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Acceptability of self-conducted home-based HIV testing among men who have sex with men in Brazil: data from an on-line survey

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Abstract

The Brazilian HIV/AIDS epidemic is concentrated among men who have sex with men (MSM), however HIV testing rates among MSM are not commensurate with their risk. Strategies to expand early diagnosis may include use of self-conducted home-based testing kits, which are now available for purchase in the US. In April 2011 we conducted a survey with Brazilian MSM using Facebook to assess HIV testing preferences and acceptability of home-based testing. Among 356 previously tested, HIV-negative MSM, 47% reported a preference for home-based testing, 27% preferred clinic-based testing, and 26% had no preference. Less frequent testers and those who had considered testing but failed to test were more likely to prefer home-based testing. Close to 90% reported that they would use self-test kits; 62% and 54% said they would use home-based testing to make choices about unprotected sex with regular and new partners, respectively. Concerns included difficulty to understand the tests (32%) and receiving results alone (23%). Overall, home-based testing may appeal to MSM and result in increased testing frequency. Research on feasibility and utilization of self-tests in practice is needed.

Keywords

Male Homosexuality; HIV; Serologic Tests

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Contributors

S. A. Lippman analyzed the data and drafted the manuscript. A. R. S. Périssé designed the research protocol, supervised protocol implementation, helped to conceptualize ideas and contributed to the manuscript content and review. V. G. Veloso, P. S. Sullivan, S. Buchbinder and B. Grinsztejn designed the research protocol and helped to conceptualize ideas and contributed to the manuscript content and review. R. C. Sineath coordinated the survey and data management; and helped to conceptualize ideas and contributed to the manuscript content and review.

Introduction

In Brazil, and throughout much of the Americas, the HIV epidemic is concentrated among men who have sex with men (MSM) and transsexual/ transgender populations¹. MSM account for 29.2% of all AIDS cases reported in Brazil and about 40% of the cases among men aged 15–24 years². In Brazil, MSM have been the most heavily affected population throughout the epidemic, with prevalence as high as 13.6 and 14.2 in recent studies^{3,4}. Overall, MSM are 20–30 times more likely to be living with HIV compared to the general population in Brazil, whose prevalence is stable around 0.4–0.6%^{4,5}. Of special concern is the high prevalence found among very young MSM (aged 14–19 years), which reached 4% (95% CI: 1–9%) in one recent study⁶, while young Brazilian MSM increasingly make up a larger proportion of new cases². The epidemic in the MSM population is far from being curbed.

The Brazilian Ministry of Health has responded by implementing the National Plan to Fight the AIDS Epidemic and STDs among Gay Men, other MSM and transgender communities⁷. The prevention plan for MSM hinges on ensuring social participation and access to quality services, including HIV testing, which is the first step and foremost hope for stemming the spread of the epidemic. People with HIV who know their status can begin life-saving treatment, which in turn decreases HIV infectiousness, and learning one's HIV-positive status has been shown to decrease risk behaviors following diagnosis^{8,9,10,11,12}. Furthermore, modeling studies suggest that a substantial proportion of new infections come from persons unaware of their HIV infections^{13,14}, and that increased testing alone could substantially reduce new infections¹⁵. Given their elevated risk for HIV infection, the US Centers for Disease Control and Prevention recommends testing for sexually active MSM be conducted at least annually¹⁶ – and up to every 3–6 months for most at risk MSM¹⁷. Current rates of HIV testing among MSM, however, are not commensurate with their risk. While MSM test at higher rates than heterosexual men, they test less frequently than reproductive age women¹⁸. In a recently conducted 10 city respondent driven sampling study, just over half of the MSM interviewed had never been tested and close to 50% of those who consented to HIV testing and were seropositive were unaware of their infection³. The recent United Nations General Assembly Special Session (UNGASS) country progress report estimated that only 19.1% of MSM have received an HIV test in the last 12 months and know their results.¹⁹ Furthermore, despite the benefits of early diagnosis and entry into care, late diagnosis is pervasive in Brazil: a recent study found that approximately 44% new HIV diagnoses in the national data base occurred near death, after the onset of AIDS related illness, or with a CD4+ of < 200 cells/mm³ at the time of diagnosis, with late diagnosis being more pervasive for men than women²⁰. Strategies to expand HIV testing and early diagnosis among MSM in Brazil are necessary.

Over the counter (OTC) HIV self-testing kits are testing kits that can be purchased for self-administration and interpretation, much like home pregnancy tests. The US Food and Drug Administration (FDA) recently approved the first OTC HIV test kit, the saliva based Ora-Quick In-Home HIV test™ (OraSure Technologies, Inc., Bethlehem, USA. <http://www.fda.gov/BiologicsBloodVaccines/BloodBloodProducts/ApprovedProducts/PremarketApprovalsPMAs/ucm310436.htm>, accessed on 03/Jul/2012). These self-

conducted HIV tests, which use the same technology as rapid tests utilized in the clinic, perform well: a recently published systematic review of both oral fluid and finger stick self-conducted, rapid HIV tests documented that these tests perform with very high specificity in supervised (with a health care worker present) and unsupervised (with a phone line for questions) settings. The findings on sensitivity varied from 93% to 100% in unsupervised environments²¹. As a result, OTC HIV tests have enormous potential to facilitate universal access to testing, and even more so for populations who require more frequent testing and who may be less comfortable accessing testing in public clinics. In the MSM and trans communities, the OTC test could increase the proportion of people tested and testing frequency, thus encouraging earlier HIV detection and entry into care and treatment, as well as adoption of safer behavior.

Acceptability studies conducted in the US among MSM demonstrate substantial interest in using HIV home test kits. In one study 87% of high risk MSM participants in New York said they would use OTC HIV home testing kits and 74% of participants actually choose to test themselves in front of the interviewer when given the opportunity²². In another study with men who had never tested, 85% of those who were very likely to test and 76% of those somewhat likely to test said they would use an OTC HIV test if it were available²³. Recently, one study, conducted in New York City, provided home HIV tests to 27 HIV-negative MSM who were unlikely to use condoms in order to screen their potential partners. Uptake of testing was high and the majority of participants wanted to continue use of home test kits following the study period²⁴. These data indicate that acceptability of OTC HIV testing is high among US MSM. There is no information to date regarding acceptability among other MSM populations, including Brazilian MSM.

In order to learn more about Brazilian MSM's HIV testing preferences, we analyzed data from a national Internet survey conducted in 2011. We sought to determine whether MSM would find self-conducted home-based HIV testing kits acceptable as compared to clinic-based testing and to explore what socio-demographic and behavioral characteristics would be associated with preference for self-testing kits. We also sought to understand potential utilization patterns of self-testing kits and potential barriers to use.

Methods

Data collection

From April 14th to 25th 2011, Brazilian MSM were recruited to participate in an on-line survey through Facebook. Recruitment was conducted by selective placement of banner advertisements that were displayed to Facebook members based upon self-reported demographic information in their profiles. When eligible Facebook members use this social network website, they are routinely exposed to customized advertisements based on their self-reported demographic characteristics and interests recorded on their profiles. Advertisements were displayed to males ages 18 years logging onto Facebook in Brazil who report being "interested in men."

Participants who clicked through the banner advertisements were taken to an initial screen with two questions to establish eligibility: age (eligible men were 18) and sex at birth

(eligible men were male at birth). Participants who were not eligible were taken to a screen thanking them for their interest and no further information was collected. Those eligible to participate in the study were taken to a consent screen that included information about the study, contact information for the investigators, an explanation about the anonymity of the survey, and confirmation that their participation was completely voluntary. Consenting participants were directed to take the anonymous, self-administered survey conducted through a secured Internet connection similar to that used for banking and other secured transactions.

The study was determined to be exempt from review by the Emory University IRB (Protocol 00047677). IRB approval was obtained from the Ethics Research Committee at the Evandro Chagas Research Institute, Oswaldo Cruz Foundation (IPEC/Fiocruz, protocol number CAAE 0060.1.009.000-09).

Measures

The online survey collected information on demographics, sexual activity with male partners in the previous 12 months, use of the Internet to meet sex partners, use of other technologies such as cell phones (which may be avenues for delivering future prevention interventions), HIV testing history, and interest in new HIV prevention interventions and tools, including self-conducted home-based HIV testing kits. Preference for home-based testing vs. clinic-based testing was calculated based on responses to two questions rated on a five-point Likert-scale from agree to disagree: (1) I would prefer to test at home, rather than a clinic or community-based organization, and (2) I would prefer to test at a clinic or community-based organization, rather than at home. Respondents with a higher score (stronger preference) on the first question were classified as “home preference”; respondents with a higher score on the second question were classified as “clinic preference”; and those with equivalent answers were classified as “no preference”. The “no preference” category, therefore, included both those who reported preferring both home and clinic and those who stated no preference for either.

Analysis

Questionnaire data were analyzed with Stata version 11 (Stata Corp., College Station, USA). Bivariate analyses were carried out to detect differences for two outcomes – ever having been tested for HIV and preferences for home vs. clinic-based HIV testing – and by several participant demographic and behavioral characteristics. We used chi-square tests to detect differences in outcomes by categorical covariables and nonparametric equality-of-medians test for differences in outcomes for continuous covariables. We also present frequencies of responses endorsing statements regarding utilization of home test kits.

Questions regarding testing preferences and HIV test utilization were only asked of respondents who reported both having been HIV tested previously and testing HIV-negative. Those who had never tested or tested positive skipped all questions related to testing preferences.

Results

A total of 5,539,372 impressions resulted from the placement of banner advertisements on Face-book. Of those impressions (advertisement appearances), a total of 4,280 potential participants clicked on the banner advertisement, and 790 participants met initial age and gender screening criteria and began the survey. We excluded 161 participants from the analysis because their survey responses did not meet eligibility criteria, including reporting female gender ($n = 10$), not yet being sexually active ($n = 41$), having only female sexual partners ($n = 85$), and being under the age of 18 ($n = 25$). These exclusions resulted in 629 men in our analytic sample. 15 respondents provided incomplete information on HIV testing, resulting in 444 who had been HIV tested in the past and 170 who had never tested for HIV.

Survey participants had a median age of 26 and the majority were white (60%), lived in Southeastern Brazil (66%), had completed high school (93%), and were employed (70%) (Table 1). Almost three quarters of respondents (71%) reported having been tested in the past. Respondents who had never been tested were younger than those who had been tested ($p < 0.01$). Additionally, those with some college or technical school education were significantly more likely to have tested than those with less education ($p < 0.01$). In terms of sexual behaviors, approximately two-thirds of the participants reported having only male sexual partners and one-third reported having sex with both men and women. Survey participants reported low levels of condom use: 58% reported unprotected receptive anal sex and 57% reported unprotected insertive anal sex the last time they were with their most recent male sexual partner. Condom use at last intercourse was not associated with HIV testing history.

Of the 444 men who reported previous testing, 72 (16%) reported being HIV seropositive and 16 did not provide responses to testing preference questions. Of the remaining 356 previously tested, HIV-negative MSM who responded to the testing preference questions, 167 (47%) reported a preference for self-conducted home-based testing as compared to clinic-based testing; 27% preferred clinic-based testing and 26% reported no preference (Table 2). Although testing preference was unrelated to socio-demographic characteristics (age, race, education, employment, insurance, geographic region), it was associated with recently testing: 53% of those who had tested more than one year ago were more likely to prefer home-based self-testing as compared to those testing within the past year (42%). Additionally, men who agreed that there were times in the past year they thought about getting tested but didn't go were more likely to prefer home testing (56%) as compared to clinic-based testing (19%).

We also explored questions regarding utilization of the home self-test kits. Close to 90% of previously HIV tested sero-negative respondents reported that they would definitely or possibly use home test kits when the scenarios included having to prick their finger for blood, having to collect an oral swab from their mouth, and having to read the results of the test themselves (Table 3). Additionally, 71% agreed that the home tests would afford more privacy than clinic-based tests. Respondents also had some concerns about using home-based test kits: 32% agreed that the kits may be difficult to understand and 23% agreed that

they would be concerned about getting their results if they were alone. Just over 62% of respondents said they would use the home test to make choices about unprotected sex with regular partners and 54% said they would use the home test to make choices about unprotected sex with new partners.

Discussion

In this exploratory analysis using data from an on-line survey of MSM in Brazil, we found that the majority of men who were previously tested and reported being HIV-negative in this sample would be interested in using self-administered home-based HIV testing kits. We also found that those who may be least likely to go to a clinic (who had not tested in over a year) or those who had considered testing but decided not to were more likely to prefer home testing. This implies that the population with the most urgent need to test and those who are likely candidates for late diagnosis may indeed be reached by providing home testing kits, thus filling an important gap in the testing arena for men that may delay testing. Studies in the US have reported similar findings: over three-quarters of respondents were likely or very likely to state interest in using home test kits^{22,23}. Additionally, interest in self-testing in the US was higher among black MSM²⁵, suggesting that this strategy may appeal to high-risk groups who access health care less frequently.

Due to a survey programming error, men who had never HIV tested were not included in the testing preferences questions or asked about willingness to use a self-test kit. As a result, it is unknown whether the results presented herein apply to those who have never tested – who make up a large portion of the most at risk population. In the recent respondent-driven sampling (RDS), study, over half of the participants had never tested and half of those who tested positive in the study were unaware of their infection status³. In the same study, MSM expressed concerns about confidentiality, stigma and discrimination related to HIV testing and receipt of test results, pointing to a need for alternative testing strategies for this population³. The significant proportion of participants from our study who agreed that the self-test would afford more privacy may indicate that this strategy would increase the testing levels among those who have concerns about stigma and discrimination with the available testing options. In the recent review of self-conducted HIV testing, the most common motivation to use self-tests were convenience, speed, privacy, a sense of empowerment, and control of one's own health choices²¹.

Discussions of the OTC HIV kits have generated debate regarding the larger issues of access to care, as circumventing clinic attendance for testing does not eliminate the need to access clinical care for those who test positive. However, not knowing one's HIV status is the biggest barrier to treatment²⁶. In Brazil there is universal access to care and to antiretroviral therapy (ART) coverage for those with a qualifying CD4+ count, however, people continue to arrive to care when they are already sick, principally because testing is occurring too late in the game. Close to 60% of new HIV diagnoses in a recent national study occurred among people presenting with AIDS-related illness or CD4+ of $< 350\text{cells/mm}^3$ at the time of diagnosis; 44% presented with CD4+ of $< 200\text{cells/mm}^3$ ²⁰. Late diagnosis and late entry into care may be the biggest barrier to improving the HIV/AIDS epidemic generally and among MSM in Brazil; necessitating a national focus on developing strategies to promote

early diagnosis of HIV infection ^{27,28}. Fortunately, once a person is aware of their status, disposition towards clinic attendance may improve, as lifesaving treatment can be a great motivation to seek care ²⁹. As a result, improved options for early diagnosis represent an important first step to improve HIV/AIDS outcomes overall. Mitigating the continuing barriers to care is a critical second step that should not impede policy makers from pursuing progress in the arena of innovative testing strategies.

This study population is limited to MSM who were using Facebook and is therefore not a representative sample of Brazilian MSM. Compared to the Brazilian census population, our Facebook sample has increased representation of men in the Southeast region, a higher proportion of whites, and is more educated, with 93% of survey respondents reported having completed a secondary education as compared to 36% in the general population (Instituto Brasileiro de Geografia e Estatística. Censo 2010. <http://censo2010.ibge.gov.br/resultados>, accessed on 03/ Jul/2012). The socio-demographic profile of our sample also explains the higher proportion of respondents in this sample who reported a history of testing (71%) as compared to other Brazilian national studies. Nonetheless, the Internet-using MSM community reached through this research represents a sizeable, high risk population: 16% of those tested reported HIV-positive status in this survey, higher than national prevalence estimates among MSM ³. Additionally, while access to internet or social networking sites is not universal in Brazil, approximately 46.5% of the population ten years and older in Brazil had internet access in 2011, with access reaching closer to 70% in the younger age groups ³⁰. There is very broad usage of the internet in Brazil and of Face-book among social networking sites ³¹. In addition, while not representative, Internet research has many advantages to traditional face-to-face research. Studies comparing traditional recruiting strategies and online recruiting of MSM have demonstrated that online recruitment may access a population at higher risk for HIV acquisition ^{32,33}, reporting more sexually transmitted diseases (STD) and HIV infection, and more anal intercourse and unprotected anal intercourse ^{34,35}. Online recruitment methods also allow for larger geographic spread for the sample and for the recruitment of rural MSM who live in areas that are often not included in HIV prevention research and have low access to prevention services ³⁶. Finally, because preferences for home testing were not significantly different by education level, race, employment, health insurance, or region, we hypothesize that in addition to Brazilian MSM using Facebook, MSM from a multiplicity of backgrounds would be inclined to try this testing alternative.

The major limitation of the study includes the omission of MSM who had not tested in questions about testing preferences and the exclusion of other vulnerable groups whose testing preferences merit investigation. For example, our survey did not include questions to identify or engage transvestite or transgender women, who bear a disproportionate burden of disease in Brazil and worldwide ^{37,38}. The extent of HIV risk will certainly differ by preferences, gender identities, and sexual networks; this heterogeneity in the “MSM” population makes it necessary to extend research about where to target testing and new testing approaches to the multiplicity of groups who investigators and policy makers refer to as MSM. Additionally, responses in this data are based on hypothetical choices, and may not predict actual uptake of HIV testing technologies ³⁹.

Currently only a saliva-based home test kit is available OTC in the US; however, it is likely that manufacturers of blood-based tests will apply for OTC status in the coming years. To our knowledge, no HIV test kit is currently available OTC or under review for OTC status in Brazil. To determine the potential impact of making at-home or self-conducted test kits available and inform regulatory agencies about the priority of considering such devices for sale in Brazil, preliminary research is needed to explore who would use test kits, how they would be utilized (e.g. with partners, alone, at home, in clubs, with clients), what social harms arise, and above all determining the optimal support mechanisms to provide OTC testing safely and what can be done to facilitate linkage to care. Mounting this research program will necessitate difficult discussions, including the potential revision of current pre-test counseling practices; decentralizing testing, which has implications for epidemiologic surveillance; and the struggle between encouraging MSM to access clinics and simultaneously offering a way to disengage with the public health system. It is critical that the initial discussions and preliminary research into the use of self-conducted testing include the MSM and trans communities to ensure optimal implementation of this new technology.

Truly the greatest challenge to stemming the epidemic continues to be reducing the number of undiagnosed infections in the difficult to reach and most vulnerable populations who test too infrequently¹⁸. Reducing the number of undiagnosed infections is the first step in expanding care and treatment, viral suppression, and ultimately in preventing subsequent infection to new partners¹⁰. We believe that this first look at the acceptability of home testing for MSM in Brazil provides an important initial step in exploring the potential for self-testing kits to reach the most vulnerable populations and expanding the testing options available nationally.

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Table 1

HIV testing status by socio-demographic and behavioral characteristics among men who have sex with men (MSM) responding to an on-line survey in Brazil.

	All participants * (N = 629)	Among participants reporting past HIV testing	
	n (%)	Have tested ** (n = 444) n (%)	Not tested ** (n = 170) n (%)
Socio-demographic characteristics			
Median (IQR) age	26 (22–33)	27 (23–27) ***	22 (19–26)
Education level attained			
Some college/Technical school	420 (67.0)	320 (78.1) ***	90 (21.9)
Completed high school	163 (26.0)	96 (60.4)	63 (39.6)
Less than high school	44 (7.0)	27 (62.8)	16 (37.2)
Race/Ethnicity			
White	366 (58.2)	264 (73.7)	94 (26.3)
Black	41 (6.5)	31 (75.6)	10 (24.4)
Brown	145 (23.1)	99 (70.7)	41 (29.3)
Other (Asian, Indigenous, multi-racial)	77 (12.2)	50 (66.7)	25 (33.3)
Region			
North	16 (2.6)	11 (68.7)	5 (31.3)
Northeast	77 (12.2)	47 (63.5)	27 (36.5)
Central-west	45 (7.2)	32 (72.7)	12 (27.3)
Southeast	409 (65.0)	291 (72.7)	109 (27.3)
South	82 (13.0)	63 (78.8)	17 (21.2)
Employed			
Yes	435 (69.9)	311 (73.4)	113 (26.6)
No	187 (30.1)	127 (69.4)	56 (30.6)
Have health insurance?			
Private	276 (44.3)	202 (75.7) ***	65 (24.3)
Public (SUS)	206 (33.1)	151 (74.0)	53 (26.0)
None	98 (15.7)	56 (57.7)	41 (42.3)
Other	43 (6.9)	31 (77.5)	9 (22.5)
Sexual behavior			
Sexual partners			
Men only	413 (65.8)	287 (71.2)	116 (28.8)
Both men and women	215 (34.2)	157 (74.4)	54 (25.6)
Unprotected receptive anal sex with most recent male partner #			
Yes	230 (58.2)	163 (71.2)	66 (28.8)
No	165 (41.8)	115 (71.9)	45 (28.1)
Unprotected insertive anal sex with most recent male partner #			
Yes	146 (57.3)	107 (75.4)	35 (24.6)
No	109 (43.7)	82 (76.6)	25 (23.4)

IQR: inner quartile range; SUS: Brazilian Unified National Health System.

Note: totals vary due to missing data on reported testing and participant characteristics.

* Characteristics of the full participant group presented in column percentages;

** Characteristics of participants reporting testing presented in row percentages, representing the proportion of each covariate group who have/have not tested;

*** $p < 0.01$, difference in testing by covariate;

Among participants reporting receptive/insertive sex.

Table 2

Preferences for home vs. clinic HIV testing by socio-demographic and behavioral characteristics among 356 previously tested men who have sex with men (MSM) reporting HIV-negative status on an on-line survey in Brazil.

	Prefers home n (%)	Prefers clinic n (%)	No preference n (%)
Overall	167 (46.9)	97 (27.2)	92 (25.8)
Socio-demographic characteristics			
Median age (IQR)	26 (22–33)	27 (22–33)	27 (22–33)
Education level attained			
Some college/Technical school	124 (47.9)	67 (25.9)	68 (26.2)
Completed high school	36 (47.4)	23 (30.2)	17 (22.4)
Less than high school	7 (35.0)	6 (30.0)	7 (35.0)
Race/Ethnicity			
White	101 (48.1)	53 (25.2)	56 (26.7)
Black	11 (50.0)	4 (18.2)	7 (31.8)
Brown	38 (45.8)	25 (30.1)	20 (24.1)
Other (Asian, Indigenous, multi-racial)	17 (41.5)	15 (36.6)	9 (21.9)
Region			
North	3 (33.3)	4 (44.5)	2 (22.2)
Northeast	20 (54.1)	8 (21.6)	9 (24.3)
Central-west	17 (68.0)	5 (20.0)	3 (12.0)
Southeast	103 (43.6)	67 (28.4)	66 (28.0)
South	24 (49.0)	13 (26.5)	12 (24.5)
Employed			
Yes	117 (48.6)	61 (25.3)	63 (26.1)
No	49 (44.9)	33 (30.3)	27 (24.8)
Have health insurance?			
Private	80 (49.1)	47 (28.8)	36 (22.1)
Public (SUS)	52 (45.6)	33 (29.0)	29 (25.4)
None	20 (39.2)	10 (19.6)	21 (41.2)
Other	14 (56.0)	5 (20.0)	6 (24.0)
Testing behavior			
Last tested			
Within last year	82 (42.1) *	65 (33.3)	48 (24.6)
1–5 years ago	66 (52.8)	22 (17.6)	37 (29.6)
5+ years ago	19 (52.8)	10 (27.8)	7 (19.4)
In past year, thought about testing, but didn't get tested?			
Yes	97 (56.4) **	33 (19.2)	42 (24.4)
No	67 (37.7)	62 (34.8)	49 (27.5)
Sexual behavior			
Sexual partners			
Men only	96 (42.8)	64 (28.6)	64 (28.6)

	Prefers home n (%)	Prefers clinic n (%)	No preference n (%)
Both men and women	71 (53.8)	33 (25.0)	28 (21.2)
Unprotected insertive anal sex with most recent male sexual partner			
Yes	38 (41.7)	25 (27.5)	28 (30.8)
No	29 (41.4)	20 (28.4)	21 (30.0)
Unprotected receptive anal sex with most recent male sexual partner			
Yes	62 (48.1)	30 (23.2)	37 (28.7)
No	45 (50.0)	29 (32.2)	16 (17.8)

IQR: inner quartile range; SUS: Brazilian Unified National Health System.

*
p < 0.05;

**
p < 0.01, difference by preference group.

Table 3

Responses regarding hypothetical utilization of home test kits among 356 HIV-negative men who have sex with men (MSM) responding to an on-line survey in Brazil *.

	Would use	Agree
Would use tests if...		
Had to prick finger for blood	322 (91.2)	
Had to take an oral swab	318 (89.8)	
Had to read the result yourself	316 (89.5)	
Agree that...		
It may be difficult to understand the result		109 (32.1)
Home tests offer more privacy		244 (71.4)
Would be concerned about getting results alone		79 (23.3)
Would use these test kits for myself	306 (87.4)	
Would use a home test with regular partners to make decisions about having unprotected sex	213 (62.5)	
Would use a home test with new partners to make decisions about having unprotected sex	184 (54.4)	

* Samples sizes for particular variables vary marginally by question due to missing values.