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Looking back, moving forward: Understanding the HIV risk and sexual health needs of men who have sex with men, Horizons studies 2001 to 2008


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LOOKING BACK, MOVING FORWARD

**UNDERSTANDING THE HIV RISK AND
SEXUAL HEALTH NEEDS OF
MEN WHO HAVE SEX WITH MEN**



HORIZONS STUDIES 2001 TO 2008

Horizons

In 1997, the Population Council initiated the Horizons Program—a decade-long USAID-funded collaboration with the International Center for Research on Women, the International HIV/AIDS Alliance, PATH, Tulane University, Family Health International, and Johns Hopkins University—designing, implementing, evaluating, and expanding innovative strategies for HIV prevention and care.

Horizons developed and tested ways to optimize HIV prevention, care, and treatment programs; worked to reduce stigma and improve gender-biased behaviors; and greatly expanded knowledge about the best ways to support, protect, and treat children affected by HIV and AIDS. In all its projects, Horizons strengthened the capacity of local institutions by providing support and training to colleagues.

This series of synthesis papers presents lessons learned and best practices on six key topics that Horizons investigated: HIV-related stigma, access to antiretroviral therapy, men who have sex with men, orphans and vulnerable children, HIV and gender, and prevention of mother-to-child transmission of HIV.

UNDERSTANDING THE HIV RISK AND SEXUAL HEALTH NEEDS OF MEN WHO HAVE SEX WITH MEN

Around the world, men who have sex with men (MSM) face stigma and discrimination. The stigma attached to male-to-male sexual behavior hinders men from seeking appropriate health care and counseling that might reduce their risk of HIV infection and results in programs and policies that do not address the needs of MSM. Horizons approached this situation using innovative techniques for finding and interviewing MSM about their experiences in Africa and South America. While the lives of MSM in these settings are different, Horizons results highlighted HIV vulnerabilities across all the studies. The Population Council and its Horizons Program researchers were among the first to document and characterize the population of MSM in Africa, a crucial first step in developing appropriate programs for them. Findings suggested increasing outreach via peer educators and sensitizing service providers and counselors to the specific medical and prevention needs of MSM.

Introduction

From the beginning of the HIV epidemic, unprotected anal intercourse has been recognized as a primary risk factor for HIV and sexually transmitted infections (STIs). HIV prevention, counseling, and testing are cornerstones for HIV programs serving men who have sex with men (MSM) in the developed world, and most HIV-related behavioral research among MSM has been conducted in North America and Europe [1]. Limited research in developing countries includes assessments and evaluations of these men and their HIV risk in Latin America and the Caribbean [2–8] and Asia [9–11].

In Africa, however, there has been a profound absence of any policy, program, or research initiative that assessed MSM as a vulnerable population or considered them as a distinct sub-population. Since the first appearance of HIV on the continent, most African policies dealing with HIV and AIDS were based on the belief that unprotected heterosexual contact was the primary driver of the African epidemic [12–14]. This was a key factor in convincing African policymakers of the severity of the epidemic, nearly all HIV prevention programs in Africa have focused exclusively on the risks associated with vaginal intercourse.¹

¹ South Africa was one exception, where its post-apartheid Constitution provided legal protection to homosexuals and empowered some grassroots HIV prevention initiatives.

In the late 1990s, African heads of states Daniel arap Moi of Kenya and Robert Mugabe of Zimbabwe both publicly denied that indigenous homosexuality or same-sex sexual behavior existed in Africa without coercion through Western or foreign influence [15]. Such prominent public statements reflect a deeply entrenched culture of homophobia that persists today. Recent opinion articles in African newspapers state that same-sex sexualities “have been non-African since time immemorial [16],” and they “violate the cultural, religious, moral, and legal norms of the country [17].”

The denial of sexual interactions between men, and the stigma associated with it, discouraged African researchers from objectively evaluating homosexuality for fear that others would ridicule them and question their own sexual orientation [18]. Prior to 2000, research on MSM in Africa was limited to occasional ethnographic or qualitative studies [19–21], but there were no population-based surveys or assessments that attempted to quantify and characterize them as a sub-population within African social structures, let alone to assess or survey their sexual behaviors and exposure to STIs.

However, limited qualitative documentation as well as an abundance of anecdotal evidence suggested that MSM are present in Africa and likely are at increased risk for HIV, but are largely invisible from researchers and policy makers. Given this discrepancy, the Horizons Program expanded its portfolio to investigate the vulnerability of these men in Africa, first through descriptive assessments, then followed by intervention studies in Senegal and Kenya.

In contrast to Africa, the populations of MSM in Latin America have experienced different challenges. While targeted homophobia and discrimination is still an essential problem in the region, the institutional denial does not exist in the same form as seen in Africa. The distinction is important as it affected the strategy for developing a research portfolio on

either continent. In Africa it was determined that it was most important to implement studies to describe and characterize the population as a way to convince policy makers that MSM did indeed exist. While in Latin America, the Horizons program needed to focus on analysis of behaviors among MSM in order to develop new evidence-based approaches to risk-reduction and to guide prevention programs. Horizons’ nearly decade long program on MSM in Africa and Latin America is summarized below, including research methodologies, study findings, and program evaluations. The summary includes future directions and approaches for HIV research among MSM in developing countries.

Using Innovative Research Strategies to Identify a Hard-to-Reach Population

Horizons and partners designed, conducted, and published the first large-scale descriptive studies of African MSM in 2001 in Dakar, Senegal [22] and in 2004 in Nairobi, Kenya [23]. Both studies used quantitative survey methods as well as in-depth interviews and ethnographic observations. These studies documented the existence of MSM within major African cities, previously unknown to national AIDS programs, as well as risk behaviors that rendered these populations especially vulnerable to HIV. Following the success of these assessments, Horizons and regional partners expanded the research agenda to include an intervention study of MSM in Senegal and of male sex workers who have sex with men in Mombasa, Kenya [24]. The latter study used capture-recapture methods to determine the number of active male sex workers, estimated at 700 in Mombasa alone [25].

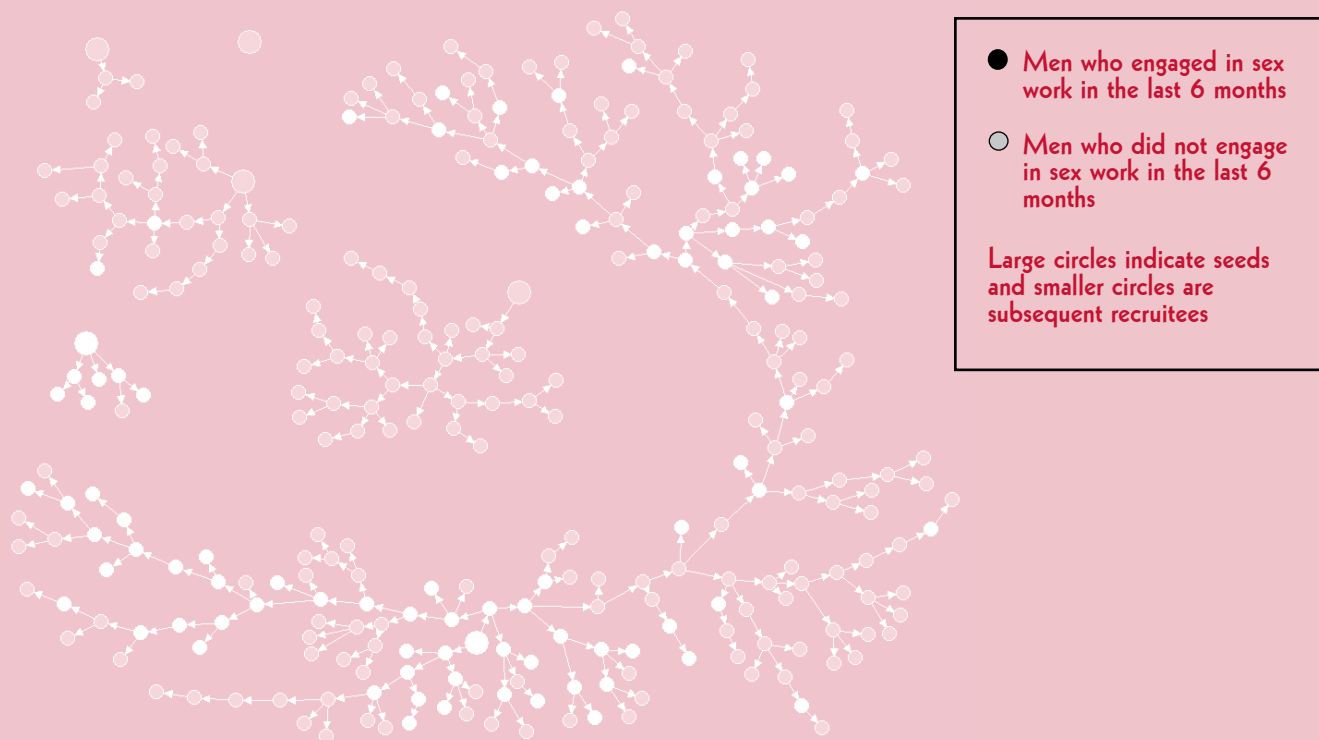
Entrenched homophobia makes identifying MSM a particularly challenging task. The Horizons studies used three sampling strategies

to recruit MSM. Snowball sampling, in which participants randomly recruit peers from their personal networks, was used in the Dakar and Nairobi studies. Snowball sampling, however, is a non-probability sampling method, which may fail to reach some MSM and produce biased results [28].

In its Latin American studies, Horizons and partners incorporated recent innovations in probability sampling for MSM, as well as HIV testing of the study population to produce HIV prevalence estimates. A study was conducted in the southeastern city of Campinas, Brazil [26]. In Paraguay, MSM were enrolled for a study in Ciudad del Este, a city on the border of Brazil and Argentina with a large concentration of high-risk populations such as truck drivers, drug users, and sex workers (Figure 1) [27].

The two Latin American studies used respondent-driven sampling (RDS), a more rigorous methodology similar to snowball sampling that uses more controlled peer recruitment and statistical weights to provide theoretically unbiased population estimates [29–32]. RDS has been successful in recruiting MSM in previous studies in other settings [33–35], including Kampala [36] and Zanzibar [37] in Africa, establishing the method as feasible and preferable to snowball sampling. Despite the advantages of RDS, recruitment of MSM proved challenging in the Latin American studies, though this appeared to be related to fears of disclosure and testing for HIV rather than to the methodology itself. Nevertheless, these studies are the first to provide population estimates for HIV prevalence and associated risk behaviors amongst MSM in Brazil and Paraguay, and led to the adoption of RDS for

Figure 1 Recruitment pattern of MSM who engaged in sex work in the last six months and MSM who did not in Ciudad del Este, Paraguay (n = 296)



This figure compares the recruitment pattern of men who engaged in sex work in the last six months and those who did not. This figure illustrates the high tendency for in-group recruitment, especially in the group not involved in sex work.

the national surveillance of high-risk populations in Brazil.

Time-location sampling, in which participants are sampled from a list of contact locations and the times in which they are found at these venues, was used to sample male sex workers in Mombasa. First, Horizons and partners implemented a capture-recapture count of male sex workers who sell sex to men [25], which produced detailed data on locations and times where male sex workers were seeking clients. This data was used to produce the time-location sampling frame. Research staff avoided public scrutiny by training MSM as “mobilizers” to identify male sex workers at these locations and escort them to a central location for interviewing. These methodologies were effective in Mombasa, but further study is needed to compare the generalizability and reliability of time-location versus RDS sampling among male sex worker populations.

Enlisting help from local partners

The African studies benefitted from partnerships with anthropologists from respected local collaborating institutions in Senegal (Cheikh Anta Diop University) and Kenya (University of Nairobi), who helped formulate research topics and questions, provided entry points into communities, and supplemented the quantitative behavioral surveys with in-depth interviews and ethnographic observations. These partnerships proved critical in establishing the legitimacy of the research in Africa and provided a foundation for future partnerships with government agencies in both countries.

HIV and STI Risk Among MSM

Sexual risk behaviors and networks

While the experience and realities of MSM in Africa and Latin America were different, results highlighted HIV vulnerabilities across all the



African heads of state have denied that men who have sex with men existed in Africa without coercion through Western or foreign influence.

Horizons studies. Table 1 summarizes the population characteristics and reported sexual behaviors of the six MSM studies described in this paper. In the African studies, high levels of insertive and receptive anal sex with inconsistent condom use were the norm. High proportions of multiple or concurrent sex partners were reported in all studies, but were particularly high among Mombasa male sex workers and MSM in Nairobi, Campinas, and Ciudad del Este.

Reported condom use varied widely across studies. The 2001 assessment of MSM in Dakar found low levels of condom use with last male insertive partners (23 percent) and receptive partners (14 percent). Follow-up surveys

Table 1 Sample characteristics, sexual behaviors, and HIV prevalence of study or comparable populations

	Senegal		Kenya		Brazil	Paraguay
	Dakar	Dakar	Nairobi	Mombasa	Campinas ^a	Ciudad del Este ^a
Sample characteristics						
Year of survey	2001	2003/2005	2004	2006	2005–2006	2006
Target population	MSM ≥ 18 years	MSM ≥ 18 years	MSM ≥ 18 years	Male sex workers ≥ 16 years	MSM ≥ 14 years	MSM ≥ 16 years
Sample size	250	258/290	500	425	658	296
Type of study	Descriptive	Intervention	Descriptive	Intervention ^b	Descriptive	Descriptive
Sampling methodology	Snowball	Snowball	Snowball	Time-location	RDS	RDS
Mean [median] age of men in sample	25	27/26	26	26	[23]	[21]
Sexual behaviors						
Consistent condom use with male partner (percent, time period)	27 percent past 1 month	52 percent/58 percent, past 12 months	56 percent, past 12 months	36 percent, past 30 days	29 percent (IAI), 25 percent (RAI), past 2 months	20 percent (IAI), 35 percent (RAI), past 6 months ^c
Condom use at last sex with a male partner	23 percent (IAI), 14 percent (RAI)	73 percent/82 percent	75 percent	58 percent	NR	NR
Had recent multiple male partners (time period)	21 percent, past 1 month	26 percent/27 percent, past 1 month	47 percent, past 1 month	74 percent, past 7 days	53 percent, past two months	62 percent, past 6 months
Had recent female sexual partners (time period)	47 percent, past 1 month	9 percent/12 percent, past 1 month	5 percent, past 1 month	30 percent, past 30 days	16 percent, past 2 months	83 percent, past 6 months
Received money for sex with a man (time period)	9 percent, last sex with man	26 percent/17 percent, past 1 month	52 percent, past 12 months	87 percent, past 7 days	15 percent, past 2 months	21 percent ^d
HIV prevalence among MSM						
HIV prevalence among study population	NA	33 percent (n = 263) ^{e, 38}	NA	NA	7 percent	1 percent
HIV prevalence among comparable population	22 percent (n = 465) ³⁹	NA	11 percent (n = 780) ⁴⁰	25 percent (n = 285) ⁴¹	NA	NA
National HIV prevalence among all adults age 15–49	1 percent ³⁸		6 percent ³⁸		1 percent ³⁸	< 1 percent ³⁸

Note: RDS, Respondent-driven sampling; IAI, Insertive anal intercourse; RAI, Receptive anal intercourse; NR, Not reported.

^aRDS population estimates are presented for Brazil and Paraguay.

^bFollow-up survey and evaluation planned for 2008.

^cConsistent condom use is reported for IAI and RAI with occasional male partners, defined as partners with whom the respondent had sex only once or from time to time and with whom he did not exchange money, drugs, or gifts for sex.

^dMSM were asked whether they “currently” engage in sex work (i.e., receiving money, drugs, or gifts in exchange for anal or oral sex). The majority indicated they sold sex to male partners.

^eAmong 263 men requesting HIV testing as part of study intervention.

in Dakar in 2003 and 2005, and in Nairobi in 2004, documented condom use at last sex at more than 70 percent. Consistent condom use (considered a more important indicator in terms of HIV risk reduction [42, 43]) was reported by more than 50 percent of respondents in these surveys, but by only 36 percent of male sex workers in Mombasa and less than 30 percent in Campinas and Ciudad del Este.

Qualitative interviews with MSM in Senegal and Kenya revealed that the majority of their male sexual partners were from the same communities, and that first sexual experiences with men often took place during adolescence with friends or acquaintances. Such results refuted prevailing beliefs in Africa that homosexual behavior was the result of foreign coercion.

The prevalence of men selling sex to other men was surprisingly high in all areas studied. In addition to the Mombasa survey that specifically targeted male sex workers, the 2001 Dakar study documented that 9 percent of respondents reported selling sex to their last male partner; 15 percent of MSM in Campinas reported selling sex to men in the past two months; 21 percent of MSM in Ciudad del Este reported currently selling sex (primarily to male clients); and more than half of MSM in Nairobi reported selling sex to men in the past year. These high numbers of commercial sex workers may be a product of peer recruitment survey methods failing to reach more hidden or isolated segments of the MSM population—an area meriting further study.

These studies also demonstrate that heterosexual sex is common among MSM: 30 percent of male sex workers in Mombasa reported having a female paying or non-paying sex partner in the past 30 days; 83 percent of MSM in Ciudad del Este had a female sex partner in the past six months; 88 percent of respondents in Senegal reported ever having sex with a woman; and 5 percent of MSM in Nairobi and 16 percent in Campinas reported having female sex partners in the one and two

months, respectively, prior to the survey. These results underscore the fact that MSM are not sexually isolated, and that potential “bridging” of homosexual and heterosexual populations by these men have broader public health implications.

HIV prevalence among MSM

HIV testing revealed that prevalence was marginally higher than general population rates in Ciudad del Este, but much higher in Campinas. In addition, more than 70 percent of those testing positive were unaware of their status, suggesting the need to emphasize HIV testing in this group. HIV prevention programs for younger MSM are particularly important—the Campinas study found an HIV prevalence of 4 percent among MSM between 14 and 19 years, a particularly alarming finding given that the national prevalence is 0.6 percent, and the average age of sexual debut was 13.

Disparities are even more alarming in African HIV prevalence studies from Horizons and other sources. In Senegal, where the national prevalence is 1 percent [44], HIV prevalence among MSM ranges from 22 percent [39] among a national snowball sample to 33 percent among MSM tested during the second Dakar study [38]. In Kenya, where national prevalence is 6 percent [44], HIV prevalence among MSM ranges from 11 percent among those tested in voluntary counseling and testing (VCT) clinics [40], to 25 percent among a convenience sample of 285 MSM enrolled in a vaccine trial cohort near Mombasa [41].

Stigma, discrimination, and violence: barriers to counseling, testing, and treatment

Horizons documented a high level of physical, verbal, and sexual victimization of MSM. In addition, victims of abuse were unlikely to report incidents to the authorities. For example, in Campinas, more than 30 percent of MSM experienced physical abuse in their

lifetime, but only 6 percent reported these incidents to authorities, and only 11 percent sought medical treatment. Additionally, 78 percent reported psychological abuse, which was found to be independently associated with unprotected receptive anal intercourse². In Nairobi, male sex workers were significantly more likely to experience physical, sexual, and verbal abuse than other MSM (Figure 2).

Fear of public exposure prompted MSM to identify confidentiality as the most important consideration when seeking STI treatment or HIV counseling. At the same time, qualitative data revealed that MSM often feared revealing their sexual identity and behaviors to health care providers. In addition, in-depth interviews with health care providers in Nairobi showed that counselors and providers generally did not ask about same-sex sexual behavior, and thus did not offer appropriate HIV prevention messages.

Use of condom-damaging oil-based lubricants

All of the Horizons studies dealing with MSM in Africa documented frequent use of petroleum jelly, baby oils, lotions, and other

² Adjusted odds ratio: 1.89; $p < 0.05$

oil-based lubricants during anal intercourse both with and without condoms. Respondents in the Senegal study reported using products such as Vaseline® (34 percent), shea butter (21 percent), body lotion (19 percent), shaving gels or creams (9 percent), and butter/cooking oil (3 percent). Only 26 percent of MSM in Nairobi and 21 percent of male sex workers in Mombasa correctly knew that water-based lubricants should be used with latex condoms, and 15 percent of male sex workers had used a water-based lubricant with their last male client.

In both Kenyan studies, reported use of oil-based lubricants was significantly associated with ever experiencing condom breakage, consistent with studies documenting decreased structural integrity of condoms when used with lubricants containing mineral or vegetable oils [45–47]. Finally, respondents consider condoms to be available and affordable, while water-based lubricants are scarce and costly. In Nairobi and Mombasa, for example, water-based lubricants are only available in select supermarkets and pharmacies, where a 50g tube of KY Jelly® costs approximately US\$4.00 compared to US\$0.30 for a 25g container of petroleum jelly.

The Horizons study in Paraguay found that lubricant use was low in Ciudad del Este, with 28 percent using lubricants during insertive anal intercourse and 16 percent during receptive anal intercourse. Among lubricant users, only half reported using water-based lubricants.

Sensitizing Counselors to the Needs of MSM

Findings from early Horizons studies led to recommenda-

Figure 2 Percent of MSM in Nairobi, Kenya reporting stigma and violence in the last 12 months



tions for increasing outreach via peer educators and training service providers and counselors on, or sensitizing them to, the specific medical and prevention needs of MSM. In Dakar, partners trained 40 MSM as peer educators and recruited 12 service providers to provide MSM-sensitive services with subsequent increases in HIV testing and consistent condom use among MSM.

In Mombasa, 40 male sex workers who are peer educators were trained in HIV prevention and basic counseling skills. Over 1,900 MSM and male sex worker peers were reached in the first year of operation. Additionally, 20 health care providers from Mombasa-area hospitals and clinics were trained and sensitized to MSM issues including diagnosis of STIs and HIV counseling. At the drop-in-center, 1,231 clients (823 male, 408 female) were counselled and tested for HIV. Condoms and water-based lubricants were distributed at the drop-in centre and by peer educators with substantial uptake of both education sessions and drop-in-center visits. Over 2 million male condoms were distributed.

These approaches were successful in providing HIV prevention resources to MSM in highly stigmatized societies. In addition, other intervention models, including modified HIV counseling and testing for MSM, are being delivered in Nairobi. These pilot projects, however, remain model programs and have yet to be adopted more broadly throughout Africa.

Future Research and Next Steps

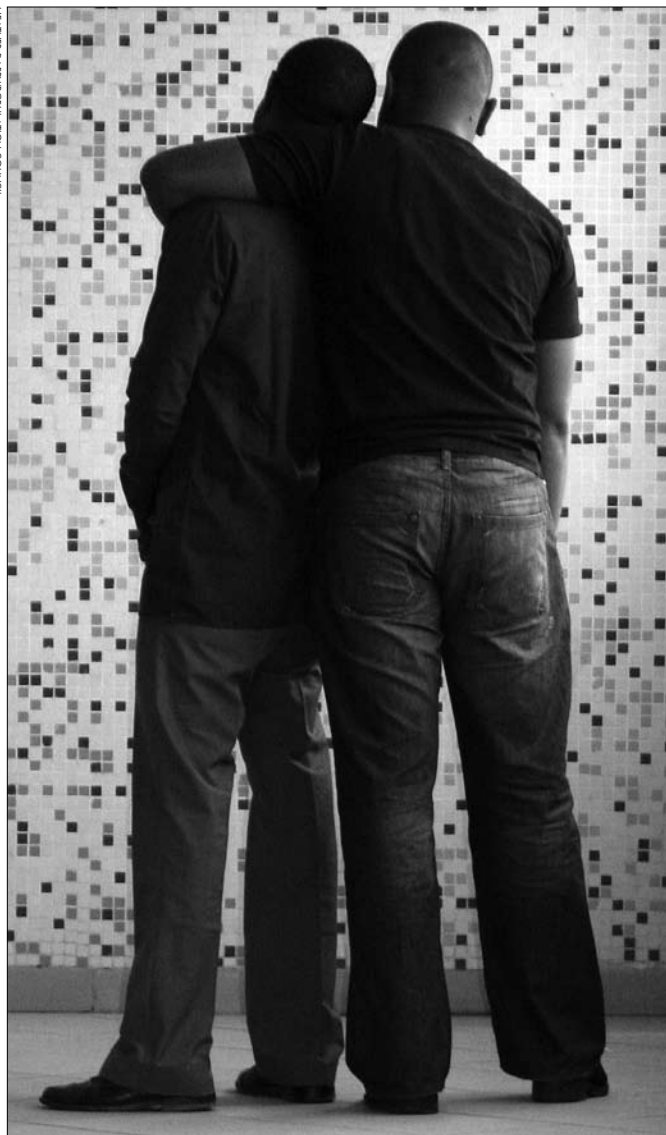
The Horizons studies greatly expanded our understanding of the types and prevalence of high risk behaviors among MSM in developing countries; behaviors that are likely contributing significantly to the HIV epidemic. Horizons research used innovative quantitative and qualitative sampling methodologies and produced the first large-scale assessments of MSM in Africa. The Population Council, which directed the Horizons Program, has been credited as “the first international NGO to recognize that the HIV-related vulnerabilities of MSM in Africa deserved serious attention [48].”

Currently, research on MSM in Africa is expanding beyond the Horizons Program. Published HIV prevalence studies exist for Senegal [39] and Kenya [41], as well as a behavioral study for Kampala, Uganda [36]. An assessment of MSM risk was completed in Johannesburg, South Africa [49], and recent RDS behavioral surveys in Zanzibar [37] and Lusaka, Zambia [50], are either being conducted or analyzed. This growing collection of research activities will shed light on a number of the HIV vulnerabilities of MSM in sub-Saharan Africa [51].

At the policy level, while Brazil has included MSM as a priority group in its national HIV prevention campaigns, most national HIV programs in Africa have been slow to acknowledge and address MSM in official policy. Only

“The clinic is in a discreet location and the medical officers are very kind and available to attend to us...if we had been mistreated, it is obvious that we would not have returned. We are very much welcomed and made to feel comfortable. We receive counseling which is very vital to us because it is directly related to our activities. We also obtain condoms and lubricants to better protect ourselves from diseases. Honestly speaking, all the medical officers there are exemplary.”

— 25-year-old male, Dakar, Senegal



Horizons studies have added to the general knowledge of MSM in developing countries, including the first large-scale assessments of MSM in Africa, through the use of innovative quantitative and qualitative sampling methodologies.

a few African countries mention MSM in their National Strategic Plans, and few have a specific national HIV policy for MSM. Many service providers are reluctant to officially provide services to MSM until these policy issues are addressed, and many researchers continue to avoid study of MSM for fear of stigma. In addition, stigma from community and religious groups remains a barrier to implementation of service delivery and research initiatives, although there has been increased public dis-

cussion of the issue in some countries. Even simple measures, such as consistent provision of water-based lubricant, have yet to be adopted in many countries, although further study on the epidemiological impact of lubrication use and condom breakage is needed.

MSM in developing countries continue to be both “understudied and underserved [52],” but the best way to influence policy is through provision of unbiased data. The work outlined here has already resulted in some movement: the directors of the National AIDS Commission in Senegal [53] and National AIDS Control Council in Kenya [54] have since acknowledged the existence of MSM and the need to address them in national HIV policy. In addition, the Population Council and Kenya’s National AIDS Control Council held a regional conference on MSM for African policymakers, including directors of National AIDS Control Programs in 2008³. The meeting concluded with a draft consensus statement recommending that national HIV programs implement programs that are inclusive of MSM and empower African health service providers to serve MSM; support research activities that inform government policy and HIV prevention and treatment programs for MSM; develop strategies to build the capacity of the MSM community and increase public understanding of MSM; and increase the involvement of MSM in all aspects of program development and implementation. By gathering those most influential in terms of designing policy, and presenting the state of the science, the Population Council hopes to have a broad and lasting effect on provision of HIV prevention services to this population. The Council also urges other organizations to expand their efforts towards understanding and addressing the HIV risks of MSM in developing countries.

³ The meeting report, “The overlooked epidemic: Addressing HIV prevention and treatment among men who have sex with men in sub-Saharan Africa, report of a consultation, Nairobi, Kenya, 14–15 May 2008,” is available on the Population Council website at http://www.popcouncil.org/pdfs/HIV_KenyaMSMMeetingReport.pdf.

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