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HIV Testing as a Standard of Care for Men Who Have Sex With Men: Patient and Provider Perspectives

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Abstract

In 2006, the Centers for Disease Control and Prevention (CDC) revised its HIV testing recommendations in health care settings. Current guidelines recommend that all patients aged 13 to 64 years be screened for HIV as part of routine medical care. Additionally, the CDC recommends that persons at high risk for HIV infection should be screened for HIV at least annually. Primary care providers in clinical settings are seen as important providers of HIV prevention services and will be critical to expand HIV testing rates, particularly among populations such as men who have sex with men (MSM). This article reports on results from a multifaceted study that combined qualitative and quantitative methods and targeted both MSM and primary care providers. Through a quantitative survey with 709 MSM in Wisconsin, we explored the relationship between having a primary care provider, risk behavior, and HIV testing patterns. In the qualitative portion of the study, we conducted structured interviews with 7 clinic medical directors to explore the acceptability and feasibility of increased HIV testing in clinical setting strategy among primary care providers. Consistent with previous research, the results of this study indicate that primary care providers can play a significant role in encouraging and facilitating annual routine testing as a standard of care for high-risk MSM. This article offers policy and practice recommendations based on these findings.

Keywords

HIV testing; patients; health personnel

In 2006, the Centers for Disease Control and Prevention (CDC) revised its recommendations for HIV testing in health care settings. Current guidelines recommend that all patients aged 13 to 64 years be screened for HIV as part of routine medical care, regardless of disclosed risk behavior.¹ Additionally, the CDC recommends that persons at high risk for HIV

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infection, including men who have sex with men (MSM), should be screened for HIV at least annually. Approximately one quarter of individuals are unaware of their HIV-positive status. It is estimated that diagnosing those unaware they are HIV positive would decrease the number of sexually transmitted HIV infections by 32%.²

CDC data suggest that most MSM (65%–85%) receive primary health care from a private provider. In addition, MSM are more likely to have been tested for HIV during the preceding year if they had visited a health care provider and the provider recommended an HIV test.⁴ However, some studies have shown that only 20% of the entire sample said that they ever had a health care provider recommend an HIV test,⁵ despite studies that indicate patients are largely accepting of HIV testing.⁶ Even in cases where patients are known to engage in risky sexual behavior, providers did not recommend HIV or STD screening.¹ Furthermore, patients face additional barriers to testing, such as a perception that HIV is not an issue among patients and lack of institutional policies that encourage testing.⁷ Other barriers include fear and anxiety surrounding potential positive results, belief that they are HIV negative or have not been exposed to HIV, and belief that little can be done if they are HIV positive.^{8–10}

In 2007, 69% of HIV cases in Wisconsin were among MSM, and from 2000 to 2007, HIV cases among MSM increased 34%, mostly among MSM under 30 years of age. Moreover, although racial/ethnic minorities constitute only 12% of the Wisconsin population, they accounted for 54% of HIV cases in 2007. Through a quantitative survey with MSM in Wisconsin, we explored the relationship between having a primary care provider, risk behavior, and HIV testing patterns. In the qualitative portion of the study, we conducted structured interviews with service providers. These interviews explored the acceptability of increased HIV testing in clinical setting strategy among primary care providers and what would need to change in doctor/patient relationships in order to expand HIV testing as part of routine medical care.

Methods

From June to December 2009, we surveyed 709 Wisconsin MSM, recruited from diverse venues in the Milwaukee metropolitan area, which has the state's highest HIV rates.¹¹ Recruitment venues included PrideFest, Milwaukee's annual gay pride event; community events with primarily African American audiences; gay clubs with a majority Hispanic clientele; and other venues with diverse participants, such as block parties and drag shows. Eligibility criteria for participation in the survey included being 18 years of age or older, having had sex with men in the past year, and identifying as male. The brief survey, which had both English and Spanish versions, consisted of 19 questions focused specifically on HIV testing behaviors, including past testing experiences and barriers/facilitators to annual routine testing among MSM. Study participants received \$5 after completion of the survey.

We also interviewed 7 primary health care clinic medical directors (CMDs) representing commercial, academic, and public health systems of major regional health care institutions in southeastern and south-central Wisconsin. We interviewed CMDs because they may represent clinic-wide practices and policies and the perspective and experiences of a group of providers. Interview questions focused specifically on HIV testing protocols at the clinic and institutional levels. Questions addressed CMDs' familiarity with CDC guidelines, clinic-level testing procedures, and suggestions for translating policy into practice.

Quantitative Data Analysis

χ^2 analyses were conducted to investigate the relationship between talking about sexual orientation with a primary care doctor, the level of comfort of the physician when discussing

a patient's sexual orientation, and whether the physician recommended an HIV test. Stepwise logistic regression was conducted to understand whether ethnicity was associated with the likelihood of discussing sexual orientation with a primary care doctor after controlling for age and education. Following the procedure recommended by Cohen et al, 3 contrast codes were created to compare ethnic groups.¹² For example, the first code compared non-Hispanic white participants against African Americans and Hispanics. Thus, non-Hispanic whites were coded "1," African Americans were coded "-1," and Hispanics were coded "0." The variables age and education were entered in the first step of the equation, number of male partners was entered in the third step of the equation, and the contrast codes were entered in the last step of the equation. A second stepwise logistic regression equation was conducted to understand whether ethnicity was associated with the likelihood that a primary care doctor would recommend an HIV test, after controlling for comfort discussing sexual orientation with a primary care doctor and number of same-sex partners in the previous 12 months.

Qualitative Data Analysis

All interview recordings were transcribed verbatim and entered into a computer-based text file and then transferred to the software program MAXQDA for coding VERBI Software. Transcripts were analyzed by the first author for emergent themes using principles of grounded theory analysis.¹³ Transcripts were first coded by population served by the agency (eg, African American, urban, suburban) and type of health care system (eg, commercial, public, academic). Then, the documents were coded with text codes that reflected key analytical concepts, including consent procedures, discussions of sexuality and HIV risk during patient visits, screening and testing policies and monitoring, familiarity with CDC testing guidelines, provider training and education regarding HIV testing, and barriers to HIV testing in the clinic. Data analysis explored how clinics conducted HIV risk assessments with their patients, the role of the consent process in decisions to recommend an HIV test, providers' comfort and confidence to recommend an HIV test to their patients, and policy and practice recommendations to facilitate the expansion of routine annual HIV testing for high-risk MSM as a standard of care.

Results

Survey Results

The majority of the sample (83.4%) reported seeing a health care provider in the last year, and 86.2% reported ever receiving an HIV test (see Table 1). Similar to other studies, only 49.3% of respondents with a primary care provider (72.4% of total sample) reported that their health care providers recommended an HIV test. χ^2 analysis showed that physicians who discussed sexual orientation with their patients were more likely to recommend an HIV test ($\chi^2 = 63.29$, $P < .001$). In addition, physicians who seemed more comfortable discussing sexual orientation with their patients were more likely to recommend an HIV test to their patients ($\chi^2 = 15.95$, $P < .01$).

Two stepwise logistic regression equations were computed to understand (1) the relationship between age, ethnicity, and likelihood of discussing sexual orientation with doctors, and (2) the relationship between ethnicity, discussion of sexual orientation with doctors, and the likelihood of receiving a doctor's recommendation for an HIV test. To capture variation in ethnicity, we created 3 contrast codes. In the first code, African Americans and Hispanics were coded "0," non-Hispanic white participants were coded "1," and others were coded "-1." In the second code, Hispanics and non-Hispanic whites were coded "0," African Americans were coded "1," and others were coded "-1." In the third code, African

Americans and non-Hispanic whites were coded “0,” Hispanics were coded “1,” and others were coded “–1.”

To answer the first question, participants’ age and education level were entered in the first step of the equation, and the 3 contrast codes were entered in the second step of the equation. Table 2 presents the results of the last step of the equation. As Table 2 indicates, each increment in age was associated with greater likelihood of discussing sexual orientation with doctors. Moreover, African Americans were more likely to discuss their sexual orientation with their doctors, and non-Hispanic white participants were the least likely to discuss their sexual orientation with primary care doctors.

To answer the second question, number of sexual partners was entered in the first step of the equation, and the 3 contrast codes were entered in the second step of the equation. Table 3 presents the results of the last step of the equation. As Table 3 indicates, number of male partners in the previous 12 months was not associated with the likelihood that a physician would recommend an HIV test. Moreover, discussing sexual orientation with doctors and being Hispanic and African American were associated with a recommendation for an HIV test from primary care doctors. Lastly, being of non-Hispanic white ethnicity was negatively associated with a recommendation for an HIV test from primary care doctors.

Interview Results

Risk assessment and screening policies—None of the clinics or hospital systems represented in the study had universal screening policies or procedures. Interview responses revealed that providers continued to offer HIV tests based on risk assessments of their patients. CMDs reported that providers conducted risk assessments on a “case-by-case basis” (JO01), typically in response to information patients volunteered regarding sexual health (JO03). CMDs in this study suggested that provider time constraints and competing priorities during the clinic visit reduced their ability to offer HIV tests to their MSM patients. One provider observed that, “if you have a half-hour visit with a patient, and of that you really have 20 minutes, can [you] really spend in conversation with them back and forth about their health? There’s only so much time to dedicate to sexual health and STD prevention” (JO06).

Patients may also withhold information about their possible HIV risk due to lack of trust between the provider and patient. Universal screening presents one opportunity for overcoming this barrier to more widespread testing because “it gives them an opportunity to say ‘yes’” rather than volunteering information about their risks to their provider (JO06). CMDs were aware that patients do not necessarily identify themselves as MSM during visits, particularly if they come to the doctor for other health needs, such as chronic disease management (eg, diabetes, blood pressure, and cholesterol), or generally do not seek preventive services (JO07).

Provider training and education—CMDs generally agreed that all providers, including physicians and support staff, lacked adequate training regarding discussing sexual health with their patients, which potentially leads to discomfort discussing HIV risk and testing (JO03). Given the general sense that they do not serve at-risk populations, providers may be reluctant to invest time and resources into HIV-related education: “You know, in the last year, I haven’t seen anybody that I know of that has HIV. So how much time and effort am I going to do on CME in HIV? To be honest, not much” (JO04). Interviewees also indicated that physicians are seen as the only service providers that patients encounter during a medical visit who have the knowledge, competency, and assurance of confidentiality that patients seek when considering an HIV test or discussing sexual risk. Routine HIV testing would potentially further burden physicians as a result.

System-wide policies and practices—Increasingly, clinics operate as part of larger systems of clinics. Interviewees observed that any effort to expand HIV testing would have to be system-wide and involve upper-level administration: “If you want anything to get done universally, [you must] start off at the head of the organization and try to work your way down. Anytime a little project starts in the individual clinic, [it gets] shot down because it’s not being applied ... [in all] clinics” (JO02). However, increasing HIV testing through the use of new technologies would still require institutional support and investment. For example, an HIV testing reminder could be incorporated into electronic medical records system. However, as one CMD observed, “You would have to have somebody to champion it; you’d have to have somebody who could draw up a protocol . . . then you could build it . . . you need some doctor somewhere, who gets behind it—that’s their little baby- and then it might move forward” (JO04). In other words, expanding HIV testing and making it part of routine care would require changes to the infrastructure in health care settings.

Finally, CMDs expressed a wide range of opinions regarding the consent process and whether it presents a barrier to testing. Some CMDs liked the consent form because it provided a framework in which to discuss difficult, sensitive issues with their patients (JO02). However, CMDs also recognized the barriers that the consent process presented. In particular, providers saw the consent process as time consuming: “If you sit and do it really well, it takes a good 5 to 10 minutes to answer all of the questions, and people have a lot of questions . . . So, it’s fairly time intensive for someone trying to see 15 to 20 patients in a morning or afternoon” (JO03). This same CMD noted that providers are not usually paid for talking to their patients regarding any issue, including HIV risk and testing procedures.

Discussion

In this study, CMDs indicated that they perceived a need to increase testing and generally supported the idea that they could do more testing, given the necessary training and adequate support from administrators. CMDs cited lack of time, lack of compensation and incentive for providers to engage in time-consuming counseling and testing procedures, and a perception that their particular patient population was not at risk for HIV infection as reasons HIV testing remains low in clinic settings. That is, given the competing demands during patient visits, discussions of sexual behavior and HIV risk are not priorities during most primary care visits. CMDs suggested that educating providers at the level of the clinic is not sufficient. New technology, such as automatic reminders through an electronic medical records system, could facilitate providers’ likelihood to conduct regular risk assessments with their patients and subsequently offer HIV tests. System-wide support, including financial and technical resources, would need to be mobilized to ensure both compliance and sustainability of any initiatives to increase HIV testing in clinic settings.

The results of this study support the expansion of HIV testing in primary care settings. Survey results indicated that MSM got tested based on a recommendation by providers, that they have access to and use primary care providers, and that use of primary care providers is high among different racial/ethnic groups and across income/education levels. This study suggests that an effort to increase HIV testing rates needs to address both patient and provider attitudes and practices. Studies have found that physician attitudes and practices make a difference in achieving universal screening, as the case of pregnant women has illustrated.^{15,16} In this study, CMDs also indicated that they primarily conducted risk assessments when patients initiated them. Therefore, in addition to educating providers about the need for expanded testing within the clinic, patients also need to be educated about the need for routine testing.

Conclusion

Consistent with previous research, the results of this study indicate that primary care providers can play a significant role in encouraging and facilitating annual routine testing as a standard of care for high-risk MSM.^{1,16} To be successful, however, such a strategy would require system-wide changes, including the integration of reminders into electronic medical records and the elimination of documentation requirements for HIV testing. Significantly, these system-wide changes are more sustainable than other methods of increasing testing, such as provider education programs.¹⁶

This study presents several limitations. First, the survey sample was recruited from MSM-identified venues. Therefore, it may not be generalizable to MSM who do not visit these venues or identify as MSM/gay. In addition, recruitment was primarily restricted to one city, and results may not be generalizable to MSM who live in rural areas or smaller urban areas. The sample was cross-sectional, and therefore, we cannot report on causality. Finally, the sample size of CMDs was small ($n = 7$), making the results potentially not representative of all health systems or not representing the range of possible testing policies.

Despite these limitations, this study lays the groundwork for future research. First, it demonstrates the need for more in-depth research with providers, at both the individual and clinic level regarding HIV testing policies, provider training and competence to conduct HIV tests, and comparative studies of different types of primary care practices (eg, based on populations served, geographic location). In addition, this study indicates the need for more comprehensive research into the relationship between risk behaviors, risk assessments by health care providers, and HIV testing patterns among populations at risk for HIV. This information will be critical to the increased efforts to institute a national HIV prevention strategy based on a “test-and-treat model.” In order for this strategy to be successful, both providers and patients will need to be targeted in efforts to improve testing rates.

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Table 1

Demographic Variables Across Ethnic Group

Variable	Ethnic Group					
	Hispanic		Non-Hispanic White		African American	
	n	%	n	%	n	%
Sexual orientation						
Gay	71	83.5	404	92.2	91	75.8
					48	77.4
Bisexual	10	11.8	24	5.5	23	19.2
					10	16.1
Heterosexual	1	1.2	3	0.7	2	1.7
					—	—
Education						
High school	36	42.4	93	21.3	59	49.2
					12	19.3
College	48	56.6	345	78.8	61	50.8
					50	80.6
Insurance status						
Insured	50	58.8	348	79.5	75	62.5
					46	74.2
Uninsured	35	41.2	88	20.1	44	36.7
					16	25.8
Employment status						
Employed	72	84.7	355	81.1	82	68.3
					51	82.3
Unemployed	13	15.3	81	18.5	38	31.7
					11	17.7
Primary care doctor (PCD)						
Yes	56	65.9	333	76.0	85	24.2
					39	62.9
No	24	28.2	103	23.5	29	70.8
					23	37.1
Saw PCD in previous 12 mo						
Yes	53	62.4	287	65.5	81	6.7
					35	56.5
No	5	5.9	48	11.0	8	67.5
					4	6.5
Ever had HIV test						
Yes	76	89.4	374	85.4	108	90.0
					50	80.6
No	5	5.9	63	14.4	3	2.5
					11	17.7
Doctor recommended test						
Yes	41	48.2	113	25.8	66	55.0
					17	27.4
No	17	20.0	221	50.5	22	18.3
					22	35.5
Relationship status						

Variable	Ethnic Group									
	Hispanic		Non-Hispanic White		African American		Other			
	n	%	n	%	n	%	n	%	n	%
Single	47	55.3	203	0.2	81	67.5	39	62.9		
Monogamous relationship	33	38.8	174	39.7	26	21.7	17	27.4		
Nonmonogamous relationship	2	2.4	59	13.5	10	8.3	5	8.1		
No. of partners										
0-1	38	44.7	213	48.6	42	35.0	33	53.2		
2	14	16.5	70	16.0	26	21.7	12	19.4		
3-5	19	22.4	72	16.4	27	22.5	8	12.9		
>5	12	14.5	76	17.4	21	17.5	9	14.5		

Note: Number of partners refers to number of new male sex partners in the last 12 months. Saw primary care doctor refers to seeing a doctor in the last 12 months. Some percentages do not add to 100% due to missing data.

Table 2

Stepwise Logistic Regression Equation for Discussion of Sexual Orientation With Doctor

Variable	B	Standard Error	Odds Ratio	95% Confidence Interval	Wald Statistic	P
Age	.02	0.00	1.02	1.01–1.04	11.51	.01
Education	.10	0.11	1.10	0.87–1.39	.75	.38
Contrast code 1	–.35	0.16	0.70	0.50–0.98	4.32	.03
Contrast code 2	.76	0.24	2.14	1.32–3.47	9.68	.01
Contrast code 3	.01	0.25	1.01	0.62–1.66	.00	.94

Table 3

Stepwise Logistic Regression Equation for Discussion of Sexual Orientation With Doctor

Variable	B	Standard Error	Odds Ratio	95% Confidence Interval	Wald Statistic	P
No. of sexual partners	.06	0.07	1.06	0.91–1.24	.71	.39
Discussion of sexual orientation with doctors	1.78	0.25	5.94	3.64–9.69	50.81	.01
Contrast code 1	–1.04	0.16	0.35	0.25–0.48	38.70	.001
Contrast code 2	.77	0.23	2.16	1.35–3.46	10.41	.001
Contrast code 3	.64	0.26	1.89	1.13–3.18	5.86	.01