

# UCLA

## Other Recent Work

### Title

Health Disparities of Older Adults in California: The Role of Sexual Identity and Latinx Ethnicity

### Permalink

<https://escholarship.org/uc/item/8872s38j>

### Authors

Choi, Soon Kyu  
Kittle, Krystal  
Meyer, Ilan H.

### Publication Date

2020-11-01

Peer reviewed

## Research Article

# Health Disparities of Older Adults in California: The Role of Sexual Identity and Latinx Ethnicity

Soon Kyu Choi, MPP, MSc,<sup>1,\*</sup> Krystal Kittle, MS,<sup>2</sup> and Ilan H. Meyer, PhD<sup>1</sup>

<sup>1</sup>The Williams Institute at the School of Law, University of California, Los Angeles, Los Angeles, California, USA. <sup>2</sup>Department of Gerontology, University of Massachusetts, Boston, Massachusetts, USA.

\*Address correspondence to: Soon Kyu Choi, MPP, MSc, The Williams Institute, 1060 Veteran Avenue Suite 134 Box 957092, Los Angeles, CA 90095-7092, USA. E-mail: [CHOI@law.ucla.edu](mailto:CHOI@law.ucla.edu)

Received: June 29, 2020; Editorial Decision Date: October 29, 2020

**Decision Editor:** Suzanne Meeks, PhD, FGSA

## Abstract

**Background and Objectives:** We examined the health disparities of older adults (age 50 and older) in California at the intersection of sexual identity and Latinx ethnicity, by comparing the prevalence of health outcomes of 4 groups: LGB (lesbian, gay, and bisexual) Latinx, straight Latinx, LGB non-Latinx, and straight non-Latinx older adults.

**Research Design and Methods:** Data were from the 2015–2016 California Health Interview Survey. Multivariable logistic regressions tested differences among the 4 groups and the effect of covariates on prevalence of mental and physical health outcomes. We compared LGB and straight people within the same ethnic groups and Latinx and non-Latinx people within the same sexual identity groups to understand the intersectional effect of Latinx ethnicity and LGB identity.

**Results:** Tests by sexual identity showed that among Latinx older adults, more LGB than non-LGB people experienced serious psychological distress. Among non-Latinx older adults, there were no health disparities due to sexual identity. Tests by Latinx ethnicity showed that among LGB older adults, more Latinx than non-Latinx people were obese. Among straight people, more Latinx than non-Latinx older people had poor health, diabetes, and obesity.

**Discussion and Implications:** The compounded effect of Latinx and LGB identity on psychological distress is notable. However, most health disparities were among straight older adults, between Latinx and non-Latinx people, indicating that Latinx, not sexual identity, nor their intersection, was most influential. Given the importance of sociodemographic factors on health outcomes, programs targeting LGB older adults should take a comprehensive approach to understand their experiences as ethnic minorities.

**Keywords:** California Health Interview Survey, Gay, lesbian, bisexual, and transgender, Intersectionality, Minority stress, Psychological distress

## Background and Objective

Health disparities based on sexual and gender identity and race/ethnicity are a core challenge for the United States ([Institute of Medicine, 2011](#)). Compared to older heterosexuals, older LGB (lesbian, gay, and bisexual) people have high risk for poor health outcomes, including disabilities and chronic health conditions ([Blosnich et al., 2014](#); [Fredriksen-Goldsen & Kim, 2017](#); [Ward et al.,](#)

[2015](#)). Compared to older LGB non-Hispanic Whites, racial/ethnic minorities have higher morbidity and mortality rates ([Williams, 1999](#)), and more chronic illnesses ([Cain & Kington, 2003](#)). However, less is known about health disparities for those with intersecting sexual and racial/ethnic minority identities, particularly among older adults.

Minority stress theory ([Meyer, 2003](#)) argues that compared with cisgender heterosexuals, sexual minorities

experience stressors due to stigma and prejudice, which leads to higher risk for health problems (Frost et al., 2015). Intersectionality theory (Crenshaw, 1991) suggests that individuals with multiple minority identities are subject to differing levels of disempowerment and marginalization due to interaction and reinforcement of inequalities associated with such social positions (e.g., race/ethnicity, sexual identity). Using these frameworks, studies have found that the multiple minority status of Latinx and sexual minority identity was associated with increased susceptibility to job-related discrimination (National Hispanic Council on Aging [NHCOA], 2013) and more poverty and poorer mental health among LGB Latinx older adults compared to their White counterparts (Kim & Fredriksen-Goldsen, 2017). Additionally, LGB Latinx older adults have higher rates of psychological distress and diabetes, compared to their non-Latinx counterparts (Choi et al., 2018).

Typically, studies of sexual minorities do not include representative samples and when they do, they do not include sufficient numbers of sexual minorities to allow intersectional analysis (Meyer et al., 2020). The California Health Interview Survey (CHIS) is a large state survey allowing assessment of health disparities at the intersection of sexual identity and Latinx ethnicity. In this paper, we report on the health disparities of older adults (age 50 and older) by comparing the prevalence of health outcomes of four groups: LGB Latinx, straight Latinx, LGB non-Latinx, and straight non-Latinx older adults. This allows us to examine if ethnic disparities are present among sexual minorities. We assess Latinx ethnicity due to the large Latinx population in California and the limited sample size of other race/ethnicities. Based on intersectionality and minority stress formulations, we hypothesize that those with intersecting Latinx and LGB identities would fare worse than those without intersecting identities on seven health outcomes.

## Research Design and Methods

### Sample

We used data from the 2015–2016 CHIS, a California population-based health survey, which surveys more than 20,000 Californian households annually in English, Spanish, and six other languages. Data were randomly collected over the telephone from one adult per household, using random digit dial sampling frames of landlines and cellphones. For an adequate sample size, we combined 2015–2016 CHIS data. In the 2015 CHIS survey, sexual identity questions were administered to adults aged 18–70. In 2016, the sexual identity questions were administered to all adults including respondents aged 71 and older. The current study relied on CHIS-imputed values using the model-assisted hot deck imputation method (Andridge & Little, 2010; CHIS, 2017) to impute missing sexual identity responses from those 71 and older in the 2015 survey.

## Measures

*Sexual identity* was measured using the question “Do you think of yourself as straight or heterosexual, as gay, lesbian or homosexual, or bisexual?” Answer options were dichotomized to straight or heterosexual and lesbian, gay, homosexual, or bisexual. All other responses (e.g., other, refused) were excluded from the sample.

*Ethnicity* was dichotomized into Latinx and non-Latinx based on to the question “Are you Latino or Hispanic?” Non-Latinx White, African American, Asian, and other race/ethnicities were categorized as non-Latinx.

*Health outcomes* included a measure of self-reported overall health, psychological distress in the past 30 days, and five measures of chronic health conditions. *Overall health* was dichotomized (fair or poor health vs good, very good, or excellent). *Psychological distress* in the past 30 days was defined by a score of 13 or above on the Kessler-6 scale (Kessler et al., 2003). *Chronic health conditions* were defined as ever receiving a medical diagnosis of asthma, diabetes, hypertension, heart disease, or obesity.

*Demographic* covariates included *age* (50–64 vs 65 and above), *education* (high school or less vs college or more), *poverty* (living below the 200% federal poverty level [FPL] vs living above 200% FPL), *sex* (female vs male), and *nativity* (born in the United States or not).

## Analytical Plan

Analyses were restricted to individuals age 50 and older, resulting in a sample size of 26,534 with data on sexual identity and race/ethnicity. Table 1 describes the four comparison groups: straight non-Latinx ( $N = 21,599$ ), straight Latinx ( $N = 4,011$ ), LGB non-Latinx ( $N = 790$ ), and LGB Latinx ( $N = 134$ ).

Our analysis examined four-group differences: Among Latinx and non-Latinx respondents, we compared LGB people with straight people on key health outcomes. All proportions were weighted to be representative of these populations in California. To assess health disparities, we conducted the same multivariable logistic regressions to test differences among these four groups and the effect of covariates and year of survey on health outcomes. To understand the intersectional effect of Latinx ethnicity and LGB identity, we compared LGB and straight people within the ethnic groups and Latinx and non-Latinx ethnicity within the sexual identity groups. No variables had missing information.

## Results

### Demographic Characteristics

There were few demographic differences between LGB and straight people (Table 1). Most significantly, among non-Latinx people, fewer LGB than straight people were female than male. Among LGB, more Latinx than non-Latinx people experienced poverty, had a high school education

**Table 1.** Demographic Characteristics of LGB and Straight Latinx and Non-Latinx Older Adults

Demographic characteristics	Latinx		Non-Latinx		F
	LGB (N = 134)	Straight (N = 4,011)	LGB (N = 790)	Straight (N = 21,599)	
	Weighted % (SE)	Weighted % (SE)	Weighted % (SE)	Weighted % (SE)	
Age <sup>a</sup>					12.36***
50–64	58.7 (10.2)	67.5 (1.5)	63.3 (4.3)	56 (0.5)	
65+	41.3 (10.2)	32.5 (1.5)	36.7 (4.3)	44 (0.5)	
Gender <sup>a,b</sup>					4.69**
Male	55.3 (8.7)	49.3 (1.4)	60.4 (4.7)	45.7 (0.6)	
Female	44.7 (8.7)	50.7 (1.4)	39.6 (4.7)	54.3 (0.6)	
Living <200% FPL <sup>a,c</sup>					128.22**
200% FPL	33.2 (8.3)	42.5 (1.7)	74.1 (4.6)	76.1 (0.6)	
<200% below FPL	66.8 (8.3)	57.5 (1.7)	25.9 (4.6)	23.9 (0.6)	
Education <sup>a,c</sup>					131.67**
High school education or less	85.9 (5.1)	87.5 (1.1)	45 (5.2)	53.3 (0.8)	
College and above	14.1 (5.1)	12.5 (1.1)	55 (5.2)	46.7 (0.8)	
Nativity <sup>a,c</sup>					175.23**
Born outside the United States	60.3 (8.0)	67.4 (1.6)	15.8 (5.5)	19.9 (0.8)	
Born in the United States	39.7 (8.0)	32.6 (1.6)	84.2 (5.5)	80.1 (0.8)	

Notes: FPL = federal poverty level; LGB = lesbian, gay, and bisexual. Rao Scott correction *F*-test statistics were conducted to find *p* values to test differences among groups for categorical variables. Bivariate logistic regressions were conducted to find differences of demographic variable by the four groups. Group differences at the *p* < .05 level are indicated by superscripts.

<sup>a</sup>Straight Latinx vs non-Latinx older adults differ at the *p* < .05 level on all demographic variables. <sup>b</sup>Non-Latinx LGB vs straight older adults differ at the *p* < .05 level on gender. <sup>c</sup>LGB Latinx vs non-Latinx older adults differ at the *p* < .05 level on poverty, education, and nativity.

\*\**p* < .01. \*\*\**p* < .001.

or less, and were born outside of the United States. Among straight older adults, Latinx and non-Latinx people differed significantly on *all* demographic characteristics. Among straight individuals, fewer Latinx than non-Latinx people were 65 and older and female while and more Latinx than non-Latinx experienced poverty, had a high school education or less, and were born outside of the United States.

## Health Outcomes

### Health disparities by sexual identity

Among Latinx older adults, more LGB than non-LGB people experienced serious psychological distress (adjusted odds ratio [aOR] = 7.1) (Table 2, Columns I and II). Although additional health disparities between LGB and straight Latinx older adults were found, they were driven by the effect of covariates rather than sexual identity (Table 3, Columns I and II). For example, poverty was associated with fair or poor health and older age was associated with diabetes.

Among non-Latinx older adults, sexual identity had no effect on health outcomes. Any health disparities between LGB and straight non-Latinx were driven by covariates.

### Health disparities by Latinx ethnicity

To test the effect of Latinx ethnicity on health, we compared outcomes for LGB Latinx and non-Latinx, and

straight Latinx and non-Latinx older adults (Tables 2 and 3, Columns III and IV, respectively).

Among LGB people, more Latinx people had poor health (OR = 3.3), serious psychological distress (OR = 6.4), diabetes (OR = 2.9), and obesity (OR = 2.3). Because of the smaller sample sizes in these groups, there were larger confidence intervals in these comparisons, indicating low level of precision. Some of these effects were not significant at the alpha = .05 level. Despite this, it is notable that the effect sizes for poor health (aOR = 2.0), serious psychological distress (aOR = 3.9), diabetes (aOR = 2.6), and obesity (aOR = 3.2) remained substantial.

Among straight people, more Latinx than non-Latinx older people had poor health (OR = 2.9), diabetes (OR = 2.4), and obesity (OR = 2.1). In contrast, more straight non-Latinx than straight Latinx older adults had heart disease (OR = 0.7) and this difference remained substantial after adjusting for covariates (aOR = 0.7).

## Discussion and Implications

This study examined the influence of intersecting Latinx ethnicity and sexual identities on the health of LGB older adults in California. We hypothesized that those with intersecting Latinx and LGB identities would fare worse on seven health outcomes. However, results did not show this consistently. Our test of the impact of Latinx ethnicity

**Table 2.** Test of Sexual Identity and Ethnicity on Self-reported General Health and Mental Health Outcomes

	Test of sexual identity		Test of ethnicity	
	Column I. Among Latinx (ref.: LGB vs straight)	Column II. Among non-Latinx (ref.: LGB vs straight)	Column III. Among LGB (ref.: Latinx vs non-Latinx)	Column IV. Among straight (ref.: Latinx vs non-Latinx)
General and mental health outcomes	OR [95% CI]	OR [95% CI]	OR [95% CI]	OR [95% CI]
Fair or poor health (ref.: good+)				
Unadjusted	1.1 [0.5, 2.5]	1.0 [0.6, 1.6]	3.3 [1.4, 7.8]	2.9 [2.4, 3.5]
Adjusted	1.1 [0.5, 2.5]	1.0 [0.6, 1.7]	2.0 [0.8, 5.2]	1.4 [1.1, 1.7]
Covariates				
Age 65+ (ref.: 50–64)	1.0 [0.7, 1.4]	1.1 [0.9, 1.4]	1.5 [0.6, 3.4]	1.1 [0.9, 1.3]
Female (ref.: male)	1.3 [0.9, 1.9]	1.0 [0.8, 1.2]	0.9 [0.4, 1.9]	1.1 [0.9, 1.3]
Below 200% FPL (ref.: living above 200% FPL)	2.2 [1.5, 3.2]	3.3 [2.7, 4.1]	3.9 [1.6, 9.6]	2.9 [2.3, 3.6]
High school education or less (ref.: college educated or more)	3.2 [2.0, 5.0]	2.2 [1.8, 2.6]	1.6 [0.6, 3.8]	2.4 [2.0, 2.8]
Nativity (ref.: born in the United States)	1.6 [1.2, 2.4]	1.4 [1.1, 1.8]	0.7 [0.3, 1.8]	1.5 [1.2, 1.9]
Serious psychological distress past 30 days				
Unadjusted	7.3 [2.5, 21.3]	1.4 [0.5, 4.5]	6.4 [1.4, 29.0]	1.2 [0.9, 1.7]
Adjusted	7.1 [2.2, 22.9]	1.5 [0.5, 4.5]	3.9 [0.2, 50.9]	0.7 [0.5, 1.1]
Covariates				
Age 65+ (ref.: 50–64)	0.7 [0.4, 1.3]	0.5 [0.3, 0.9]	0.4 [0.6, 2.5]	0.6 [0.4, 0.9]
Female (ref.: male)	1.3 [0.8, 2.2]	1.9 [1.2, 2.8]	2.4 [0.6, 9.1]	1.6 [1.1, 2.3]
Below 200% FPL (ref.: living above 200% FPL)	4.1 [1.8, 9.0]	5.0 [3.2, 7.7]	9.6 [1.7, 51.1]	4.6 [3.0, 6.9]
High school education or less (ref.: college educated or more)	1.3 [0.5, 3.6]	2.1 [1.2, 3.8]	2.1 [0.5, 9.6]	2.0 [1.2, 3.4]
Nativity (ref.: born in the United States)	0.9 [0.5, 1.6]	0.7 [0.4, 1.2]	0.7 [0.0, 13.6]	0.7 [0.5, 1.1]

Note: FPL = federal poverty level; LGB = lesbian, gay, and bisexual.

showed more consistent disparities. Among both LGB and straight populations, individuals who had a Latinx identity had poorer health outcomes. As we noted, the LGB Latinx groups had the smallest sample sizes. These results should be interpreted within the context of the resultant imprecision. In the straight population, Latinx people had reduced risk for heart disease, perhaps owing to the healthy immigrant effect (Markides & Rote, 2019), although this effect remained after controlling for nativity.

Our test of the impact of sexual identity showed disparity of psychological distress between Latinx LGB and straight people but not among non-Latinx LGB people. This was surprising because many national surveys have found differences in psychological distress between LGB and non-LGB people (Bostwick et al., 2010; Cochran et al., 2003). It is possible our findings reflect the different situation of LGB people in California, one of the most liberal environments in the country related to sexual orientation. Our findings may suggest an encouraging sign that the social and political environment over time may have improved for LGB people in California (Hatzenbuehler et al., 2017).

Together, these results suggest that health disparities among older Californians were more impacted by Latinx identity than sexual identity, and not the intersection of the two identities. Poverty, lower education levels, and older age had a strong effect on adverse health outcomes regardless of the intersections of Latinx ethnicity and sexual identity.

Our results are unique in that the CHIS allowed analysis of older individuals by Latinx ethnicity and sexual orientation. Most health surveys do not have sufficient numbers of respondents to allow such analyses by age, sexual identity, and ethnicity. However, we were limited for further analyses by race, for example, perhaps obscuring the impact of racial identity among both Latinx and non-Latinx individuals.

Nonetheless, given the influence of sociodemographic characteristics on health and well-being, and the compounded effect of Latinx ethnicity and LGB identity on psychological distress, programs targeting LGB older adults must approach their constituents with a comprehensive understanding of their lived experience as ethnic minorities.

**Table 3.** Test of Sexual Identity and Ethnicity on Physical Health Outcomes

	Test of sexual identity		Test of ethnicity	
	Column I. Among Latinx (ref.: LGB vs straight)	Column II. Among non-Latinx (ref.: LGB vs straight)	Column III. Among LGB (ref.: Latinx vs non-Latinx)	Column IV. Among straight (ref.: Latinx vs non-Latinx)
Physical health outcomes	OR [95% CI]	OR [95% CI]	OR [95% CI]	OR [95% CI]
<b>Asthma</b>				
Unadjusted	1.7 [0.7, 4.2]	1.1 [0.7, 1.8]	1.2 [0.5, 3.0]	0.8 [0.6, 1.0]
Adjusted	1.6 [0.6, 4.2]	1.1 [0.7, 1.9]	1.7 [0.6, 4.3]	0.9 [0.7, 1.2]
Covariates				
Age 65+ (ref.: 50–64)	1.0 [0.6, 1.6]	0.9 [0.8, 1.1]	1.0 [0.4, 2.3]	0.9 [0.8, 1.1]
Female (ref.: male)	1.7 [1.1, 2.4]	1.6 [1.3, 2.0]	2.1 [0.9, 4.7]	1.6 [1.3, 1.9]
Below 200% FPL (ref.: living above 200% FPL)	1.4 [0.9, 2.2]	1.3 [1.0, 1.6]	0.8 [0.3, 2.4]	1.3 [1.1, 1.6]
High school education or less (ref.: college educated or more)	0.6 [0.4, 1.0]	1.1 [0.9, 1.4]	0.8 [0.3, 2.4]	1.0 [0.8, 1.3]
Nativity (ref.: born in the United States)	0.6 [0.4, 0.9]	0.6 [0.4, 0.8]	0.6 [0.2, 1.9]	0.6 [0.4, 0.7]
<b>Diabetes</b>				
Unadjusted	1.3 [0.5, 3.1]	1.0 [0.6, 1.7]	2.9 [1.0, 8.8]	2.4 [1.9, 2.9]
Adjusted	1.2 [0.5, 2.7]	1.0 [0.6, 1.7]	2.6 [0.8, 8.4]	1.9 [1.5, 2.4]
Covariates				
Age 65+ (ref.: 50–64)	2.0 [1.4, 2.7]	1.9 [1.5, 2.4]	2.6 [1.1, 6.5]	1.9 [1.6, 2.3]
Female (ref.: male)	0.7 [0.5, 1.0]	0.6 [0.5, 0.7]	0.8 [0.3, 2.3]	0.6 [0.5, 0.7]
Below 200% FPL (ref.: living above 200% FPL)	1.6 [1.0, 2.4]	1.9 [1.5, 2.4]	3.6 [1.1, 11.4]	1.7 [1.4, 2.2]
High school education or less (ref.: college educated or more)	1.7 [1.1, 2.6]	1.2 [1.0, 1.5]	1.1 [1.1, 11.4]	1.3 [1.0, 1.6]
Nativity (ref.: born in the United States)	0.9 [0.7, 1.2]	1.1 [0.9, 1.4]	0.5 [0.2, 1.4]	1.1 [0.9, 1.3]
<b>Hypertension</b>				
Unadjusted	1.3 [0.6, 3.0]	1.1 [0.7, 1.7]	1.3 [0.5, 3.3]	1.1 [0.9, 1.3]
Adjusted	1.2 [0.5, 2.8]	1.2 [0.7, 1.8]	0.9 [0.3, 3.0]	1.0 [0.9, 1.3]
Covariates				
Age 65+ (ref.: 50–64)	2.5 [1.7, 3.6]	2.3 [2.0, 2.6]	2.6 [1.3, 5.0]	2.3 [2.1, 2.6]
Female (ref.: male)	0.7 [0.5, 1.0]	0.8 [0.7, 0.9]	0.7 [0.3, 1.6]	0.8 [0.7, 0.9]
Below 200% FPL (ref.: living above 200% FPL)	1.1 [0.8, 1.5]	1.4 [1.1, 1.7]	1.7 [0.7, 4.5]	1.3 [1.1, 1.5]
High school education or less (ref.: college educated or more)	1.7 [1.1, 2.7]	1.3 [1.2, 1.6]	1.0 [0.4, 2.1]	1.4 [1.2, 1.6]
Nativity (ref.: born in the United States)	0.9 [0.7, 1.3]	0.9 [0.8, 1.2]	1.3 [0.3, 6.0]	0.9 [0.8, 1.1]
<b>Heart disease</b>				
Unadjusted	1.8 [0.7, 4.8]	0.9 [0.5, 1.6]	1.3 [0.4, 4.0]	0.7 [0.5, 0.9]
Adjusted	1.6 [0.6, 4.1]	0.9 [0.5, 1.7]	0.7 [0.1, 3.4]	0.7 [0.5, 0.9]
Covariates				
Age 65+ (ref.: 50–64)	2.7 [1.6, 4.5]	2.9 [2.3, 3.8]	3.1 [1.1, 8.4]	2.9 [2.3, 3.6]
Female (ref.: male)	0.8 [0.5, 1.2]	0.6 [0.5, 0.8]	1.6 [0.6, 4.3]	0.6 [0.5, 0.8]
Below 200% FPL (ref.: living above 200% FPL)	1.5 [0.9, 2.5]	1.5 [1.1, 1.9]	1.2 [0.4, 3.7]	1.5 [1.2, 1.9]
High school education or less (ref.: college educated or more)	0.9 [0.4, 1.9]	1.2 [1.0, 1.5]	1.9 [0.6, 5.6]	1.1 [0.9, 1.4]

Table 3. Continued

	Test of sexual identity		Test of ethnicity	
	Column I. Among Latinx (ref.: LGB vs straight)	Column II. Among non-Latinx (ref.: LGB vs straight)	Column III. Among LGB (ref.: Latinx vs non-Latinx)	Column IV. Among straight (ref.: Latinx vs non-Latinx)
Physical health outcomes	OR [95% CI]	OR [95% CI]	OR [95% CI]	OR [95% CI]
Nativity (ref.: born in the United States)	1.0 [0.6, 1.8]	0.9 [0.6, 1.2]	1.4 [0.4, 5.0]	0.9 [0.7, 1.2]
Obesity				
Unadjusted	0.9 [0.4, 1.8]	0.8 [0.6, 1.2]	2.3 [1.1, 4.6]	2.1 [1.7, 2.5]
Adjusted	0.9 [0.4, 1.9]	0.8 [0.5, 1.1]	3.2 [1.3, 8.0]	2.2 [1.8, 2.7]
Covariates				
Age 65+ (ref.: 50–64)	0.6 [0.4, 0.8]	0.7 [0.6, 0.8]	1.0 [0.5, 2.1]	0.7 [0.6, 0.8]
Female (ref.: male)	1.2 [0.9, 1.7]	0.9 [0.8, 1.1]	2.1 [1.0, 4.3]	1.0 [0.8, 1.1]
Below 200% FPL (ref.: living above 200% FPL)	1.0 [0.7, 1.5]	1.3 [1.0, 1.6]	1.3 [0.5, 2.9]	1.2 [1.0, 1.5]
High school education or less (ref.: college educated or more)	1.8 [1.2, 2.7]	1.5 [1.2, 1.8]	1.1 [0.5, 2.3]	1.6 [1.3, 1.9]
Nativity (ref.: born in the United States)	0.8 [0.5, 1.1]	0.4 [0.3, 0.6]	0.4 [0.1, 1.0]	0.6 [0.5, 0.7]

Note: FPL = federal poverty level; LGB = lesbian, gay, and bisexual.

## Funding

Research reported in this publication was supported in part by the California Center for Population Research (CCPR), Population Research Infrastructure Grant P2C from NICHD: P2CHD041022 (PI: Jennie Brand), and the Eunice Kennedy Shriver National Institute of Child Health & Human Development of the National Institutes of Health under Award Number R01HD078526. The content is solely the responsibility of the authors and does not necessarily represent the official views of CCPR or the National Institutes of Health.

## Conflict of Interest

None declared.

## References

- Andridge, R. R., & Little, R. J. (2010). A review of hot deck imputation for survey non-response. *International Statistical Review*, 78(1), 40–64. doi:10.1111/j.1751-5823.2010.00103.x
- Blosnich, J. R., Farmer, G. W., Lee, J. G., Silenzio, V. M., & Bowen, D. J. (2014). Health inequalities among sexual minority adults: Evidence from ten U.S. states, 2010. *American Journal of Preventive Medicine*, 46(4), 337–349. doi:10.1016/j.amepre.2013.11.010
- Bostwick, W. B., Boyd, C. J., Hughes, T. L., & McCabe, S. E. (2010). Dimensions of sexual orientation and the prevalence of mood and anxiety disorders in the United States. *American Journal of Public Health*, 100(3), 468–475. doi:10.2105/AJPH.2008.152942
- Cain, V. S., & Kington, R. S. (2003). Investigating the role of racial/ethnic bias in health outcomes. *American Journal of Public Health*, 93(2), 191–192. doi:10.2105/ajph.93.2.191
- California Health Interview Survey (CHIS). (2017, November). *CHIS 2015–2016 methodology report series: Report 5—Weighting and variance estimation*. UCLA Center for Health Policy Research. [https://healthpolicy.ucla.edu/chis/design/Documents/CHIS\\_2015–2016\\_MethodologyReport5\\_WeightingAndVarianceEstimation.pdf](https://healthpolicy.ucla.edu/chis/design/Documents/CHIS_2015-2016_MethodologyReport5_WeightingAndVarianceEstimation.pdf)
- Choi, S. K., Kittle, K., & Meyer, I. H. (2018, August). *Aging LGB adults in California: Findings from the 2015–2016 California Health Interview Survey*. The Williams Institute.
- Cochran, S. D., Mays, V. M., & Sullivan, J. G. (2003). Prevalence of mental disorders, psychological distress, and mental health services use among lesbian, gay, and bisexual adults in the United States. *Journal of Consulting and Clinical Psychology*, 71(1), 53–61. doi:10.1037/0022-006x.71.1.53
- Crenshaw, K. (1991). Mapping the margins: Intersectionality, identity politics, and violence against women of color. *Stanford Law Review*, 43(6), 1241–1299. doi:10.2307/1229039
- Fredriksen-Goldsen, K., & Kim, H.-J. (2017). The science of conducting research with LGBT older adults—An introduction to *Aging with Pride: National Health, Aging, Sexuality and Gender Study*. *The Gerontologist*, 57(suppl. 1), S1–S14. doi:10.1093/geront/gnw212
- Frost, D. M., Lehavot, K., & Meyer, I. H. (2015). Minority stress and physical health among sexual minority individuals. *Journal of Behavioral Medicine*, 38(1), 1–8. doi:10.1007/s10865-013-9523-8
- Hatzenbuehler, M. L., Flores, A. R., & Gates, G. J. (2017). Social attitudes regarding same-sex marriage and LGBT health

- disparities: Results from a National Probability Sample. *Journal of Social Issues*, 73(3), 508–528. doi:10.1111/josi.12229
- Institute of Medicine. (2011). *The health of lesbian, gay, bisexual, and transgender people: Building a foundation for better understanding*. The National Academies Press.
- Kessler, R. C., Barker, P. R., Colpe, L. J., Epstein, J. F., Gfroerer, J. C., Hiripi, E., Howes, M. J., Normand, S. L., Manderscheid, R. W., Walters, E. E., & Zaslavsky, A. M. (2003). Screening for serious mental illness in the general population. *Archives of General Psychiatry*, 60, 184–189. doi:10.1001/archpsyc.60.2.184
- Kim, H. J., & Fredriksen-Goldsen, K. I. (2017). Disparities in mental health quality of life between Hispanic and non-Hispanic white LGB midlife and older adults and the influence of lifetime discrimination, social connectedness, socioeconomic status, and perceived stress. *Research on Aging*, 39(9), 991–1012. doi:10.1177/0164027516650003
- Markides, K. S., & Rote, S. (2019). The healthy immigrant effect and aging in the United States and other western countries. *The Gerontologist*, 59(2), 205–214. doi:10.1093/geront/gny136
- Meyer, I. H. (2003). Prejudice, social stress, and mental health in lesbian, gay, and bisexual populations: Conceptual issues and research evidence. *Psychological Bulletin*, 129(5), 674–697. doi:10.1037/0033-2909.129.5.674
- Meyer, I. H., Marken, S., Russell, S. T., Frost, D. M., & Wilson, B. D. M. (2020). An innovative approach to the design of a national probability sample of sexual minority adults. *LGBT Health*, 7(2), 101–108. doi:10.1089/lgbt.2019.0145
- National Hispanic Council on Aging (NHCOA). (2013, December). *Hispanic LGBT older adult needs assessment*. <http://www.nhcoa.org/wp-content/uploads/2014/02/NHCOA-Hispanic-LGBT-Older-Adult-Needs-Assessment-In-Their-Own-Words.pdf>
- Ward, B. W., Joestl, S. S., Galinsky, A. M., & Dahlhamer, J. M. (2015). Selected diagnosed chronic conditions by sexual orientation: A national study of US adults, 2013. *Preventing Chronic Disease*, 12, E192. doi:10.5888/pcd12.150292
- Williams, D. R. (1999). Race, socioeconomic status, and health. The added effects of racism and discrimination. *Annals of the New York Academy of Sciences*, 896, 173–188. doi:10.1111/j.1749-6632.1999.tb08114.x