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## Disparities in Health and Disability Among Older Adults in Same-Sex Cohabiting Relationships

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### Abstract

**Objectives**—The present study compared indicators of impaired health and disability between older adults in same-sex cohabiting relationships and their peers in opposite-sex cohabiting relationships.

**Methods**—Data were obtained on men (n=698) and women (n=630) aged 50 years and older and in self-reported same-sex relationships from the National Health Interview Survey. Multiple regression analyses were conducted to estimate differences in physical health, mental health and disability status.

**Results**—Compared to their peers in married opposite-sex relationships, older men in same-sex relationships exhibited greater odds of psychological distress, and older women in same-sex relationships experienced elevated odds of poor/fair health, needing help with ADLs and IADLs, functional limitations, and psychological distress.

**Discussion**—This study adds to the limited information on health and disability among older lesbian, gay and bisexual adults. As this population grows, gerontologists must develop a better understanding of the unique issues and challenges facing them and their families.

### Keywords

Lesbian; Gay and Bisexual (LGB); Minority Health; Discrimination; Stigma

## INTRODUCTION

A growing body of evidence indicates that the lesbian, gay, bisexual, and transgender (LGBT) population experiences significant disparities in health and disability compared with their heterosexual counterparts (Mayer et al., 2008; Institute of Medicine, 2011; Fredriksen-Goldsen, Kim & Barkan, 2012). More recently, health disparities among LGBT people have been targeted for elimination by the Institute of Medicine (2011) and added to

the *Healthy People 2020* initiative (U.S. Department of Health and Human Services, 2013). Although our knowledge of health and disability among younger LGBT adults is rapidly evolving (IOM, 2011; Conron, Mimiaga, & Landers, 2010), gerontologists and public health researchers continue to face data shortages and a widening research gap among older sexual minorities (Institute of Medicine, 2011; Fredriksen-Goldsen & Muraco, 2010). Understanding health and disability patterns among older LGBT adults is increasingly imperative as the aging population grows more diverse. According to some estimates, the number of older adults identifying as lesbian, gay or bisexual (LGB) will likely double and exceed 6 million by 2030 (Fredriksen-Goldsen, Kim, Barkan, Muraco, & Hoy-Ellis, 2013a). This study adds to our limited knowledge of older LGB adults by examining a subset of the population—older adults in same-sex cohabiting relationships.

Differences in health and disability status by sexual orientation have been found in three previous studies confined to individual states or based on non-random probability samples and without a heterosexual comparison group. Using data from the California Health Interview Survey, Wallace *et al.* (2011) found older lesbian, gay, and bisexual (LGB) adults were more likely to report psychological distress, a physical disability, and fair or poor health status compared to their heterosexual counterparts; additionally, older gay and bisexual men were more likely to have hypertension and diabetes. In a study using Washington State's Behavioral Risk Factor Surveillance Survey, older LGB adults were more likely to have a disability and poor mental health compared to older heterosexual adults—even after adjusting for age, income, and education (Fredriksen-Goldsen, Kim, Barkan, Muraco, & Hoy-Ellis, 2013b). Older lesbian and bisexual women also exhibited increased odds of cardiovascular disease while older gay and bisexual men reported greater odds of poor physical health. Finally, in the *Aging with Pride Study*, high levels of poor self-reported health (22%), disability (45%) and depression (29%) were found among a non-representative sample of older LGB adults from across the United States (Fredriksen-Goldsen *et al.*, 2011; Fredriksen-Goldsen *et al.*, 2013a).

### Conceptual Framework

There are several potential explanations as to why physical health, mental health, and disability outcomes may differ for older LGB adults compared to older heterosexual adults. This is a population that has experienced immense stigma and discrimination across their lives and survived drastic changes in societal, legal, and medical attitudes (Butler, 2004; Van Wagenen, Driskell, & Bradford, 2013), ranging from the declassification of homosexuality as a mental illness by the American Psychological Association to the more recent repeals of discriminating federal policies (e.g. Don't Ask, Don't Tell and the Defense of Marriage Act) and the legalization of same-sex marriage in nineteen states (Human Rights Campaign, 2014). Moreover, older gay and bisexual men represent a population that survived the rise of the HIV/AIDS epidemic that has, so far, claimed the lives of over 300,000 gay, bisexual and other men who have sex with men (Centers for Disease Control, 2011; Rosenfeld, Bartlam & Smith, 2012). Decades of discrimination and stigma can take a negative toll on the human body through the minority stress process and may lead to adverse health and disability outcomes (Meyer, 2003; Lick, Durso & Johnson, 2013).

Conversely, LGB adults who have persevered to older ages may demonstrate increased resiliency compared to their heterosexual peers as a result of surviving detrimental experiences (Van Wagenen, Driskell, & Bradford, 2013). Other protective factors may also contribute to successful aging among older LGB adults. For instance, several studies have found greater reliance on partners, friends and LGBT community organizations for social and emotional support as well as informal care giving (Grossman, D'Augelli & Hershberger 2000; Orel, 2004; MetLife, 2010; Lyons, Pitts, & Gierson, 2013). Informal support and caregiving from non-family is especially important because older LGB adults are less likely to have adult children upon whom they can rely for care and assistance. Furthermore, many older LGB adults avoid formal caregiving in nursing homes, particularly in areas where stigma and discrimination are problematic (Butler, 2004; Fredriksen-Goldsen, 2011). Even among well-intentioned service providers, awareness of the unique needs and concerns of the older LGB population are often lacking (Bell, Bern-Klug, Kramer, & Saunders, 2010; DiNapoli, Breland, & Allen, 2013). As a result, older LGB adults in community settings may have greater unmet need for long-term services and supports.

This study builds on current health and disability research among older LGB adults by using multiple dimensions of impaired health and disability from a large, nationally representative survey to test the following hypotheses:

*Hypothesis 1:* Older adults in same-sex cohabiting relationships will exhibit worse self-rated health, greater disability and functional limitations, and more physical and psychological distress than their counterparts in opposite-sex cohabiting relationships.

*Hypothesis 2:* Because of differential exposures to discrimination and disease over the life course, men and women in same-sex cohabiting relationships will exhibit different patterns of impaired health and limitations.

## METHODS

### Data and Sample

This study relied on data from the National Health Interview Survey (NHIS) harmonized over time by the Minnesota Population Center at the University of Minnesota (MPC, 2012). Conducted annually by the National Center of Health Statistics (NCHS), the NHIS is a nationally representative health survey of the civilian, non-institutionalized population in the United States and serves as one of the country's most comprehensive resources on the nation's health (National Center for Health Statistics, 2013). The family core questionnaire records basic health and disability information for each household member while a single random adult in each household is selected for a detailed interview on pertinent health information, including diagnoses of health conditions. All responses are self-reported in a face-to-face interview with an NCHS surveyor.

The NHIS has been used in prior research to examine health disparities for younger adults in co-residential same-sex relationships (Heck, Sell, & Gorin, 2006; Cochran & Mays, 2012; Liu, Reczek & Brown, 2013; Reczek, Liu & Brown, 2013) and has not been utilized to examine differences in health or disability status among older adults. Consistent with studies on older LGB adults (Fredriksen-Goldsen, et al., 2011; 2013a; 2013b; Wallace *et al.*,

2011), we restrict our sample to older, cohabiting, partnered adults 50 years and older in the NHIS. We identified adults in same-sex relationships when the household head, or the primary reference person, identified another cohabitating person of the same sex as a husband, wife, or unmarried partner. In order to support a robust sample of older adults in same-sex relationships, we pooled data between 1997 and 2012. Our final sample was stratified by relationship type and included 698 men and 630 women in same-sex domestic relationships. Comparison groups included cohabiting older adults in married opposite-sex relationships (131,841 men and 114,945 women) and unmarried opposite-sex relationships (5,403 men and 4,346 women). Married and unmarried same-sex couples living together were not distinguished because very few older adults in same-sex relationships reported being married and same-sex marriage was not permitted in most of the country during the study period.

### Health and Disability Outcomes

We used six health and disability outcomes commonly used in public health studies on older populations (Martin, Freedman, Schoeni, & Andreski, 2010; Wallace, Cochran, Durazo & Ford, 2011). First, to measure general health status, we constructed a dichotomous variable for poor or fair health versus excellent, very good, or good health. For a measure of physical health, we identified adults reporting at least one chronic condition sensitive to ambulatory care, including pulmonary disease (asthma, chronic bronchitis, emphysema), diabetes, hypertension, atherosclerosis (coronary heart disease, angina, heart attack or myocardial infarction), and cerebrovascular disease (stroke). We relied on Kessler's instrument for an indicator of impaired mental health, which collectively asks how often, during the previous 30 days, the respondent felt nervous, hopeless, worthless, so sad that nothing could cheer him/her up, restless or fidgety, and that everything was an effort (Kessler et al., 2003). Based on a 24-point scale, we identified adults above the 7-point threshold as being symptomatic of mild, moderate, or severe psychological distress (Wallace et al., 2011).

The sample adult was asked about difficulty with nine physical functions. Having a functional limitation included reporting difficulty in at least one of the following: stooping, bending, or kneeling; standing for two hours; pushing or pulling a large object; walking a quarter-mile; climbing ten steps; sitting for two hours; lifting and carrying ten pounds; reaching over head; and grasping small objects (Martin *et al.*, 2010). Each adult in the family core questionnaire also reported whether they needed help with activities of daily living (ADLs), such as eating, bathing, dressing, or getting around inside the home because of a physical, mental, or emotional problem. They also reported whether they needed help with instrumental activities of daily living (IADLs), such as everyday household chores, doing necessary business, shopping, or getting around outside the home because of a physical, mental, or emotional problem.

### Demographic and Socioeconomic Covariates

The primary independent variable was relationship type, or whether each partnered adult was in a same-sex, married opposite-sex, or unmarried opposite-sex cohabiting relationship. Additional covariates included age (50–64, 65–74, 75+ years), race and ethnicity (non-Hispanic White, African American/Black, Hispanic, Other/Multiple races), and whether a

related child under eighteen was present in the household. Measures of socioeconomic status included family income (<100% of the federal poverty level [FPL], 100–199% FPL, 200–399% FPL, 400%+FPL), educational attainment (less than high school, high school graduate, some college or technical school, college graduate, or missing education), and employment status (not in labor force, currently working, or missing employment). For all analyses, we relied on five imputation files created by NCHS to impute family income when data were missing (NCHS, 2013).

## Analyses

Descriptive analyses estimated the prevalence of impaired health and disability in addition to demographic and socioeconomic characteristics by relationship type, separately for men and women. Pearson chi-square tests were used to compare the characteristics across relationship types. We then estimated logistic regression models for each of the health and disability outcomes while controlling for all demographic and socioeconomic variables, region, and year. We included employment status as part of our analysis because we focus on older adults over 50 years of age, and many continue to participate in the labor force. Models using poor/fair health and needing help with ADLs or IADLs used data on each partner, but models focusing on difficulty with physical functions, chronic conditions, and psychological distress were limited to the sample adult. We report the adjusted odds ratios for each model indicating the association between relationship type and health or disability status. We also present the area under the receiver operating characteristics (ROC) curve to compare the precision of each model; a value closer to one indicates greater accuracy of model prediction. We conducted all analyses in Stata using survey weights and the *svy* command to adjust standard errors for the complex survey design of the NHIS. Finally, we used multiple imputations in Stata using the *mi* family of commands to adjust for missing responses to family income and personal earnings as recommended by NCHS (2013).

## RESULTS

Descriptive characteristics for the study sample are presented in Table 1 by sex and relationship type. Both men (14.8%) and women (13.7%) in same-sex cohabiting relationships are less likely to report poor and fair health status compared to partnered adults in opposite-sex cohabiting relationships, but they are similarly as likely to report needing help with ADLs or IADLs. Older men in same-sex domestic relationships report similar levels of difficulty with one of the nine physical functions (38.7%), lower prevalence of a chronic condition (50.3%) and higher levels of psychological distress (11.5%) compared to older married men in opposite-sex relationships (42.9%, 58.9% and 7.4%, respectively). Similar prevalence patterns were found among older women in same-sex relationships. Older women in same-sex cohabiting relationships were just as likely to report difficulty with physical functions (50.0%), less likely to report a chronic condition (42.0%) and more likely to indicate psychological distress (11.9%) when compared to older married women in opposite-sex cohabiting relationships. Men and women in co-residential, unmarried opposite-sex relationships were more likely to report greater rates of each health and disability outcome than their married counterparts.

Although older men and women in same-sex cohabiting relationships reported varying unadjusted differences in health and disability outcomes relative to their married opposite-sex counterparts, they tend to experience favorable demographic and socioeconomic conditions. For instance, older men in same-sex cohabiting relationships tended to be younger (79.7% are 50–64 years of age), were more likely to be college graduates (45.9%), have family incomes greater than 400% of the federal poverty level (65.6%), and employed at the time of the survey (61.1%). Similarly, older women in same-sex cohabiting relationships were also younger, more likely to be college graduates (46.3%), have family incomes over 400% FPL (61.1%), and employed (66.2%). Few men in same-sex relationships had children in the household as is expected for LGB populations. This pattern was not found among women in same-sex relationships, as 11.5% of this population had a child under 18 living within the household.

Table 2 presents the odds ratios for each health and disability outcome among older men in same-sex cohabiting relationships compared to married men in opposite-sex cohabiting relationships. Results indicate that men in same-sex relationships experienced significantly greater odds of mild, moderate, or severe psychological distress (AOR=1.85) after controlling for pertinent demographic and socioeconomic characteristics. While older men in same-sex relationships reported increased odds of having poor or fair health, needing help with ADLs, having a functional limitation, and fewer odds of having a chronic condition, these differences were not statistically significant. Meanwhile, older men in unmarried opposite-sex relationships were more likely to report having poor or fair health (AOR=1.26) and psychological distress (AOR=1.42) compared to their married counterparts.

In contrast, older women in same-sex cohabiting relationships were more likely to report increased odds in five of the six indicators of impaired health or disability, compared with their counterparts in married opposite-sex relationships. These women had greater odds of reporting poor or fair health (AOR=1.27), needing help with ADLs (AOR=1.92), needing help with IADLs (AOR=1.52), having a functional limitation (AOR=1.41), and experiencing mild, moderate, or severe psychological distress (AOR=1.59) after controlling for demographic and socioeconomic characteristics. There were no statistically significant differences in reporting a chronic condition for women in same-sex cohabiting relationships. Women in unmarried opposite-sex relationships reported very similar patterns to women in same-sex relationships, as they were also more likely to have greater odds of each impaired health or disability outcome (except for chronic conditions) when compared to their married counterparts.

## DISCUSSION

Our results support both of our hypotheses, indicating that older adults in same-sex cohabiting relationships are particularly vulnerable to impaired health and disability and that there are differences by sex. This study finds significant disparities in health and disability among older adults in same-sex cohabiting relationships, especially among older women in same-sex cohabiting relationships, compared to their married counterparts in opposite-sex cohabiting relationships. While disparities in health and disability outcomes have been reported in previous studies (Fredricksen-Goldsen, et al., 2011; 2013a; 2013b; Wallace et



al., 2011), we find different results between partnered men and women in same-sex cohabiting relationships. With the exception of psychological distress, there appears to be no statistically significant differences in health and disability between older men in same-sex relationships and older men in married opposite-sex relationships. Women in same-sex domestic relationships, in contrast, are more likely to report poor/fair health, needing help with ADLs or IADLs, functional limitations, and psychological distress, compared with their peers in married opposite-sex relationships. Our findings may be attributed to differential exposures to discrimination, stigma and disease over the life course. While our data do not allow for examination of these phenomena, future research should explore these in more detail.

For instance, researchers should continue to explore how exposure to discrimination and stigma vary by gender and other key demographic and socioeconomic characteristics. In one survey of LGB adults aged 60 years and older, gay and bisexual men reported spending a greater percentage of their life in “the closet” compared to lesbian and bisexual women, despite greater awareness of their sexual orientation at younger ages (D’Augelli & Grossman, 2001). Hiding and concealing one’s sexual orientation is a known source of psychological distress in LGB populations (Meyer, 2003; Pachankis, 2007). Although hiding one’s sexual orientation is a common response for many LGB people avoiding public shaming, concealment adds stress and depletes cognitive energy for LGB people who constantly monitor their behaviors, appearances and language to fit in with the general population. Living a life of deception and avoiding interactions with other self-identified LGB people (for fear of being identified or “outed” as LGB) results in psychological distress and negative mental health outcomes, such as anxiety, guilt, shame, and depression (Meyer, 2003). This may explain why both older men and women in same-sex cohabiting relationships—in our study and in previous studies on older LGB adults (D’Augelli & Grossman, 2001; Wallace *et al.*, 2011)—report greater odds of psychological distress.

However, previous studies also indicate that gay and bisexual men may be at higher risk of impaired health and disability in later life compared to other groups, because older gay men were also more likely to be victims of harassment and abuse. Approximately 65% of gay and bisexual men and 56% of lesbian and bisexual women aged 60 years and over experienced verbal abuse at least once in their lives (D’Augelli & Grossman, 2001). Additionally, gay men were nearly three times more likely (44%) than lesbian women (16%) to report surviving physical attacks (D’Augelli & Grossman, 2001). It is surprising that men in same-sex cohabiting relationships do not report statistically significant differences in impaired physical health and disability in our study, but we postulate that limitations to studying cohabiting couples may explain why the men in our sample did not exhibit worse physical health and disability in our adjusted models.

First, our study was restricted to older adults in cohabiting relationships, and men in same-sex relationships may benefit from cohabitation differently than women. While legal marriage was not available to most same-sex couples during the study period, many same-sex couples living together were likely in marriage-like relationships. Public health research consistently finds that heterosexual marriage and long-term commitments are causally beneficial to health, especially for men (Wood, Goesling & Avella, 2007; Umberson &

Montez, 2010). For instance, a spouse can monitor and deter poor health behaviors, such as cigarette smoking and heavy alcohol consumption, and a spouse can provide the emotional and social support that can improve mental health, reduce stress and strengthen the body's physiological ability to combat disease and the aging process (Umberson & Montez, 2010). The health benefits to heterosexual marriage, however, are more pronounced for men than for women, as women are historically more likely to take on caregiving roles, which can have their own detrimental health impacts (Umberson, 1992; Wood, Goesling & Avella, 2007).

Much less research has focused on health in same-sex unions, but some qualitative evidence indicates that same-sex couples (both male and female) mutually monitor and promote health behaviors (Reczek & Umberson, 2012; Reczek, 2012). Another recent study on younger adults (18–65 years of age) in the NHIS found a marital advantage for adults in same-sex cohabiting relationships (Reczek, Liu & Spiker, 2014). Both men and women in *married* same-sex relationships reported similar levels of moderate to heavy alcohol drinking relative to their counterparts in married opposite-sex relationships. Meanwhile, heavy alcohol consumption was still greater in *unmarried* same-sex and opposite-sex cohabiting couples, even after adjusting for differences in demographic and socioeconomic factors. Gerontologists and public health researchers should continue to explore how marriage and cohabitation influences health outcomes and health behaviors in long-term LGB relationships and whether the impacts of same-sex marriage differ by gender.

Additional limitations to using the NHIS for this study may also explain the differences in our results, as our findings are potentially due to three types of bias: partnership bias, selection bias and survival bias. Although our study takes advantage of partnership information among a non-institutionalized population, we may be missing large groups of the LGB population, including single LGB adults. According to the California Health Interview Survey, approximately 50% of gay men and 28% of lesbian women over 50 live alone (Wallace *et al.*, 2011). Thus, our study potentially excludes a large group of men who are not cohabitating with a partner. This can be troubling if single gay and bisexual men fare worse than partnered men in same-sex cohabiting relationships—which only adds to the continued need for understanding how partnership, cohabitation and marriage shapes the health of LGB adults.

Additionally, our results may suffer from selection bias, which affects whether and how same-sex couples identify themselves. Lesbian women, for instance, are more likely to register and report their same-sex relationships compared to gay men (Black, Gates, Sanders & Taylor, 2000; Carpenter & Gates, 2008). Additionally, adults indicating their same-sex relationship status are more likely to be white and highly educated (Carpenter & Gates, 2008). Our study may artificially favor gay men if only the most advantaged men in same-sex relationships disclose their partnership status. As noted, our sample of same-sex couples are an advantaged population, as many are highly educated and have incomes over 400% FPL. Because of the documented relationship between socioeconomic disadvantage and poor health outcomes, we may be underestimating the association between sexual orientation and health at the lower end of the socioeconomic spectrum.



Finally, our findings may be explained in part by mortality and survival bias. Missing from our analysis are widowed adults who would not have been identified as being in a same-sex relationship. This is especially problematic if mortality operates differently between men and women in same-sex relationships. For instance, HIV/AIDS may differentially influence aging and mortality among older gay and bisexual men (Emlet, Fredricksen-Goldsen & Kim, 2006; 2013; Rosenfeld, Bartlam & Smith, 2012). As mentioned in the introduction, the HIV/AIDS epidemic has claimed the lives of approximately 300,000 gay, bisexual and other men who have sex with men—many of whom died throughout the 1980s and 1990s and would have been considered older adults today. We speculate that our findings would be different if this group of men had survived. Instead, negligible disparities in physical health for older men in same-sex relationships indicate that the men who survived beyond the HIV/AIDS epidemic into older age may be relatively healthy and potentially more resilient. It is important to remember that this is a population that endured harsh and discriminatory environments over the life course, so they may, in fact, be a resilient group. Additional research should continue to explore resiliency and its health effects among older sexual minorities to gain invaluable insights on successful aging (Van Wagenen, Driskell, & Bradford, 2013).

There were other challenges to using the NHIS for this study—especially since sexual orientation was not asked. Demographers are concerned with data quality when combining relationship information and the sex of individual household members to identify same-sex couples (Carpenter & Gates, 2008; Gates & Steinberger, 2009; O’Connell & Feliz, 2011; Bates, DeMaio, Robins, & Hicks, 2012). Misreporting sex among married opposite-sex couples, although not common, unintentionally includes heterosexual couples as “false positives” among same-sex partners (Gates & Steinberger, 2009; O’Connell & Feliz, 2011). This is particularly challenging when studying small populations like older LGB persons. Even if a small portion of opposite-sex couples misreport gender, the result could lead to a cumbersome proportion of false positives in our sample of same-sex couples. However, unlike other surveys used to study same-sex couples, information in the NHIS is collected by experienced and well-trained interviewers in a face-to-face interview during a household visit. Further, the sex of the randomly selected sample adult is confirmed later in the interview. Despite these strengths, we pooled sixteen years of data to support a robust sample of older men and women in same-sex cohabiting relationships, and although our models are adjusted for each year, our sample may not reflect secular trends in self-identifying as LGB and self-reporting same-sex relationships.

Our study would have benefited from additional information missing in the NHIS. For example, our method of identifying same-sex couples does not 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 (VanKim, Padilla, Lee & Goldstein, 2010; Redford & Van Wagenen, 2012), but this concern precludes important work from being done on disparities among older sexual minorities using large-

scale surveys such as the NHIS, the Health and Retirement Study, or the more recent National Health and Aging Trends Study.

Beginning with the 2013 National Health Interview Survey (NHIS), all sample adults will be asked if they view themselves as gay, straight, bisexual, or something else (HHS, 2011). This new information will support research on people who self-identify as LGB, whether in a partnership or not. While additional research should investigate disparities in health and disability among single LGB people and continue to explore how partnership affects health and disability, other areas of research should approach LGBT aging from an intersectionality perspective, whereby sexual minorities take on multiple identities including race and class (Cronin & King, 2010). To date, no large-scale studies in the United States have focused on health and life experiences of older LGBT adults who are also racial and ethnic minorities or from lower socioeconomic groups. Finally, more work should address how to incorporate transgendered populations into federally-funded health surveys.

## CONCLUSION

This study adds evidence to the small, but convincing, body of research demonstrating disparities in health and disability outcomes by sexual orientation for older adults. With the aging and diversifying of the population in the United States, it is imperative that we understand who is at greatest risk for poor health outcomes and who might require long-term services and support. Evidence that older adults in same-sex cohabiting relationships, especially older women, have worse health and disability outcomes than their counterparts in opposite-sex cohabiting relationships should serve as a call for increased policy and programmatic attention to this population. To date, older LGBT adults have been largely ignored in research, especially in nationally representative surveys. Our findings of disparities in this population reinforce the importance of focusing research efforts on better understanding the needs of older LGBT adults.

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**Table 1**

Descriptive Characteristics of Study Sample by Sex and Relationship Type

	Men				Women			
	Same-Sex Married	Opposite-Sex Married	Opposite-Sex Unmarried	<i>p</i> value	Same-Sex Married	Opposite-Sex Married	Opposite-Sex Unmarried	<i>p</i> value
<b>Family core respondents (n)</b>	<b>698</b>	<b>131,841</b>	<b>5,403</b>		<b>630</b>	<b>114,945</b>	<b>4,346</b>	
Age				<.001				<.001
50–64	79.7	60.8	75.8		85.9	65.3	79.4	
65–74	12.8	24.0	16.8		10.2	23.0	14.9	
75+	7.5	15.2	7.5		4.0	11.7	5.8	
Race/Ethnicity				<.001				<.001
White	87.3	82.3	74.1		86.8	83.4	76.8	
Black	4.4	6.8	14.6		7.0	6.1	11.4	
Hispanic	5.7	7.0	8.9		3.8	6.5	8.7	
Other/Multiple Races	2.7	3.9	2.4		2.4	4.0	3.1	
Educational attainment				<.001				<.001
Less than high school	7.0	15.9	19.9		8.1	13.7	18.8	
High school graduate	18.3	27.9	33.4		18.1	34.8	34.5	
Some college or technical school	26.3	23.0	23.3		26.3	25.2	26.0	
College graduate	45.9	30.4	19.4		46.3	23.5	17.8	
Missing	2.5	2.8	4.1		1.2	2.7	2.8	
Family income relative to FPL				<.001				<.001
<100%	4.0	5.0	10.7		4.1	4.7	9.9	
100–199%	8.6	14.2	19.7		11.6	14.4	19.7	
200–399%	21.8	30.8	27.6		23.2	31.5	29.0	
>400%	65.6	50.1	41.9		61.1	49.4	41.5	
Employment Status				<.001				<.001
Not in labor force	37.3	44.8	42.0		32.7	55.5	44.9	
Currently working	61.1	54.2	57.0		66.2	43.4	54.3	
Missing	1.5	1.0	1.0		1.1	1.1	0.9	
Child <18 years in household	5.3	15.8	16.5	<.001	11.5	10.3	9.9	0.522



	Men				Women			
	Same-Sex	Opposite-Sex, Married	Opposite-Sex, Unmarried	<i>p</i> value	Same-Sex	Opposite-Sex, Married	Opposite-Sex, Unmarried	<i>p</i> value
Poor/Fair Health	14.8	17.7	24.0	<.001	13.7	16.5	22.9	<.001
Needs help with ADLs	2.1	2.4	2.6	0.549	2.5	2.3	2.8	0.196
Needs help with IADLs	2.8	3.6	4.0	0.174	4.2	4.6	5.5	0.051
<b>Sample adults (n)</b>	<b>287</b>	<b>48,110</b>	<b>2,001</b>		<b>237</b>	<b>44,188</b>	<b>1,709</b>	
Difficulty with physical functions	38.7	42.9	44.8	0.129	50.0	49.7	53.6	0.022
Any chronic conditions	50.3	58.9	56.9	0.011	42.0	53.0	54.4	0.007
Psychological distress symptoms	11.5	7.4	12.7	<.001	11.9	10.3	19.8	<.001

Notes: FPL = federal poverty level.

**Table 2**  
Adjusted Odds Ratios of Impaired Health and Disability Among All Partnered Men 50 Years of Age

	Poor/Fair Health	Needs help with ADL	Needs help with IADL	Functional Limitation	Chronic Condition	Psychological Distress
	AOR	AOR	AOR	AOR	AOR	AOR
	(n=137,197)	(n=137,652)	(n=137,627)	(n=50,206)	(n=50,216)	(n=49,462)
Relationship Type						
Same-Sex	1.11	1.21	1.00	1.05	0.80	1.85 **
Opposite-Sex, Unmarried	1.26 ***	1.07	1.08	1.07	0.91	1.42 ***
Opposite-Sex, Married (reference group)						
Age						
50–64 (reference group)						
65–74	0.69 ***	0.77 ***	0.64 ***	1.05	1.51 ***	0.38 ***
75+	0.84 ***	1.75 ***	1.54 ***	1.66 ***	1.80 ***	0.38 ***
Race/Ethnicity						
White (reference group)						
Black	1.38 ***	1.18 **	1.25 ***	0.82 ***	1.26 ***	0.74 ***
Hispanic	1.06 **	0.88 *	0.91	0.62 ***	0.79 ***	0.95
Multiple/Other Races	1.18 ***	0.73 **	0.92	0.59 ***	1.05	0.99
Education						
Less than high school	3.14 ***	1.14 *	1.25 ***	1.80 ***	1.43 ***	2.26 ***
High school	1.89 ***	1.03	1.05	1.47 ***	1.30 ***	1.59 ***
Some college or technical school	1.65 ***	1.08	1.10 *	1.52 ***	1.34 ***	1.62 ***
Missing	1.87 ***	1.60 ***	1.47 ***	0.97	0.89	1.12
College graduate (reference group)						
Family income relative to FPL						
<100%	3.37 ***	2.95 ***	2.52 ***	1.66 ***	1.16 **	2.90 ***
100–199%	2.60 ***	2.21 ***	2.05 ***	1.55 ***	1.07	2.36 ***
200–399%	1.69 ***	1.43 ***	1.34 ***	1.22 ***	1.05	1.59 ***
>400% (reference group)						
Employment Status						

	Poor/Fair Health	Needs help with ADL	Needs help with IADL	Functional Limitation	Chronic Condition	Psychological Distress
	AOR	AOR	AOR	AOR	AOR	AOR
Not in labor force (reference group)						
Currently working	0.25 ***	0.06 ***	0.06 ***	0.40 ***	0.56 ***	0.34 ***
Missing	0.36 ***	0.21 ***	0.20 ***	0.21 ***	0.28 ***	0.62 ***
Child in household	0.94 **	0.87 *	0.91 *	0.89 **	0.77 ***	1.07 ***
ROC	0.77	0.81	0.79	0.68	0.65	0.70

Notes: AOR = Adjusted odds ratio; FPL = Federal poverty level. All models also adjusted for region and survey year.

\* p < .10;

\*\* p < .05;

\*\*\* p < .001

**Table 3**  
Adjusted Odds Ratios of Impaired Health and Disability Among All Partnered Women 50 Years of Age

	Poor/Fair Health	Needs help with ADL	Needs help with IADL	Functional Limitation	Chronic Condition	Psychological Distress
	AOR	AOR	AOR	AOR	AOR	AOR
	(n=119,383)	(n=119,799)	(n=119,776)	(n=45,962)	(n=46,015)	(n=45,401)
Relationship Type						
Same-Sex	1.27 *	1.92 **	1.52 *	1.41 **	0.85	1.59 **
Opposite-Sex, Unmarried	1.39 ***	1.36 **	1.29 **	1.21 **	1.04	1.87 ***
Opposite-Sex, Married (reference group)						
Age						
50–64 (reference group)						
65–74	0.76 ***	1.03	0.82	***	1.15	***
75+	1.03	2.23 ***	1.76 ***	1.71 ***	2.12 ***	0.47 ***
Race/Ethnicity						
White (reference group)						
Black	1.78 ***	1.55 ***	1.34 ***	0.98	2.11 ***	0.79 ***
Hispanic	1.21 ***	0.90	0.81 **	0.69 ***	1.02	0.93
Multiple/Other Races	1.12 **	0.72 **	0.82 *	0.59 ***	1.02	0.98
Education						
Less than high school	3.29 ***	1.24 **	1.57 ***	1.79 ***	1.86 ***	2.92 ***
High school	1.95 ***	0.99	1.15 *	1.32 ***	1.45 ***	1.90 ***
Some college or technical school	1.64 ***	1.10	1.40 ***	1.41 ***	1.36 ***	1.70 ***
Missing	2.03 ***	1.42 **	1.23 *	0.87	0.78 **	1.62 **
College graduate (reference group)						
Family income relative to FPL						
<100%	3.88 ***	2.62 ***	2.42 ***	1.90 ***	1.47 ***	3.02 ***
100–199%	2.94 ***	2.06 ***	1.89 ***	1.77 ***	1.44 ***	2.24 ***
200–399%	1.87 ***	1.46 ***	1.35 ***	1.34 ***	1.27 ***	1.63 ***
>400% (reference group)						
Employment Status						

	Poor/Fair Health	Needs help with ADL	Needs help with IADL	Functional Limitation	Chronic Condition	Psychological Distress
	AOR	AOR	AOR	AOR	AOR	AOR
Not in labor force (reference group)						
Currently working	0.33 ***	0.09 ***	0.11 ***	0.53 ***	0.68 ***	0.50 ***
Missing	0.36 ***	0.35 ***	0.25 ***	0.17 ***	0.38 **	‡
Child in household	0.91 **	0.50 ***	0.68 ***	0.84 ***	0.83 ***	1.03
ROC	0.77	0.80	0.79	0.69	0.65	0.71

Notes: AOR = Adjusted odds ratio; FPL = Federal poverty level. All models also adjusted for region and survey year.

\* p < .10;

\*\* p < .05;

\*\*\* p < .001;

‡ No observations