Nurses speak with two patients at the Mkomani BOMU clinic in Mombasa, Kenya, a Horizons Program study site that examined the impact of antiretroviral therapy on sexual behavior. See story, page 6.

This edition of Population Briefs focuses on the influential work of the Horizons Program on HIV and AIDS.

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Understanding the HIV Risk and Sexual Health Needs of Men Who Have Sex with Men

A

round 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 the failure of programs and policies to address their needs. Horizons confronted this challenge in Africa and South America by using innovative techniques for finding and interviewing MSM about their experiences. While the lives of MSM in these two settings are different, Horizons results highlighted similar vulnerabilities.

Documenting the existence of MSM

The Horizons Program documented the existence of MSM within major African cities, previously unknown to national AIDS programs, and identified 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. In Latin America, the Horizons Program analyzed behaviors among MSM in order to develop new evidence-based approaches to risk reduction and to guide prevention programs.

Sexual behavior

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 Campinas (Brazil), Ciudad del Este (Paraguay), and Nairobi (Kenya). The prevalence of men selling sex to other men was surprisingly high in all areas studied. The large numbers of sex workers in the studies may result from the failure of peer recruitment survey methods to identify more hidden or isolated segments of the MSM population.

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” between homosexual and heterosexual populations by these men has broader public health implications.

Horizons documented a high level of physical, verbal, and sexual victimization of men who have sex with men.

Stigma, discrimination, and violence

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. 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 were not in a position to offer appropriate HIV prevention messages.

Findings from early Horizons studies led to recommendations for increasing outreach via peer educators and providing training to service providers and counselors on the specific medical and prevention needs of MSM. In Dakar and Mombasa, peer educators and health care workers were trained in HIV prevention and basic counseling skills. These approaches were successful in providing HIV prevention resources to MSM in highly stigmatized societies. These projects, however, remain model programs and have yet to be adopted more broadly throughout Africa.

Future research and policies

The Horizons studies greatly expanded our understanding of the types and prevalence of high-risk behaviors among MSM in developing countries. The most effective way to influence policy on behalf of MSM in developing countries is through provision of unbiased data. The work outlined here has already resulted in some positive steps. The directors of the National AIDS Commission in Senegal and the National AIDS Control Council in Kenya have now acknowledged the existence of MSM and the need to address them in national HIV policy. In addition, in 2008 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. The meeting concluded with a draft consensus statement recommending that national HIV programs implement policies that empower African health service providers to serve MSM.

SOURCE


OUTSIDE FUNDING

United States Agency for International Development/PEPFAR
Reducing HIV-related Stigma

Addressing stigma about HIV and AIDS at the individual, institutional, and governmental levels was a priority throughout the Horizons Program. Over the years, Horizons operations research showed that it is possible to measure stigma and to develop effective strategies to reduce it. Through activities conducted in collaboration with local and international partners in Africa, Asia, and Latin America, Horizons identified successful strategies such as using education to correct misconceptions about the transmission of HIV, involving people living with HIV to give AIDS a human face, and engaging the community in the care and support of people living with HIV.

Measuring stigma

When the Horizons Program began in 1997, there were few tools to reliably and effectively measure stigma and discrimination and little information about which strategies most successfully reduce them. What Horizons learned about stigma early on—that it is a deeply rooted social process with different manifestations at various levels of society—had important implications for the development of the program’s global agenda.

Horizons collaborated with other members of the USAID-convened Stigma and Discrimination Indicator Working Group to develop quantitative measures of stigma and address gaps in measurement. These were field tested and retested in Tanzania. Horizons and partners incorporated these measures and instruments into many studies in different settings (e.g., hospitals in India and Vietnam; communities in Nicaragua and Tanzania). Horizons also collaborated with the World Health Organization to develop a generic survey to measure stigma and discrimination across multiple settings.

As the UNAIDS 2008 Report on the Global AIDS Epidemic states, “Horizons’ partners developed stable measures of stigmatizing attitudes, events, and tools for measuring improvements in the environment that can be adapted and applied worldwide.”

Stigma-reduction strategies

Horizons staff developed tailored interventions to protect the interests and well-being of both patients and hospital staff in India and Vietnam. They found that a participatory approach, including sharing information about the levels and types of stigma among employees, helped build staff and management support for stigma-reduction activities. Horizons then supported the facilities in developing action plans, checklists, and trainings to reduce stigma. These actions yielded improvements in health care workers’ attitudes toward people with HIV and the quality of care offered to them. For example, in Vietnam there were significant declines in the labeling of patients’ files and beds with their HIV status. The overuse of barrier protections (e.g., using gloves during casual contact with HIV-positive patients) also decreased. Health workers in all participating hospitals significantly improved their scores on stigma indexes.

Horizons found that involving people living with HIV in providing HIV services and in sensitizing other service providers empowers them, improves service delivery, and contributes to stigma reduction among health workers and community members. Studies in Burkina Faso, Ecuador, India, and Zambia revealed that involving people living with HIV in service delivery programs can reduce their isolation, enhance their self-esteem, and improve community perceptions about their productivity. Further, such involvement can improve HIV care and support services by making them more relevant and personalized.

Horizons research in Rwanda, Tanzania, and Zambia has demonstrated the importance of community involvement in stigma-reduction interventions. For example, a Horizons study found that young members of Zambian groups known as “Anti-AIDS Clubs” can be trained to provide care and support to people with HIV and to help foster their acceptance within families and communities. The study examined young people in 30 Anti-AIDS Clubs who received training to become caregivers to families in their communities. They helped with domestic chores, bathed HIV-infected patients and dressed their wounds, and provided information, support, and referrals to family members. By observing the activities of the young caregivers and interacting with them, family members became more involved in the care of relatives. After learning about the program and witnessing the work of the young caregivers, community members began to see that they too could visit people with HIV. According to a client of the program, “Our community is beginning to accept people with AIDS since youth caregivers started visiting; they are not as fearful as before.”

“Our community is beginning to accept people with AIDS since youth caregivers started visiting; they are not as fearful as before.”

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OUTSIDE FUNDING
United States Agency for International Development/PEPFAR
Improving the Lives of Children Orphaned or Made Vulnerable by HIV and AIDS

In 1997, the Horizons Program began studying the care and support of orphans and other children rendered vulnerable by HIV and AIDS in sub-Saharan Africa. The research showed that children understandably suffer considerable distress at the illness and death of their parents, but that succession planning, linking children with community resources, participation in mentorship programs, and other programs can significantly improve well-being. Horizons researchers developed tools for assessing the well-being of orphans and other vulnerable children (OVC) affected by HIV and outlined key ethical guidelines for conducting research with children. The design, implementation, and evaluation of community-based OVC interventions remains a key requirement in expanding the evidence base.

Prior to the Horizons Program, OVC research had emphasized material deprivation. Horizons research gave equal attention to psychosocial distress experienced by children affected by AIDS. Horizons studies identified adult support as an important missing link in the psychosocial well-being of vulnerable children and youth. Research highlighted the range of health risks, limited access to material and social resources, and high-risk sexual behaviors experienced by children who have been orphaned. The death of a parent is not the only cause of vulnerability; parental illness from HIV and associated household changes can also prompt such feelings in young people. Various Horizons studies in several countries found that girls, older youth, and the elderly might be considered especially vulnerable, depending on the setting. These individuals may assume a disproportionate share of the burden of caring for younger orphans and vulnerable children in many settings, which can have negative repercussions for their own health and well-being.

Pioneering intervention strategies

Findings from Horizons research helped shape a number of intervention strategies. Data have shown that interventions for vulnerable children need to begin before the death of parents. Programs should address the psychosocial needs of children, including adult support and clinical services. They need to provide both family caregivers and community volunteers with training, assistance, and emotional support, and to involve community members in decisionmaking to foster dedication to program goals.

Horizons research in Uganda documented significant increases among parents participating in a succession planning program in the appointment of guardians, in the number of wills written, and in parents telling their children they have HIV.

Horizons research in Rwanda found that through regular home visits, trained adult volunteers developed a stable, caring relationship with children living without an adult caregiver, reducing children’s depression and isolation.

Horizons studies in South Africa and Zambia demonstrated the feasibility and value of training young people to serve as volunteer caregivers within their communities.

Horizons and partners showed that coaching elderly caregivers in intergenerational communication, basic nursing care, how to access social services and grants, and relaxation techniques improved their self-esteem and knowledge about HIV and reduced their anxiety about the future and their anger toward dependents. Elderly caregivers reported gaining valuable new skills from the training, such as how to communicate with young people.

Horizons data support the value of using volunteers as caregivers and emphasize the importance of providing ongoing training, support, and incentives to motivate caregivers and sustain high-quality programs.

Findings from Horizons studies reinforced the importance of strengthening OVC programs by linking them with community resources and clinical services.

Ethical and innovative research

One of the Horizons Program’s greatest contributions to orphans and vulnerable children was to spearhead the development of guidelines on the responsibilities of researchers to ensure that they conduct their activities ethically with the utmost regard for children’s health, well-being, and rights. A publication on this topic, which has become one of the Population Council’s most frequently requested books, identifies challenges confronting program managers and investigators and proposes practical solutions.

The Horizons research portfolio on orphans and vulnerable children highlights that the evaluation of community-based interventions continues to be a key gap in the evidence base. Developing and scaling up appropriate interventions requires research guided by the input of community members and other stakeholders to ensure that programs are achieving their desired goals without harming children or jeopardizing their rights. The resulting data will enable program managers, policymakers, and donors to decide which strategies are most effective and how they should be implemented.

“Before, we had no hope. After, we felt courageous.”
—recipient of mentoring for child-headed households

SOURCES

OUTSIDE FUNDING
United States Agency for International Development/PEPFAR
Promoting Gender Equity to Fight HIV

Gender inequities can hinder women’s and men’s ability to protect themselves from HIV infection. The Population Council’s Horizons Program sought to better understand gender inequities and their consequences, developing tools to measure gender-based power dynamics and designing and testing programs to reduce gender-based biases. Our research showed that it is possible to reduce gender-based biases and HIV risk when programs engage men in thinking critically about gender inequality; include interactive, small-group sessions and community-based activities; use the media to promote gender equity and HIV prevention; and reach men when their partners are pregnant.

Measuring gender equity

Horizons identified inequitable gender norms prevalent in study communities and determined whether they are correlated with negative HIV-related outcomes such as unprotected sex and STI symptoms. In Brazil, research by Horizons and partners revealed a prevailing version of masculinity characterized by limited male involvement in reproductive health and child care, a sense of male entitlement to sex, and tolerance of violence against women. A minority of more “gender-equitable” men were also described. Horizons studies in Ethiopia and India yielded similar results. These findings shaped the development of survey questions to assess the extent to which young men were “gender equitable.”

Before Horizons researchers began their work, few studies had quantitatively measured change in attitudes about gender norms, and few scales were available to evaluate an intervention’s effects on gender norms and high-risk sexual behaviors. Horizons developed and validated the Gender-equitable Men (GEM) scale, which includes items on women’s and men’s roles in domestic work and child care, sexuality and sexual relationships, reproductive health and disease prevention, violence, homophobia, and relations between men. The UNAIDS 2008 Report on the Global AIDS Epidemic describes the GEM scale as “a practical and reliable way to measure key beliefs and norms that contribute to gender equality.”

Several Horizons studies showed significant correlations between support for inequitable gender norms and risk for HIV and other STIs. For example, young men in Brazil and India who held inequitable gender beliefs were significantly more likely than “more equitable” men to be physically or sexually abusive to a partner and report STI symptoms. Conversely, men in Ethiopia with gender-equitable attitudes were more likely to report healthy intimate-partner behaviors, such as discussing and using condoms and other contraceptives.

Increasing gender equity

Horizons research demonstrated the impact of engaging men in thinking critically about gender inequality. Studies in Brazil and India looked at interactive group education sessions for young men that used gender-equitable messages to promote safer sex and healthier relationships. The studies demonstrated that helping young men to reflect on the ways in which gender inequality plays out in their own lives allows them to adopt more gender-equitable beliefs and behaviors.

Pregnancy provides a critical opportunity for male involvement in HIV prevention. A Horizons study in Zimbabwe found that women expect men to be more involved in pregnancy than they are and that men avoid involvement because they see pregnancy as a woman’s domain and clinic environments as unwelcoming.

Horizons also examined the role of the media in promoting gender equity and HIV prevention. In Nicaragua, Horizons studied the effects on young people of a television soap opera, which included characters who acted out gender-equitable behaviors related to sexual health and relationships, partner violence, and women’s status. The intervention also included a radio show aimed at young people, and various community-based activities (e.g., youth camps). The researchers found that support for gender-equitable norms increased over two years, and individuals with the highest level of exposure to the intervention became significantly more “gender equitable” than those with lower levels of exposure. There was also an increase in knowledge about and use of HIV-related services and a significant increase in interpersonal communication about HIV prevention and sexual behavior. These findings suggest that such communication programs can be an efficient and effective strategy both for reaching large numbers of young people and for producing measurable change in gender attitudes and norms on a population level.

Findings from Horizons studies indicate that certain key inequitable beliefs may coexist with generally equitable norms. For example, some young men in the Brazil study reported respect for women and repudiated violence against women. They believed they should use condoms and discuss condom use with their partners. However, they also reported that men have a “right” to have additional sexual partners.

Horizons demonstrated the importance of building programs that support long-term, sustained change in gender norms by fostering broad-based discussion on manhood, masculinity, and gender dynamics. Changing attitudes and behaviors is a complex and gradual process. Only a long-term strategy that includes a variety of approaches can successfully promote and support such changes.

SOURCE

OUTSIDE FUNDING
United States Agency for International Development/PEPFAR
Increasing Access to Antiretroviral Therapy for HIV-Infected Adults and Children

In 2001, the Horizons Program began its investigation of the provision and rollout of antiretroviral therapy (ART) in Africa and Asia. The goal was to answer key questions surrounding service delivery, health-seeking behaviors, adherence, cost, and barriers to treatment for HIV-infected adults and children. Horizons researchers found that provision of and adherence to ART regimens are hindered by a lack of knowledge among providers and affected communities, a lack of linkages between key services, and by stigma surrounding HIV.

Horizons initially documented the experiences of ART service-delivery programs. These studies identified patient retention and adherence to treatment as major challenges. For example, a 2002 situation analysis of Thailand’s newly implemented national ART program documented a dropout rate of 30 percent in the first six months, primarily because of side effects and lack of ongoing support. A 2004 Horizons study of people living with HIV in India found adherence to be significantly lower among patients with severe depression and among those receiving free ART (compared to patients who paid out-of-pocket). The study highlighted the need for better patient education before initiating and during ART.

Horizons research also revealed gaps in provider training, confidence, and competency, which often prevented them from delivering ART services. In Thailand, a majority of ART providers said they were uncertain how to counsel patients on drug side effects. Pediatric studies in Kenya and South Africa found knowledge gaps and low confidence regarding pediatric HIV diagnosis, calculating medication dosages, management of multiple illnesses, prevention of mother-to-child transmission of HIV, and counseling.

Improving ART adherence

Horizons conducted one of the first randomized, controlled studies of a clinic-based DAART (directly administered antiretroviral therapy) intervention to increase adherence to ART in a resource-constrained setting in Kenya. The intervention consisted of twice-weekly clinic visits for the first 24 weeks, during which patients met with nurses who watched them take their medicine, gave them more medications for the time between visits, counted pills, and counseled them on how to continue taking their medication properly. Patients not getting DAART received standard monthly in-clinic follow-up, including counseling on taking medicine properly, and routine health care. The study found that DAART was feasible and effective in helping patients take their medicine properly during the intervention period, but these effects were not sustained afterward.

In Thailand, Horizons researchers conducted a randomized, controlled study time among ART clients. And Horizons research found no evidence of increased high-risk sexual behavior (i.e., multiple partners or unprotected sex) in India, Kenya, Thailand, or Zambia.

Moving forward

Horizons was among the first research programs to implement intervention studies on adherence to antiretroviral medication in developing countries. The evidence base provided by these early studies has contributed to the design, strengthening, and expansion of ART services. Horizons identified training gaps and a lack of provider confidence across several stud-

“DAART reduced my anxiety about drugs.” —33-year-old male participant in Horizons’ Kenya DAART study

ies. The importance of ongoing, need-based, and interactive training for providers cannot be overemphasized. Training materials, such as the adherence counseling manual developed by Horizons and used in Kenya, have since been adapted by programs in Russia, South Africa, Tanzania, and Zambia.

As the HIV/AIDS epidemic matures, patients in resource-poor settings will experience side effects and other conditions associated with long-term ART. These include diabetes and lipodystrophy, a redistribution of fat tissue on the body. Second-generation drug-adherence studies in developing countries will need to examine these factors, as well as viral resistance, and their intersection with quality of life and stigma.

SOURCE

OUTSIDE FUNDING
United States Agency for International Development/PEPFAR
Shaping Policies and Programs to Reduce Mother-to-Child Transmission of HIV

Each year more than 430,000 infants are infected with HIV, most of them in sub-Saharan Africa and largely because of mother-to-child, or “vertical,” transmission. In contrast, mother-to-child transmission of HIV has been virtually eliminated in wealthy countries. In the late 1990s, breakthrough clinical trials of shorter and less expensive antiretroviral regimens demonstrated reductions of about 50 percent in vertical transmission. These advances made the prevention of mother-to-child transmission (PMTCT) of HIV affordable in sub-Saharan Africa and other resource-constrained settings.

The Population Council’s Horizons Program conducted operations research in several sub-Saharan African countries to determine how interventions that were successful in clinical trials would translate to actual health care delivery. Initial studies documented the feasibility and challenges of implementing PMTCT programs; subsequent studies assessed quality of services and effectiveness of strategies to promote use of and adherence to recommended practices.

Feasibility and challenges of PMTCT programs

Horizons studies found that it was feasible and acceptable to incorporate PMTCT services into antenatal care clinics. There was no evidence that the introduction of these services discouraged women from accessing antenatal care. However, only a fraction of women getting antenatal care sought and/or received PMTCT services. (See graph.) Reasons for low uptake included women not wanting to know their HIV status, concern about stigma, and lack of male and community support. Additionally, limited human resource capacity and insufficient supplies posed challenges to service delivery.

For those women who followed PMTCT recommendations fully, on the other hand, the programs had the hoped-for outcomes. For example, among women receiving antiretroviral prophylaxis in Lusaka, Zambia, mother-to-child transmission of HIV during labor and delivery was reduced by more than 50 percent, matching clinical effectiveness.

Quality of services and effectiveness of strategies

Horizons studies showed that psychosocial support from peers helps women adhere to PMTCT program recommendations. For example, an assessment of mothers2mothers (m2m), a clinic-based peer-support program in South Africa, documented that participating women were significantly more likely to reveal their HIV status to at least one person; receive CD4 testing during pregnancy to indicate strength of the immune system; receive antiretroviral therapy for themselves and their infants; and practice an exclusive method of infant feeding (in most cases, exclusive formula feeding). They were also less likely to report feeling alone in the world, overwhelmed by problems, and hopeless about the future.

Exclusive breastfeeding poses no greater risk of HIV to the infant than does exclusive formula feeding, and up to 50 percent of infant infections occur when parents combine breast and formula feeding. Horizons studies identified impediments related to infant feeding. Providers frequently ignored guidelines to review the pros and cons of each feeding option or to ask women about whether adequate water and fuel were available for the safe use of infant formula. Horizons also identified factors that improve infant feeding knowledge and practice among HIV-positive mothers. A study in Zambia found that these factors include reinforcement of breastfeeding, community education and mobilization, and intensive training of clinic and community-based workers.

Keeping mothers and their infants linked to the health care system after childbirth is an essential yet challenging component of comprehensive PMTCT programs. A Horizons study in Swaziland demonstrated the benefits of adding a postpartum visit in the first week following delivery, a critical time in the care of new mothers and infants. After the introduction of the project, new mothers were three times more likely to access postnatal care within one week of delivery, and HIV-positive women and their infants were significantly more likely to have started treatment with cotrimoxazole, an important and simple therapy to decrease HIV-related illness.

Use of research results

Horizons studies in Kenya and Zambia generated evidence that shaped the expansion of PMTCT services in both countries. For example, in Kenya, the study produced a training curriculum, educational materials, and an information system that were subsequently adopted by the National AIDS Control Program for its nationwide PMTCT program. In South Africa, the Horizons evaluation of the mothers2mothers program provided quantitative evidence of the benefits of peer psychosocial support. Based in part on the Horizons evaluation, the m2m program has been expanded to several other sub-Saharan African countries.

The Horizons Program found that although uptake of both HIV testing and antiretroviral prophylaxis is high in a limited number of local settings, there is an urgent need to expand PMTCT services at the national level.

SOURCE


OUTSIDE FUNDING

United States Agency for International Development/PEPFAR
From 1997 to 2008, the Population Council’s Horizons Program designed, implemented, evaluated, and expanded innovative strategies for HIV prevention, treatment, and care. The Horizons Program was a collaboration with the International Center for Research on Women, the International HIV/AIDS Alliance, PATH, Tulane University, Family Health International, and Johns Hopkins University and was funded by the President’s Emergency Plan for AIDS Relief (PEPFAR) and the generous support of the American people through the U.S. Agency for International Development (USAID).

Spanning a crucial decade in the fight against HIV and AIDS, Horizons conducted operations research to identify effective approaches for strengthening and scaling up 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.

In 2010, a special section of the journal *Public Health Reports* published articles on six key topics that Horizons investigated: HIV-related stigma, access to antiretroviral therapy, men who have sex with men, orphans and other vulnerable children, HIV and gender, and prevention of mother-to-child transmission. The Population Council also published background papers on which these journal articles were based. This issue of *Population Briefs* summarizes the lessons learned and best practices detailed in those publications.