

MEASURE *Evaluation* Bulletin

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A NEW TOOL TO FOCUS AND MONITOR AIDS PREVENTION EFFORTS: THE PLACE METHOD



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From People to Places: Overview of the PLACE Method and Lessons Learned

Sharon S. Weir and Ties Boerma

- ✓ **In AIDS prevention, there is a tremendous gap between the size and scope of the public health challenges caused by AIDS and the level of resources available to respond to it. Consequently, there is an urgent need to focus interventions where they are most cost-effective.**
- ✓ **The Priorities for Local AIDS Control Efforts (PLACE) method is a tool to systematically identify those areas likely to have high incidence of HIV and the specific sites within these areas where AIDS prevention programs should be focused.**
- ✓ **Findings from implementation of the PLACE method in six countries have demonstrated that the method is successful in identifying gaps in current AIDS prevention programs. PLACE is a rapid method which can be adapted for use at the city or district level.**

The PLACE method was developed by the MEASURE Evaluation Project at the University of North Carolina's Carolina Population Center, under cooperative agreement with the US Agency for International Development (USAID). The method was fielded for the first time in Cape Town, South Africa, in collaboration with the University of Cape Town [1]. Since then, a growing group of international collaborators has implemented the protocol in diverse settings in several regions of the world. Results from South Africa, Uganda, Burkina Faso, India, Tanzania, and Mexico are included in this issue of the Bulletin.

Background:

PLACE Method

A key question for AIDS prevention efforts is whether condoms and AIDS prevention messages are reaching people who have high rates of new sexual partnership acquisition. The PLACE method provides for descriptions of the rate and pattern of new sexual partnership formation in a community and identifies where to focus AIDS prevention programs in order to reach key members of the underlying sexual network. In areas where HIV transmission via in-

jecting drug use is common, the PLACE method can be adapted to also provide information about the rate and pattern of injecting drug use.

The PLACE method was developed based on epidemiological models of the HIV epidemic [2]. These models indicate that the HIV epidemic in a population is determined by a complex set of biological and behavioral factors at the individual and population levels. Among the most important factors at the population level are the rates and pattern of new sexual partnership formation and injecting drug use. Important questions include: What proportion of the population had a new sexual partner during the past month and past year? To what extent do people form new sexual partnerships with residents of their community, with visitors to the community and with both mobile and resident populations? What proportion of new partnerships are characterized by commercial sex? To what extent are people engaged in injecting drug use practices that facilitate HIV transmission? To what extent do people with many new partners remain in contact with previous sexual partners?

Box 1. Summary of PLACE Protocol: Steps, Methods, and Outputs

Steps	Objective	Methods	Outputs
Preparatory	To adapt protocol, obtain community support and ethical approval	-Discussions with local implementers -Community meetings -Ethical review -Translation of questionnaires -Field tests of protocol	Approved protocol with methods, sampling, table shells, questionnaires, and interviewer manual
1 Identify areas	To identify and describe areas in city or district likely to have high HIV incidence and select areas for implementing full PLACE assessment	-Synthesis of available reports -Discussion with experts -Community meetings -City or district-wide key informant interviews	A specific geographic area selected and context of the epidemic described.
2 Key informants	To identify sites and events where people meet new partners within selected areas	-Key informant interviews with 200-300 people likely to know where people meet new sexual partners (and where drug injectors socialize)	A unique list of sites in the area where people go to meet new partners (and drug injectors socialize)
3 Site visits	To conduct site visits to assess the validity of key informant reports and to characterize sites	-Verification of existence and location of sites -Interview with responsible person on site -Preliminary mapping of sites	Tables characterizing sites: whether new partners are met at site, patron characteristics, on-site intervention and condom availability
4 Patron Interviews	To describe site patrons and estimate rate of new partnership formation among individuals socializing at sites	-Brief individual interviews of sample of individuals socializing at selected sites	Tables describing new partnership formation, condom use, site attendance and patron characteristics
5 Analysis&Mapping	To summarize findings, estimate monitoring indicators, prepare a map useful for the intervention and disseminate results	-Appropriate data analysis -Mapping of sites on air photo or map -Report and meetings with stake holders	Report of findings including baseline indicators for monitoring interventions and maps; dissemination to stakeholders

Clinic-based approaches

Several previous strategies to reach individuals with high rates of new partner acquisition have been developed and used with some success. Because people with many sexual partners are more likely to contract sexually transmitted infections (STIs) and may visit clinics to receive treatment, many AIDS prevention programs have adopted clinic-based approaches to treat infected clients and also reach their partners through contact tracing or partner referral programs. Appropriate treatment of sexually transmitted infections and partner referral is an essential component of an AIDS prevention strategy, but clinic-based approaches can miss a large proportion of those infected with STIs, including those who are asymptomatic, those who prefer alternative sources of treatment, and those with limited service access and utilization such as poor and mobile populations.

High risk or core group approach

Another approach to reach people most likely to acquire or transmit HIV is to target AIDS prevention and condom distribution programs towards high risk or “core” groups, such as commercial sex workers and injecting drug users. If used early in the epidemic, this approach has the advantage of focusing prevention dollars on groups where HIV is likely to be established, with the hope that spread of infection to the general population can be thwarted. Thailand’s 100% condom policy, implemented in brothels to encourage condom use in the Thai commercial sex industry, demonstrates the effectiveness of targeting high-risk populations. Since the implementation of this policy, condom use in the commercial sex industry has increased while HIV prevalence in the general population has decreased [3]. A targeted risk group strategy is particularly appropriate where risk groups are easily identifiable and where the epidemic has not spread into the general population.

Targeting places – the PLACE method

The PLACE method also advocates a targeted approach. However, the method does not target groups or individuals, but geographic *areas* in a city, district or country. HIV incidence is rarely if ever uniform throughout a city or country. The PLACE method identifies areas likely to have high HIV incidence relative to other areas. These areas, dubbed high transmission areas (HTAs), have underlying sexual and drug injection networks that facilitate the transmission of HIV and often share certain characteristics that allow for their identification. Surveillance systems have documented the clustering of HIV infection in urban areas, for example, and along major transportation routes. Some of the characteris-

tics of areas that appear to be associated with extensive sexual mixing that could support an HIV epidemic include:

- Poverty, unemployment, over-crowding
- Lack of health care, lack of infrastructure for health
- High prevalence of other sexually transmitted infections
- Urbanization, rapid growth, a high male to female ratio, alcohol consumption
- High population mobility, proximity to transportation and shipping centers
- Political instability, temporary housing, refugee camps

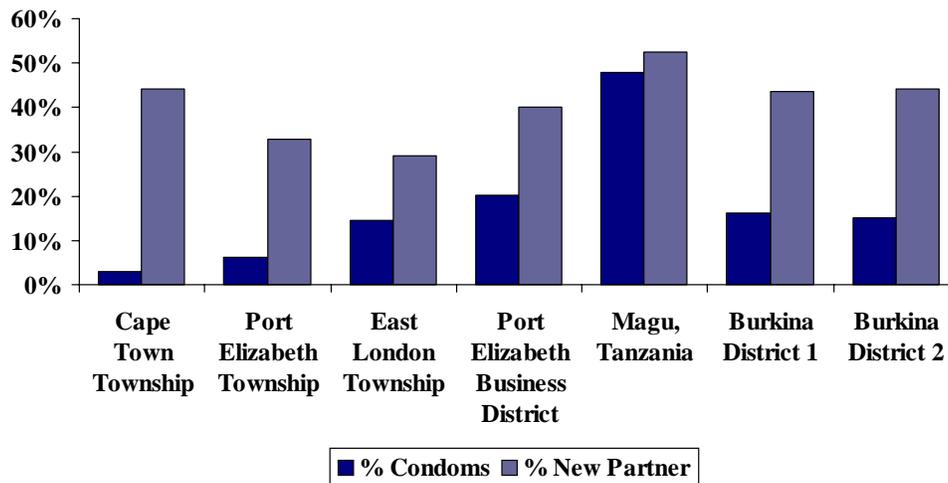
Within these areas, the PLACE method systematically identifies, characterizes and maps places where new sexual partnerships are formed (or injecting drug users socialize) and recommends specific sites where prevention programs should be implemented.

There are several advantages to identifying risk areas and specific sites within these areas for intervention. Identifying risk areas avoids having to identify risk groups such as sex workers and injection drug users. These groups are, unfortunately, often stigmatized, and there are often challenges in developing local programs for them. Membership in these groups is also dynamic and hard to define. Although individual membership in these groups is hard to define, locating the sites where sex workers solicit clients, where injection drug users socialize, and where other people with many new partners go to find new partners is feasible. In many settings, these sites remain stable and effective intervention points, even though the population moving through the sites is dynamic. Identifying and characterizing these sites for intervention programs makes the findings immediately useful.

Implementation of the PLACE method — the five steps

The PLACE method is implemented in a series of five steps. After identifying a local investigator and adapting the protocol, the first step in the PLACE method is to identify areas likely to have a higher incidence of HIV infection. Areas can often be identified without any new data collection by reviewing available demographic, epidemiologic and contextual data. If available information is considered insufficient, however, additional data can be collected through focus group interviews, community meetings or key informant interviews with people knowledgeable about where people meet new sexual partners. After the areas are identified, the implementing team must decide whether to implement the full protocol in all of these high transmission areas (HTAs) or a sample of them.

Figure 1. Program Gaps:
Percent of Sites with Condoms and Percent of Men Reporting New Partners



The second step is to interview about 200-300 key informants within each selected HTA. Key informants are asked to name specific sites where people in the area go to meet new sexual partners, such as hotels, hostels and bars. In the third step, interviewers visit each site reported by key informants and conduct an interview with a site representative. All identified sites are mapped and characterized in terms of the type of people who visit, on-site AIDS prevention activity, and condom availability. In the fourth step, the rate of new partnership acquisition and condom use at a sample of sites is estimated from interviews with people socializing at sites.

The three stages of interviews - with key informants, site representatives and individuals socializing at the sites - provide data and maps used to create indicators of past and potential AIDS prevention activity and condom distribution and use in the communities. Providing information in the form of reports and maps to stakeholders and those implementing programs is the fifth step of the PLACE method.

Lessons learned

The PLACE Method is flexible, non-stigmatizing and acceptable.

The PLACE method has now been implemented in a variety of settings. Findings reported in this Bulletin reflect PLACE studies in six countries, with very different epidemic patterns and different sexual cultures. In each setting, the protocol was adapted to the particular needs of the local AIDS prevention program efforts. Because the approach is not risk-group based, it is less stigmatizing and more acceptable at the community level than approaches that re-

quire local identification of risk groups such as sex workers.

Local experts and community groups readily identified areas they considered most likely to have a high incidence of HIV.

In every country where the method has been implemented, the study group held a discussion during which participants discussed areas of the city or district that were at risk of HIV and appropriate for study using the PLACE method. Participants included health care sector and community representatives, such as epidemiologists, intervention group representatives, community advocates, and health care workers. Because consensus was reached without the benefit of HIV or STD incidence in the community, these methods are subject to error, and it is possible that some areas of a community with high incidence were missed. However, the results indicate that the areas studied have sexual networks that could sustain an HIV epidemic and could benefit from focused prevention efforts.

Key informants are very willing to identify sites where other people go to meet new sexual partners. The sites they reported could almost always be found.

In the studies reported in this Bulletin, approximately 3,300 people were asked where people in the area go to meet new sexual partners. Many named more than five sites and very few refused to participate. Key informants came from every strata of society, but in almost every study area the most informative key informants were men engaged in transporting people—local taxi, bus, or rickshaw drivers. Interview-

ers found almost 1,700 of the sites reported by key informants. This represents well over 80% of the sites reported.

The number, type and size of sites varied in every study, reflecting culturally unique underlying sexual network patterns. In spite of the variety of sites, in every setting, identifying the locus of partnership formation was possible and important for strategic AIDS prevention programming.

Places where people meet new sexual partners are not randomly distributed throughout a city or district. The type of sites reported ranged from bars, discos, video shops, restaurants and brothels to street corners, open fields, markets and vacant buildings. Although the type of site varied a great deal from country to country, alcohol was often available at sites where people meet new sexual partners. In the South African studies, the most common type of site reported was a small informal bar where neighborhood residents often socialize and drink beer and alcohol. Similarly, in Uganda and in Burkina Faso, most of the sites were small bars. Representatives of the majority of sites identified by key informants confirmed that people who come to sites meet new sexual partners at the sites.

Overall, the rate of new sexual partner acquisition reported is higher than expected, particularly in Africa, and confirms that the method was able to identify places where people with high rates of new partner acquisition can be reached. In the African studies, over 25% of men socializing at sites identified by the PLACE method reported having had a new sexual partner within the past four weeks. (Figure 1). Unfortunately, few sites had condoms available.

The link to interventions is crucial and should be developed prior to implementation of the PLACE method.

The purpose of the PLACE method is to identify strategic sites for cost-effective implementation of prevention programs. Consequently, developing a sound link with ongoing intervention programs is a crucial step towards ensuring that the data are used. Intervention groups should participate early in the process and be included in discussions to identify high transmission areas. A plan for how the findings could be used by intervention groups can help guide the selection of areas and raise the probability that the study will result in improved programs. Intervention groups have insights and questions that must be taken into account in planning the study and writing the final report. Maps such as the one below can be developed and shared with intervention programs and used to advocate for increased funding for interventions. This map shows that, in this township with 80,000 people, there are many sites where people go to meet new sexual partners but condoms are not available. Intervention programs that manage condom distribution to sites and programs that operate community based peer health education could use these maps to plan interventions.

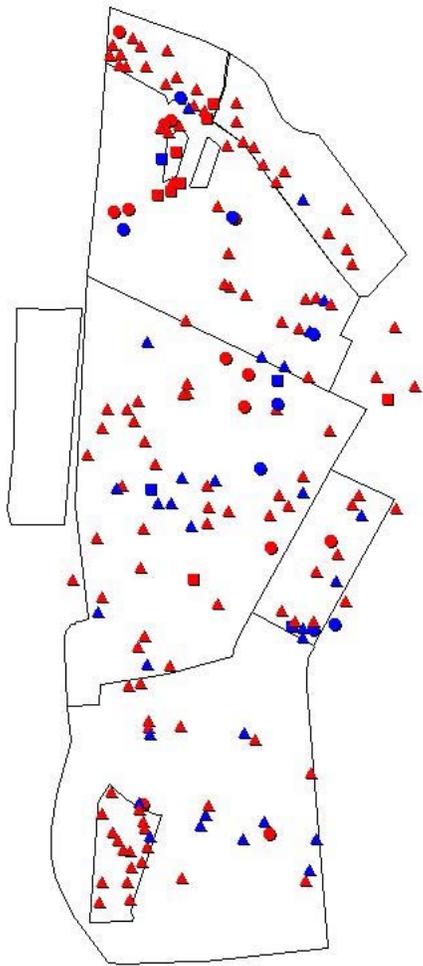
The method has provided valuable new insights into sexual behavior patterns in a community.

A site-based approach has proven to be a useful tool for studying sexual mixing in a community. Sexual networks that show the sexual links between specific individuals in a community are time-consuming to construct and subject to considerable bias due to the reluctance of people to name all of their sexual partners or their inability to do so. The PLACE method provides insight into the links between sites where people go to meet new sexual partners. For example, in Cape Town, the findings showed that some sites largely attracted local residents living close to the site, while other sites also attracted people from outside the township as well as people from the other parts of the township. The method has also provided insight into the role of commercial sex in the community's sexual networks. In most cases, sex workers have more new sexual partners than any other group. However, these partnerships may represent a small proportion of all new sexual partnerships and transmission opportunities. One of the most salient findings was how frequently people visit sites where new partnerships are formed. In Kampala, Port Elizabeth, Cape Town, and East London, many people at sites are regular visitors with a substantial number visiting daily. The number of men at sites is often double the number of women.

Next steps

The PLACE method has been a successful rapid assessment tool for identifying where to focus interventions. It has been used at the city and district level in populations ranging from conservative urban cultures in India to small border towns in Mexico to sprawling urban squatter areas in Africa. The next steps are:

- To further develop the use of the method as a tool to monitor intervention efforts to reach sexual networks at sites identified by the PLACE method.
- To assess the use of the protocol in cities where injecting drug use is a common method of HIV transmission. Studies are underway in Russia and Central Asia and results should be available in late 2002.
- To distribute a PLACE method package that includes a methods protocol, questionnaires, table shells, report outlines, and a training manual.
- To formulate a research agenda to validate the method, develop measures of sexual networks, and identify strategic site-based AIDS prevention indicators.



**Patrons Meet New Partners and
No Condoms Available by Site Type**

AIDS HTA Study
A Township in Cape Town, South Africa



University of North Carolina
at Chapel Hill



University of Cape Town

Legend

Meet New Partners
and Condoms Available

Type of Site	No	Yes
Bar	●	●
Shebeen	▲	▲
Other	■	■

- To go to scale with widespread implementation of the protocol at the district, country and regional level.

Notes

[1] MEASURE *Evaluation* Technical Report. PLACE: Priorities for Local AIDS Control Efforts: A Pilot Study of the PLACE Method in a Township in Cape Town, South Africa, March 2002.

[2] Anderson R. Transmission dynamics of sexually transmitted infections. In: Holmes KK, Sparling PF, Mardh P-A, Lemon SM, Stamm WE, Piot P, Wasserheit J(eds). *Sexually Transmitted Diseases, Third Edition*. New York: McGraw Hill, 1999:25-37.

[3] Hanenberg RS, Rojanapithayakorn W, Kunasol P, Sokal DC. Impact of Thailand's HIV-control programme as indicated by the decline of sexually transmitted diseases. *Lancet* 1994; 344: 243-5.

Application of the PLACE Method for Facilitation of AIDS Prevention in a City in India

Bhubaneswar Place Study Group [1]

- ✓ **Prior to implementing the study, there was some skepticism about whether people in India would identify places where people meet new sexual partners. Surprisingly, many key informants were willing to name places where either people go to meet new sexual partners or where couples go to have illicit sex.**
- ✓ **The types of sites ranged from open fields and parks to restaurants and hotels, as well as sex worker sites.**
- ✓ **People interviewed at sites about their own behavior were reluctant to report meeting new sexual partners at the sites.**
- ✓ **Site-based interventions may prove to be a reasonable strategy in India.**

HIV/AIDS in India

At the end of 2000, an estimated 3.86 million people in India were living with HIV infection. The prevalence of HIV infection among adults aged 15-49 years was 0.7%. The virus was first detected in India in 1986, and has subsequently spread rapidly through urban centers such as Mumbai, Chennai, Pune and Calcutta. Transmission was primarily occurring through heterosexual sex among commercial sex workers and their clients, and then on to non-commercial female partners of the clients. This was paralleled by transmission through intravenous (IV) drug use among male IV drug users and their sexual partners in a simultaneous epidemic in the northeastern state of Manipur. Recently, HIV infection has spread into rural areas at an alarming rate, where high levels of poverty and low levels of literacy make the population especially vulnerable to infection [2-5].

Intervention efforts aimed at controlling the spread of HIV by increasing HIV/AIDS awareness and condom promotion have been urgently needed from the beginning of the epidemic, but lacking at any significant level until recently.

Phase II of the National AIDS Control Programme (1999-2004) emphasizes targeting interventions at high-risk populations, such as commercial sex workers, highway truck drivers, laborers at rural work sites and IV drug users. Targeting high-risk groups is important for control of transmission, but this approach has two important limitations. First, although this approach addresses the need for *control* among high-risk, primarily urban, populations, it does not address the need for *prevention* in the general, predominately non-urban, population with lower prevalence of HIV infection. Targeting high-risk populations also fosters stigmatization of specific sub-groups, perpetuating a false sense of security among people outside these sub-groups. Stigmatization of people with HIV infection and misconceptions about vulnerability to HIV/AIDS are substantial barriers to HIV control and prevention in India [6].

The Priorities for Local AIDS Control Efforts (PLACE) method aptly addresses these two gaps in the current strategy for HIV/AIDS intervention programs, certainly at a state level and potentially at a national level. First, PLACE is suited for application in the general population of non-urban India, and second, the method emphasizes interventions

A garden site in Orissa



targeted at specific *locations* rather than at sub-groups of *people*. Targeted interventions for the general population may reach vulnerable people more effectively than methods currently in use such as mass media campaigns. An additional advantage of applying PLACE in a culture where talking about one's own sexual behavior is taboo is that this method relies largely on individuals to talk about other people's sexual behavior and not their own.

The central-eastern coastal state of Orissa was selected as a site for applying PLACE. HIV prevalence remains low at 0.9 % while contextual factors in Orissa, such as high poverty levels, low education levels, low social status of women, high proportions of adolescents and youths, and inadequate health services for STDs, are likely to facilitate increases in incidence and prevalence of HIV/AIDS [2-5]. The PLACE method was applied in Bhubaneswar, the capital city of Orissa and home to over 655,000 people, to investigate sexual behavior patterns and identify locations where AIDS prevention efforts may be targeted.

The city-wide key informant phase

Areas with higher incidence of HIV infection have been dubbed "high transmission areas" (HTAs) and preliminary information on potential HTAs was obtained from the local collaborating organization, Asian Information, Marketing, and Social Research (AIMS). Investigators at AIMS had previously conducted a statewide sexual behavior survey [7]. Based on their knowledge of sexual activity in the city of Bhubaneswar, they identified five broad areas of increased levels of partnership formation (a university area, the industrial area, the red light area, the railway station area, and a tourist area) and generated a list of potential key informant types.

The key informants (N=150) included slum dwellers, laborers, auto-rickshaw drivers, bus conductors, store or museum security guards, highway truck drivers, college students, and locally-brewed liquor sellers throughout the city,

including in the five broad areas identified by AIMS. These informants identified 72 areas of the city where people went to meet new sexual partners. Mapping the 72 locations revealed ten geo-contextual clusters, which included 37 of the 72 locations (Figure 1). Three factors defined a geo-contextual cluster: 1) geographic proximity of locations based on visual assessments using the map; 2) contextual linkages between the locations that made up the cluster based on patterns of regular mobility between the locations; and 3) frequency with which locations were reported by city-wide key informants (locations reported by less than 6% of the key informants were excluded). These 10 clusters formed the 10 HTAs, which were investigated using PLACE.

Places of sexual partnering in Bhubaneswar

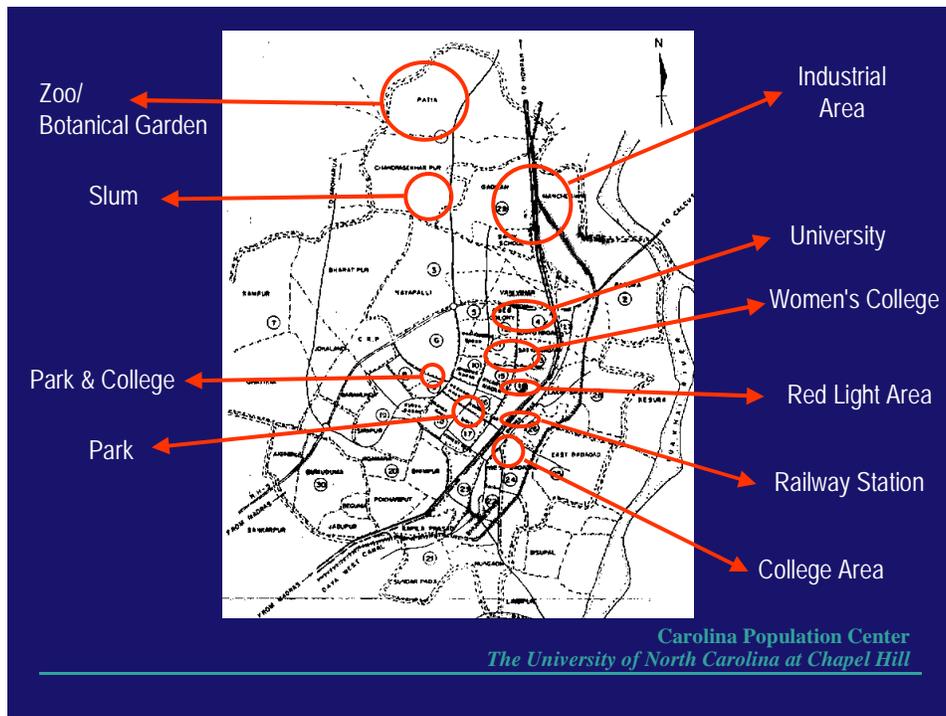
Within the 10 HTAs, 162 new key informants (of types similar to the city-wide key informants) identified 225 sites where people went to meet new sexual partners. At 215 (97%) of these sites, a person with knowledge about the site confirmed that people went there to seek new sexual partners. Most of the sites in Bhubaneswar were in public settings, rather than bars, clubs and restaurants, and did not have managers and other staff. The sites were stable, in that 99% had been in existence for at least 2 years prior to the interview. Sites included parks/gardens (15%), roadsides (15%), parts of college campuses (12%), stands and stations of public transport including bus, railway, auto-rickshaw and cycle-rickshaw (14%), and other sites like public phone booths, brotels, and community latrines (Figure 2).

The presence of HIV/AIDS intervention at sites was very low. Nearly all sites had no visible evidence of prevention programs. Seventy-five percent of the sites never had condoms available. Of the 54 sites where condoms were available, they were available for at least half the month in only 30% of sites.

People and activities at places of sexual partnering in Bhubaneswar

A knowledgeable informant at each site provided information on the people and activities of the site (Table 1). According to these informants, the number of men and women seeking new sexual partners during the busiest hours at the sites was fairly low. The peak number of men seeking partners was 10 or less at 42% of the sites, 11 to 20 at 26% of sites, 21-30 at 16% of sites, and greater than 30 at only 6% of sites. For women, most sites (69%) had no more than 10 women seeking partners at peak times. Only 3% of sites had more than 30 women seeking new sexual partners at peak times.

Figure 1. Map of 10 HTAs investigated in Bhubaneswar, Orissa



Most men who came to the site seeking a new sexual partner were 25-39 years of age and came from various locations of the city. Women were mostly 20-29 years of age and came from locations within the city. Only 12% of men and 5% of women came to the sites from locations outside Bhubaneswar.

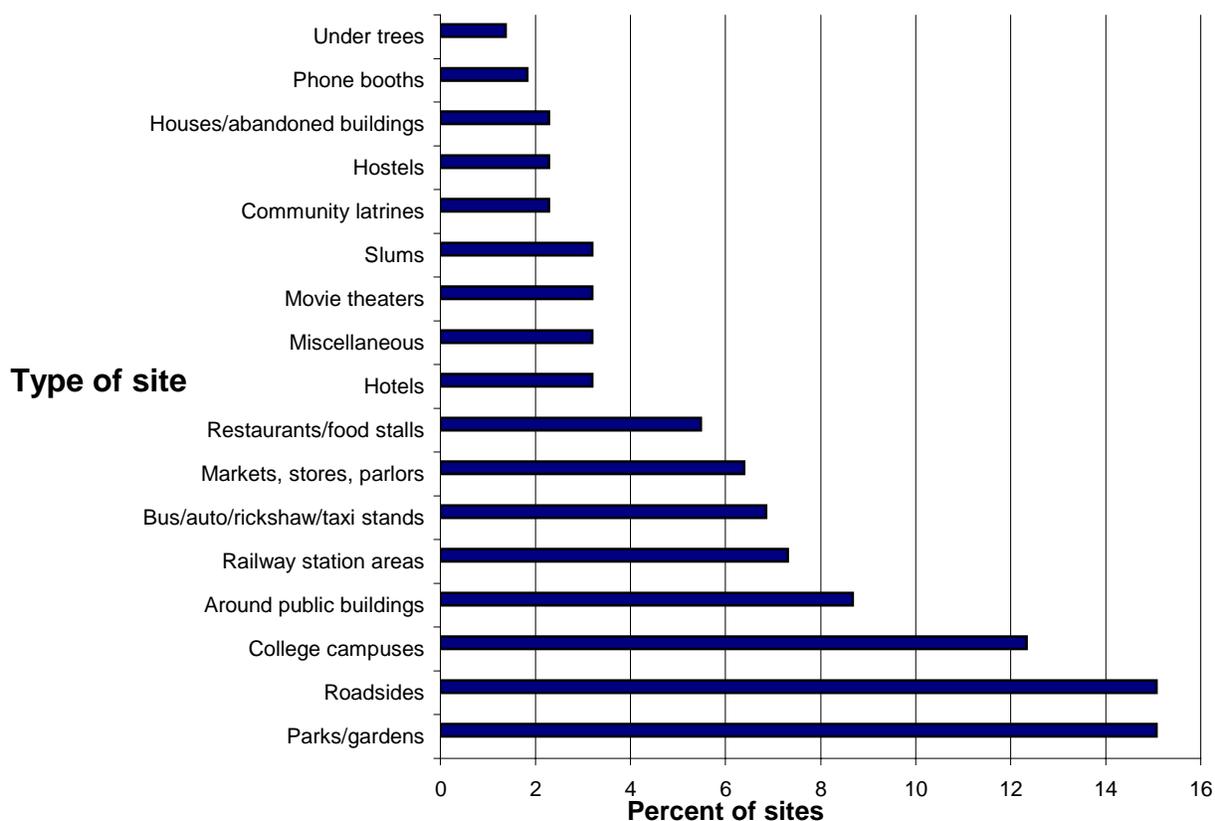
Most sites were places where men came to seek women (96%); men came to seek men at only 4% of sites. Sites where gay sex was reported included two sites at a college, a site at the zoo/botanical garden, and sites near the railway station. Women came to seek men for casual sex at more than two thirds of the sites. Nearly two-thirds of the sites were frequently visited by students. Sex workers frequented about half the sites. A third person facilitated partner formation at 16% of sites, including sites such as a rickshaw stand, a bus stand, a public toilet and near the women's hostel at a graduate university. Sex was reported to occur on site at 21% of the sites. Half of these were commercial sex sites, but a surprising 62% of sites were places where non-commercial sex was said to occur. No more than about half the sites were associated with use of drugs or alcohol.

In the final phase of PLACE, interviews were conducted with 950 individuals at a sample of 38 sites during the site's busiest hours of operation. Characteristics of patrons at sites are summarized in Table 2.

Most patrons of the sites were 20-35 years of age and were residents of Bhubaneswar with 33% having lived in Bhubaneswar all their lives. About half the respondents had a high school or college education and a similar proportion were unemployed. More than half the individuals reported coming to the site 21-30 times per month. Three percent reported visiting the site at least once a day. About half of respondents (50% of men and 48% of women) reported that the site was a place where other people came to seek new sex partners or to have sex, but only 70 of the 950 individuals (7%) admitted to ever having attracted a partner at the site themselves. Of these 70 persons, 64% reported having attracted a partner at the site within the past month and 23% had done so within the past 2-6 months.

Three quarters of patrons present at sites had never used a condom. Among those who reported ever having found a

Figure 2. Types of sexual partnering sites by frequency with which they were reported and verified



sexual partner at the site (N=70), 50% of men and 90% of women reported using a condom with their last partner from the site.

Gaps in the AIDS prevention programs

The AIDS prevention efforts in Bhubaneswar have substantial gaps including low condom availability and a scarcity of AIDS education programs at sites where people reportedly go to seek new sexual partners. The potential for implementing appropriate prevention measures is substantial given that 99% of the informants interviewed for information on the site were willing to have AIDS prevention programs instituted on site. Increasing condom availability must be made a priority, specifically in places where sexual partnering may be especially high. More generally, condom use must be encouraged because over 80% of HIV transmission in India is estimated to occur through unprotected heterosexual sex. [2]

Implications for AIDS prevention interventions

Individuals patronizing sites reported low rates of partner-seeking and partnership formation compared to reports from key informants and site informants. The discrepancy is likely due to under-reporting of individuals' own sexual behavior given the sexually conservative climate of Bhubaneswar and the prevalent fear of stigmatization. Thus, the areas identified by the PLACE method in Bhubaneswar are likely potential high transmission areas where AIDS intervention is currently lacking.

Preventive efforts, including AIDS awareness and condom promotion, must be tailored to the nature of sites given the public nature of most sites in Bhubaneswar. Sites where sex has been reported to occur on site may be prioritized ahead of those where sex does not occur on site. Similarly, sites where commercial sex occurs warrant immediate intervention given the high number of partnerships associated with commercial sex.

Public phone booth – a site where people reportedly meet new sex partners (also known as an STD (standard trunk dialing) booth)



Table 1. Characteristics of sites

Number of key informant interviews conducted to identify sites where people go to meet new sex partners	162
Characteristics of sites (1 informant per site)	
Number of sites located and verified	219
Alcohol consumed on site	51%
People seek new sexual partners	100%
FSW solicit clients	50%
Sex occurs onsite	22%
Condoms never available in past year	74%

Table 2. Characteristics of patrons at sites

Characteristics of patrons at sites	Men	Women
Number of people interviewed	564	386
Mean age	26	25
Reside in study area	90%	87%
Unemployed	36%	74%
Visit the site every day	3%	2%
Visit the site 21-30 times/month	57%	57%
Met a new partner at the site	7%	7%
Median number of sexual partners from site in past month (N=70)	0	8
Median number of new sexual partners from site in past month (N=70)	0	5

Despite relatively low partnership rates and presumably low HIV prevalence, from a preventive standpoint, it is critical to reach these locations where new sexual partnership may be high and curtail the spread of HIV as early as possible.

Notes

[1] The Bhubaneswar PLACE Study Group includes Braj Das of Asian Information Marketing & Social Research P Ltd, Orissa, India and Piku Patnaik, Sharon Weir, and Bill Miller of the University of North Carolina, Chapel Hill. This article was written by Piku Patnaik.

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[3] UNAIDS. Epidemiological Fact Sheets on HIV/AIDS and sexually transmitted infections. India 2000 Update (revised). Joint United Nations Program on HIV/AIDS. <http://www.unaids.org>

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[7] AIMS Research, Orissa State AIDS Cell, and Family Health International – New Delhi. Behavioral Surveillance Survey in Orissa. Unpublished manuscript, 2000.

Diversity in Sites of Sexual Encounter Revealed by the PLACE Method in Two Burkina Faso Health Districts

Burkina Faso PLACE Study Group [1]

- ✓ **In response to the need for cost-effective tools to plan and evaluate AIDS interventions within Health Districts, a rapid and inexpensive version of the PLACE protocol, a “roll-out” protocol, was developed and tested in two Burkina Faso Health Districts.**
- ✓ **Key informants identified numerous and diverse sites of sexual encounter and on-site interviews confirmed high rates of sexual partnership in both urban and rural areas.**
- ✓ **The majority of sites, whether formal bars and clubs or public sites such as truck stops and markets, were willing to host AIDS education programs and sell condoms.**

The Burkina Faso National AIDS Program (CNLS) estimates that the current HIV/AIDS prevalence rate in Burkina Faso is about 7%, making it the second-most affected country in West Africa. Its southern neighbor, Côte d’Ivoire, has the highest prevalence rate. Over the past fifteen years, government commitment to AIDS in Burkina Faso has intensified and condoms are increasingly accessible, primarily through a social marketing program, PROMACO [2]. It has not been demonstrated, however, that condoms reach those who need them.

Burkina Faso Health Districts need rapid planning and evaluation tools

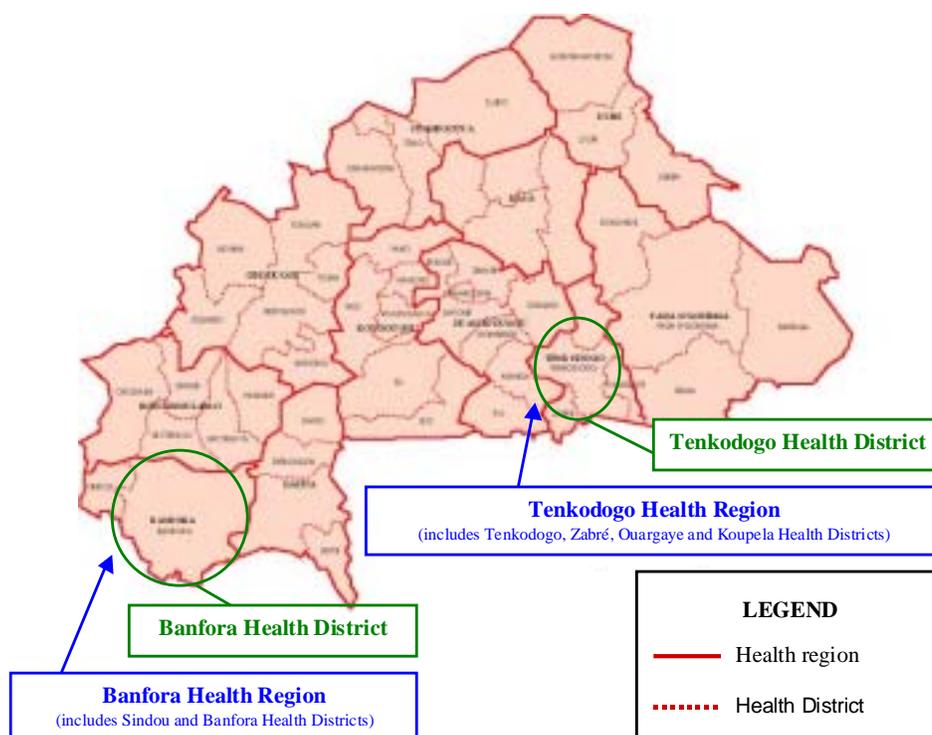
Health Districts in Burkina Faso have become the administrative units with primary responsibility for combating disease. The population of a Health District ranges from about 300,000 to 400,000 people. With limited resources for HIV/AIDS prevention, the Health District officials need assessment tools to focus and monitor interventions at low cost in diverse settings. Under direction of the CNLS, the original PLACE protocol was adapted for use as a tool to plan HIV/AIDS interventions and was piloted in the Banfora and Tenkodogo Health Districts of Burkina Faso. The Banfora and Tenkodogo Health Districts were identified by the CNLS primarily because they are important centers of migration.

Not only do both Health Districts experience internal migration between their urban, rural and border areas, but major international highways through both districts facilitate migration to and from other Burkina Faso provinces and across international borders.

Using the PLACE method, key informants indicated that sexual encounter occurs at diverse sites

When asked to name sites of sexual encounter, key informants identified 295 unique sites, in five study areas of the Banfora Health District and 159 sites in three study areas of the Tenkodogo Health District. A greater number of sites were reported in the urban centers (average 99 sites) compared with the number reported in each of the rural villages (average 38) or border towns (average 38) in both Health Districts. Over 30 different types of sites were identified, with great differences observed among types and characteristics of sites in urban, rural and border areas. In the urban towns of both districts, the most frequently named sites were formal bars, dance clubs and brothels. The semi-rural border towns in both districts were known to have a prominent sex industry based around migration traffic. Frequently named sites in these areas included certain brothels and bars, as well as informal public meeting areas, such as markets,

Figure 1. Map of Burkina Faso Health Districts



customs areas, truck stops and bus stops. Where rural areas did not have formal establishments such as dance clubs or brothels, the most frequently named sites included informal sites such as markets, streets and video clubs.

The number of people present at the sites varied greatly, depending on the type of site, with some small bars serving less than 10 individuals during peak hours, while over 1,000 individuals were observed visiting certain markets. In general, men outnumbered women by two to one, and men, typically, were five years older than women (about 28 and 23 years, respectively). Drinking was a common activity at sites; consumption of commercially produced alcohol was more common in urban areas, while drinking home brewed wine and beer was popular in rural areas.

Sexual encounters also occur at community events

Findings indicate that temporally situated events, such as weddings, funerals, baptisms, harvest celebrations and traditional rituals, as well as geographically fixed sites, serve as important moments of sexual encounter. While events were reported in areas throughout the Health Districts, events comprised a larger proportion of all key informant reports in the most rural areas of Banfora (14%) and Tenkodogo

(35%). Events may play a more significant role in less developed rural areas, because formal bars, hotels, brothels and dance clubs are less common.

Respondents report high rates of partner acquisition

According to site representatives, individuals meet new sexual partners at over 85% of sites named by key informants. At a sample of sites, individuals were interviewed while socializing. Their reports indicate high rates of partner acquisition. Women were more likely than men to report having had at least one new partner in the past month (40 and 33%, respectively). There were also differences between the Health Districts. Men and women in the Tenkodogo Health District were more likely to report having met at least one new sexual partner in the month preceding the survey (44 and 48%, respectively) than men and women in the Banfora Health District (26 and 34%, respectively) (Figure 2).

Differences in sexual behavior also were observed among urban, rural and border areas in each Health District. The border town of the Banfora Health District, Niangoloko, and the urban town of Tenkodogo were reputed for sex work. Women in these areas reported a mean number of 8 new

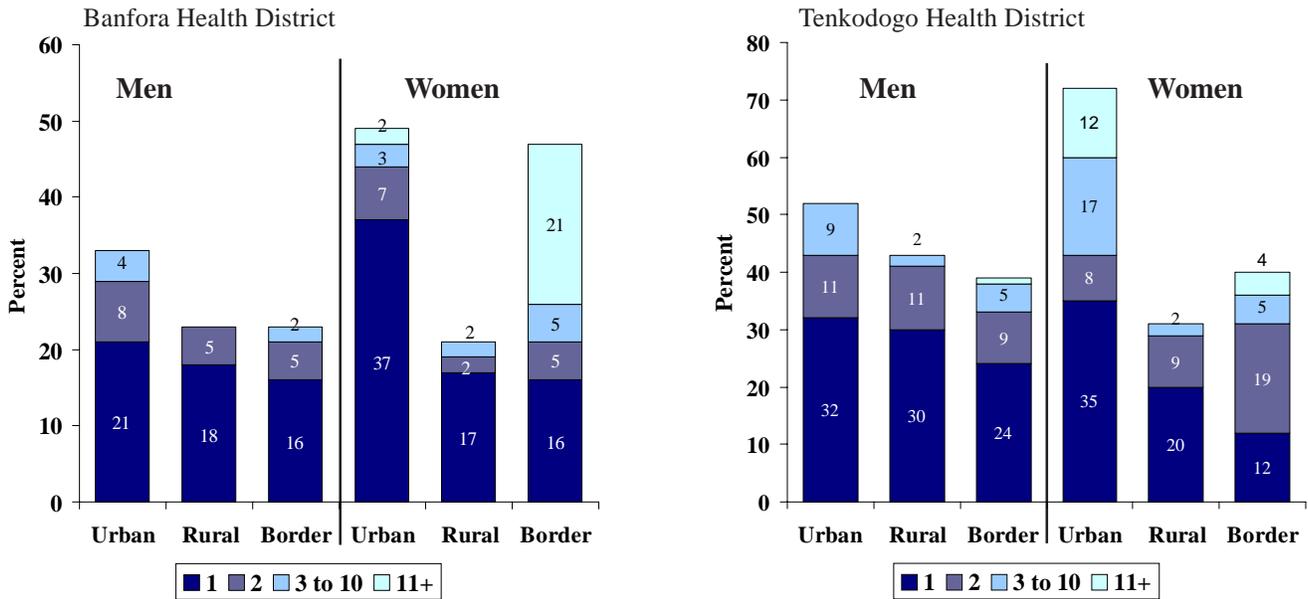
Field Work Preparation, Banfora Health District, 2001



Interviewers sort reports, Banfora Health District, 2001



Figure 2. Percent of men and women reporting one or more new sexual partners in the 4 weeks preceding the survey, Banfora and Tenkodogo Health Districts, 2001



partners in the month preceding the survey, while all other men and women in the Health Districts reported a mean of less than 1 new partner. As perhaps expected, reports of trading sex for money, goods or services were also higher among women in Niangoloko (43%) and the town of Tenkodogo (81%) than among women in other areas of the Banfora and Tenkodogo Health Districts (17 and 31%, respectively).

Sites identified by PLACE method are centers of sexual activity

Rates of partner acquisition among individuals interviewed at sites in the Banfora and Tenkodogo Health Districts were greatly elevated compared with rates among the general population in Burkina Faso. While 20% of single men and women interviewed during the Burkina Faso DHS 1998-1999 reported having one casual partner in the year preceding the survey [3], nearly 60-70% of respondents in the Banfora and Tenkodogo Health Districts reported having one new partner in the year preceding the survey. These comparatively high proportions reporting sexual partnership suggest that sites identified by the PLACE method are vital centers of sexual activity. In addition, the fact that many individuals at sites reported daily site attendance (nearly 80% of individuals at sites in the town of Tenkodogo) further

indicates that intervention at sites would reach populations vulnerable to new infection.

Low condom use and heightened vulnerability to infection among women at sites

Though about 70% of men and women reported ever having used a condom, less than 8% of individuals carried a condom at the site, where the potential for meeting new sexual partners is high (Figure 3). In the border town Niangoloko and the town of Tenkodogo, higher rates of condom possession were observed among individuals who reported trading sex for money, goods or services (26 and 23%, respectively) and individuals who had a new sexual partner in the past week (59 and 33%, respectively). Women, particularly those in rural areas, were less likely than their male counterparts to have ever used a condom or to carry a condom on site. Low condom use together with high rates of new partner acquisition indicates the heightened vulnerability to infection among women at the sites.

Most sites have not hosted an AIDS prevention activity or sold condoms, even though the majority of sites affirm that they are willing to take part in prevention activities (Figure 4).

Figure 3. Condom possession when socializing at site (at time of interview) among individuals socializing at sites(%), Banfora and Tenkodogo Health Districts, 2001

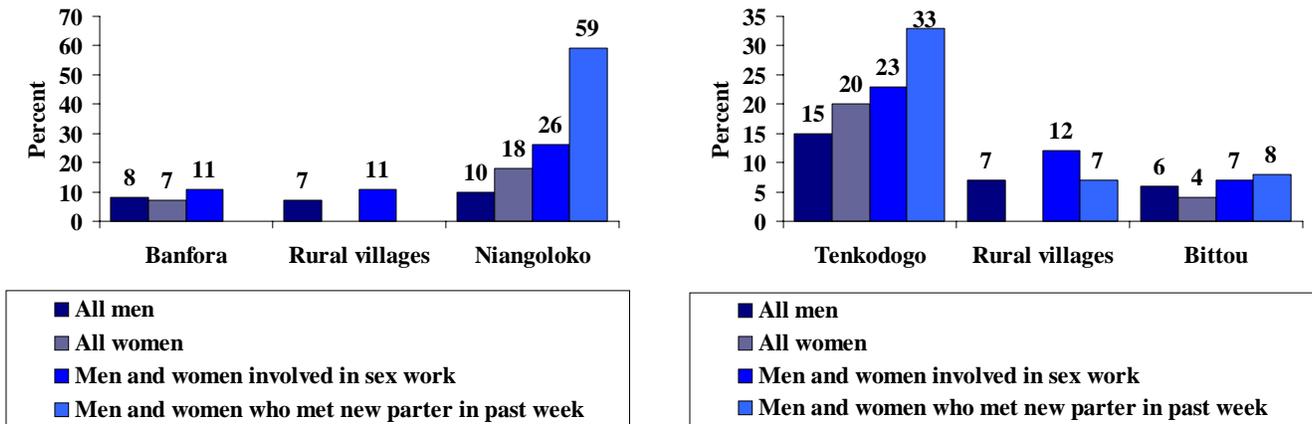
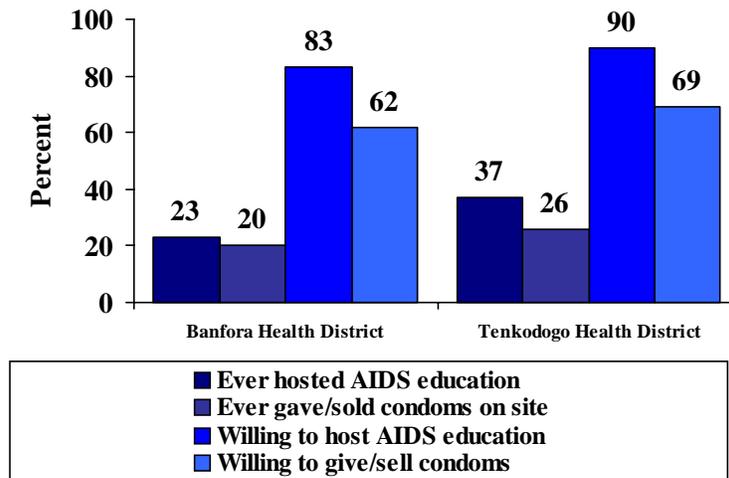


Figure 4. AIDS Prevention Activities and On-Site Condom Availability, Banfora and Tenkodogo Health Districts, 2001



Development of “roll-out” protocol

District Health officials from Banfora and Tenkodogo have developed a generic “roll-out” PLACE protocol for use in other Burkina Faso Health Districts. This protocol minimizes time, technical assistance and cost by reducing the number of study areas within a Health District. The three stages of interviews - the key informant interviews, the site verification interviews and interviews with individuals socializing at sites – each yield unique and useful information. Only minor clarifications were made to questionnaires, and all three questionnaires remain part of the “roll-out” protocol. Implementation of the “roll-out” protocol requires about 6 weeks and US \$4,000 for recruitment of the study team, identification of towns in the Health District where the PLACE method will be implemented, interviewer training, field work, and dissemination of results to appropriate community and health representatives.

In 2002-03, five additional Health Districts will implement and assess the protocol, and qualitative research also will be performed to further investigate the potential of community events for HIV/AIDS education.

PLACE method provides better and more flexible targeting

The PLACE protocol can successfully be mobilized for planning HIV/AIDS prevention programs at the level of the Health District [4]. A high level of sexual mixing was observed throughout the Banfora and Tenkodogo Health Districts, though the nature of the sites differed among urban, rural towns and border areas. The lesson is that Health District officials must take care to assess needs in the diverse areas that comprise a district, in order that programs be best suited to variable situations. AIDS education and condom promotion at hubs of sexual activity, whether bars and brothels in urban areas or markets and weddings in rural areas, coupled with the success of PROMACO’s condom distribution, will better ensure that condoms are not only in circulation but in use where they are needed.

References

[1] The Burkina Faso PLACE Study Group includes Nicolas Nagot, Souleymane Salouka and Sekou Djiga of Centre Muraz; Alexis Ganou and Bassirou Ouedraogo of Direction Régionale de la Sante, Banfora, Burkina Faso; Joseph Aimé Bidiga of Council National de Lutte Contre le SIDA; Maria Khan, Piku Patnaik and Sharon Weir of MEASURE Evaluation, Carolina Population Center, University of North Carolina at Chapel Hill, and Lisanne Brown of MEASURE Evaluation at Tulane University, New Orleans. This article was written by Maria Khan.

[2] Auregan G, Gregoire L and Renterghem H. *Epidemi du VIH/SIDA au Burkina Faso: Diagnostics et reponses operationelles (version preliminaire)*. Ouagadougou, Burkina Faso, 2000.

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[4] PLACE Study Group/ Burkina Faso. Priorities for Local AIDS Control Efforts (PLACE) Series, No. 5, Combating the Epidemic at the Level of the Health District: A Rapid Assessment of AIDS Prevention in Banfora and Tenkodogo Health Districts of Burkina Faso Using the PLACE Method. MEASURE Evaluation, Carolina Population Center, University of North Carolina at Chapel Hill, 2002.

Assessing the Stability of Sites Where People Meet New Sexual Partners: A PLACE Follow-Up Study in Cape Town, South Africa

Cape Town PLACE Study Group [1]

- ✓ **In 1999, the first PLACE study was implemented in a township in Cape Town, South Africa. One year later a follow-up study was conducted to determine whether the sites were still operational.**
- ✓ **Two-thirds of sites were still operational. Site representatives continued to report that people come to the sites to meet new sexual partners.**
- ✓ **Little progress in interventions was reported at the operational sites. Condoms were still not available at most sites.**
- ✓ **Site-based intervention programs do appear to be a feasible strategy for reaching mobile people with high rates of new sexual partner acquisition living in a densely populated urban area.**

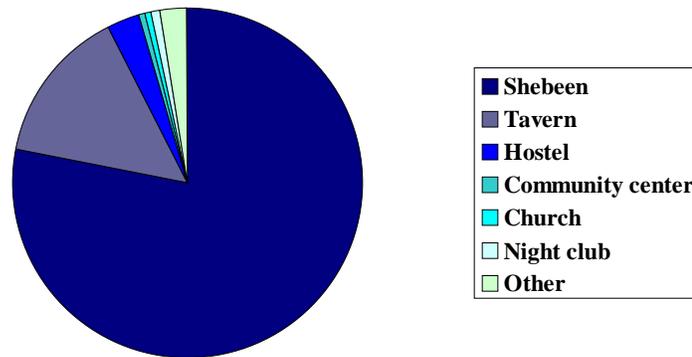
The PLACE method was field tested in a township in Cape Town, South Africa in 1999 to determine whether the method could accurately locate and classify sites where individuals with high rates of sexual partner acquisition meet to form new sexual partnerships [2]. The results revealed a pattern of new partnership formation that could easily support an HIV epidemic. Over 300 sites in an area less than two square miles were identified as places where people meet new sexual partners. Men and women socializing at these sites reported having an average of more than one sexual partner in the past four weeks. Over half of recent sexual partners were new sexual partners. Unfortunately, AIDS prevention programs at these sites were minimal and condoms were almost never available.

One year later, we conducted a follow-up study to determine to what extent the sites were still in operation and whether they had any prevention activities. Site-based interventions may be a reasonable strategy for AIDS prevention, but is less feasible if sites often close or move.

In 1999, key informants reported 381 sites where either township residents go to meet new sexual partners or where outsiders go within the township to meet new partners. When interviewers tried to find these sites in 1999, they found 312 operational. The remainder were either not found, closed, or were otherwise not operational. Many of the sites that were not found were sites outside of the township. Valid street addresses were usually not provided or even possible to obtain given the nature of the informal settlement areas.

Most of the sites reported in 1999 in the township were taverns or “shebeens” (Figure 1). A shebeen is a small four room house or shack where beer and alcohol can be purchased and consumed either on site or in the open air outside. Often the structure serves as the dwelling for the shebeen manager and his or her family. We were interested in knowing how stable shebeens were in the township and whether site-based intervention at such places could be sustained.

Figure 1. Site Types in 1999 Baseline Study (n=312)



Many sites were located in informal settlement areas such as this one in a Cape Town township
(Photo by: Kermyt G. Anderson)



In 2000, interviewers used the original list of 381 sites reported by key informants and tried to locate each site. If a site could be located, information about the site was obtained by interviewing someone at the site knowledgeable about the site. Verbal, anonymous informed consent was obtained prior to the interview. If there was a question about the reported location, interviewers consulted the study coordinator, who implemented the pilot study and was responsible for the original maps of the sites.

Most sites still operational

Two-thirds (68%) of the sites that were operational in 1999 were still operational one year later. (Figure 2). Five of the sites categorized as not a site at baseline were found and verified as operational at follow-up and 19 sites originally not found were later found and in operation. Most of the sites, however, that were not found or not operational at

baseline could not be located or were still closed at follow-up.

Although two-thirds of the sites that were operational at baseline were still in operation after a year, the relatively high proportion of sites that were either closed or not found is not surprising (Figure 3). Finding any particular site in a township can be challenging. There are no detailed maps and even recent air photos are quickly outdated because of the large numbers of people moving into the township who may construct new temporary quarters in unoccupied areas. In addition, many structures are makeshift and susceptible to damage from floods and high winds. In the year between the studies, two major storms caused extensive damage in the township, demolishing houses, and changing the roads and paths that criss-cross the township.

Figure 2. Township sites operational at baseline and follow-up

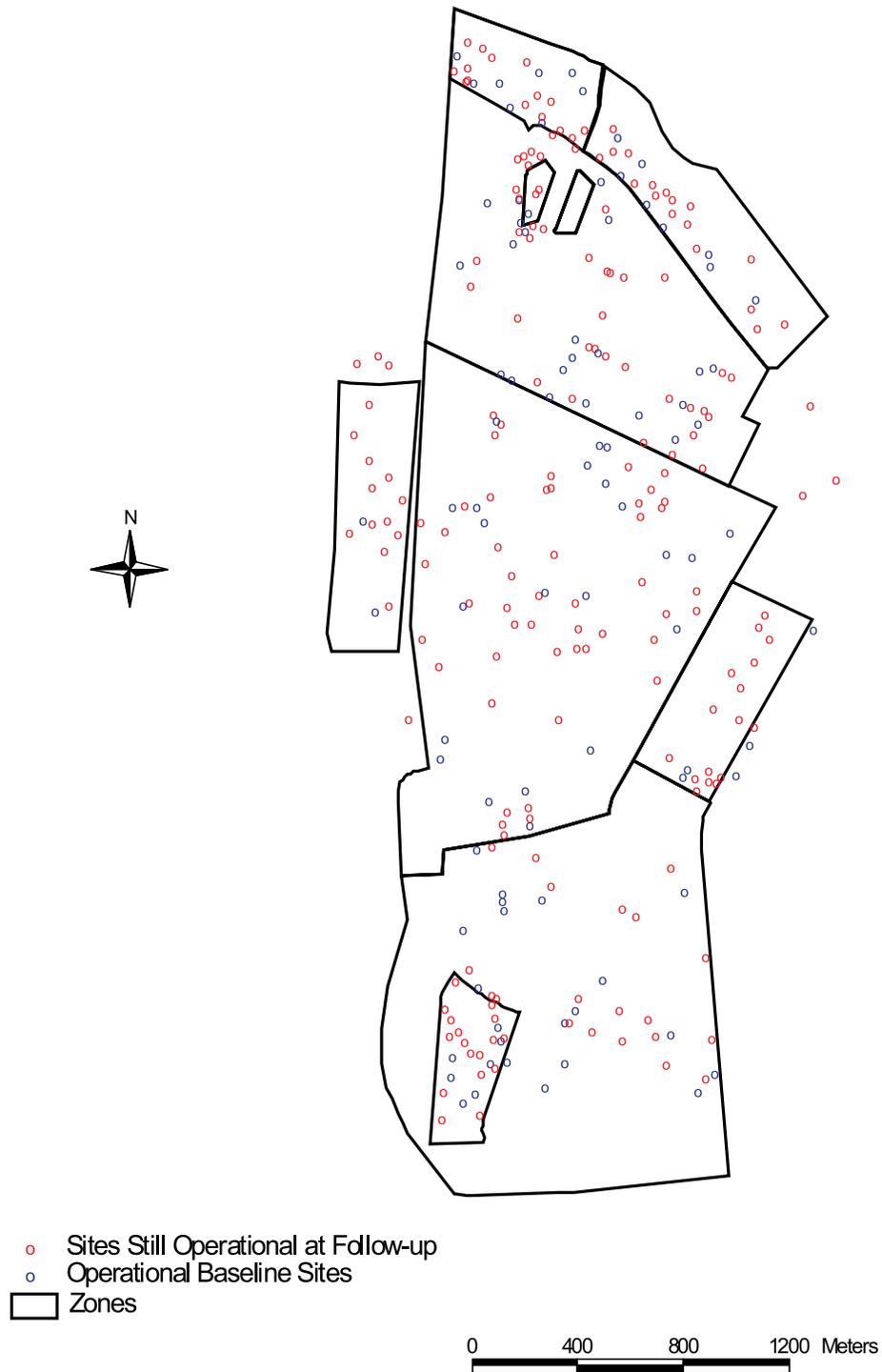


Figure 3. Site Verification Outcomes in 2000 Follow-Up Study (n=381)

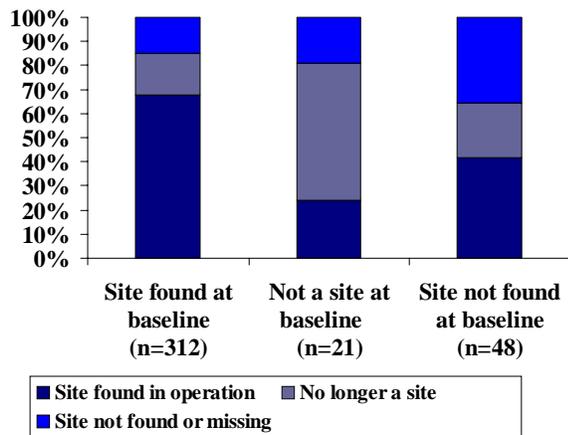
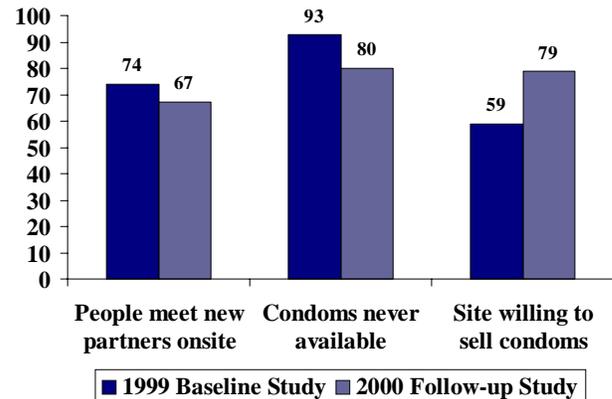


Figure 4. Site Characteristics



Finding sites can also be difficult because as occupants of the sites change, the names for the sites can change. Didi's Place in 1999 became Josiah's Bar in 2000. Some bars have multiple names and can have multiple addresses as the names of streets change and houses get renumbered. During the follow-up, interviewers discovered that 12 sites with different names and addresses thought to be unique sites in 1999 actually referred to only six different places. They also found 25 sites where the address changed between baseline and follow-up. Very few sites in fact had unambiguous street addresses. The location of many sites was identified by naming its neighborhood and nearby landmarks.

Little progress in interventions

In both 1999 and 2000, over two-thirds of people interviewed about the sites reported that people meet new sexual partners at the site (Figure 4). The vast majority of sites did not have condoms at baseline or follow-up. Some of the sites that never had condoms in 1999 reported some condom availability during the next year. However, this does not reflect an organized condom distribution to sites. In fact, some of the sites that reported at follow-up that condoms had been available sometimes during the past year were referring to condoms distributed as a "thank-you" gift by interviewers in the 1999 study. The 20% increase in the num-

ber of site managers willing to sell condoms between 1999 and 2000 may reflect increased AIDS awareness in the community.

In sum, strategies for AIDS prevention in townships should take into account the dynamic nature of these sites where new sexual partnerships are formed. One-time educational sessions may be more appropriate for small informal shacks; larger more stable sites could include ongoing prevention programs such as peer education. Condoms could be sold at most sites.

Notes

[1] The Cape Town PLACE Study Group includes Nicol Coetzee and Regina Dlakulu of the University of Cape Town, and Joy Noel Baumgartner and Sharon S Weir of MEASURE Evaluation at the Carolina Population Center of the University of North Carolina at Chapel Hill. This report was written by Joy Noel Baumgartner.

[2] Weir SS, Morroni C, Coetzee N, Boerma JT. A pilot study of a rapid assessment method to identify areas for AIDS prevention in Cape Town, South Africa. *Sexually Transmitted Infections*. 2002;78(Suppl 1): i106-i113.

Three PLACE Studies in the Eastern Cape Province of South Africa *East London and Port Elizabeth PLACE Study Groups [1,2]*

- ✓ **The PLACE protocol was implemented in two townships and a downtown business district in the Eastern Cape as part of a provincial strategy to identify sites for AIDS prevention programs.**
- ✓ **Results revealed large site-based sexual networks in all three areas. Over 600 sites, ranging from small informal bars to large nightclubs, were identified as places where people meet new sexual partners. Commercial sex was available in the Central Business District but played a minor role in township sexual networks. Condoms were rarely available at sites.**
- ✓ **People socializing at these sites reported having many sexual partners and inconsistent condom use.**

The prevalence of HIV infection among antenatal women in the Eastern Cape increased from less than 1% in 1990 to over 20% in 2000. The increase in prevalence has not been uniform across the province however. Within the province, there are significant differences in the prevalence of infection. In response to the alarming increase in prevalence, the Provincial Department of Health identified three High Transmission Areas (HTAs) in the Eastern Cape for focused prevention efforts—two in Port Elizabeth and one in East London. Areas were selected based on where available epidemiologic and contextual information indicated an elevated risk of HIV transmission as well as project manageability factors.

In Port Elizabeth, the selected areas were a low-income township (estimated population of 60,000 people) and the central business district. The township is located next to an army base, near major transportation routes and within three kilometers of the central business district and the harbor. Low income sex workers who work in the central business district reportedly live in this township. Central District was chosen due to its proximity to transport routes and reputation for commercial sex and active night life.

The third selected area in the Eastern Cape is a poor and rapidly growing township in East London. Its current popu-

lation is well over 100,000. In spite of its rapid growth, the community is well organized and community leaders voiced strong support for implementing the PLACE method in their community.

Sites: Shebeens, taverns, street corners, schools and more

Key informant interviews were conducted to identify all sites where residents of each HTA meet new sexual partners. Interviewers were asked to interview 100-300 key informants until few new sites were identified. In the Port Elizabeth township, 12 field staff interviewed 319 key informants in 7 days. In the Central Business District of Port Elizabeth, 14 field staff interviewed 264 key informants over a 5 day period. In the East London township, 297 key informants were interviewed in two weeks. Many different types of people served as key informants, including traders and hawkers, taxi drivers, teachers, shebeen owners and NGO staff.

Interviewers visited each site reported by a key informant to verify its existence and interview a person knowledgeable about the site to obtain characteristics of the site important for AIDS prevention. All verified sites were mapped. Interviewers were successful in locating and interviewing

Figure 1. Percentage of Sites with Condoms Available

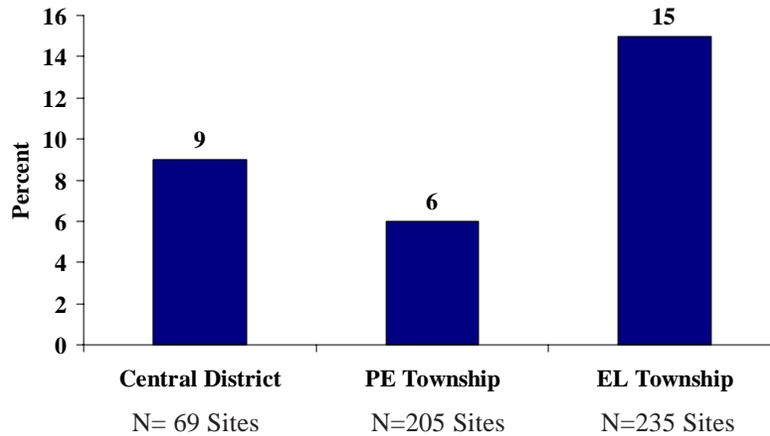
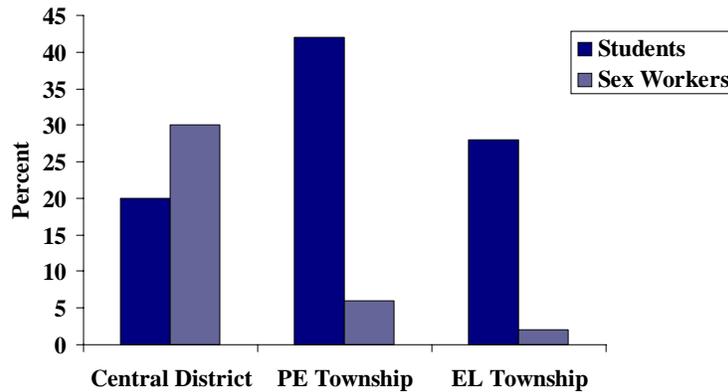


Figure 2. Comparison of Student and Sex Worker Patronage of Sites



someone at over 500 sites. Sites where they were not successful had either closed down or were no longer in operation. In the townships, most of the sites were small informal bars called “shebeens” that operate out of private residence. There was a larger variety in the Central Business District where sites included bars, taverns, bottle stores, nightclubs, street corners, taxi stands, hotels, sex shops, escort services, apartment flats, and gay bars. Only a small proportion of sites had condoms available.

Site patrons: sex workers, students and locals

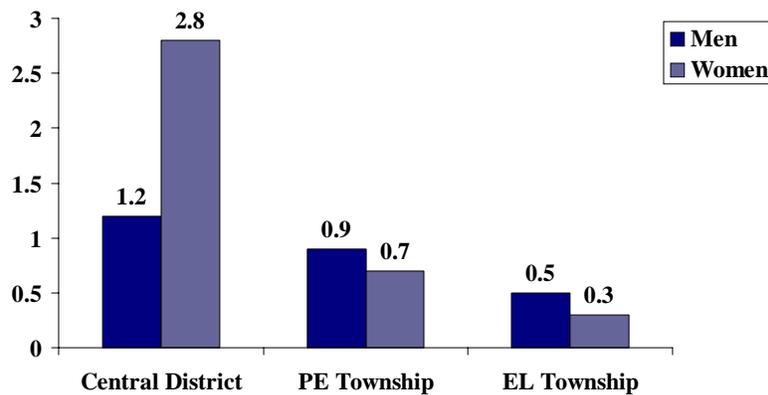
A knowledgeable person at each site was also asked about the characteristics of the people who visit the site. According to their reports, sex workers solicited at almost a third of the sites in the Central District, but were rare in the townships. In fact, students were much more likely to patronize township sites than sex workers (Figure 2). In the East Lon-

don township, less than 2% of sites reported commercial sex, but at the largest and most popular sites—those reported by more than 20 key informants— 31% of female patrons were students under age 25. In the Port Elizabeth township, patrons at sites were much less likely to include sex workers (6% of sites) than people who lived within a block of the site (94% of sites), students (42% of sites), and youth younger than 15 (14% of sites).

People visit sites often

People socializing at sites were also interviewed to obtain additional information about site patrons. The findings indicate that many people visit a particular site daily and many visit more than one site per day. In the Port Elizabeth township, 90% visited the site where they were interviewed at least weekly and over 70% had already been to a similar site that day.

**Figure 3. Average Number of New Sexual Partners in the Past 4 Weeks
People Socializing at Sites**



Site patrons have many partners, but infrequent condom use

The number of new sexual partners reported by site patrons was higher than expected (Figure 3). In the Central Business District of Port Elizabeth, 46% of the men and 56% of the women reported having at least one new sexual partner in the past four weeks. Approximately 10% had two or more new sexual partners in the past four weeks.

In the Port Elizabeth township, over half reported that one of their sexual partners in the past four weeks was a new partner. 58% of men and 47% of women reported two or more partners in the past four weeks and 28% of men and 20% of women reported three or more partners in the past four weeks.

In the Central Business District, where the rate of new partnership formation was higher than anywhere else, a third of men and women have never used a condom. Over 60% reported that if a person wanted a condom, he or she could not obtain one within ten minutes.

In the Port Elizabeth township, over half of the men and women have never used a condom (Figure 4). Among those who had reported a new partner in the past 4 weeks, 44% of the women and 58% of the men had never used a condom.

In the East London township, about 40% of the men and women had ever used a condom. Condom use was more common among men and women at sites that were identified by more than 20 key informants. Even at these sites, however, only 12% of men and 8% of women had a condom with them at the time of the interview.

Implications for the interventions

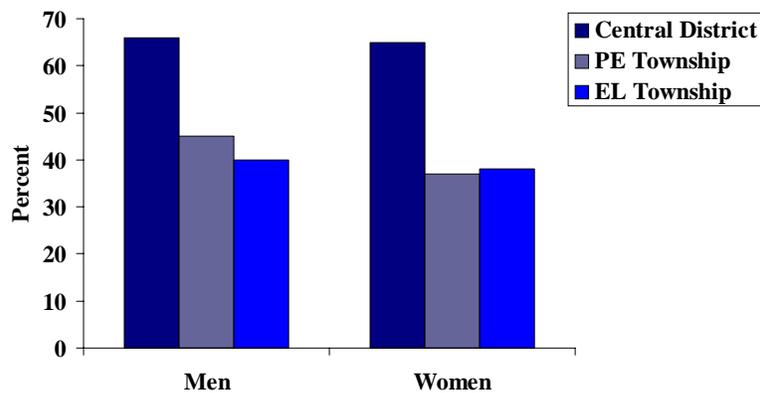
The PLACE method identified specific places where individuals with high rates of new partnership acquisition could be accessed for prevention programs. Key informants initially identified sites, and subsequent interviews with knowledgeable people on site confirmed these sites as places where people meet new partners. Interviews with people socializing on site further confirmed high rates of new partner acquisition and low levels of condom use. More sites were identified than anyone expected. Sites ranged from shebeens to streets to schools. Alcohol consumption often accompanied meeting a new sexual partner. Commercial sex was available in the Central District of Port Elizabeth but not in the townships.

Condoms should be available at places where people meet new sexual partners. The assessment found that condoms were rarely available. Although few sites had condoms available and even fewer had any AIDS prevention materials available on site, most people interviewed at sites were receptive to on-site condom distribution and health education.

These findings support the current intervention programs being implemented in these areas and the focus on vulnerable women and youth. Based on this assessment, it was recommended that the Eastern Cape:

1. Maintain strong relationships with the local community, so that the assessments result in effective and acceptable community-based prevention programs.
2. Improve condom distribution to sites and on-site peer education and outreach.

Figure 4. Percentage of People Socializing at Sites Who Have Ever Used a Condom



East London Township: rapid growth, dense population, variable infrastructure



3. Focus interventions at the sites most frequently identified by key informants and at sites with youth and students.
4. Repeat the assessment in 1-2 years to document improvements in AIDS prevention efforts in these sites.
5. Implement similar assessments in other townships and health districts to identify gaps in AIDS prevention programming.

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[2] The Port Elizabeth Study Group includes Cheryl Gilbert and Charmaine Pailman of the Department of City Health of Port Elizabeth, Anton Roussouw of the University of Port Elizabeth, and Sharon Weir and Joy Baumgartner of MEASURE *Evaluation*, Carolina Population Center, University of North Carolina at Chapel Hill.

Notes

[1] The East London Study Group includes Xoli Mahalela, Ayanda Ngcaba and Alan Vos of the EQUITY Project, Bisho, Eastern Cape Province, Rose Hegner of ATIC, East London, Mkululi Pakade, KULA, East London, and Sharon Weir and Joy Baumgartner of MEASURE *Evaluation*, Carolina

[3] PLACE Study Group/ Eastern Cape, South Africa. Priorities for Local AIDS Control Efforts (PLACE) Series, No. 1, MEASURE/*Evaluation*, Carolina Population Center, University of North Carolina, 2002.

Assessment of Sexual Mixing among Mobile and Resident Populations Using the PLACE Method in Two Mexican Border Towns

Mexico PLACE Study Group [1]

- ✓ **In Latin America, mobile populations are considered more vulnerable to HIV infection than other populations. They are away from their families, can be on the road for weeks or months, and can face lengthy delays at border crossings.**
- ✓ **The PLACE study confirmed that there was substantial social and sexual mixing among mobile and resident populations in two border towns in Mexico.**
- ✓ **Over 20% of men and women interviewed at these sites reported having a new sexual partner in the past four weeks. Condom use is fairly high, but still needs improvement.**
- ✓ **Overall, few sites had condoms or AIDS programs, but most site representatives were willing to have an AIDS prevention program or to sell or allow the distribution of condoms on site.**

Migration is known to play an important role in the spread of HIV [2]. While HIV prevalence rates are still relatively low in Latin America compared to other parts of the world, it is essential to focus interventions on vulnerable population groups, which are likely to play a key role in the spread of infection.

In 1999, a regional AIDS-prevention workshop identified the vulnerability of mobile populations to HIV infection as a regional priority and led to the development of the Mobile Populations and AIDS in Mexico, Central America and the United States Project [3]. The project focuses on 11 border towns in Mexico and Central America. The PLACE methodology was applied in Chetumal and Ciudad Hidalgo as part of a baseline study for the regional project.

Chetumal, Mexico

Chetumal (population 121,600) is a state capital in the Yucatan Peninsula bordering Belize. The population of the state grew by 5.9% during 1999-2000, and in 2000 it registered the highest rate of immigration from other Mexican states and other countries. A vibrant mix of people reside in

or visit Chetumal including college students attending the University of Quintana Roo, state and national officials including military and customs officers, tourists travelling between Cancun and Belize, day visitors from nearby sugar cane plantations, and others travelling via the nearby national highway. Sex workers are also known to spend time in Chetumal as part of a circuit with other tourist destinations in the area, such as Cancun. The PLACE assessment was carried out in Chetumal and three neighboring areas: Calderitas—a local tourist town; Subteniente Lopez—where the official border station is located; and the Free Zone—a commercial area on the Belizean side of the border [4].

Ciudad Hidalgo, Mexico

Ciudad Hidalgo (population 12,500) lies on the banks of a river that serves as the natural border between Mexico and Guatemala. The Pan-American Highway and the Pan-American Railroad run through Ciudad Hidalgo, making it a high-traffic area and the principal route for trucks crossing the International Bridge. Many locals make their living ferrying goods and people across the river on wooden rafts to the town of Tecún Umán on the Guatemalan side. Near

PLACE study areas in Mexico



Source: PCL Map Collection, University of Texas

Ciudad Hidalgo

Border post near Chetumal, entering from Belize



Crossing the river from Ciudad Hidalgo to Guatemala



Ciudad Hidalgo are coffee and fruit plantations and some cattle farms that employ migrant workers seasonally, many of whom come from Guatemala [5].

Ciudad Hidalgo has an active and somewhat organized sex work industry. Sex workers are supposed to register with local authorities and make weekly visits to the public health center in town where they are screened bi-monthly for evidence of sexually transmitted infection. The health center estimates that only 20% participate in the program regularly. Reliable information about the number or incidence of HIV cases is not available. However, the jurisdiction where Ciudad Hidalgo is located reports that 70% of cases registered in 1999 were men [5].

Where do people meet new partners?

In Chetumal, 8 interviewers conducted 344 interviews with key informants in four days. Fewer than 2% of those approached refused to participate. Just over one-third of key informants were women. Two-thirds were between 20 and

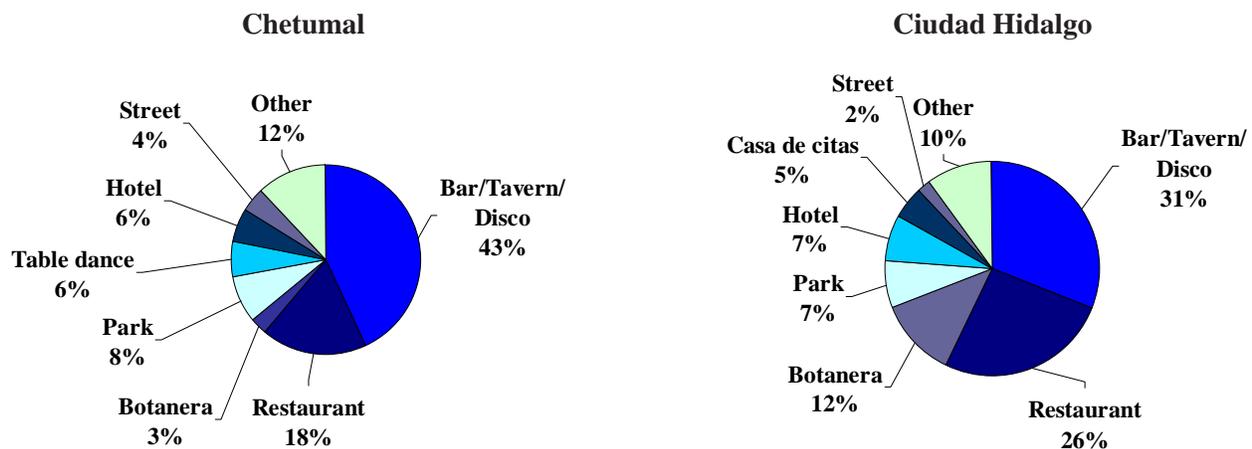
39 years of age, and the average age was 33. Types of key informants included people socializing at the place of the interview, police, military, marines, taxi and truck drivers, street vendors, youth, and migrant and agricultural workers, among others. Key informants named a total of 176 sites, 134 of which were located within the assessment area.

In Ciudad Hidalgo, 6 interviewers conducted 195 key informant interviews in four days. Close to 10% of informants approached refused to participate. Almost 30% of key informants were women. Sixty-four percent were between 20 and 39 years of age, and the average age was 35. Types of key informants interviewed were similar to those in Chetumal. In addition, sex workers were also interviewed. Key informants named 111 sites, of which 65 are located within the town.

The Five Steps of the Protocol: Results

STEP	RESULTS	
	Chetumal	Ciudad Hidalgo
1. Identify assessment areas in the city or district	Both border towns identified at Mexico-Central America regional AIDS meeting in 1999	
2. Carry out key informant interviews in order to identify sites in assessment areas where people meet new sexual partners	344 key informants interviewed; 134 sites located within the study area	195 key informants interviewed; 65 sites located within the study area
3. Visit and characterize sites through interviews with a knowledgeable person at each site; map sites	101 sites found; interviews with a knowledgeable person at 89 sites completed	49 sites found; interviews with a knowledgeable person at 42 sites completed
4. Carry out interviews with individuals at a sample of sites in order to describe the characteristics of people socializing at sites	432 men and 196 women interviewed at 39 sites; sample of sites selected were those named most frequently by key informants and a random sample of the remainder	162 men and 27 women interviewed at 41 sites; interviews were attempted at all sites
5. Use findings to inform interventions	Findings presented to CENSIDA, Mexico's National Center for Prevention and Control of AIDS	

Figure 1. Types of Sites



What are the characteristics of the sites?

In Chetumal, characteristics of the sites were obtained for 89 of the 101 sites that were located. A majority of sites were bars, discos or restaurants, but sites included a gas station, bus stations, swimming holes, a church, a school, a soccer field, and a pier (Figure 1). According to the people interviewed, patrons at 53% of sites meet new sexual partners at the site. At 17% of the sites, male and female employees reportedly also meet new partners.

In Ciudad Hidalgo, a knowledgeable person was interviewed at 42 sites, the majority of which were bars, discos or restaurants or small establishments that serve light meals and are not open late called *botaneras*. Sites also included parking lots for trucks and cars and private houses used as *casas de citas*, or "meeting houses" where a couple who has previously met can go to have sex. A knowledgeable person at 60% of sites confirmed that people meet new sexual partners on site. Male employees were reported to meet new partners at 14% of sites, female employees at 31% of sites.

Mixing of mobile and local populations

In each border town, mobile and local populations frequently socialize at the same sites where people meet new sexual partners (Figure 2). Over half the people interviewed about the characteristics of people visiting their site reported both mobile and resident patrons. In Chetumal, mobile patrons at such sites include truck or taxi drivers (63% of sites) and female sex workers (28% of sites) who often travel in a regional circuit. In Ciudad Hidalgo, male transportation workers are patrons of 86% of sites and female sex workers visit 45% of sites. A significant proportion of the resident population visiting sites is younger than 18.

Individual behaviors

In Chetumal

Over 600 men and women were interviewed at 39 sites including all of the sites most frequently reported by key informants. The refusal rate was 11%. The mean age of men was 30 and of women was 26. The overall ratio of men to women at sites was 1.5 to 1. Those interviewed reported frequent visits to sites. In Chetumal, 32% of men and 40% of women reported visiting the site at least weekly. More than one-quarter of the women and one-third of the men reported having at least one new sexual partner in the previous four weeks. About half of the men and women reporting new partnerships were between the ages of 20 and 29.

These interviews confirmed the role these sites have in new sexual partnerships (Figure 3). About 20% of all of the people interviewed reported having ever met a new partner at the site. Ten percent of men and 17% of women did so in the previous four weeks.

Most men and almost half the women interviewed in Chetumal reported having ever used a condom including more than 85% of those reporting a new partner in the last four weeks (Figure 4). Only 10% of men and 19% of women with new partners in that reference period carried a condom with them.

In Ciudad Hidalgo

Over 200 people were interviewed at 41 sites. The refusal rate was 13%. The average age of men was 32 and the average age of women was 28. The overall ratio of men to women at sites was 2.4 to 1.

Figure 2. Percentage of Sites where Mobile and Local People Socialize

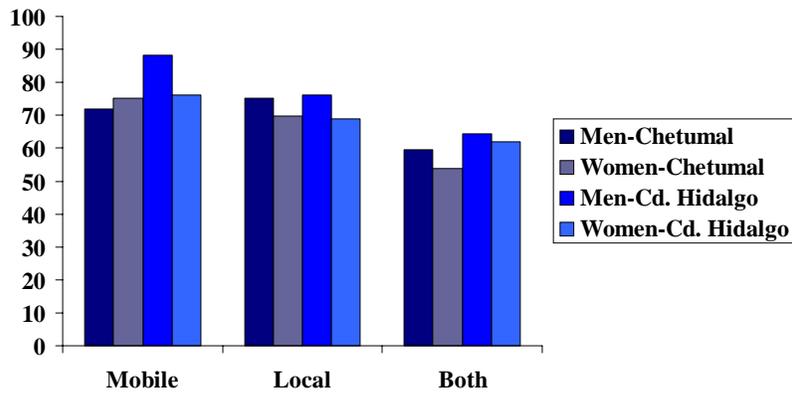
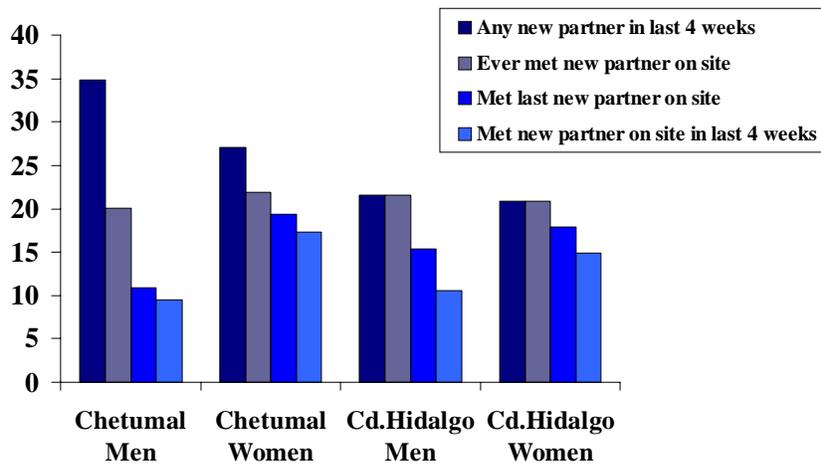


Figure 3. Percentage of individuals with new sexual partners

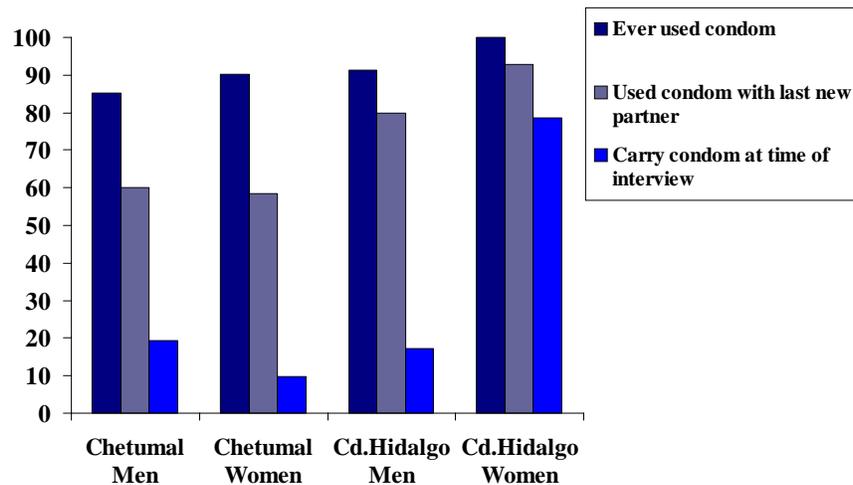


Findings suggest that there is a core group of regular customers at sites in Ciudad Hidalgo, despite the fact that many people pass through the town. About 31% of men and 51% of women interviewed reported coming to the site an average of at least once a week in the previous four weeks, with 37% of women coming to the site at least four times per week.

About one-fifth of interviewees reported at least one new sexual partner in the last four weeks and the same proportion reported meeting a new partner on site at some time (Figure 3). 10% of men and 15% of women met a new partner on site in the last four weeks. More than 60% of people with a new partner were between the ages of 20 and 29.

Reported condom use by women who have high rates of new partner acquisition was encouraging. While only half the women interviewed at sites in Ciudad Hidalgo had ever used a condom, all of those who had any new sexual partners in the last four weeks reported condom use. Furthermore, most women reporting new partners in the last 4 weeks were more likely to have a condom with them at the time of the interview (79% compared to 27% overall). The proportion of men with any new partners in the reference period carrying a condom was much lower at 17% (Figure 4).

Figure 4. Proportion of individuals using and carrying condoms, of those with new partner in last 4 weeks



Implications for AIDS prevention programs

In Chetumal, only 9% of sites had condoms on site at the time of the interview with a site representative. About 79% never had condoms available on site, but 64% of site representatives were willing to sell condoms or permit their distribution. Nearly 16% had ever had an AIDS prevention activity on site, but 80% were willing to do so.

In Ciudad Hidalgo, 29% of site representatives reported having condoms on site at the site visit, however at only 10% of sites were condoms visible without requesting to see them. Almost 70% of sites never had condoms available in the past year nor ever had any AIDS prevention activities. More than 90% of site representatives were willing to sell condoms (or permit their distribution) or have prevention activities on site.

Given the willingness of site representatives to host AIDS prevention programs on site, the assessment results suggest a high potential for sites to be used as intervention points. Not only would a site-based intervention reach people with high rates of new partner acquisition in these border towns, but it would also be a gateway to the mobile populations that are typically hard to reach with AIDS prevention programs.

Other findings support the need for an intervention in these two towns. There is currently limited access to condoms at sexual network sites. These sites are places where mobile populations mix with local residents, providing an easy mechanism for HIV and other STIs to be spread to a larger population. Individuals at sites confirmed that many have new sexual partners in a time period of only a few weeks and condoms are not always used with these new partners.

Adaptation and implementation of the PLACE protocol in border towns in Mexico and Central America proved to be feasible even though people in border towns are often suspicious of outsiders and of anyone asking questions. Many mobile people in these towns are illegally crossing the border and some are illegally transporting goods as well. Although there is a certain tolerance for sex work by local authorities, police have been known to shut down sites where sex workers solicit. The climate of suspicion created a challenge for the interviewers, however it did not prevent them from carrying out the protocol.

Findings from the PLACE studies are important for strategic planning of a regional AIDS prevention initiative among mobile populations in Mexico and Central America. The studies found high levels of mixing among local and mobile populations and identified specific sites in each town where AIDS prevention efforts would reach mobile populations and be welcomed.

Notes

[1] The Mexico PLACE Study Group includes Mirka Negroni, Galileo Vargas, Canek Martínez and Mario Bronfman of the Instituto Nacional de Salud Pública, Cuernavaca, Mexico; Raúl Ortíz of the National Center for Prevention and Control of AIDS (CENSIDA), Mexico City; and Sarah Bassett Hileman and Sharon Weir of MEASURE *Evaluation*, Carolina Population Center of the University of North Carolina at Chapel Hill. This article was written by Sarah Bassett Hileman.

[2] UNAIDS. *Population Mobility and AIDS* (UNAIDS Technical Update), 2001.

[3] Instituto Nacional de Salud Pública. Research Project: Migration and AIDS in Central America, Mexico and the United States. Unpublished, 2000.

[4] Instituto Nacional de Salud Pública. [Final Report on High Transmission Areas: Chetumal, Quintana Roo, Mexico] Informe Final sobre Areas de Alta Transmisión: Chetumal, Quintana Roo, México. Unpublished, 2001.

[5] Instituto Nacional de Salud Pública. [Final Report on High Transmission Areas: Ciudad Hidalgo, Chiapas, México] Informe Final sobre Areas de Alta Transmisión: Ciudad Hidalgo, Chiapas, México. Unpublished, 2001.

Using the PLACE Method to Reveal Gaps in Kampala's AIDS Prevention Program

Uganda PLACE Study Group [1]

- ✓ **The PLACE protocol was conducted in a rapidly growing, poor section of Kampala. Key informants identified 227 sites where people meet new sexual partners; 169 of these sites were verified through an interview with a person knowledgeable about the site.**
- ✓ **Interviews with people socializing at these sites revealed that over a third visit the site daily and almost a third have met a new partner at the site.**
- ✓ **Over two-thirds of these sites never had condoms available in the past year. Sites that did have condoms available were more likely to have patrons reporting condom use with both recent and new partners.**
- ✓ **This study suggests that Kampala's AIDS prevention program is not penetrating places where the impact could potentially be the greatest.**

HIV seroprevalence rates among women attending antenatal clinics in Kampala peaked in the early 1990s and have declined significantly during the past decade. The decline may be partly explained by changes in sexual behavior, perhaps in response to AIDS prevention campaigns. Population-based surveys in Kampala found a delay in onset of sexual intercourse among youths, a decrease in casual sex among youths, and an increase in condom use over the six year period from 1989 to 1995 [2]. Rigorously assessing whether AIDS prevention programs contributed to the decline in prevalence in Kampala is not possible, due to multiple programs with different objectives and overlapping target populations. AIDS prevention programs need rapid, cost-effective methods for monitoring local interventions and identifying gaps in these programs. This assessment was undertaken to identify the gaps in Kampala's AIDS prevention program and to identify priority sites for targeted interventions.

Selection of a high transmission area

Areas with higher incidence of HIV infection have been dubbed high transmission areas (HTAs). AIDS prevention programs should focus on these areas to most cost-effec-

tively prevent new infections. Identification of an HTA utilizes contextual factors such as poverty and unemployment, alcohol consumption, and urbanization and rapid growth, factors often associated with areas where HIV incidence is high. To identify potential areas for the assessment of Kampala's AIDS prevention program, meetings were initially held with the AIDS Control Project of the Ministry of Health and the AIDS Information Center. Five adjacent parishes within a division of Kampala were selected. The official five parish population estimate is 24,000, based on projection figures of the 1991 census, but is considered an underestimate due to rapid growth in the area during the past ten years as a result of significant rural to urban migration. The majority of residents have a low literacy level and low economic status. Typical homes are small, temporary houses, clustered together and often shared by several adults and children. Drug stores and private health clinics provide basic clinical care and some sell condoms and display posters about health information.

The selection of this division was based on several factors. First, available epidemiological evidence suggests that the area suffers more from sexually transmitted infections than other areas in the city. Second, the area is a popular gate-

Table 1. Summary of Site Characteristics

Number of Key Informant Interviews Conducted to Identify Sites Where People Meet New Sexual Partners	929
Number of Sites Identified by Key Informants	227
Characteristics of Sites (1 Informant Per Site)	
Number of Sites Located and Person Interviewed	169
Beer Consumed Onsite	69%
People Meet New Sexual Partners at Site	50%
Youth Visit Site	41%
Female Sex Workers Solicit Clients	14%
Condoms Never Available in Past Year	69%

A Bus Park in Kampala



Courtesy of kabiza.com/images

way into Kampala for immigrants from rural districts. Third, the area is poor and rapidly growing but feasible to study. In addition, several active NGOs implement HIV control interventions in the area and have sufficient capacity to address the gaps in the HIV control program identified by the assessment.

People, places and programs

Key informants identified 227 places where people from the division go to meet new sexual partners (Table 1). About 75% percent of the sites named were located and verified by an interview with a person knowledgeable about the site. The majority of sites were small bars (62%), but shops and video clubs (13%), hotels and brothels (9%), and schools and churches (3%) were also named as sites where people go to meet new sexual partners. The size of the sites varied. Approximately 40% of the sites had less than 30 patrons during their busiest times, and only 8% had more than 100 patrons during busy times. Representatives at about half of the sites reported that men and women find new sexual part-

ners at their site. Sex work is uncommon and was reported at fewer than 15% of sites. Condoms were not often available (Figure 1).

Interviews were conducted with 1,114 individuals, socializing at 81 of the sites in the division (Table 2). The ratio of men to women socializing at the sites was 1.7:1. Over 75% of those interviewed believed that people meet new sexual partners at the site. In fact, 29% of men and 31% of women interviewed reported having personally attracted a new sexual partner at the site. Altogether, 42% of those interviewed reported having met a new or previous sexual partner at the site and 20% reported meeting a new sexual partner at the site within the past six months.

Despite the high rate of new partnership formation at the sites, only 33% of sites had ever had an AIDS prevention program on site and only 11% had an AIDS prevention poster visible. Furthermore, only 21% had condoms available at the time of the site visit and 69% of site representatives reported that condoms were never available on site. Approxi-

Figure 1. Condom Availability at Small Sites (30 or Fewer Patrons), Medium Sites (31-100 Patrons) and Large Sites (More than 100 Patrons)

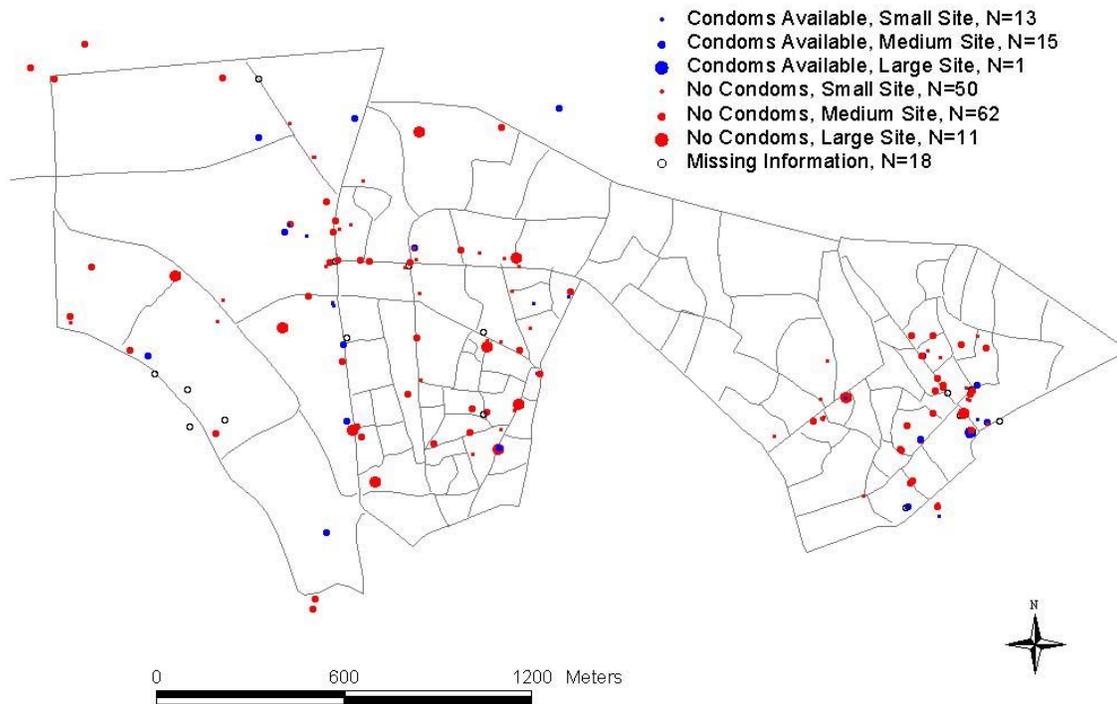
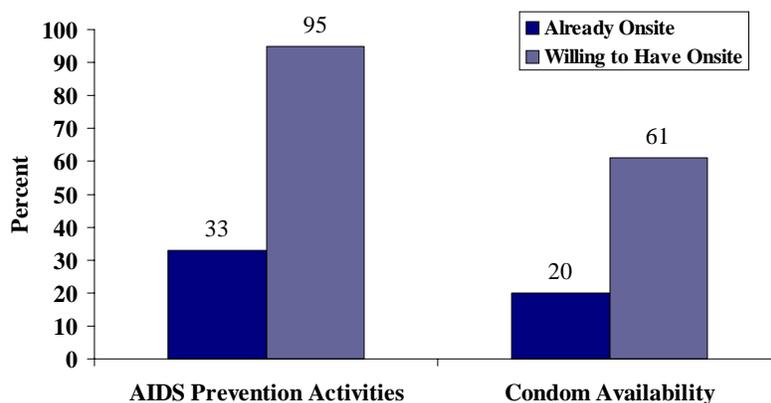


Table 2. Summary of Patron Characteristics

Characteristics of Patrons at Sites	Men (N=761)	Women (N=352)
Mean Age	29	27
Reside in Study Area	78%	80%
Unemployed	25%	34%
Visit the Site Every Day	42%	37%
Ever Met a New Partner at Site	29%	31%
More than 1 Partner in the Past 3 Months	58%	45%
Mean Number of Sexual Partners in Past 3 Months*	2.1	2.4
Mean Number of New Sexual Partners in Past 3 Months*	0.9	1.1

*Note: Could be an underestimate for some people who may have been asked about the number of partners in the past 4 weeks.

Figure 2. AIDS Prevention Activities and On-site Condom Availability



mately 25% of men and 21% of women socializing at sites reported attending an AIDS educational session in the past three months. The lack of on-site AIDS prevention activities does not reflect a lack of interest in such programs. Almost all (95%) of the site representatives said that they would be willing to have an AIDS prevention program on site and 61% were willing to sell condoms on site (Figure 2). At sites where the site representative reported that patrons meet new partners, all were willing to have an AIDS prevention program on site and 74% were willing to sell condoms.

Ever use of a condom was reported by 77% of respondents, however, recent condom use was inconsistent and varied by type of partner. Among the 58% of men and 45% of women with more than one sexual partner during the past three months, condom use was much more likely with casual and paid partners than with spousal or live-in partners (Figure 3). Individuals who have never used a condom are likely to have fewer partners and less risky relationships than individuals who have used a condom.

Condom use not only varied by type of partner, but by whether condoms were available at the site. Individuals at sites where condoms were available were more likely to have ever used a condom, to have used a condom with their last partner, and to have used a condom with their last new partner compared to individuals interviewed at sites where condoms were not available (Figure 4). Approximately 92% of men interviewed at sites with condoms available on the day of interview reported using a condom with their last new partner, while 70% of men at sites without condoms

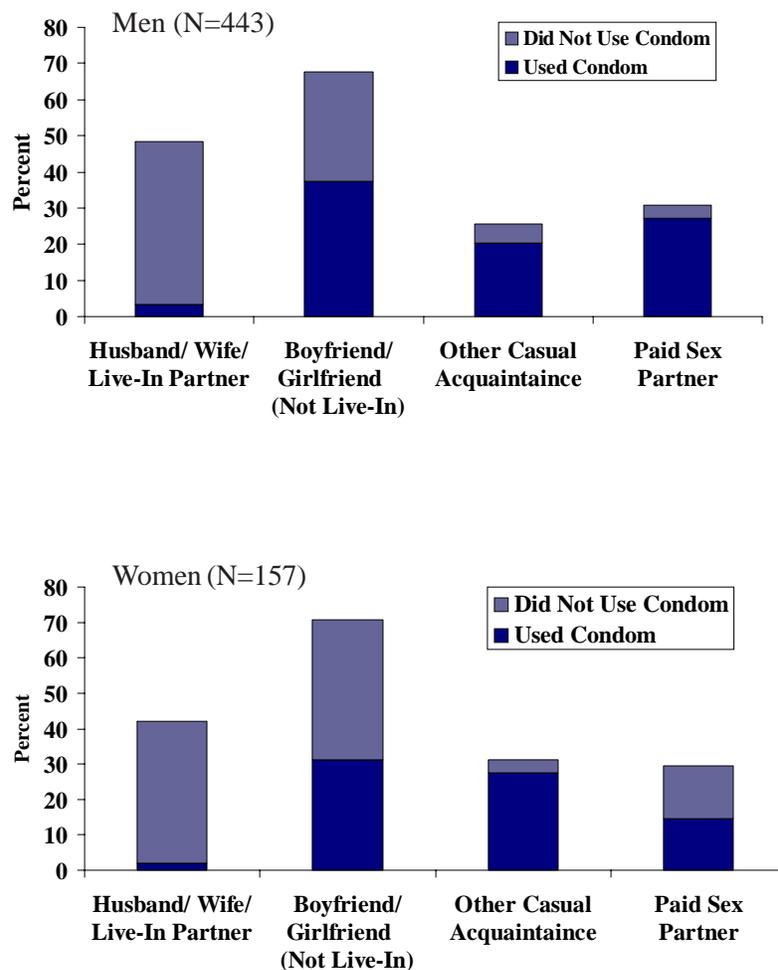
available reported such use. Similarly, 95% of men at sites with condoms available reported having ever used a condom, while 75% of men at sites without condoms reported having ever used a condom. This differential in condom use based on availability was also reported by female patrons.

Program implications of the assessment

The PLACE study identified gaps in the AIDS prevention program of five parishes in a division of Kampala. Although the assessment does not provide biomedical evidence that the incidence of HIV infection is any higher in this area than elsewhere, it does suggest that the sexual network in the area could easily support an epidemic of HIV infection. The rates of new partner acquisition reported from individuals socializing at the sites are higher than the rates estimated necessary to sustain transmission of HIV, gonorrhea, chlamydia, or syphilis. Although most of the people socializing at sites where new partnership formation occurs had used a condom, condom use by individuals with multiple partners was not consistent.

There is an unmet need for condom distribution and AIDS education sessions. AIDS prevention efforts should be focused at sites where people meet new sexual partners and especially where youth meet new sexual partners. Limiting AIDS prevention efforts to sites where sexwork is clearly evident will miss many important sites. Only 13% of those who reported engaging in paid sex were interviewed at sites where sexwork was reported to occur.

Figure 3. Among Individuals with >1 Partner in Past Three Months, Percent with a Certain Type of Partner and of those, Proportion who Used a Condom with that Type of Partner



The study found that most of the persons socializing at the sites where new sexual partnership formation was reported were residents from the study area. Geographically-based interventions are therefore viable in fixing gaps in prevention programs, an approach that corresponds to local administrative action instead of national focus.

Notes

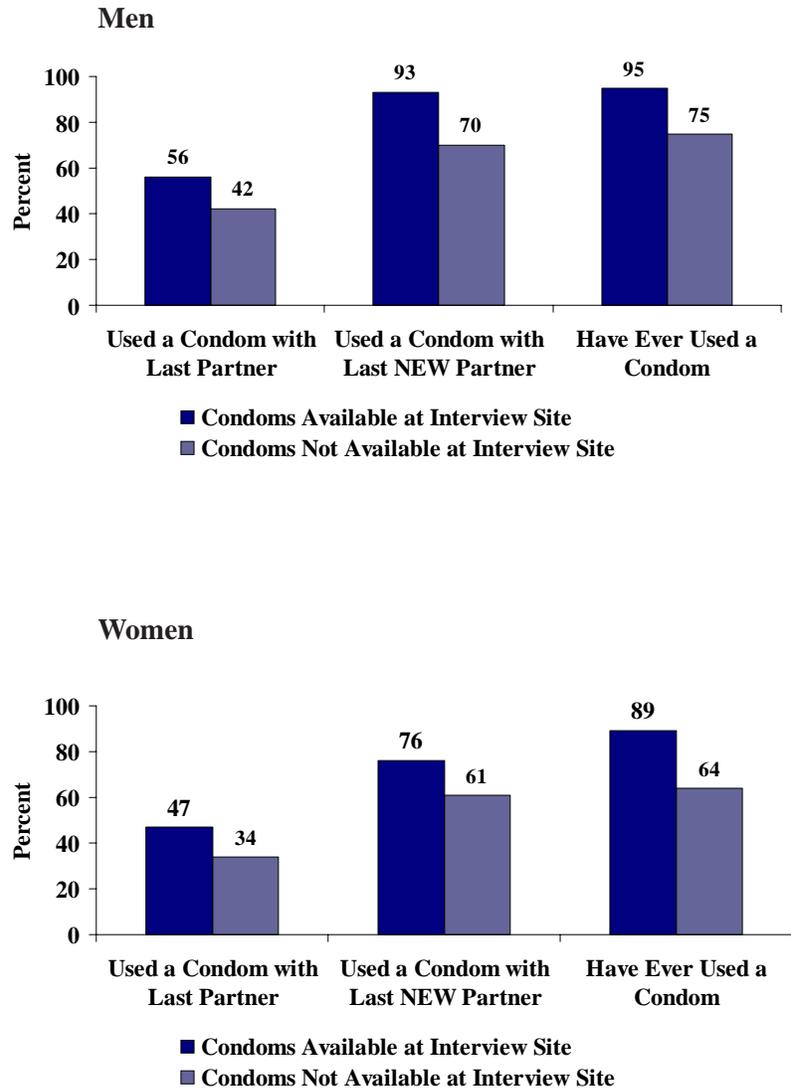
[1] The Uganda PLACE Study Group includes Freddie Sengooba of the Institute of Public Health, Makerere University, Kampala, Uganda, John Ssekamatte-Sebuliba of the Department of Population Studies Institute of Statistics and Applied Economics, Makerere University, Kampala,

Uganda, and Jacqueline Tate and Sharon Weir of MEASURE *Evaluation*, Carolina Population Center, University of North Carolina at Chapel Hill. This article was written by Jacqueline Tate.

[2] Asiimwe-Okiror G, Opio AA, Musinguzi J, Madraa E, Tembo G, Caraël. Change in sexual behavior and decline in HIV infection among young pregnant women in urban Uganda. *AIDS* 1997; 11:1757-1763.

[3] PLACE Study Group/ Kampala, Uganda. Priorities for Local AIDS Control Efforts (PLACE) Series, No. 3, Monitoring AIDS prevention programs in Kampala, Uganda using the PLACE method. MEASURE *Evaluation*, Carolina Population Center, University of North Carolina, 2002.

Figure 4. Condom Use of Patrons by Condom Availability at Site



Using the PLACE Method to Monitor AIDS Prevention Programs at the District Level in Tanzania *Tanzania PLACE Study Group [1]*

- ✓ **PLACE was implemented in 6 assessment areas, representing geographical diversity and varying HIV prevalence in Magu District in northwest Tanzania.**
- ✓ **A wide range of sites where people meet new sexual partners was identified in each of the 6 areas.**
- ✓ **Interviews with patrons at the sites indicated high rates of partnership formation, with 44% of respondents reporting 2 or more partners in the past 4 weeks.**
- ✓ **Less than half of the respondents (41%) used a condom with the last new partner acquired at the site of interview.**
- ✓ **The assessment provides immediate programmatic feedback on AIDS prevention activity coverage in the district.**

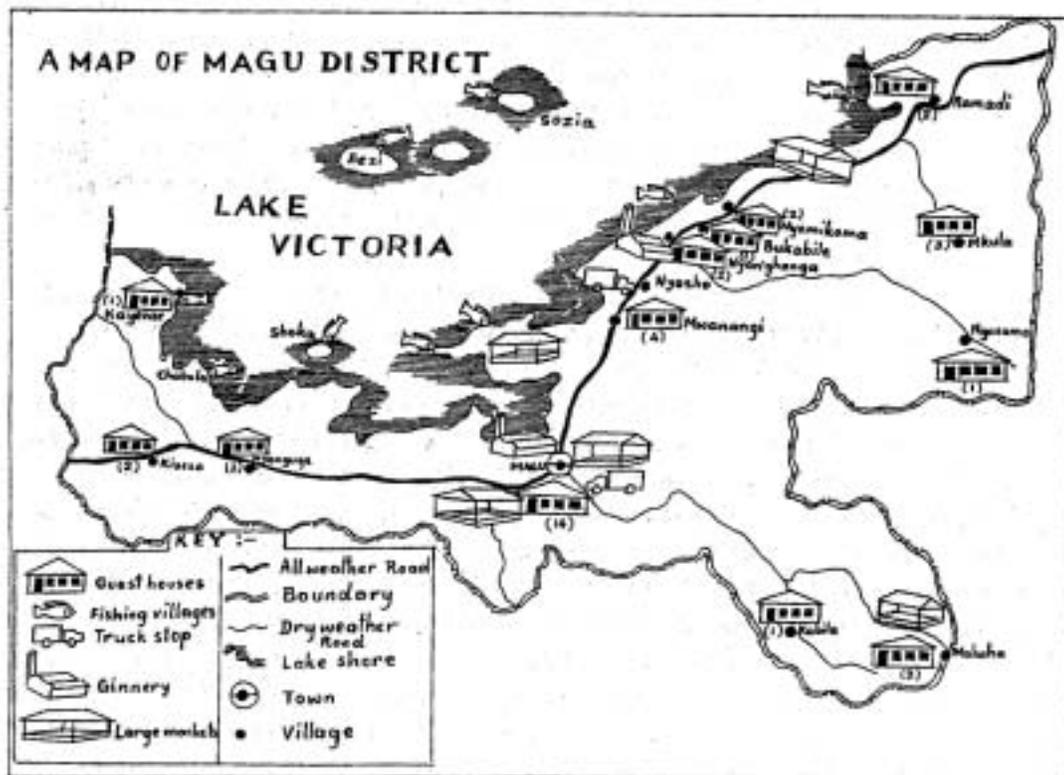
Magu District is located along the shores of Lake Victoria in northwest Tanzania and is a fairly typical rural district of over 300,000 people. HIV infection rates are estimated to be on the order of 5% among adults 15-49 in the district as a whole, implying that more than 10,000 people are infected with HIV. Research studies have shown that considerable differences in HIV prevalence exist between urban areas, roadside settlements and rural villages.

The District established a multi-sectoral AIDS Committee in 1994 and a range of HIV prevention activities have been undertaken and described elsewhere [2]. Resources for HIV prevention are very limited and well-focused interventions are needed to maximize cost-effectiveness. Given the large differences in HIV prevalence within the district, it was decided to focus interventions on priority areas with high levels of transmission. Participatory social mapping of risk behaviors had been carried out by the district staff for several years in close collaboration with the bilateral TANESA project.

Six high transmissions areas were selected for an assessment of behaviors and coverage of interventions: one urban, one rural, one roadside settlement and three fishing settlements, two of which were also roadside settlements. The areas were fairly small with population sizes under 20,000 people. The standard PLACE protocol with local adaptations was used. In each of the six areas, an average of 19 key informants were interviewed. This was followed by interviews with an average of 45 knowledgeable people on site, such as managers and staff, in each area. Interviews were then conducted with a total of 815 site patrons. The number of site patrons interviewed ranged from 65 in the rural site to 256 in the urban site.

Identifying sites where people meet new sexual partners

The Tanzania PLACE study group adapted the PLACE protocol by inviting key informants from each area to one-day workshops to identify sites where people meet new sexual partners. A variety of key informants were interviewed individually and also participated in a group activity of map



drawing and subsequent discussion. These included government officials (20%), businessmen and women (16%), village AIDS committee members (15%) and health officers (13%). Locally hand drawn maps were made to indicate places where people go to meet new partners and places where people go to have sex. Sites included “pombe” shops (for local brew), bars, hotels, hospitals, schools, bus stops, markets and outdoor spots such as the forest. Over 90% of all the sites were identified during first phase interviews and mapping sessions. Additional sites were named and identified in the second and third phases for a total of 1,013 sites named throughout the study. Of the 116 key informants who participated in the sessions, close to two-thirds were men and almost all were residents of the respective study areas.

There are a wide variety of site types where people meet new sexual partners

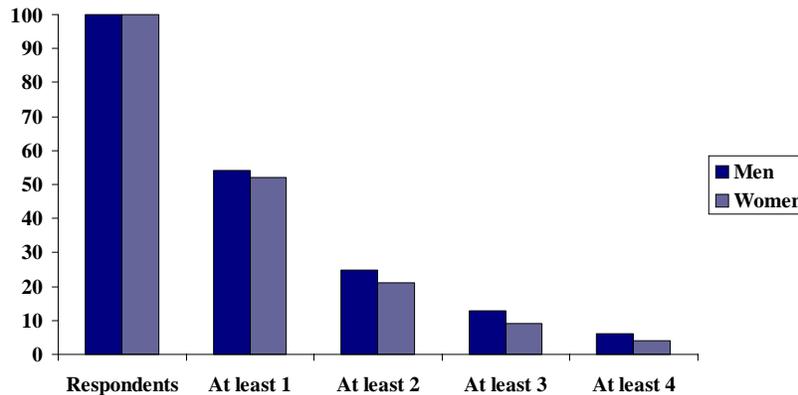
Of the 1,013 listed sites, 263 (26%) were visited and a knowledgeable person on site, such as the manager or a staff person, was interviewed about site activities, patron characteristics and new partnership formation at the sites. Half of the respondents were men, half had never been married, and half had lived five or more years in the areas. Forty percent of sites were related to the sale or consumption of alcohol, 15% were food kiosks and 11% were lakeshore sites, which

included the drying and selling of fish as well as fishermen camps. Other important sites included groceries, markets and guesthouses. The most frequently mentioned sites were sites selling alcohol and weekly lakeshore markets.

Eighty-three percent of respondents reported that women and men come to the sites looking for new sexual partners (range 73% to 96%). Although commercial sex is not thought to be common in Magu, it was frequently reported that women solicit male clients in over half the sites (53%) (range 38-68%). Only 5% of respondents indicated that men less than 16 years old visit their sites, while 18% said women less than 16 visit their sites, highlighting that women start visiting sites at younger ages compared to men. In fact, older men and younger women were a trend throughout all of the reported age groups attending the sites. Thirty percent of sites stated that more than 50 men visit the site on a typical day and 16% stated that more than 50 women visit the site on a typical day.

Almost half of the sites had been operating for three years or less. Many sites are seasonal depending on harvest and fish availability. The busiest times of day were morning and evening, particularly for lakeshore sites, which is when they sell the most fish. Weekends, market days and paydays were the peak business days for over a third of sites and close to two-thirds of site representatives stated that their busiest time

Figure 1 Number of New Partners in Past Four Weeks Reported by Site Patrons



Nile perch fishing on Lake Victoria is associated with greater mobility, more money and more sex



was during harvest season. The lakeshore sites reported more patrons from outside their area, highlighting the significant number of newcomers and high level of social and sexual mixing related to the growing fish industry.

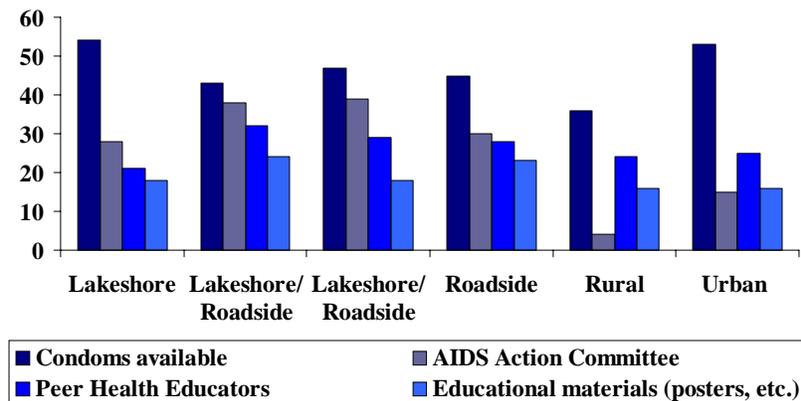
Over half of interviewed patrons met a new sexual partner on site

Interviews were conducted with 815 patrons socializing or utilizing services of the respective sites. A third of participants were women, the mean age was 30 and three-quarters were residents of the area. Ninety-three percent of site patrons stated that people visit the site for the purpose of acquiring new sexual partners and 55% reported they had personally acquired a new sexual partner at the site. 47% re-

ported that the new sexual partners were acquired at the site where the interview was conducted while 36% said they did so at another site within the study area. 44% of patrons reported two or more partners in the past four weeks. Almost half of the patrons, male or female, had acquired a new sexual partner in the last month (Figure 1).

The three lakeshore settlement areas had the highest partnership formation rates, while the urban area had the lowest. The lakeshore settlements are characterized by higher mobility than elsewhere in the district. Nile perch fishing industries have expanded over the past decade and the many male fishermen migrate with the fish, often on a seasonal basis. There are also women who migrate with the fishermen, including cooks and bar workers.

Figure 2. AIDS Prevention Activities in Six District Areas



HIV/AIDS prevention activities

District prevention activities include condom promotion, village AIDS action committees, peer health education and distribution of education materials. Figure 2 shows the level of availability of these four predominant prevention activities at sites in the six study areas. Overall, 48% of sites reported availability of condoms, but there was variation in availability by area. A lakeshore area reported the highest percentage (54%) and this study area also had the highest mean number of new sexual partners in the past 4 weeks (1.2), while the rural area reported the lowest (36%). Patrons reporting to have acquired new sexual partners in the area were asked about whether they used a condom when they had sex with their most recent partners *from the sites*. Overall, 41% reportedly used condoms at last sex with this new partner. The level of condom use reported is high compared to other findings in rural areas which have shown condom use in the general population to be well under 10%.

In general, condoms were available in shops and health facilities. Qualitative feedback during fieldwork indicated that many people do not obtain condoms from dispensaries due to the perception that these condoms are only available to patients or women going for family planning. Free condoms, previously available in some public places like bars and guesthouses, are no longer available and some study participants were requesting free condoms. During data col-

lection for this study, field workers distributed up to 14,000 free condoms.

The PLACE method helped identify places for prevention activities and it laid the foundation for monitoring programs. Magu District is in a way special because there is ample experience in communities with risk mapping in the context of the AIDS epidemic. The PLACE method as applied in this study involves outsiders and is more systematic in its approach. As such, this will allow an assessment of the relative importance of sites and will help district programs to set targets and to monitor progress towards achieving those targets on a regular basis.

Notes

[1] The Tanzania PLACE Study Group includes Soori Nnko, Mark Urassa and Yusufu Kumugola of the TANESA project and National Institute for Medical Research in Mwanza, Tanzania, and Joy Noel Baumgartner and Sharon Weir of MEASURE Evaluation, Carolina Population Center, University of North Carolina at Chapel Hill. This article was written by Joy Noel Baumgartner.

[2] Ng'weshemi JZL, Boerma JT, Bennett FJ, Schapink D. *HIV prevention and AIDS care in Africa: a district level approach*. Amsterdam: Royal Tropical Institute Press, 1996.

Discussion-starter for AIDS-prevention program, Mwanza, Tanzania



Who is most at risk of getting HIV/AIDS?

Issue No. 4

This issue of the *MEASURE Evaluation* Bulletin focuses on a new methodology that can be used to focus and monitor prevention programs: the PLACE method. It includes descriptions and results of implementation of the PLACE method in six countries and a variety of different settings. The experiences so far are summarized in the introductory article of this bulletin. Even though the method is still young, there is little doubt that the PLACE method fills an important gap in HIV-prevention monitoring and evaluation. The PLACE method is unique because of its systematic emphasis on places rather than core groups, its integration of qualitative and quantitative methods, its ability to provide information directly relevant to prevention programs, its low cost, and its relatively easy implementation.

Previous *MEASURE Evaluation* Bulletins

- 2001, No. 1 Monitoring the Quality of Care in Family Planning
- 2001, No. 2 Indicators for Monitoring and Evaluation of AIDS Programs
- 2001, No. 3 Monitoring Population and Health Program Efforts with Composite Indices



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