Disability Among Older Adults in Same-Sex Relationships

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ABSTRACT

Health and disability in later life for the lesbian, gay, and bisexual population is an understudied subject. Using data on older adults in same-sex relationships from the American Community Survey, logistic regression models estimated differences in disability with six self-reported measures of physical, mental, and communication impairment. Older adults in same-sex relationships reported significantly greater odds of disability compared to married adults in opposite-sex relationships. These disparities were especially true for women in same-sex relationships or unmarried opposite-sex relationships, who exhibited increased odds of all types of disability. Although adults in same-sex relationships experience higher rates and odds of disability in later life, they are less likely to have children, rely on kin caregivers, and trust services designed for the general older population for fear of discrimination. As the older adult population becomes more diverse with aging LGBT adults, a gap between health needs and necessary resources may exacerbate disparities.

Key Words. Lesbian, Gay, Bisexual and Transgender—Disability—Aging—Same-Sex Couples

INTRODUCTION

Health disparities on the basis of sexual orientation have recently been targeted for elimination by the Institute of Medicine (2011) and the Department of Health and Human Services' *Healthy People 2020* goals (HHS, 2013). While a growing body of literature has revealed health disparities in the younger lesbian, gay, bisexual and transgender (LGBT) adult population (Conron, Mimiaga, & Landers, 2010), very few studies have focused on health among older LGBT adults (Institute of Medicine, 2011; Fredriksen-Goldsen & Muraco, 2010). Additionally, studies specific to disability in later life rarely focus on older LGBT adults (Fredriksen-Goldsen, Kim, & Barkan, 2012). Although later life disparities in functional health and disability have been well-documented for other demographic characteristics, such as race and ethnicity (Mendes de Leon, Barnes, Bienias, Skarupski, & Evans, 2005; Haas, Krueger, & Rohlfsen, 2012), education and income (Melzer, Izmirlian, Leveille, & Guralnik, 2001; Schoeni, Martin, Andreski, & Freedman, 2005), neighborhood (Beard et al., 2009), nativity status (Haas et al., 2012), and gender (Murtagh & Hubert, 2004), much less is known about disability among sexual minorities. This study uses a large sample of older adults from the American Community Survey to add to our limited knowledge of disability among older adults in same-sex relationships.

Previous studies have generally identified significant disparities in disability among older LGBT adults, but they have been limited in scope and in size. Most recently, Fredriksen-Goldsen and her colleagues measured disability by adding sexual orientation to Washington State's Behavioral Risk Factor Surveillance System (BRFSS-WA) and then by conducting their own survey in the Caring and Aging with Pride project (Fredriksen-Goldsen et al., 2011, 2012, 2013a, 2013b, 2013c). The BRFSS-WA was fielded to a random sample of non-institutionalized adult residents in Washington State between 2003 and 2010 while Caring and Aging with Pride surveyed respondents 50 years and older affiliated with one of eleven LGBT organizations across the United States that provided social services to older LGBT populations. In both surveys, disability was defined as (1) being limited in any activities due to physical, mental, or emotional problems or (2) having any health problem that requires the use of special equipment like a cane or special telephone. Using these measures, Fredriksen-Goldsen and her colleagues found that 38-53% of older lesbian, gay, and bisexual (LGB) adults aged 50 or older lived with a disability (2013a, 2013c). In a different study using data from the 2003-2007 California Health Interview Surveys, Wallace and colleagues (2011) found that LGB adults aged 50-70 had higher rates of physical disability compared to their heterosexual counterparts. Approximately 31% and 24% of lesbian women and gay men reported a disability as defined as a condition that substantially limited one or more basic physical activities such as walking, climbing stairs, reaching, and lifting or carrying large objects (Wallace, Cochran, Durazo, & Ford, 2011).

While these studies build an important foundation for understanding disability prevalence by sexual orientation, they are limited by not having a nationally-representative sample (Wallace et al., 2011; Fredriksen-Goldsen et al., 2011, 2013a, 2013c), truncating at older ages (Wallace et al., 2011), or not using a heterosexual comparison group (Fredriksen-Goldsen et al., 2011, 2013a). More research is needed in this area, as gerontologists and health care providers encounter an increasingly diverse older population with group-specific health needs. Older LGBT adults, for instance, may have greater physical and mental health needs, as they represent a population that endured immense levels of stigma and discrimination over the life course, the medicalization of homosexuality as a mental disorder and its declassification by the American Psychological Association in 1973, and for gay men, the HIV/AIDS epidemic that disrupted families, relationships, and communities. In contrast, surviving LGBT older adults have proven to be resilient despite maltreatment from society; some may be healthier and better prepared for successful aging (Van Wagenen, Driskell, & Bradford, 2013). While older LGBT adults are less likely to have children than their heterosexual counterparts, multiple studies have found greater reliance on partners and friends for social and emotional support as well as involvement with other

LGBT people and community organizations (Grossman, D'Augelli & Hershberger 2000; Orel, 2004; MetLife, 2010).

Although these protective factors suggest that LGB older adults are better suited for aging, the available literature provides a limited understanding of health and disability in later life for LGBT people. Our project builds on current disability research by using multiple dimensions and indicators of disability from a large, nationally representative survey that serves as the primary resource on adults in same-sex relationships (Lofquist, 2011) and disability prevalence in the United States (U.S. Census, 2013).

METHODS

Study Population

We used disability data from the 2009-2011 American Community Survey (ACS) 3-year publicuse microdata sample that was harmonized across years by the Minnesota Population Center (Ruggles et al., 2010). The ACS is a general household survey conducted by the U.S. Census Bureau and is designed to provide communities with reliable and timely demographic, economic, and housing information. Replacing the decennial census long form questionnaire in 2005, the ACS has an annual sample size of about 3 million housing units and a monthly sample size of about 250,000 households. The large samples available in the ACS make it a powerful resource for studying relatively small subpopulations, like same-sex couples (Lofquist, 2011).

Like most federal surveys, the ACS did not ascertain sexual orientation. Instead, we identified older adults in same-sex relationships and assumed them to be LGB persons as has been done in prior studies using population surveys (Ash & Badgett, 2006; Buchmueller & Carpenter, 2010; Liu, Reczek & Brown, 2013). We were able to identify older LGB adults when the primary respondent identified another person of the same sex as a husband, wife, or unmarried partner. Our method of identifying same-sex couples could not identify transgender populations given the binary male-female categories on gender identity in the survey. We limited our analysis to respondents aged 50 years or older who reported being in a same-sex relationship, a married opposite-sex relationship, or an unmarried opposite-sex relationship to be consistent with previous studies (Fredricksen-Goldsen 2013a, 2013c; Wallace et al., 2011). We did not include single, unmarried adults in our analysis because we were only able to distinguish and make assumptions on the sexual orientation of older adults by relationship type. We also restricted our analysis to community-dwelling older adults, as relationship information was not available for adults living in group settings. Our final sample included 16,900 older adults in same-sex relationships which makes this one of the largest studies to date on older sexual minorities. We compared our sample of older adults in same-sex relationships to 2,144,730 adults in married oppositesex relationships and 80,446 adults in unmarried opposite-sex relationships.

Study Variables

Disability Outcomes.—Beginning with the 2008 ACS, disability was ascertained by single item questions with a yes/no response option for six measures: cognitive difficulty, ambulatory difficulty, self-care difficulty, independent living difficulty, hearing difficulty, and vision difficulty. Adults indicating cognitive difficulty reported serious difficulty concentrating, remembering, or making decisions because of a physical, mental, or emotional condition. Adults experiencing ambulatory difficulty indicated serious difficulty walking or climbing stairs. Adults exhibiting self-care difficulty reported difficulty dressing or bathing, and adults reporting independent living difficulty responded that because of a physical, mental, or emotional condition, they had serious difficulty doing errands alone such as visiting a doctor's office or shopping. Difficulty with self-care and independent living are conceptually respectively similar to difficulty with activities of daily living (ADL) and instrumental activities of daily living (IADL) [Brault, 2009;Kaye, Harrington, & LaPlante, 2010). Finally, difficulties with hearing included adults that were deaf or had serious difficulty hearing, and vision difficulty included persons that were blind or had

serious difficulty seeing even when wearing glasses. We combine vision and hearing difficulties into a single measure of sensory disability. Having any disability was defined as having difficulty with at least one of the six indicators of disability.

Covariates.—Other variables included in our analysis were age category (55-64, 65-74, 75-84, 85+), sex, race and ethnicity (White, Hispanic, Black, Asian/Native Hawaiian/Pacific Islander, other and multiple races), education (less than high school, high school graduate or GED, some college or technical school, and college graduate), couple's combined income relative to the federal poverty guidelines (<100% FPG, 101-200% FPG, 201-300% FPG, 301-400% FPG, and >400% FPG), and binary variables for whether the respondent was currently working, living in a metropolitan area, and living with a biological, adopted, or stepchild.

Analysis

Descriptive statistics assessed demographic and socioeconomic characteristics, including disability status, by relationship type. Pearson chi-square tests were used to compare the characteristics across relationship types. We then used logistic regression models on each of the five disability measures while adjusting for demographic and socioeconomic characteristics. Separate models were estimated for men and women to determine whether disability was experienced similarly between men and women in same-sex relationships. All models included fixed effects for region and year and were conducted in Stata using survey weights with the "svy" command. We reported the odds ratios and corresponding 95% confidence intervals for all models to estimate the association between the covariates and each dimension of disability included in the ACS.

RESULTS

Table 1 presents descriptive characteristics and the prevalence of disability among our study sample by sex and relationship type. Both men and women in same-sex relationships tended to be younger, less racially and ethnically diverse and were more likely to report higher levels of socioeconomic status based on higher levels of education, income, and current employment. As expected, fewer older adults in same-sex relationships were residing with a biological, adopted or stepchild compared to their counterparts in opposite-sex relationships. Of those in same-sex relationships, only 5.7% and 8.8% of older men and women, respectively, were living with children. Men and women in same-sex relationships were also more likely to live in urban areas than their counterparts in opposite-sex relationships.

The unadjusted prevalence of disability varied not only by gender and relationship type, but also by the type of disability measured. Overall, 17.5% of older men in same-sex relationships were living with a disability compared to 20.8% and 21.5% of married and unmarried men in opposite-sex relationships, respectively. Men in same-sex relationships were less likely to report cognitive difficulty (4.4%), ambulatory difficulty (9.4%), self-care difficulty (3.0%), and sensory difficulty (8.2%) compared to married and unmarried men in opposite-sex relationships. Yet, men in same-sex relationships were slightly more likely to report difficulties with independent living (6.1%) compared to married and unmarried men in opposite-sex relationships. Women in same-sex relationships, on the other hand, reported higher levels of almost all disability types compared to their married and unmarried counterparts in opposite-sex relationships, including any disability (21.6%), ambulatory difficulty (14.1%), independent living difficulty (7.5%), self-care difficulty (4.8%) and sensory difficulty (8.6%). The prevalence of cognitive difficulty for women in same-sex relationships (5.7%) was less than that of women in unmarried opposite-sex relationships (6.1%), but more than that of women in married opposite-sex relationships (3.9%). Logistic regression results are summarized in Tables 2 and 3 for men and women, respectively. The multivariate models revealed statistically significant associations between relationship type and disability, even after adjusting for demographic characteristics. Among partnered men, being in a same-sex relationship increased the odds of cognitive difficulty (OR = 1.17, p < .05) and independent living difficulty (OR = 1.39, p < .05), but decreased the odds of sensory difficulty (OR = 0.82, p < .05). Interestingly, differences in ambulatory difficulty, self-care difficulty and any disability were not statistically significant for older men in same-sex relationships.

Compared to married women in opposite-sex relationships, women in same-sex relationships reported greater odds of each type of disability measured: any disability (OR=1.68, p < .05), cognitive difficulty (OR= 1.67, p < .05), ambulatory difficulty (OR = 1.52, p < .05), independent living (OR = 1.35, p < .05), self-care difficulty (OR = 1.59, p < .05) and sensory difficulty (OR = 1.63, p < .05). Unmarried men and women in opposite-sex relationships tended to have odds similar to men and women in same-sex relationships and fared worse than their married counterparts. However, for women, the odds of each type of disability were higher for those in same-sex relationships compared with those in unmarried opposite-sex relationships.

DISCUSSION

This study provides evidence of national disparities in disability between older adults in samesex relationships versus older adults in opposite-sex relationships, and this relationship is especially strong and consistent for women. Given that older LGB adults are already a vulnerable population (IOM, 2011; Fredriksen-Goldsen et al., 2011, 2013a, 2013c), this should raise concern for practitioners and policy-makers. Informal caregiving for older adults with disabilities is oftentimes provided by their adult children (Family Caregiver Alliance, 2012); however, LGB older adults are much less likely to have children. Indeed, our sample of older adults in same-sex relationships were much less likely to have children living with them and may be at a greater disadvantage in accessing necessary care and support services outside of their partners. Older LGB adults in other studies have reported fearing mainstream services designed for the general population (i.e. senior housing and long term care) due to the risk of discrimination and prejudice (Fredriksen-Goldsen et al., 2011). Thus, older adults in same-sex relationships with disabilities may avoid seeking services or not disclose their same-sex relationship status for fear of victimization and discrimination.

There were several limitations with using data from the ACS for this study. Our study is not generalizable to the entire LGB population because we restricted our analysis to partnered individuals. Although nearly 30% of adults age 65 and older in the general population live alone (Administration on Aging, 2013), approximately 50% of gay men and 28% of lesbian women over 50 live alone (Wallace et al., 2011). Because of this, we excluded a large portion of the LBG population, particularly among gay men. Also missing from our analysis were individuals living in institutionalized and group settings, including nursing homes, where disability rates are much higher than in the general population.

Some researchers are concerned with data quality when using intra-household and relationship information to identify same-sex couples. Misreporting sex among married opposite-sex couples, although uncommon, unintentionally includes heterosexuals as false positives among our same-sex partners (Gates & Steinberger, 2011). The computer-assisted telephone and personal interview (CATI/CAPI) versions of the ACS verify the sex of the husband, wife, and unmarried partner if it matches the primary respondent's sex. After restricting our sample to the respondents using the CATI/CAPI versions of the ACS, we estimated odds ratios similar in direction, magnitude and significance to the results presented in Tables 2 and 3. Moreover, our identification strategy may have missed some same-sex couples. We only knew each person's relationship to the primary respondent, so our analyses excluded same-sex couples unrelated to the primary respondent and partners that were identified as a roommate, relative, or nonrelative. Selection into reporting same-sex relationships may help explain

why our sample of older adults in same-sex relationships were younger and reported higher levels of income and education than adults in opposite-sex relationships (Carpenter & Gates, 2008). In contrast, cultural differences between cohorts may lead younger cohorts of older LGB adults to openly live in and report their same-sex relationship status. Alternatively, there may have been increased mortality among older LGB adults over the life course, leading to attrition from the older adult populations (or to loss of a partner which would have prevented widowed LGB adults from inclusion into our sample).

Mortality may also explain the gender differences we observed in disability. While older women in same-sex relationships exhibited greater odds of all types of disability, men in same-sex relationships experienced increased odds in only two disability measures. Men in same-sex relationships exhibited no statistically significant differences in ambulatory and self-care difficulties or the global measure of any disability. Our results suggest that older men in same-sex relationships in the ACS potentially suffer from survival bias (these men survived adversity, including stigma, discrimination and the HIV/AIDS epidemic), selection bias into partnership—or they may actually be more resilient than the general partnered population.

Our study would have benefited from additional information missing in the ACS. For instance, our method of identifying same-sex couples cannot measure sexual orientation or transgender identity. Knowing sexual orientation would have facilitated the analysis of non-partnered LGB adults. In order to address these limitations in future work, it is imperative that national surveys on older adults add questions on sexual orientation. Historically, researchers have shied away from asking older adults about their sexual orientation out of concern that such questions were too sensitive for the elderly population, but this concern precludes important work from being done on disparities among older sexual minorities using large-scale surveys such as the ACS, the Health and Retirement Study, or the more recent National Health and Aging Trends Study (VanKim, Padilla, Lee & Goldstein, 2010; Redford & Van Wagenen, 2012).

Despite these limitations, the ACS remains one of the predominant data resources for same-sex couples and disability, and any methodological shortcomings should not detract from the important finding that older men and women in same-sex relationships face increased odds of disability than their counterparts in opposite-sex relationships. While the recent *Caring and Aging with Pride* study (Fredriksen-Goldsen et al., 2011) is a valuable step forward in understanding issues among the older LGB population, we still lack a complete understanding of health and disability among older LGBT people nationally. Future research should devote more resources in understanding health and disability among older LGBT adults and how partnership—including the legal recognition of partnership—affects the mental and physical health of older LGBT adults. Other areas of research should approach LGBT aging from an intersectionality perspective, whereby sexual minorities take on multiple identities including race and class. No studies have focused on health and life experiences of older LGBT adults who are also racial and ethnic minorities or from lower socioeconomic groups. Finally, qualitative work should continue to document caregiving practices and experiences of discrimination among older LGBT adults in community and institutional settings. These types of studies will likely be the next step in building a stronger understanding on health and disability among older LGB populations.

		Me	n			Wom	nen	
	Same-Sex	Opposite-Sex,	Opposite-Sex,		Same-Sex	Opposite-Sex,	Opposite-Sex,	
		Married	Unmarried	p Value		Married	Unmarried	p Value
	(n = 7,905)	(n = 1,123,677)	(n = 43,373)		(n = 8,995)	(n = 1,021,053)	(n = 37,073)	
Age				<.001				<.001
50-64	73.3	61.3	77.1		70.0	66.4	80.7	
65-74	17.7	23.7	15.8		17.5	22.4	14.1	
75-84	6.9	12.0	5.8		9.5	9.5	4.3	
85+	2.2	2.9	1.3		3.0	1.7	0.9	
Race/Ethnicity				<.001				<.001
White	84.1	78.7	72.2		83.6	79.4	74.3	
Hispanic	7.3	8.4	10.4		6.1	7.9	10.1	
Black	4.8	6.9	14.0		6.2	6.3	10.8	
Asian/NHPI	2.4	4.6	1.4		2.2	5.0	2.4	
Multiple/Other Races	1.5	1.3	2.1		2.0	1.4	2.3	
Education				<.001				<.001
Less than high school	6.5	12.0	15.7		8.1	10.4	13.9	
High school	25.0	35.4	43.2		29.8	41.8	44.1	
Some college or technical school	20.5	20.2	21.3		19.5	21.5	23.1	
College graduate	47.9	32.4	19.8		42.6	26.4	18.9	
Couple's combined income relative to F	PG			<.001				<.001
<100%	4.9	7.8	11.2		6.5	8.2	10.1	
101-200%	11.0	15.4	18.8		13.6	15.4	19.1	
201-300%	11.7	16.2	16.9		13.2	16.2	17.0	
300-400%	10.6	14.1	13.7		11.9	14.1	14.1	
>400%	61.8	46.4	39.5		54.8	46.2	39.8	
Currently working	58.1	54.4	55.7	<.001	56.2	45.0	55.6	<.001
Lives in metro area	84.6	73.5	74.2	<.001	77.9	73.1	74.7	<.001
Child in household	5.7	31.9	10.1	<.001	8.8	27.6	12.2	<.001
Disabiltiy	17.5	20.8	21.5	<.001	21.6	16.7	19.9	<.001
Cognitive difficulty	4.4	4.7	5.7	<.001	5.7	3.9	6.1	<.001
Ambulatory difficulty	9.4	11.0	12.3	<.001	14.1	11.4	13.7	<.001
Independent living difficulty	6.1	5.8	5.6	0.239	7.5	6.5	7.2	<.001
Self-care Difficulty	3.0	3.5	3.7	0.052	4.8	3.4	4.0	<.001
Sensory Difficulty	8.2	12.1	10.6	<.001	8.6	5.9	6.5	<.001

Table 1. Descriptive	Characteristics of Stud	y Sample by	Sex and Relationshi	p Type

Notes: NHPI = Native Hawaiian or Pacific Islander.

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	ב	isability		hifficulty	_	Difficulty		Difficulty		Xifficulty	J	Difficulty
A	OR	95% CI	AOR	95% CI	AOR	95% CI	AOR	95% CI	AOR	95% CI	AOR	95% CI
ationship Type												
Same-Sex 1	.02	0.95-1.11	1.17	1.02-1.34 *	1.05	0.95-1.16	1.39	1.24-1.56 *	1.05	0.89-1.24	0.82	0.73-0.91 *
Opposite-Sex, Unmarried 1	.05	1.02-1.09 *	1.10	1.04-1.17 *	1.07	1.03-1.12 *	0.97	0.92-1.02	1.01	0.94-1.08	0.97	0.94-1.01
Opposite-Sex, Married (reference group)												
01												
55-64 (reference group)												
65-74 1	60.	1.07-1.11 *	0.57	0.55-0.59 *	0.78	0.77-0.80 *	0.70	0.68-0.72 *	0.70	0.68-0.73 *	1.66	1.63-1.70 *
75-84 1	.91	1.88-1.95 *	0.97	0.94-1.00	1.22	1.19-1.24 *	1.41	1.37-1.45 *	1.20	1.16-1.24 *	2.96	2.90-3.03 *
85+ 4	.46	4.42-4.69 *	2.05	1.97-2.13 *	2.67	2.59-2.76 *	3.92	3.78-4.06 *	2.85	2.73-2.98 *	5.99	5.81-6.18 *
:e/Ethnicity												
White (reference group)												
Hispanic 0	.78	0.76-0.80 *	0.92	0.88-0.96 *	0.89	0.86-0.91 *	0.92	0.88-0.95 *	1.02	0.97-1.07	0.76	0.74-0.79 *
Black 0	.97	0.95-0.99 *	1.17	1.13-1.22 *	1.22	1.18-1.25 *	1.26	1.21-1.30 *	1.21	1.16-1.26 *	0.66	0.64-0.69 *
Asian/NHPI 0	.59	0.56-0.61 *	0.76	0.71-0.81 *	0.64	0.61-0.67 *	0.91	0.86-0.96 *	0.72	0.67-0.78 *	0.53	0.51-0.56 *
Multiple/Other Races	.53	1.46-1.60 *	1.58	1.47-1.70 *	1.62	1.53-1.71 *	1.47	1.36-1.58 *	1.54	1.41-1.68 *	1.42	1.35-1.50 *
ucation												
Less than high school 2	.30	2.25-2.35 *	2.28	2.19-2.37 *	2.33	2.27-2.40 *	1.98	1.91-2.05 *	1.81	1.73-1.89 *	2.00	1.95-2.05 *
High school 1	.66	1.63-1.68 *	1.52	1.47-1.57 *	1.70	1.66-1.74 *	1.40	1.36-1.44 *	1.39	1.34-1.45 *	1.56	1.53-1.59 *
Some college or technical school 1	.58	1.54-1.61 *	1.47	1.41-1.52 *	1.64	1.60-1.68 *	1.31	1.26-1.35 *	1.33	1.28-1.39 *	1.49	1.46-1.53 *
College graduate (reference group)												
uple's combined income relative to FPG												
<100% 1	.83	1.78-1.87 *	2.21	2.12-2.30 *	1.40	1.88-1.99 *	2.16	2.08-2.24 *	0.12	2.03-2.23 *	1.54	1.50-1.59 *
101-200% 1	.68	1.65-1.71 *	2.01	1.94-2.08 *	1.87	1.82-1.91 *	1.94	1.88-2.00 *	1.95	1.87-2.03 *	1.41	1.38-1.45 *
201-300% 1	.40	1.3-1.43 *	1.58	1.53-1.64 *	1.51	1.48-1.55 *	1.53	.48-1.57 *	1.58	1.52-1.64 *	1.26	1.24-1.29 *
300-400% 1	.24	1.22-1.26 *	1.31	1.26-1.36 *	1.29	1.26-1.33 *	1.28	1.23-1.32 *	1.27	1.22-1.33 *	1.19	1.16-1.21 *
>400% (reference group)												
rrently in labor force 0	.29	0.29-0.30 *	0.14	0.14-0.15 *	0.17	0.17-0.18 *	0.09	0.08-0.09 *	0.10	0.10-0.11 *	0.53	0.52-0.54 *
sides in metropolitan area	.80	0.79-0.82 *	0.91	0.89-0.93 *	0.87	0.85-0.88 *	0.98	0.96-1.00	0.96	0.93-0.98 *	0.76	0.74-0.77 *
ild in household 0	.92	0.91-0.94 *	1.05	1.02-1.08 *	1.00	0.98-1.02	1.16	1.13-1.19 *	1.14	1.10-1.18 *	0.89	0.87-0.91 *
tes: AOR = Adjusted odds ratio; CI = confidence < በና	inten	val; NHPI = Nati	ve Hawa	iian or Pacific Isl	lander. 4	All models also	adjusted	for region and s	urvey ye:	ar.		
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Unsumity AOR 95% Cl ationship Type 1.68 1.57-1.81 * Same-Sex 1.36 1.31-1.41 * Opposite-Sex, Unmarried 1.36 1.31-1.41 * Opposite-Sex, Married (reference group) 1.36 1.31-1.41 * 55-64 (reference group) 1.03 1.01-1.05 *	2		E	nbulatory		endent Living Diff: and the	,, -	belt-Care	-	Sensory
ationship Type 1.57-1.81 * Same-Sex 1.68 1.57-1.81 * Opposite-Sex, Unmarried 1.36 1.31-1.41 * Opposite-Sex, Married (reference group) = 55-64 (reference group) 1.03 1.01-1.05 *	AOR	95% CI	AOR	95% CI	AOR	95% CI	AOR	95% CI	AOR	95% CI
Same-Sex 1.68 1.57-1.81 * Opposite-Sex, Unmarried 1.36 1.31-1.41 * Opposite-Sex, Married (reference group) 1.36 1.31-1.41 * E 55-64 (reference group) 1.03 1.01-1.05 *										
Opposite-Sex, Unmarried1.361.31-1.41 *Opposite-Sex, Married (reference group)e55-64 (reference group)65-741.031.01-1.05 *	1.67	1.48-1.89 *	1.52	1.39-1.65 *	1.35	1.21-1.51 *	1.59	1.38-1.83 *	1.63	1.48-1.79
Opposite-Sex, Married (reference group) = 55-64 (reference group) 65-74 1.01-1.05 *	1.60	1.51-1.70 *	1.31	1.26-1.37 *	1.31	1.25-1.38 *	1.27	1.19-1.37 *	1.27	1.21-1.34
e 55-64 (reference group) 65-74 1.01-1.05 *										
55-64 (reference group) 65-74 1.01-1.05 *										
65-74 1.03 1.01-1.05 *										
	0.58	0.56-0.60 *	0.98	0.96-1.00	0.84	0.82-0.86 *	0.83	0.81-0.86 *	1.39	1.35-1.43
75-84 1.90-1.98 *	1.17	1.13-1.21 *	1.61	1.58-1.65 *	1.83	1.79-1.89 *	1.62	1.56-1.68 *	2.85	2.77-2.9/
85+ 5.08-5.49 *	3.00	2.85-3.16 *	3.51	3.38-3.65 *	5.36	5.15-5.60 *	4.05	3.85-4.27 *	7.27	6.96-7.60
ce/Ethnicity										
White (reference group)										
Hispanic 0.90 0.87-0.92 *	0.86	0.82-0.91 *	0.88	0.85-0.91 *	0.84	0.81-0.88 *	0.94	0.89-0.99 *	1.01	0.96-1.05
Black 1.38-1.45 *	1.23	1.17-1.29 *	1.56	1.52-1.61 *	1.36	1.31-1.41 *	1.44	1.37-1.52 *	1.06	1.01-1.1(
Asian/NHPI 0.67 0.64-0.69 *	0.75	0.70-0.80 *	0.59	0.56-0.62 *	0.86	0.82-0.91 *	0.67	0.62-0.72 *	0.68	0.64-0.73
Multiple/Other Races 1.76 1.67-1.85 *	1.78	1.64-1.94 *	1.79	1.69-1.90 *	1.72	1.60-1.84 *	1.73	1.58-1.90 *	1.54	1.44-1.6
ucation										
Less than high school 2.22 2.16-2.28 *	2.31	2.20-2.42 *	2.30	2.23-2.37 *	2.04	1.96-2.12 *	1.89	1.80-1.99 *	1.88	1.81-1.96
High school 1.42 1.42 ************************************	1.40	1.34-1.45 *	1.55	1.51-1.59 *	1.35	1.31-1.40 *	1.37	1.32-1.43 *	1.26	1.22-1.30
Some college or technical school 1.44 1.41-1.47 *	1.43	1.37-1.50 *	1.54	1.50-1.59 *	1.37	1.32-1.42 *	1.40	1.34-1.47 *	1.27	1.22-1.3
College graduate (reference group)										
uple's combined income relative to FPG										
<100% 2.24-2.34 *	2.69	2.57-2.82 *	2.30	2.24-2.37 *	2.34	2.25-2.42 *	2.37	2.26-2.49 *	2.13	2.05-2.21
101-200% 2.04 2.00-2.08 *	2.21	2.13-2.30 *	2.11	2.06-2.16 *	2.01	1.95-2.07 *	2.06	1.98-2.15 *	1.79	1.74-1.85
201-300% 1.60-1.67 *	1.74	1.67-1.81 *	1.70	1.66-1.74 *	1.63	1.58-1.68 *	1.62	1.55-1.69 *	1.46	1.72-1.5
300-400% 1.39-1.45 *	1.44	1.38-1.50 *	1.46	1.42-1.50 *	1.41	1.36-1.45 *	1.39	1.33-1.45 *	1.30	1.25-1.3/
>400% (reference group)										
rrently in labor force 0.33 0.32-0.34 *	0.18	0.17-0.19 *	0.28	0.27-0.28 *	0.13	0.12-0.13 *	0.15	0.14-0.15 *	0.55	0.65-0.57
sides in metropolitan area 0.88 0.87-0.89 *	0.93	0.91-0.96 *	0.89	0.87-0.90 *	1.01	0.99-1.04	0.99	0.96-1.02	0.84	0.82-0.86
ld in household 0.92 0.90-0.94 *	0.92	0.89-0.95 *	0.93	0.91-0.95 *	1.04	1.01-1.06 *	0.98	0.95-1.02	0.94	0.92-0.97
tes: AOR = Adjusted odds ratio; CI = confidence interval; NHPI = Na	itive Hawa	iian or Pacific Is	lander. A	ll models also a	adjusted	for region and :	survey ye	ar.		

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