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# Health Insurance and Disclosure of Same-Sex Sexual Behaviors Among Gay and Bisexual Men in Same-Sex Relationships

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## **Abstract**

*Purpose:* Gay and bisexual men (GBM) have poorer health outcomes than the general population. Improved health outcomes will require that GBM have access to healthcare and that healthcare providers are aware of their sexual behaviors. This study sought to examine factors associated with having health insurance and disclosure of same-sex sexual behaviors to primary care providers (PCPs) among GBM in primary same-sex relationships.

Methods: We conducted an online survey of a national sample of 722 men in same-sex couples living in the United States. Logistic regression and multinomial regression models were conducted to assess whether characteristic differences existed between men who did and did not have health insurance, and between men who did and did not report that their PCP knew about their same-sex sexual activity.

**Results:** Our national sample of same-sex partnered men identified themselves predominantly as gay and white, and most reported having an income and health insurance. Having health insurance and disclosing sexual behavior to PCPs was associated with increasing age, higher education, and higher income levels. Insurance was less prevalent among nonwhite participants and those living in the south and midwest United States. Disclosure of sexual behavior was more common in urban respondents and in the western United States. In 25% of couples, one partner was insured, while the other was not.

Conclusions: Having health insurance and disclosing one's sexual behavior to PCPs was suboptimal overall and occurred in patterns likely to exacerbate health disparities among those GBM already more heavily burdened with poorer health outcomes. These factors need to be considered by PCPs and health policymakers to improve the health of GBM. Patient- and provider-targeted interventions could also improve the health outcomes of GBM.

**Key words:** health insurance, male couples, men who have sex with men, preventive care.

# **Background**

AY, BISEXUAL, AND OTHER MEN who have sex with men (MSM) are at greater risk for adverse health outcomes than the general population. Specifically, gay, bisexual, and other MSM are at greater risk of being infected with HIV<sup>1</sup> and other sexually transmitted infections (STIs)<sup>2</sup> and are more likely to use tobacco,<sup>3</sup> alcohol,<sup>4</sup> and illegal drugs<sup>5,6</sup> than non-MSM. Gay and bisexual men (GBM) also have higher rates of depression and suicide. 7,8 Reducing these disparities and achieving better health outcomes among GBM has become a national priority, highlighted recently in the U.S. Department of Health and Human Services' Healthy People 2020<sup>9</sup> and in the National HIV/AIDS Strategy for the U.S. issued in 2010.<sup>10</sup>

Guidelines suggest that competent and comprehensive care of MSM requires preventive health measures beyond what is recommended for the general population. For example, this may include screening for HIV more frequently than in the general population<sup>11</sup> and assessing patients for the appropriateness of pre-exposure prophylaxis for HIV. 12 STI screening should take place more frequently in sexually active MSM, including increased screening for syphilis and collecting specimens to screen for gonorrhea and Chlamydia from all anatomic sites in which a patient is sexually active (e.g., rectal, oral). <sup>13</sup> MSM should also be universally vaccinated for hepatitis A and B. <sup>14</sup> Further, vaccination against human papilloma virus (HPV) is now recommended for all individuals between 11 and 26 years old, 15 but receipt of this vaccination is especially pertinent for MSM, who are

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at higher risk of the complications of HPV. 16,17 Finally, screening for depression as well as tobacco, alcohol, and drug use is necessary to identify patients who need care or referral for additional services for these issues.

Although MSM need these specific health services to prevent and treat illnesses, many studies suggest that they are less likely than others to have health insurance. 18-22 GBM who are in ongoing relationships may have the opportunity to access healthcare insurance through benefits available to their partner, potentially mitigating their risk of being without health insurance. However, little is known about how frequently health insurance is available through same-sex partners and how often it is actually accessed. Although implementation of the Affordable Care Act may result in fewer uninsured individuals in the United States, a significant number of Americans are still expected to be without health insurance. 23,24 Therefore, it will remain important to consider the effects of corporate and governmental policies on the availability of health insurance benefits to same-sex domestic partners of insured individuals.

Even when GBM do have health insurance and access to care, their specific health needs may not be known to their primary care providers (PCPs) if they do not feel comfortable disclosing their same-sex sexual behaviors. Previous research has shown that a significant proportion of GBM, 48-71%, have not disclosed their sexual orientation to their PCPs. 25-30 Lack of disclosure is greater among African Americans, individuals with lower income and educational attainment, and those who live in rural areas. 28,30 These studies provide some data regarding the disclosure of sexual orientation to PCPs among lesbian, gay, and bisexual individuals in general. However, little is known about factors associated with such disclosure among GBM in primary same-sex relationships. Relationships do not necessarily provide refuge from negative health outcomes, such as HIV, in GBM. Between 1/3 and 2/3 of U.S. MSM acquire HIV while in a primary same-sex relationship. 31,32 Therefore, a better understanding of healthcare access, by means of having healthcare insurance, and disclosure to PCPs about engagement in same-sex sexual behaviors could impact the type and quality of care and preventive measures they receive. A better understanding of these issues is essential for working toward reducing health disparities among GBM in general and specifically among those in primary same-sex relationships.

The purpose of this study was to examine these two important determinants of health outcomes—access to health insurance and disclosure of same-sex sexual behaviors to PCPs among gay and bisexual in primary relationships. A better understanding of this information has significant implications for policy makers as well as for healthcare providers and organizations.

## **Methods**

## Participants and recruitment

The methods used in the present study have been described in detail elsewhere. <sup>33</sup> Recruitment for this study sample was conducted through Facebook banner advertising. During a 10-week period in 2011, banner advertisements targeted partnered individuals based on demographics that they reported on their Facebook profile. Specifically, our study

advertisements targeted Facebook members who described themselves as male, 18 years of age and older, living in the United States, interested in men, and had a "relationship status" of being "in a relationship," "engaged," or "married." All Facebook users whose profiles met this initial eligibility criteria had an equal chance of being shown one of three banner advertisements. The advertisements briefly described the purpose of the study and included a picture of a male same-sex couple.

A total of 7,994 Facebook users clicked on at least one of the advertisements and were then directed to the study webpage. Among those who visited our study webpage, 4,056 (51%) potential participants answered our eligibility questions; 722 GBM (18%), representing both men of 361 male couples, qualified, enrolled, and completed the survey, and were included in this study. Men must have met the initial eligibility criteria (above) and have had oral and/or anal sex with their main partner within the previous 3 months. After consenting to participate, men took the 30–40-minute confidential survey. Survey Gizmo hosted our study webpage, electronic consent form, and confidential online survey through the use of a secure access portal.

A partner referral system was embedded in the survey to enable data collection from both men in each couple. Specifically, participants entered their own and their main partner's e-mail address. An e-mail was sent to each participant's partner containing a link to the study. E-mail addresses were used to link survey responses between partners, and *post hoc* analyses of response consistency were used to verify the couples' relationship. Every fifth couple that completed the survey received two modest incentives (e.g., 20 USD) via e-mail. The Medical College of Wisconsin Institutional Review Board approved the study protocol.

## Outcome variables

Two outcome measures were used for the present study: (1) health insurance and (2) participants' report of whether their PCP knew about their sexual behaviors with other men. For health insurance, a dichotomous measure was used to assess whether participants currently had health insurance (yes vs. no). Men were also asked, "Does your primary care doctor know that you have sex with men?" and could select from one of the following categorical response options: "yes," "no," or "I do not have a primary care doctor." To assess which characteristics were associated with men who reported that their PCP knew about their same-sex sexual behaviors, only men who had a primary care doctor were evaluated.

## Independent variables

A variety of measures were used to assess sociodemographic and relationship characteristics. For example, men were asked to report their age, race, sexual orientation, education level, personal income, whether they live in an urban/suburban or rural environment, and their HIV status. Relationship characteristics were also assessed, including relationship duration and cohabitation duration.

# Data analysis

Data from the 722 men were analyzed using Stata Version 12 (StataCorp, College Station, TX). Several variables were

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transformed for descriptive purposes (e.g., education level). Participants were treated as individual-level subjects while accounting for the noninterdependence of the subjects being nested within dyads (i.e., couples). Robust standard errors were employed for regression analyses to account for this nonindependence.

Descriptive statistics were used to characterize our sample. Logistic regression and multinomial regression models were conducted to assess whether characteristic differences existed between men who did and did not have health insurance, as well as between men who did and did not report that their PCP knew about their same-sex sexual activity. Multinomial regression models were used to assess differences in income and U.S. region with both outcome variables. Stata calculates the relative risk ratio (RRR) from the multinomial log-odds coefficient. The RRR is interpreted as the change in the outcome relative to the referent group for each unit change in the predictor variable with all other variables in the model held constant.<sup>34</sup> The RRR is similar to an odds

ratio (OR) when conducting multinomial logistic regression analyses. ORs/RRR and statistical significance for the factors in the logistic and multinomial regression models are reported.

#### Results

Demographic characteristics of the participants are described in detail in Table 1. In general, the majority of the sample was white (77%). The mean age was 33 years, with a range of 18–68 years. Individuals from various income levels and U.S. geographic regions were represented. Nearly 13% of the sample reported being HIV positive.

#### Health insurance coverage

Table 1 also shows the insurance status for the study subjects. Three quarters of the subjects reported having insurance. Having health insurance was significantly and positively associated with increasing age (OR = 1.05 [1.03-1.08], P < 0.001),

Table 1. Demographic Information and Insurance Coverage of 722 Partnered Men

	N	%	(N) % with insurance	OR/RRR	P
Overall Age (per 1-year increase)	722 Mean = 33.01, SD 10.79	Range (18–68)	(545) 75.5% Mean with ins=34.05; Mean without ins=29.81	1.05	0.000
Education	270	50 40	(240) 65 66	D. C	
No bachelor's degree Bachelor's degree or higher	378 344	52.4% 47.6%	(248) 65.6% (297) 86.3%	Ref. 4.27	0.000
Race			,		
White	559	77.4%	(439) 78.5%	Ref.	
Nonwhite	163	22.6%	(106) 65.0%	0.390	0.002
Income	57	7.00	(21) 54 46	D. C	
None	57 298	7.9% 41.3%	(31) 54.4%	Ref.	0.262
<\$30K \$30–60K	298 195	41.3% 27.0%	(182) 61.1% (169) 87.0%	1.3 5.4	0.363 0.000
\$60–90K	114	15.8%	(106) 93.0%	11.1	0.000
>\$90K	58	8.0%	(57) 98.3%	47.8	0.000
Region			,		
Northeast	120	17%	(101) 84.2%	Ref.	
South	210	29%	(144) 68.6%	0.41	0.009
Midwest	163	22%	(115) 71.0%	0.45	0.020
West	229	32%	(185) 81.0%	0.79	0.498
Location					
Rural	78	10.8%	(52) 66.7%	Ref	
Urban	644	89.2%	(493) 76.6%	1.65	0.210
HIV status					
Positive	91	12.6%	(74) 81.3%	Ref.	
Negative/unknown	631	87.4%	(471) 74.6%	0.56	0.177
Sexual orientation					
Bisexual	13	1.8%	(8) 61.5%	Ref.	
Gay	709	98.2%	(537) 75.7%	4.55	0.081
PCP knew of MSM behaviors					
No	84	11.6%	(68) 81.0%	Ref.	
Yes	471	65.2%	(393) 83.4%	1.47	0.428
Did not have a PCP	167	23.1%			
Health insurance status					
Both men insured	227	62.9%			
One insured, one uninsured	91	25.2%			
Neither man insured	43	11.9%			

MSM, men who have sex with men; OR, odds ratio; PCP, primary care provider; RRR, relative risk ratio.

having at least a bachelor's degree (OR=4.27 [2.53–7.22], P < 0.001), and/or higher income levels (RRR=P < 0.001; see Table 1 for details). Conversely, having health insurance was negatively associated with being nonwhite (compared with white) (OR=0.39 [0.22–0.70], P < 0.01) and living in the south (RRR=0.41, P < 0.01) or midwest regions (RRR=0.45, P < 0.05) of the United States, compared with living in the northeast.

In 63% of the couples, both men had health insurance; in 12%, neither of the men had insurance. In one quarter of the couples, one partner was insured, while the other was uninsured. Among couples with mixed insurance statuses, the mean relationship duration was 34 months, ranging from 3 to 192 months. Approximately two-thirds of these couples (68%) were living together. The mean duration of cohabitation was 33 months, with a range of 1–156 months.

# PCP knowledge of same-sex sexual behaviors

Among the 555 men who reported having a PCP, 85% reported that their PCP was aware of their same-sex sexual behaviors. Having a PCP who was aware of a participant's same-sex sexual behaviors was positively associated with participants' increasing age (OR=1.16 [1.10–1.22], P < 0.001), having a bachelor's degree or higher education (OR=3.50)

[1.57–7.80], P < 0.01), having a higher personal income level of at least \$60,000 (P < 0.05), refer to Table 2), and/or being HIV positive (OR = 5.61 [1.45–21.78], P < 0.05). Residing in the western United States (RRR = 3.91, P < 0.01) and/or in an urban environment (OR = 4.84 [1.63–14.41], P < 0.01) were also positively associated with a participants' PCP being aware of their same-sex sexual behaviors. Table 2 provides additional information about these results.

#### Discussion

This study is the first, to our knowledge, to evaluate both health insurance status and disclosure of same-sex sexual behaviors to PCPs among American GBM in primary same-sex relationships. Prior studies have mainly reported data on health insurance among GBM from state or regional samples; this study is one of a few that have evaluated insurance status from a national sample. Our study found similar rates of health insurance among GBM<sup>18–22</sup> and supports the previous findings that having health insurance is associated with GBM's increasing age and income. As in some previous studies, significantly lower rates of insurance among nonwhite respondents were reported. This is especially concerning because, similar to GBM, racial minorities also face greater burdens of illness.<sup>2,3</sup>

TABLE 2. PROVIDER KNOWLEDGE OF SAME-SEX BEHAVIORS AMONG PARTNERED MEN WITH PRIMARY CARE PROVIDERS

	N	%	(N) % PCP knows	OR/RRR	P
Overall	555		(471) 85%		
Education					
No bachelor's degree	277	49.9%	(221) 79.8%	Ref.	0.002
Bachelor's degree or higher	278	50.1%	(250) 89.9%	3.50	
Race					
White	434	78.2%	(370) 85.3%	Ref.	
Nonwhite	121	21.8%	(101) 83.5%	0.85	0.68
Age (per 1-year increase)	M=34.7, SD=0.47 with PCP vs. M=27.5. SD=0.54 without PCP	Range 18–68 with PCP, Range 18–53 without PCP	M=36.1, SD=0.51, range 18-68 with PCP knows vs. M=26.4. SD=0.91, range 18-59 PCP does not know	1.16	0.000
Income					
None	32	5.8%	(25) 78.1%	Ref.	
<\$30K	200	36.0%	(153) 76.5%	0.91	0.84
\$30-60K	167	30.1%	(145) 86.8%	1.85	0.22
\$60–90K	103	18.6%	(97) 94.2%	4.53	0.02
>\$90K	53	9.5%	(51) 96.2%	7.14	0.02
Region					
Northeast	100	18.0%	(80) 80.0%	Ref.	
South	148	26.7%	(116) 78.4%	0.91	0.78
Midwest	124	22.3%	(103) 83.1%	1.23	0.60
West	183	33.0%	(172) 94.0%	3.91	0.002
Location					
Rural	54	9.7%	(37) 68.5%	Ref.	
Urban	501	90.3%	(434) 86.6%	4.84	0.005
Sexual orientation					
Bisexual	10	1.8%	(7) 70.0%	Ref.	
Gay	545	98.2%	(464) 85.1%	4.98	0.158
HIV status					
Positive	89	16.0%	(84) 94.4%	Ref.	
Negative/unknown	466	84.0%	(387) 83.0%	5.61	0.013

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The unique design of this GBM couples study allowed us to evaluate the concordance of health insurance status within these relationships. In 25% of the couples, only one partner was insured. Among the discordantly insured couples, the mean duration of cohabitation was nearly 3 years, with a range of up to 13 years. This finding suggests that if same-sex partner benefits were available and affordable, a significantly greater proportion of men in this population could be insured and have access to preventive healthcare. These findings are of particular interest when considering health insurance policy implications, including the potential impact that corporate and legal policies could have on increasing access to healthcare. These findings should be considered by policymakers when attempting to address health disparities in this population to meet the goals of Healthy People 2020.<sup>10</sup>

Another factor that is essential in reducing health disparities is for GBM to have PCPs with whom they can disclose and discuss their same-sex sexual behaviors so that providers can administer appropriate preventive care. This study had several findings relevant to this issue. First, disclosure was less likely among younger and poorer individuals. Thus, those individuals already at greater risk for HIV, STIs, and other health complications were less likely to have a PCP who knew about their same-sex sexual behaviors. This is likely to exacerbate, rather than improve, current health disparities. Urban GBM were more likely to have disclosed their same-sex sexual behaviors than rural men. Rural GBM already have more limited access to communitybased preventive services, making the disclosure of samesex sexual behaviors and the administration of preventive care by PCPs even more important among these men. All of these factors that decrease disclosure of same-sex sexual behaviors are important to address in light of new biomedical HIV prevention methods, namely, HIV preexposure prophylaxis, that are effective and available, 11 but require that a provider be aware of patients' sexual behaviors. Further research should explore how patient-targeted (e.g., education to improve communication with PCPs), provider-targeted (e.g., interventions to improve competence in discussing sexual histories), and systems-level (e.g., standardizing and improving collection of sexual behavior information) interventions can improve providers' knowledge of each patient's sexual behaviors to facilitate appropriate care.

The use of a cross-sectional study design with a convenience sample of U.S. GBM does not allow for casual inference or generalizability of these findings to all male samesex couples, particularly among those who do not use the Internet, use Facebook, and/or state their relationship status and interest in men publically via their Facebook profile. Although we did not collect identifying information, biases of participation, social desirability, and recall may have influenced participants to inaccurately report information about their HIV status, sexual behaviors, and other demographic characteristics. With regard to our analysis of insurance status, we did not specifically ask whether each man had the opportunity to obtain health insurance, either on his own or through his partner's benefits, only whether he actually had health insurance. There may be some men who had the potential to obtain insurance, but chose not do to so. Finally, nonwhite participants constituted approximately 23% of our sample, but nonwhite GBM represent 70% of incident HIV

infections each year and black GBM in particular are most disproportionately affected by HIV. Our study found that nonwhite participants were less likely to be insured, but not less likely to have disclosed their sexual behaviors to their PCPs. However, given the disproportionate impact of HIV and the importance of improving outcomes in this population, future studies with larger representation of black and other minority GBM are warranted. This could be accomplished by recruiting participants from websites (e.g., Black Gay Chat Live) or physical venues frequented by this population or by targeting recruitment advertisements to individuals who identify themselves as black and/or Hispanic on mainstream websites or mobile applications that are frequented by GBM (e.g., Manhunt, Grindr).

Despite these limitations, our study provides unique and important data regarding two important domains, health insurance availability and PCP knowledge of same-sex sexual behaviors, which are essential to understand and address in order to reduce health disparities for GBM. Our results demonstrate that governmental and corporate policies have the potential to lessen these disparities by making health insurance available to same-sex partners of insured individuals. In addition, improvements in patient-provider communication need to be addressed to allow PCPs to administer appropriate diagnostic and preventive services to GBM. Multiple approaches may be needed to make improvements in this area. Research is needed to explore the specific reasons that GBM do not seek healthcare or disclose sexual behaviors to healthcare providers, especially among young, black GBM, the demographic most disproportionately affected by HIV. While attention has been given to improving linkage to HIV care following HIV diagnoses, little attention has been given to examining and improving healthcare experiences for young, black GBM who may not yet be infected with HIV.35-37 Additional clinician training in cultural competency with gay, bisexual, and other MSM is needed, as is education regarding the current epidemiology, prevention, and treatment of HIV and STIs in this population. 38–43 In the interim, developing standardized and universal protocols for collecting sexual behaviors from clinic patients and implementing the use of computer-assisted surveys to collect sexual behaviors among clinic patients may increase disclosure of HIV risk behaviors that could in turn result in additional preventive health recom-mendations by clinicians for GBM 44-46 mendations by clinicians for GBM.<sup>4</sup>

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