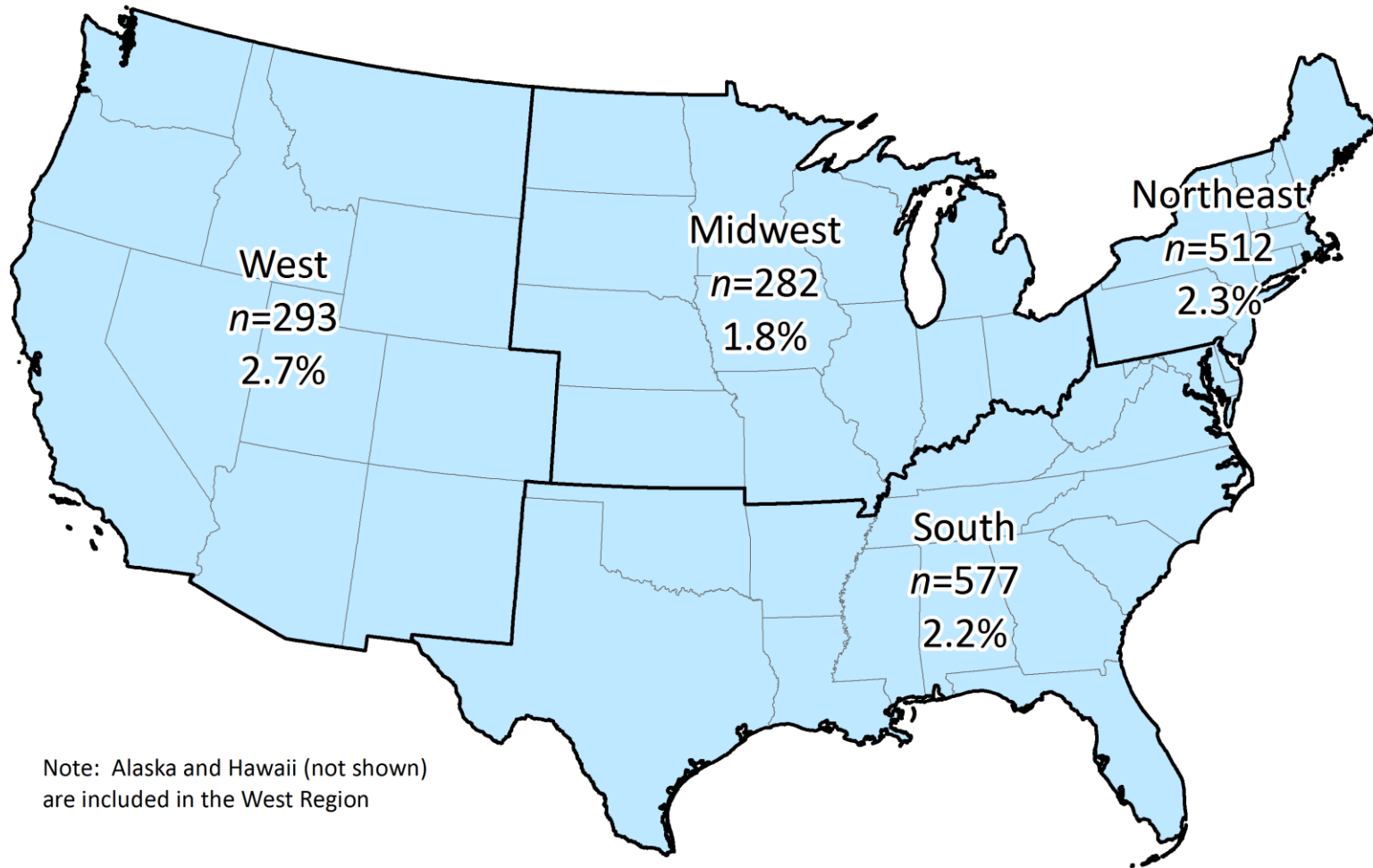
“Which of the following best represents how you think of yourself...lesbian or gay, straight – that is – not lesbian or gay, bisexual, something else, don’t know the answer?”

2014 – Male		N	%*
	Straight	15,472	94.6%
	Gay	304	1.8%
	Bisexual	84	0.4%
	Something Else	103	0.5%
	Refused/Missing	435	2.7%

2014 – Female		N	%*
	Straight	19,134	94.3%
	Lesbian	274	1.3%
	Bisexual	198	1.0%
	Something Else	140	0.6%
	Refused/Missing	553	2.8%

- Percentages are weighted based on NHIS sample design
- Approximately 2.2-2.3% of population identifies as LGB
- Something Else/DK responses elicited follow-up questions

Percent of Sample Identifying as Lesbian, Gay, or Bisexual, 2013-2014 NHIS
(sample-weighted percentages)



- Higher prevalence of sexual minority in West (and Northeast)
- Higher rates of refusal in Midwest

■ **Benefits of NHIS:**

- Relatively large sample
- Face-to-face interviews may elicit less sampling/non-sampling error
- Nationally representative estimates – primary health survey in the U.S.

■ **Limitations of NHIS:**

- Unable to identify individuals based on behavior
- No LGB population prior to 2013 – no transgender populations* (yet)
- Not much geographic detail

National Survey of Family Growth (NSFG)

- First survey in 1973 – currently 5-year sample waves
 - Same-sex sexual behavior and same-sex attraction/orientation first included in Cycle 6 (2002)*
- In-person interviews
 - Sexual behavior/orientation questions administered via Audio Computer-Assisted Self-Interviewing
- Marriage, partnership, cohabitation, sexual behavior, contraception, fertility, maternity, paternity
- Limited to persons age 15-44
 - Approximately 5,000 interviews/year
 - Nationally representative (no smaller geographies)

Sexual Orientation Question (2011-2013):

“Do you think of yourself as...heterosexual or straight, homosexual or gay, bisexual”

Male		N	%*
	Heterosexual or Straight	4,561	94.7%
	Homosexual or Gay	106	2.2%
	Bisexual	100	2.1%
	Refused	23	0.5%
	DK/Missing	25	0.5%

Female		N	%*
	Heterosexual or Straight	5,064	90.4%
	Homosexual or Lesbian or Gay	80	1.4%
	Bisexual	389	7.0%
	Refused	38	0.7%
	DK/Missing	30	0.5%

Higher overall %
likely relates to
the age restriction
on the sample
(adults 18-44)

Sexual Attraction Question (2011-2013):

“People are different in their sexual attraction to other people. Which best describes your feelings? Are you [attracted to]...”

Males

Only Female	Mostly Female	Equally	Mostly Male	Only Male
4,369 90.7%	204 4.2%	43 0.9%	39 0.8%	95 2.0%

Note: 65 respondents (1.4%) refused the question, were unsure, or didn't know.

Females

Only Male	Mostly Male	Equally	Mostly Female	Only Female
4,436 79.2%	699 12.5%	238 4.3%	59 1.1%	47 0.8%

Note: 122 respondents (2.2%) refused the question, were unsure, or didn't know.

Sexual Behavior (2011-2013):

Computed from answers to questions regarding same-sex sexual activity – indicate individuals who have ever had same-sex activity

Male		N	%*
	Yes	285	5.9%
	No	4,496	93.4%
	Refused/Missing	34	0.7%

Female		N	%*
	Yes	1,012	18.1%
	No	4,549	81.2%
	Refused/Missing	40	0.7%

- Among men 15-44, 4.3% report G/B, 5.9% report SS activity
- Among women 15-44, 8.4% report L/B, 18.1% report SS activity

In the last 12 months, has a doctor/other medical care provider asked you about your sexual orientation or the sex of your sexual partners?

Yes:	16.7%
No:	82.6%
Missing	0.7%

■ **Benefits of NSFG:**

- Several sexual orientation, sexual attraction, and sexual behavior questions
- Data available back to 2002*
- In-person interviews supplemented with ACASI likely to elicit higher response rates

■ **Limitations of NSFG:**

- Relatively small sample, but...
- Limited to age 15-44
- Unable to identify transgender populations
- No geographic detail*

Injustice at Every Turn:

A Report of the National Transgender Discrimination Survey

National Gay and Lesbian
Task Force



National Center for
**TRANSGENDER
EQUALITY**



About

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About our Organizations

About the Survey

The National Transgender Discrimination Survey is the most extensive survey of transgender discrimination ever undertaken. Over four months, our research team fielded its 70-question survey through direct contacts with more than 800 transgender-led or transgender-serving community-based organizations in the U.S. We also contacted possible participants through 150 active online community list serves. The vast majority of respondents took the survey on-line, through a URL established at Pennsylvania State University.

The National Transgender Discrimination Survey met the standards established by Penn State's Institutional Review Board (IRB) to ensure the confidentiality and humane treatment of our survey participants. We are grateful to Dr. Susan Rankin, a nationally recognized LGBT researcher, for hosting our study through Penn State's Consortium on Higher Education.

This study brings to light what is both patently obvious and far too often dismissed from the human rights agenda. Transgender and gender non-conforming people face injustice at every turn: in childhood homes, in school systems that promise to shelter and educate, in harsh and exclusionary workplaces, at the grocery store, the hotel front desk, in doctors' offices and emergency rooms, before judges and at the hands of landlords, police officers, health care workers and other service providers.

The National Gay and Lesbian Task Force and the National Center for Transgender Equality are grateful to each of the 6,450 transgender and gender non-conforming study participants who took the time and energy to answer questions about the depth and breadth of injustice in their lives. A diverse set of people, from all 50 states, the District of Columbia, Puerto Rico, Guam and the U.S. Virgin Islands, completed online or paper surveys. This tremendous gift has created the first 360-degree picture of discrimination against transgender and gender non-conforming people in the U.S. and provides critical data points for policymakers, community activists and legal advocates to confront the appalling realities documented here and press the case for equity and justice.

<http://endtransdiscrimination.org/>

Restricted-Use Data

- All of these surveys offer access to restricted-use data
 - Access through data use agreement (NSFG 2006-2010)
 - Access through Research Data Center (RDC)
- Restricted-use data
 - Geographic detail (e.g., state/county FIPS in NSFG)
 - Teen populations (e.g., Age 14-17 in NHANES)

Sexual Minority Health and Health Risk Factors:

Intersection Effects Of Gender, Race, and Sexual Identity

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This research was supported by funding from the National Institutes of Health, including the National Institute on Aging (T32AG000243; P30AG012857).

DISPARITIES IN HEALTH EXPERIENCES BY SEXUAL ORIENTATION

- **Sexual minorities have poorer physical and mental health compared to heterosexuals** (Conron et al. 2010; Bostwick et al. 2010; Diamant et al. 2000; Institute of Medicine 2011; Fredriksen-Goldsen et al. 2012)
- **Sexual minorities are also more likely to exhibit health risks than heterosexuals** (Boehmer et al. 2011; Buchmueller and Carpenter 2010; Conron et al. 2010; Ponce et al. 2010; McCabe et al. 2009)
- **Less is known about how various health risk factors contribute to health disparities by sexual orientation** (Institute of Medicine 2011)

INTERSECTION EFFECTS OF SEXUAL ORIENTATION, GENDER, AND RACE

- Sexual orientation may not influence health or expose individuals to health risks equally for men and women, or for white and non-whites (McCabe et al. 2009; Conron et al. 2010; Ponce et al. 2010)
 - Heavy drinking, drug use, obesity, no insurance
- Individuals with “double (or triple) disadvantage” in social status experience much more stress than their privileged or singly disadvantaged counterparts (Bowleg 2012; Crenshaw 1991; Grollman 2014)
- As most research relies on gender-specific analyses, it is unclear to what extent gender and race may interact with sexual orientation to affect health experiences

RESEARCH QUESTIONS

- 1. Do gender and race amplify differences in health risks and health outcomes across sexual orientation groups?**
- 2. Are disparities in health outcomes (by racial, sexual, and gender identities) attributable to different exposure to health risks?**

DATA & METHODS

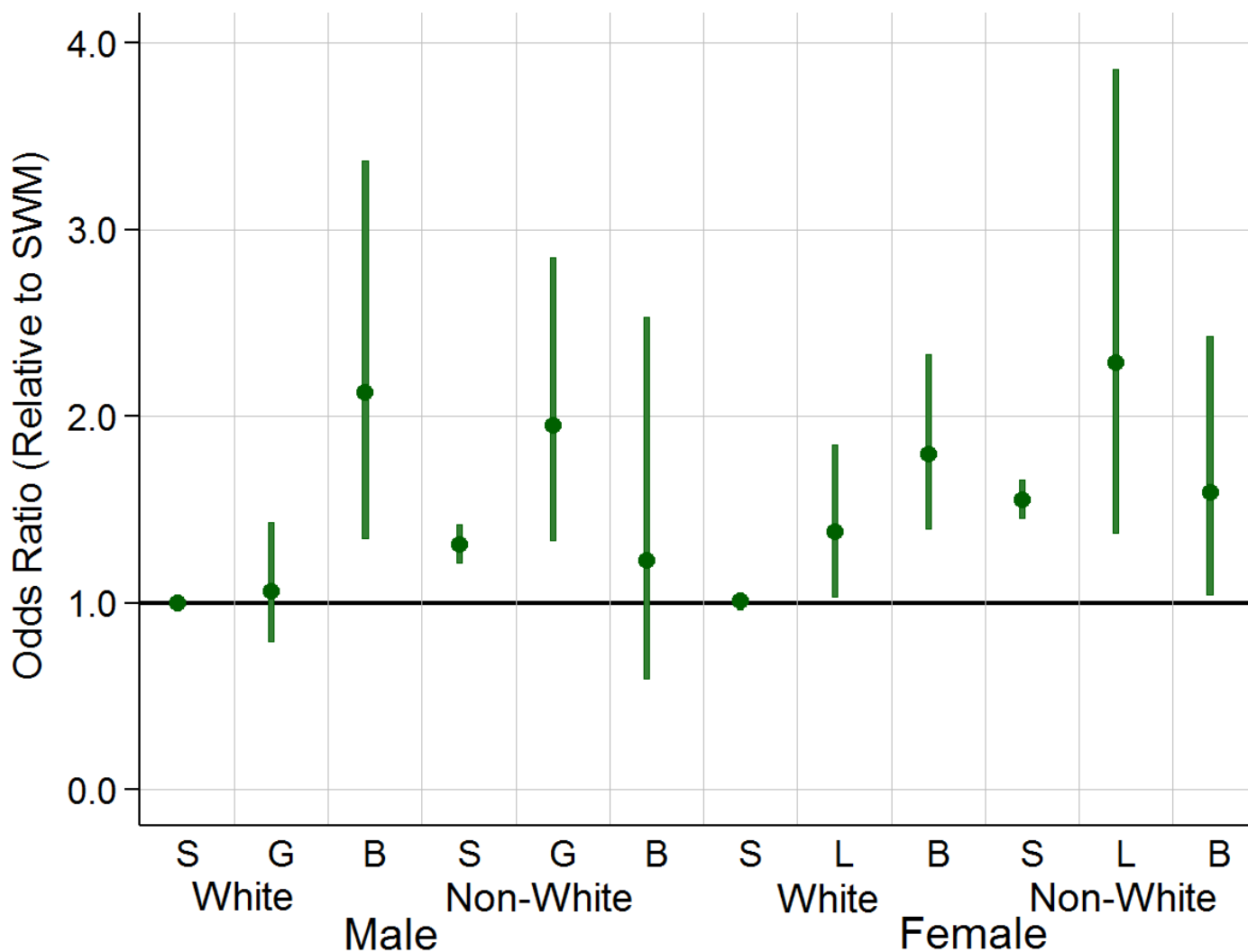
- **2013-2014 National Health Interview Survey (Pooled)**
 - Adults aged 18 and older. N=62,302 (excluding 6% missing values)
 - 1,613 cases are imputed for missing BMI values
- **Variables**
 - Race-sex-gender identity: straight/gay/bisexual white and non-white men and women
 - Health outcomes: self-rated health (1-5) and functional limitation (0/1)
 - Behavioral risks: drinking, smoking, exercise, obesity, sleep problem
 - Health care access: health checks and ability to afford health expenses
 - Age, education, marital status, ethnicity/foreign born status
- **Methods**
 - SRH: ordered logit regression models
 - FL: binary logit regression models

DESCRIPTIVE STATISTICS

	White Male			NW Male			White Female			NW Female		
	S	L/G	B	S	L/G	B	S	L/G	B	S	L/G	B
Health Outcomes												
% SRH Less than Very Good	36	34	43	42	43	39	37	39	39	47	49	39
% Functional Limitation	32	30	37	23	31	26	42	43	41	34	38	37
Health Behaviors/Indicators												
% Heavy/Moderate Drinker	32	39	52	22	31	25	17	24	27	7	13	17
% BMI >30	30	25	30	32	27	30	25	34	33	37	39	45
% Currently Smoke	20	25	29	19	25	32	17	27	29	11	20	20
% Exercise 4+ Times Weekly	34	39	44	30	43	39	30	27	42	24	25	30
% Have Trouble Sleeping	47	51	69	36	55	48	58	58	71	46	55	62
Healthcare Access												
% No Health Insurance	11	10	18	31	34	36	9	14	19	24	23	22
% Medical Care Delayed Due to Cost	8	11	26	10	17	27	10	20	22	12	21	20
% Medical Care Unmet Due to Cost	6	7	14	9	10	29	7	17	15	10	21	10
% Can't Afford Health Services	13	21	31	19	25	24	18	20	39	25	29	31
% Save Medication to Save Money	17	19	31	15	16	24	23	22	39	21	21	24
N	18,174	400	101	8,796	175	40	21,828	306	225	11,963	181	113

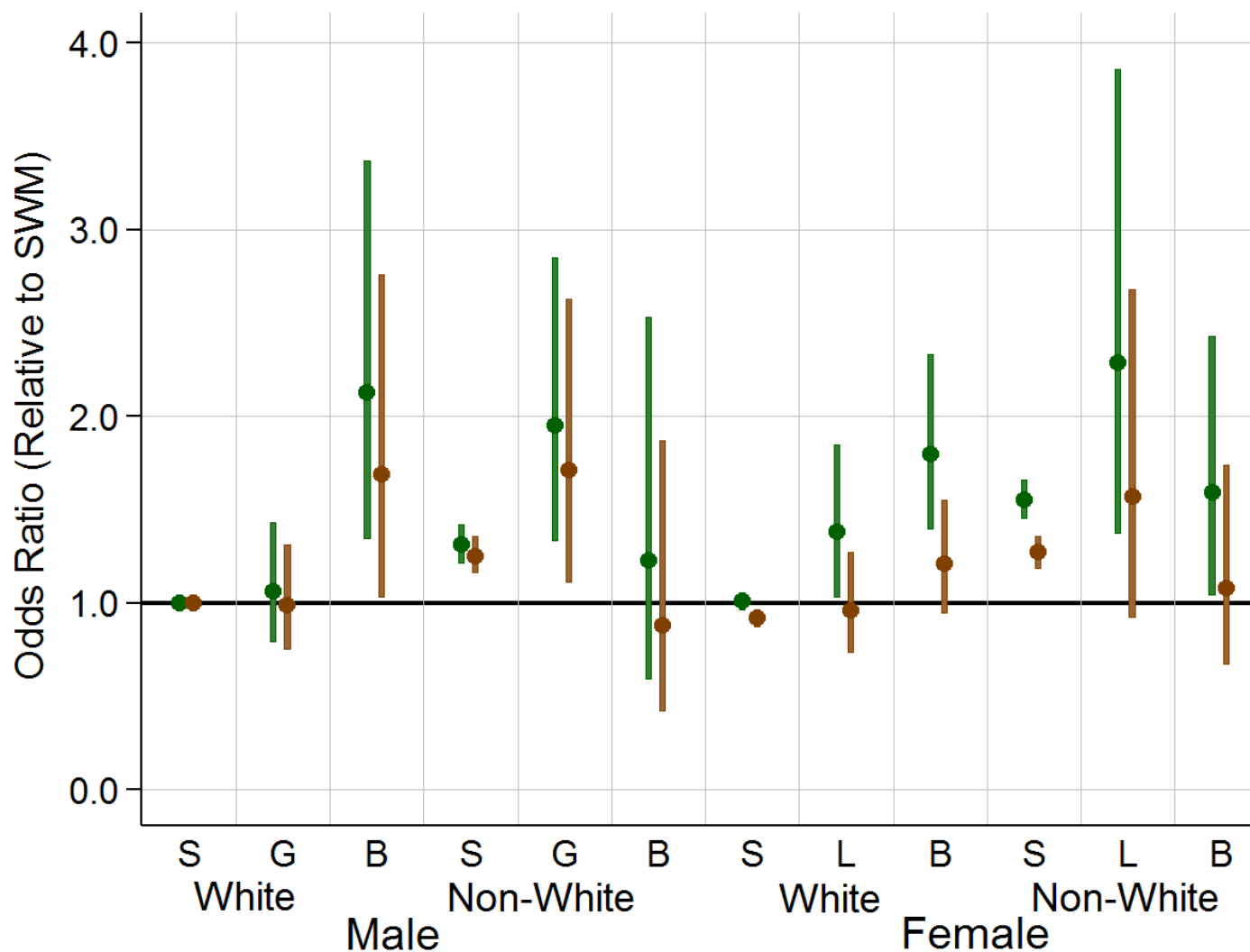
ORDERED LOGIT REGRESSION MODELS OF SELF-RATED HEALTH

(BASE MODEL)



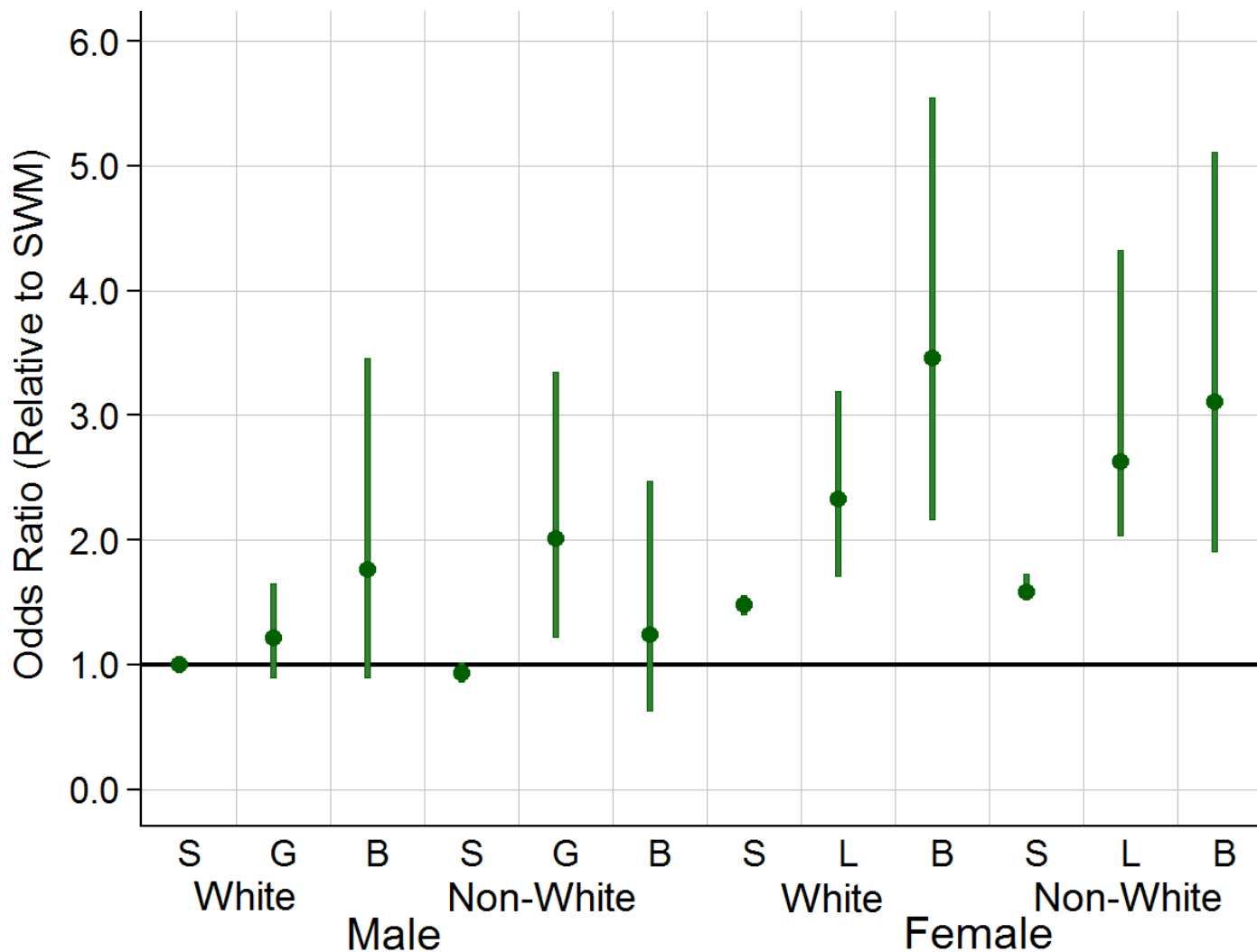
ORDERED LOGIT REGRESSION MODELS OF SELF-RATED HEALTH

(BASE MODEL VS. FULL MODEL)



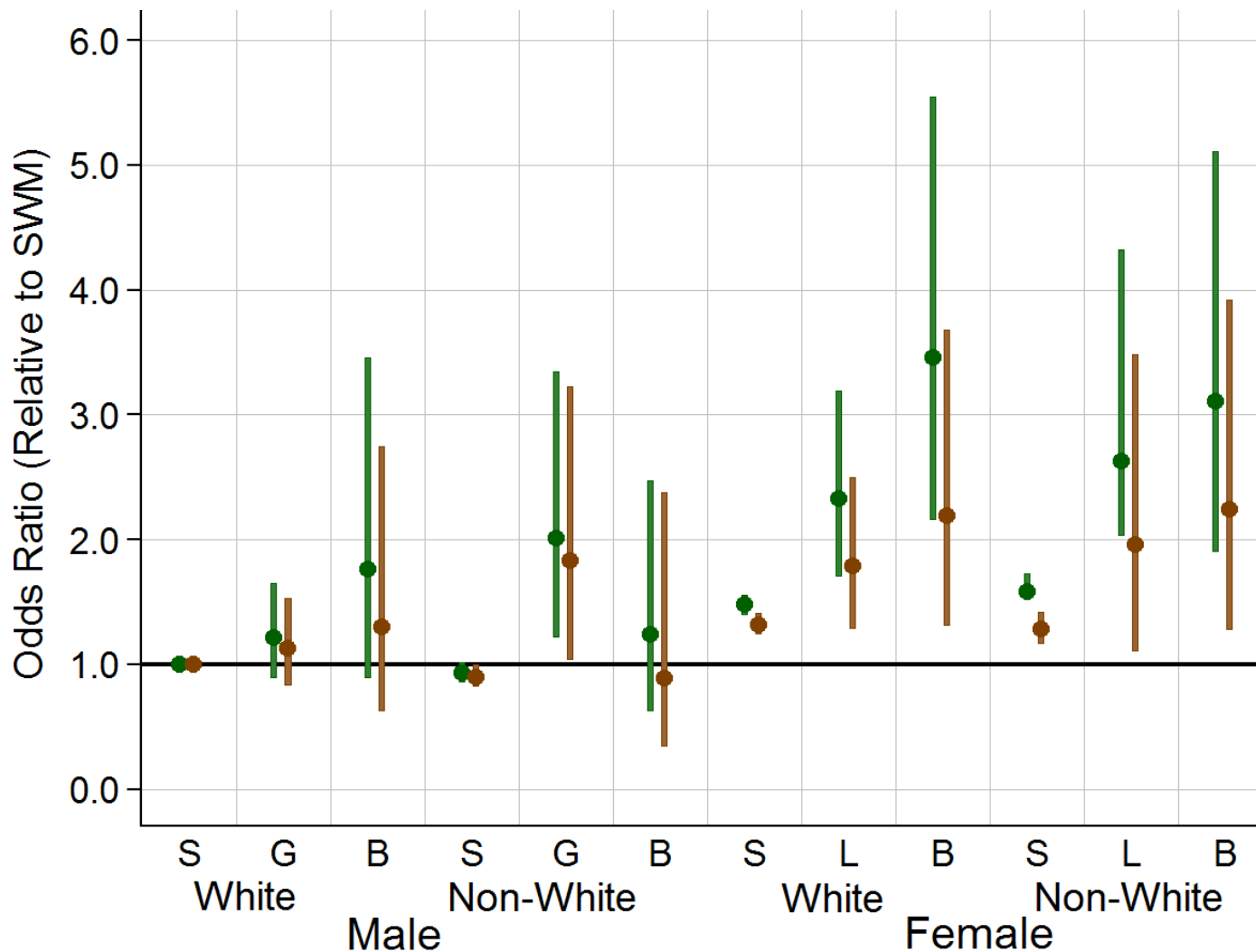
LOGIT REGRESSION MODELS OF FUNCTIONAL LIMITATION

(BASE MODEL)



LOGIT REGRESSION MODELS OF FUNCTIONAL LIMITATION

(BASE MODEL VS. FULL MODEL)



SUMMARY OF FINDINGS

- **For both self-rated health (SRH) and functional limitation (FL), sexual orientation interacts with gender and race to create health disparities.**
- **The health disparities by sexual and gender identities are attributable to both behavioral risk factors and access to health care.**
 - Health behaviors contribute more to lesbians' health
 - Health care resources contribute more to bisexual women's health
- **Health behaviors and access to care fully explain the disparities in SRH for white women (of all sexual identities), but only partially explain the disparities for non-white men and for non-white women.**
- **Health behaviors and access to care only partially explain the disparities in FL for women (of both races and all sexual identities) and for gay non-white men**

LIMITATIONS

- **Cross-sectional data**
- **Small sample sizes for bisexuals of either gender, and for all sexual minorities of color**
- **Restricted definition of gender identity**

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