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Health Care Use, Health Behaviors, and Medical Conditions Among Individuals in Same-Sex and Opposite-Sex Partnerships: A Cross-Sectional Observational Analysis of the Medical Expenditures Panel Survey (MEPS), 2003–2011

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Abstract

Background—Prior research documents disparities between sexual minority and nonsexual minority individuals regarding health behaviors and health services utilization. However, little is known regarding differences in the prevalence of medical conditions.

Objectives—To examine associations between sexual minority status and medical conditions.

Research Design—We conducted multiple logistic regression analyses of the Medical Expenditure Panel Survey (2003–2011). We identified individuals who reported being partnered with an individual of the same sex, and constructed a matched cohort of individuals in opposite-sex partnerships.

Subjects—A total of 494 individuals in same-sex partnerships and 494 individuals in opposite-sex partnerships.

Measures—Measures of health risk (eg, smoking status), health services utilization (eg, physician office visits), and presence of 15 medical conditions (eg, cancer, diabetes, arthritis, HIV, alcohol disorders).

Results—Same-sex partnered men had nearly 4 times the odds of reporting a mood disorder than did opposite-sex partnered men [adjusted odds ratio (aOR) = 3.96; 95% confidence interval (CI), 1.85–8.48]. Compared with opposite-sex partnered women, same-sex partnered women had greater odds of heart disease (aOR = 2.59; 95% CI, 1.19–5.62), diabetes (aOR = 2.75; 95% CI, 1.10–6.90), obesity (aOR = 1.92; 95% CI, 1.26–2.94), high cholesterol (aOR = 1.89; 95% CI,

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1.03–3.50), and asthma (aOR=1.90; 95% CI, 1.02–1.19). Even after adjusting for sociodemographics, health risk behaviors, and health conditions, individuals in same-sex partnerships had 67% increased odds of past-year emergency department utilization and 51% greater odds of 3 physician visits in the last year compared with opposite-sex partnered individuals.

Conclusions—A combination of individual-level, provider-level, and system-level approaches are needed to reduce disparities in medical conditions and health care utilization among sexual minority individuals.

Keywords

sexual orientation; health disparities; health care utilization; minority health

Eliminating health inequalities based on sexual orientation is a public health goal in the United States.¹ Ample evidence shows that sexual minority persons (eg, persons who identify as lesbian, gay, or bisexual) have greater burdens of health risks, such as smoking, barriers in accessing health care, and social stress than their heterosexual peers.² However, substantially less information exists about medical conditions (eg, heart disease, lung cancer) or health care utilization.

The minority stress model provides a framework for understanding health disparities among sexual minority populations.³ Briefly, the model posits that sexual minority populations experience poorer health indicators (eg, health risk behaviors, mental and physical health conditions) due to social stigma and its resultant mental distress. Undergirded with this model, most sexual minority health disparities research has focused on health risk behaviors, such as smoking⁴ and cardiovascular disease (CVD) risk,⁵ and mental health outcomes, such as depression and mood disorders.³ Sexual orientation–based disparities are also likely to include medical conditions,^{6–8} but excepting the HIV epidemic among sexual minority men, this literature is less developed than the health risk literature.² Although documenting disparities in risk behaviors is important as they are likely to manifest as disparities in health outcomes, alone they provide only 1 dimension of sexual minority population health.

For example, limited research shows that, compared with their heterosexual peers, sexual minority populations have greater prevalence of asthma^{9,10} and acute respiratory infections,¹¹ anal cancer among men,¹² and breast cancer among women.¹³ However, the field of health disparities research also needs more evidence not only of physical health differences, but of possible differences in patterns of health care utilization. One quasi-experimental study in Massachusetts found evidence of reduction in mental and medical care service utilization and expenditures among sexual minority men in the year following that state's legalization of same-sex marriage, a finding authors interpreted as a reduction in extant stressors responsible for the production of these disparities.¹⁴ A separate analysis found that compared with those in different-sex relationships, men and women in same-sex relationships were less likely to have health insurance and more likely to have unmet health needs. Compared with their heterosexual counterparts this translated into women in same-sex relationships being less likely to have had a recent checkup, though men were more likely to do so.¹⁵ These findings illustrate both the importance and complexity of the

relationship between sexual orientation and health care utilization. Although examining care utilization on its own has limited interpretation (ie, care utilization can be health-promoting prevention or reactive to negative health outcomes), along with data about physical health conditions we can begin establishing consensus to inform prevention and intervention efforts. Differences in medical conditions have implications for health care utilization issues, including expenditures, policy, access, and quality of care for over 8 million individuals in the United States who identify as sexual minority.^{16–19}

Consequently, the goals of this epidemiologic study were to: (1) corroborate prior evidence about sexual minority health risks and (2) advance evidence by examining sexual minority-based differences in medical conditions and health care use between those in same-sex partnerships and opposite-sex partnerships. Using a large, national dataset containing information about persons in same-sex and opposite-sex partnerships, we hypothesized that our findings would align with previous known sexual minority-based disparities in health behavior (eg, same-sex partnered individuals would have greater prevalence of smoking than opposite-sex partnered individuals). In addition, we hypothesized disparities in specific medical conditions (eg, sexual minority status will be significantly associated with cardiovascular conditions).

Methods

Description of Data

The Medical Expenditures Panel Survey (MEPS) is a nationally representative survey of health care utilization and expenditures for the US noninstitutionalized civilian population. MEPS collects data across several areas, including access to health care, health care coverage, medical conditions, and expenditures on medical conditions. It features a 2-year panel survey with an overlapping cohort design; each year, a new cohort is initiated. We include the first observation of any respondent from 2003 to 2011. Details of the complex sampling design of MEPS have been published previously.²⁰

Sociodemographic information used in this study includes the information upon which individuals were matched for our analyses: age group, race/ethnicity, sex, region, and panel number. Two additional variables that we elected not to match, but did include in the analyses as covariates were educational attainment and household poverty level, as previous research has shown that these 2 factors tend to vary based on sexual minority status.¹⁰ Consequently, we wanted to assess whether these factors also varied in our sample rather than match on them which would preclude examining any differences. Educational attainment was categorized as <high school diploma, high school diploma, and >high school diploma. Household poverty level was categorized as percent of the federal poverty level (FPL) (FPL < 100%, 100%–124%, 125%–199%, 200%–399%, and 400%).²¹ We also included the individual's self-reported health insurance status in the survey year (insured/uninsured) as a distinct variable apart from health care utilization.

Dependent variables include a variety of self-reported information: current smoking status (yes/no), body mass index (BMI), overweight (25 ≤ BMI < 30), obesity (BMI ≥ 30), and having a usual source of medical care (yes/no). Participants reported number of physician

office visits (0, 1–2, 3+) and emergency department visits (none/any) in the past year. Participants specified 12 priority conditions that they had “ever been told by a doctor or other health professional that” they had: high blood pressure, coronary heart disease, angina, heart attack, other heart disease, stroke, emphysema, high cholesterol, cancer, diabetes, arthritis, and asthma. In addition to the 12 priority conditions, participants were asked to report any medical expenditures, which are placed into disease categories. Detailed methodology about the MEPS procedures of coding conditions from expenditure data are available through the Agency for Healthcare Research and Quality.²² We chose 3 disease categories from the expenditure data which were not asked in the priority conditions but are known to disproportionately affect sexual minority individuals: HIV, mood disorders, and alcohol disorders.²

Generating Matching Sample

For the current analysis, sexual minority status was defined by survey respondents who indicated being in a same-sex partnership. In the household enumeration, the reference person reports basic demographics of household members and their relationship with the reference person. As the sex and relationship of household members is known, it is possible to find individuals who report being married or partnered to individuals of the same sex and individuals of the opposite sex.²³ Among 505 individuals who reported same-sex marriage or partnership, we used the SAS macro GMATCH²⁴ that applied Greedy algorithm²⁵ to match age group, race, ethnicity, sex, region, and panel number of the 494 cases (ie, 1:1 matching ratio) who reported opposite-sex marriage or partnership based on age, race, ethnicity, sex, region, and panel number. Greedy matching is a linear matching algorithm to produce a matched sample that balances the distribution of observed covariates between the treatment and matched-control groups. While there are no treatment and control groups per se in the current analysis, the “treatment” group would be the same-sex partnered group and the “control” group would be the opposite-sex partnered group. The control selected for a particular case (i) will be the control (j) closest to the case of D_{ij} ; D_{ij} is defined as the Euclidean distance and the weighted sum of the absolute differences between the case and control matching factors. The control (j) selected for a case (i) is the one with the smallest D_{ij} . In the case of ties, the first one encountered will be used. When a match between a treatment and control is created, the control subject is removed from any further consideration for matching.

Analyses

All analyses were conducted in overall groups (same-sex partnered vs. opposite-sex partnered) and stratified by sex (eg, same-sex partnered men vs. opposite-sex partnered men). Descriptive analysis was performed to determine frequencies for categorical variables and means for continuous variables. We used χ^2 testing to compare variables with binary outcomes and t tests to compare variables with continuous outcomes; we used an adjusted P -value for bivariate analyses to compensate for the number of statistical tests ($P < 0.002$).²⁶

Multiple logistic regression analysis was performed to compare the differences between the 2 groups (ie, same-sex vs. opposite-sex partnered individuals). Because sociodemographic factors are different between same-sex and opposite-sex partnerships,² we performed 3 sets

of multi-variable logistic models to adjust for these differences. The first set of models regresses health behaviors (ie, current smoker, overweight, obese) and having a regular health care provider on sexual minority status and other covariates (eg, sociodemographic characteristics). The second set of models regresses medical conditions (ie, high blood pressure, coronary heart disease, angina, heart attack, other heart disease, stroke, emphysema, high cholesterol, cancer, diabetes, arthritis, asthma, HIV, mood disorder, and alcohol disorder) on related predictors, adjusting for relevant health risk behaviors (eg, current smoker).

The final set of models regresses health care utilization variables (ie, last year physician visits and ER visits) on related predictors, adjusting for health conditions for which there were significant differences between same-sex and opposite-sex partnered groups. The significant conditions were entered into the models as independent covariates in addition to the above sociodemographic characteristics and health risk behaviors. Specifically, for the model examining health care utilization among the overall sample, we included other heart conditions, asthma, HIV, and mood disorders as covariates. In the model for health care utilization among men, we included HIV and mood disorders, and in the model for health care utilization among women we included hypertension, other heart condition, diabetes, and asthma. All logistic regressions models controlled for sociodemographic characteristics: educational attainment, insurance status (insured/uninsured), and household income, which was dichotomized into <125% versus ≥125% of the FPL.

Statistical analyses were performed using SAS 9.3 (SAS Institute Inc., Cary, NC). We considered $P < 0.05$ to be statistically significant for all multivariable analyses. All estimates are unweighted due to matching. As MEPS are publically available, deidentified data, no institutional review board approval was needed for this study.

Results

Of the 505 individuals in same-sex partnerships, 494 were successfully matched with an individual in an opposite-sex relationship. The variables in which the matching algorithm did not find opposite-sex partnered individuals as matched comparisons for same-sex partnered individuals were in the racial categories with small samples (eg, American Indian/Alaska Native, Native Hawaiian/Pacific Islander) (See Supplemental Table 1, Supplemental Digital Content 1, <http://links.lww.com/MLR/B142>).

Sociodemographic Characteristics

There were several significant differences in sociodemographic characteristics between individuals in same-sex and opposite-sex partnerships. Overall, despite individuals in same-sex partnerships having greater educational attainment and equivalent rate of employment, individuals in same-sex partnerships had lower annual household income than their peers in opposite-sex partnerships (Table 1). Prevalence of employment was lower among men in same-sex partnerships compared with men in opposite-sex partnerships (77.4% vs. 85.9%) and higher among women in same-sex partnerships compared with women in opposite-sex partnerships (74.5% vs. 69.8%).

Health Behaviors and Health Risks

Overall, approximately 1 in 4 individuals in a same-sex partnership were current smokers versus 1 in 5 among their peers in opposite-sex partnerships (Table 2), and after adjusting for sociodemographic characteristics, persons in same-sex partnerships had 69% increased odds of smoking compared with persons in opposite-sex partnerships (Table 3). Men in same-sex partnerships had over twice the odds of smoking as their male counterparts in opposite-sex partnerships.

Regarding BMI, the groups appeared equivalent in aggregate; however, there were pronounced differences by sex. For instance, men in same-sex partnerships had 65% lower odds of being overweight compared with their peers in opposite-sex partnerships, whereas women in same-sex partnerships had 122% greater odds of being overweight than their counterparts in opposite-sex partnerships (Table 3).

Medical Conditions

Overall, compared with individuals in opposite-sex partnerships, individuals in same-sex partnerships had higher prevalence of other heart diseases, HIV, asthma, and mood disorders, with major differences based on sex (Table 2). For example, the burdens of other heart disease and asthma were driven mainly by differences among women, where women in same-sex partnerships had 2.5 greater odds of other heart disease and 1.9 greater odds of asthma than women in opposite-sex partnerships (Table 3). Conversely, HIV and mood disorders seemed to be driven primarily by differences among men. Men in same-sex partnerships had nearly 4 times the odds of having a mood disorder than men in opposite-sex partnerships (adjusted odds ratio = 3.96; 95% confidence interval, 1.85–8.48), whereas there was no difference among women. There was, however, a significant increase in diabetes among women in same-sex partnerships, who had >2.5 times greater odds of reporting the disease than women in opposite-sex partnerships.

Health Care Utilization

In aggregate, a greater proportion of individuals in same-sex partnerships reported 3 physician visits in the last year than their peers in opposite-sex partnerships (44.3% vs. 33.0%), and higher prevalence of ER visits (14.0% vs. 8.7%) (Table 2). While the differences in physician visits were constant across sex, it appeared that aggregate difference in ER visits was driven by the difference among women (17.5% vs. 9.8%). In models adjusted for sociodemographic, health risk behaviors, and selected medical conditions more prevalent among same-sex partnered individuals, same-sex partnered individuals still had 51% greater odds of more frequent physician visits and 67% greater odds of having an ER visit in the last year compared with their opposite-sex partnered peers (Table 3).

Discussion

We present evidence from a large national sample, that there are several health conditions that appear to disproportionately affect individuals based on sexual minority status. We also found sexual minority differences in emergency department use and physician visits, suggesting important implications for health care utilization policy, practice, and research.

First, as with previous research, our results found that overall, sexual minorities in our sample had higher odds of mood disorders³ and asthma.^{9,11,27} However, stratified analyses in our sample revealed incongruity by sex. Mood disorders among sexual minorities seemed to be driven mostly by men, countering literature documenting that mental health disparities among sexual minority populations occur just as frequently among women as they do among men.^{3,19,28} One possible reason is that men are less likely to seek mental health treatment than women,²⁹ and the sex-stratified comparisons illustrated this point. Interestingly, while literature has long known about this between-group (ie, men vs. women) disparity in seeking health treatment, it is unclear why there are differences in treatment among men based on sexual orientation.^{30,31} One possibility is that the social construction of masculinity that proscribes stereotypical behaviors for men (eg, brazen self-sufficiency) may be a risk factor to which sexual minority men are less prone because, ironically, those same social constructions convey the erroneous yet omnipresent message that being gay contradicts masculinity. Simply put, gay men may be more likely to seek help because they are not prisoners to masculinity in the way that heterosexual men are.³² Disentangling the phenomena of sex stereotypes and seeking treatment, and how sexual minority status may augment both, are prime topics for health services research, and may be particularly well served with qualitative inquiry to better understand the intersecting nuances and complexities.

Similarly, previous studies documented asthma disparities among both sexual minority men and women,^{9,27} but we failed to detect differences among men in our sample. The reasons are unclear for the departure of our findings from previous research findings, especially as these prior studies^{9,27} also used same-sex partnership to operationalize sexual minority status. One possibility is that MEPS, with its primary focus on medical conditions and expenditures, may have a priming effect on respondents in terms of self-reporting medical conditions versus other more broad health surveys (eg, Behavioral Risk Factor Surveillance System). In both cases of mood disorders and asthma, future research is needed to explore not only the contextual factors that may be involved in how, when, and if sexual minority individuals disclose medical conditions and seek health care, but also investigating ways of gathering objective, confirmatory data sources, such as electronic health records, as additional means to examine sexual orientation-based health disparities.

Of all medical conditions examined, the difference in heart disease was particularly robust. Sexual minority individuals had greater than twice the odds of the heterosexual peers to have other heart disease, a difference that appeared consistent across both sexual minority women and men (although the latter did not reach statistical significance). More importantly, these sexual minority differences persisted even after adjusting for smoking status and BMI, which are major contributors to heart disease. Farmer et al⁵ found evidence that sexual minority women had greater CVD risk as measured by cardiovascular “age” than heterosexual women and adjusting for typical risk CVD risk factors, such as smoking, did not explain that difference. In somewhat counter findings, Hatzenbuehler et al³³ discovered that although sexual minority women reported more CVD risk factors than heterosexual women, they had lower levels of C-reactive protein, which is a biomarker for inflammation. However, neither study was able to assess actual diagnoses of CVD-related conditions. Other population-based health surveillance surveys have documented higher prevalence of

self-reported CVD symptoms (eg, stroke, heart attack).^{10,34} Our findings seem to corroborate these latter findings, though our estimates indicate a higher burden than previously documented.

The etiology of heart disease disparities among this sample is unclear. One possible explanation is that chronic stress, and its concomitant negative sequelae,³⁵ may be a unique risk factor among sexual minority populations. Specifically, the minority stress model posits that sexual minority populations experience unique, chronic, and additive stress from both interpersonal and structural devaluation of, and social stigma projected onto, their minority sexual orientation.^{3,36} Studies have shown elevated cortisol among sexual minority individuals as an indicator of potential persistent stress response^{37–39}; however, the field of sexual minority health needs studies designed to investigate causation among stress and negative physical health outcomes among sexual minority individuals, such as projects that collect longitudinal data (with extended follow-up time) and projects that collect biomarkers.

Regarding health services, sexual minority individuals in this sample had 67% increased odds of ER utilization than their heterosexual peers, even after adjusting for sociodemographic characteristics, insurance, and health conditions. It is unclear why this association persisted after rigorous adjustment of salient covariates. Few studies have examined ER utilization among sexual minority individuals. For example, Boehmer et al⁴⁰ found that while gay and bisexual men did not differ from heterosexual men in prevalence of past-year ER visits, lesbian women had twice the odds of reporting a past-year ER visit than heterosexual women. Our results seem to corroborate this work, as we found that, in aggregate, sexual minority persons have greater ER utilization, and this difference was primarily driven by sexual minority women. It seems unlikely that health care coverage is involved, as we did not find sexual minority-related differences in health insurance coverage or having a regular health care provider. Our findings about ER utilization are difficult to interpret in terms of whether the excess ER utilization among sexual minority individuals resulted from necessity or was driven by factors indicating unnecessary utilization, which holds particular importance for future research, not only from a systems perspective (eg, cost), but also for individual-level health. For instance, our results showed that same-sex partnered individuals visited their physicians more frequently in the last year than did their opposite-sex partnered peers (ie, greater odds of 3 visits). Thus, it is possible that the elevated ER utilization among sexual minority individuals could be due to differences in disease-related characteristics (eg, symptom severity), in which case sexual minority individuals may benefit from enhanced or tailored disease management outreach. In addition, external factors, such as elevated stress due to the stigma projected onto sexual minority individuals,³ could act as an antagonists for disease symptoms.

Several limitations must be noted. First, we elected to use an unweighted matched comparison design to accommodate the relatively small size of the sexual minority sample. Consequently, the findings may not be representative of the general US population. Second, because MEPS does not include self-identified sexual identity, we used a measure of same-sex partnership, a similar strategy used in other studies with federal datasets lacking sexual identity information.^{9,15,27,41} This definition results in an underestimate of sexual minority individuals (as it does not include un-partnered sexual minority individuals or those who

failed to report partnership), potentially creating a bias akin to the “healthy worker effect,”⁴² as studies show that partnered people have better health than single people. Furthermore, extrapolations of our findings must be done cautiously, particularly when making comparisons to unpartnered individuals. Although there is a plentiful literature regarding the protective effects of marriage on health (primarily attributed to stress and social support),⁴³ the vast majority of this work has not included nonheterosexual individuals. In particular, the relevance of sex-specific conclusions from these prior studies has yet to be explored in a same-sex partnership context.⁴⁴ Furthermore, capturing marital status as a dichotomous variable (as has been done in most studies on this topic, including our own) is insufficient to fully explain the relationship between partnership and health, as negative marital quality has been associated with poor health outcomes (eg, mental health services utilization, cardiovascular function, neuroendocrine function).^{45–47} Future research should seek to expand our work by elucidating the role of relationship quality on health outcomes among sexual minority individuals. Third, our definition of sexual minority status cannot disentangle bisexual persons from either same-sex or opposite-sex partnered. Bisexual identity has been strongly associated with health disparities that are, at times, even greater than gay/lesbian identified individuals.⁴⁸ Fourth, although the medical conditions were operationalized using expenditure data from MEPS, which we believe is a strength of the current study, the expenditure data are self-reported and may be prone to recall bias. Fifth, the data are cross-sectional, precluding ascertainment of causal linkages between variables (eg, health risk behaviors with medical conditions). Finally, because we matched on sociodemographic information and because our sample was relatively small, we were unable to address intersectionality (eg, individuals who are both sexual minority and racial minority) to better understand the heterogeneity within sexual minority populations.

Despite these limitations, this report advances the literature regarding sexual orientation-based disparities in medical conditions and health care utilization. Infrastructural characteristics within health care systems and among health care professionals are essential both for facilitating health disparities research and for promoting health and health care equity, including the addition of voluntary sexual orientation data to electronic health records⁴⁹ and enhancing clinical education and training regarding patient sexual orientation.⁵⁰

Supplementary Material

Refer to Web version on PubMed Central for supplementary material.

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Table 1
Demographics of Matched Sample, Overall and by Sex, MEPS 2003–2011

	Overall			Men			Women		
	Opposite-Sex Partnered (n=494) (%)	Same-Sex Partnered (n=494) (%)	P	Opposite-Sex Partnered (n=248) (%)	Same-Sex Partnered (n=248) (%)	P	Opposite-Sex Partnered (n=246) (%)	Same-Sex Partnered (n=246) (%)	P
Employed	78.0	76.0	0.252	85.9	77.4	0.017	69.8	74.5	0.007
Has health insurance	80.5	80.9	0.884	79.0	82.3	0.363	82.0	79.4	0.477
Educational attainment									
< High school diploma	14.3	7.1	<0.001	15.0	7.3	<0.001	13.5	7.0	<0.001
High school diploma	30.7	17.1		30.8	17.0		30.7	17.2	
> High school diploma	55.0	75.7		54.2	75.7		55.8	75.9	
Household poverty									
< 100% FPL	7.7	16.4	<0.001	7.3	16.1	0.012	8.1	16.7	0.042
100%–125% FPL	3.9	4.7		4.0	4.4		3.7	4.9	
125%–200% FPL	11.1	7.9		10.9	6.1		11.4	9.8	
200%–400% FPL	32.0	29.6		33.1	28.2		30.9	30.9	
400% FPL	45.3	41.5		44.8	45.2		45.9	37.8	

All estimates are unweighted due to matching on age group, race/ethnicity, sex, region, and panel number. FPL indicates federal poverty level; MEPS, Medical Expenditures Panel Survey.

Table 2
Prevalence of Health Behaviors, Medical Conditions, and Health Care Utilization, Overall and by Sex, MEPS 2003–2011

Health Behaviors	Overall			Men			Women		
	Opposite-Sex Partnered (%)	Same-Sex Partnered (%)	P	Opposite-Sex Partnered (%)	Same-Sex Partnered (%)	P	Opposite-Sex Partnered (%)	Same-Sex Partnered (%)	P
Current smoker	20.5	25.2	0.099	20.8	25.6	0.233	20.2	24.9	0.244
BMI [mean (SD)]	27.7 (5.8)	27.6 (6.1)	0.817	28.7 (5.5)	26.3 (4.9)	<0.001	26.7 (6.0)	28.9 (6.9)	<0.001
Overweight	65.8	61.3	0.149	78.2	53.6	<0.001	53.3	69.1	<0.001
Obese	25.1	26.5	0.610	28.2	19.0	0.015	22.0	34.2	0.003
Has a regular provider	78.0	78.9	0.74	75.3	79.7	0.24	80.8	78.1	0.46
Medical conditions									
High blood pressure	40.3	42.9	0.516	48.2	42.5	0.292	31.0	43.2	0.029
Coronary heart disease	2.0	3.3	0.221	3.2	3.7	0.772	0.8	2.8	0.091
Angina	2.2	1.8	0.661	2.4	2.9	0.762	2.0	0.8	0.253
Heart attack	1.6	1.8	0.797	2.0	1.6	0.751	1.2	2.0	0.476
Other heart disease	5.1	10.4	0.002	5.2	8.6	0.145	4.9	12.2	0.003
Stroke	1.0	2.2	0.127	1.6	3.3	0.234	0.4	1.2	0.315
Emphysema	1.4	2.0	0.453	2.0	2.5	0.740	0.8	1.6	0.411
High cholesterol	27.9	30.2	0.486	36.7	36.2	0.931	17.9	23.4	0.188
Cancer	8.9	8.9	1.000	7.0	8.7	0.623	10.9	9.1	0.653
Diabetes	5.9	6.7	0.588	8.5	4.9	0.113	3.3	8.5	0.013
Arthritis	18.8	19.6	0.760	15.7	16.0	0.938	22.0	23.2	0.746
Asthma	7.5	13.3	0.003	6.9	10.3	0.183	8.1	16.3	0.006
HIV	0.0	6.1	<0.001	0.0	12.0	<0.001	0.0	0.0	—
Mood disorder	8.4	16.3	<0.001	4.8	19.1	<0.001	12.0	13.4	0.636
Alcohol disorder	0.6	1.0	0.478	0.4	1.6	0.178	0.8	0.4	0.562
Health care utilization									
Physician visits in last year									
None	35.0	27.1	<0.001	42.7	27.0	<0.001	27.2	27.2	0.027
1–2	32.0	28.5		29.4	32.7		34.6	24.4	
3	33.0	44.3		27.8	59.2		38.2	48.4	

Health Behaviors	Overall			Men			Women		
	Opposite-Sex Partnered (%)	Same-Sex Partnered (%)	P	Opposite-Sex Partnered (%)	Same-Sex Partnered (%)	P	Opposite-Sex Partnered (%)	Same-Sex Partnered (%)	P
ED visit in last year	8.7	14.0	< 0.009	7.7	10.5	0.274	9.8	17.5	0.013

All estimates are unweighted due to matching on age group, race/ethnicity, sex, region, and panel number. The significance level adjusted for multiple testing is $P < 0.002$.

Table 3
Adjusted Odds of Health Behaviors, Medical Conditions, and Health Care Utilization, Overall and by Sex, MEPS 2003–2011

	Overall		Men		Women	
	Same-Sex Partnership		Same-Sex Partnership		Same-Sex Partnership	
	aOR	95% CI	aOR	95% CI	aOR	95% CI
Health behaviors[†]						
Current smoker	1.69 ^{**}	1.18–2.42	2.03 ^{**}	1.21–3.42	1.42	0.86–2.30
Overweight	0.92	0.70–1.21	0.35 ^{**}	0.23–0.52	2.22 ^{**}	1.50–3.29
Obese	1.16	0.86–1.57	0.66	0.42–1.02	1.92 ^{**}	1.26–2.94
Has a regular provider	1.04	0.74–1.47	1.20	0.73–1.95	0.92	0.56–1.51
Medical conditions[‡]						
High blood pressure	0.93	0.67–1.29	0.70	0.45–1.09	1.40	0.84–2.34
Coronary heart disease	1.42	0.59–3.41	1.27	0.45–3.61	2.35	0.37–14.72
Angina	0.73	0.27–2.00	1.27	0.37–4.43	0.15	0.02–1.06
Heart attack	1.04	0.37–2.92	0.81	0.20–3.29	1.46	0.29–7.34
Other heart disease	2.30 ^{**}	1.32–4.00	2.18	0.97–4.91	2.59 [*]	1.19–5.62
Stroke	2.36	0.75–7.44	2.36	0.62–8.96	3.47	0.25–47.48
Emphysema	1.30	0.46–3.72	1.38	0.37–5.11	2.09	0.27–15.98
High cholesterol	1.31	0.91–1.88	1.12	0.70–1.81	1.89 [*]	1.03–3.50
Cancer	0.93	0.47–1.86	1.06	0.38–2.98	0.88	0.33–2.38
Diabetes	1.11	0.63–1.96	0.56	0.25–1.27	2.75 [*]	1.10–6.90
Arthritis	0.86	0.61–1.23	1.03	0.61–1.76	0.73	0.44–1.19
Asthma	1.66 [*]	1.04–2.65	1.37	0.66–2.85	1.90 [*]	1.02–1.19
HIV	—	—	—	—	—	—
Mood disorder	2.01 ^{**}	1.26–3.22	3.96 ^{**}	1.85–8.48	1.21	0.64–2.27
Alcohol disorder	0.90	0.18–4.44	2.46	0.24–24.80	0.29	0.02–5.25
Health care utilization[§]						
Physician visits in last year						

	Overall		Men		Women	
	Same-Sex Partnership		Same-Sex Partnership		Same-Sex Partnership	
	aOR	95% CI	aOR	95% CI	aOR	95% CI
None	0.77	0.55–1.07	0.50**	0.31–0.79	1.43	0.84–2.42
1–2	0.83	0.60–1.14	1.32	0.84–2.07	0.50**	0.31–0.79
3	1.51**	1.11–2.07	1.51	0.95–2.38	1.51	0.98–2.32
ER visit in last year	1.67*	1.04–2.67	1.30	0.62–2.76	1.72	0.91–3.25

All estimates are unweighted due to matching on age group, race/ethnicity, sex, region, and panel number. HIV not modeled due to zero cases among opposite-sex partnered individuals. Reference group for each column is opposite-sex partnered individuals.

* $P < 0.05$.

** $P < 0.01$.

[†] Models adjusted for sociodemographic characteristics [educational attainment (less than high school, high school, greater than high school), household income (< 125% FPL or > 125% FPL), and insurance status (yes/no)].

[‡] Models adjusted for sociodemographic characteristics and selected health risk behaviors [current smoker (yes/no) and obese (yes/no)].

[§] Models adjusted for sociodemographic characteristics, health risk behaviors, and selected health conditions (health conditions with significant differences in Table 2).