



Local Perceptions of HIV Risk and Prevention in Southern Zambia

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Abstract

The HIV prevention strategies and programs that are widely promoted in sub-Saharan Africa in large part target HIV awareness and individual behavioral modification – conventionally through the ABC (Abstain, be Faithful and use Condoms) approach to prevention. Yet barriers remain to the successful implementation of such strategies at the individual-level. In order to implement effective policy and programs approaches to curb the AIDS epidemic, it is essential that greater consideration be given to the reality of what is happening on the ground in terms of risk behavior. Within the economic and social climate, this includes customs and tradition, gender norms of behavior, and levels and types of resource access and control. More focused attention is needed on how people actually behave or perceive the issues of susceptibility, risk and HIV spread, and what they are doing to avoid infection.

Using qualitative data collected in four rural communities in southern Zambia, we examine a) the ways in which the risks posed by HIV are locally perceived and acted upon at different levels, b) structural obstacles to lowering susceptibility and avoiding infection, and c) local perceptions of existing prevention approaches. We conclude by assessing what these findings collectively imply for future prevention programming in this region and beyond.

Evidence from in-depth interviews with households and key community and institutional stakeholders suggests the need to improve and alter the structural and environmental context – both the push and pull factors underlying risk of HIV infection. Few prevention strategies deconstruct the barriers to successful implementation by individuals. Inadequate attention is paid to individual agency, or the lack of agency, as an obstacle to implementing prevention strategies. The perceptions and beliefs about susceptibility to HIV infection and prevention in our study communities suggest that both women and men need to be directly involved, with male roles in risk behavior and prevention requiring greater attention. The gender inequities that underlie vulnerability and agency must be addressed within prevention strategies. More integrated approaches to lowering susceptibility are necessary, combining HIV awareness and education with strategies that address structural constraints (e.g. poverty alleviation through income generating projects for women and youth).

A major challenge is the need to maximize scale while simultaneously addressing the local drivers of risk in thousands of different communities. A multi-pronged strategy is required – one that combines awareness and sensitization with more practical interventions that promote lower risk economic activities and enhance people's ability to make choices based on sound information. Resources should be invested in strategies that are effective, culturally appropriate, and sustainable over time – recognizing the long-wave nature of the AIDS epidemic and reflecting local need and priorities.

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Introduction

Approximately 1.6 million adult Zambians are currently living with HIV, according to the latest data from UNAIDS (2006). The estimated mean adult HIV prevalence of 17.0 percent in 2005 is almost identical to the previous documented 2003 figure of 16.9 percent. Indeed, prevalence has barely changed since 1994 in Zambia, and the country now has the seventh highest national prevalence in the world. The AIDS epidemic has become a serious health and development crisis that is eroding the capacity of key national sectors through its effects on human, financial, social and institutional assets. Against this backdrop, and in the context of a quarter century of attempts to stem the AIDS epidemic, we seek in this study to understand how households and communities are attempting to respond to this long-wave crisis in four rural communities in Southern Province, Zambia.

Specifically we examine a) the ways in which the risks posed by HIV are locally perceived and acted upon at different levels, b) structural obstacles to lowering susceptibility and avoiding infection, and c) local perceptions of existing prevention approaches. We conclude by assessing what these findings collectively imply for future prevention programming in this region and possibly beyond.

To successfully promote strategies that curb the spread of HIV it is necessary to first identify factors and processes that underlie individual susceptibility to infection. Susceptibility is defined as the chance of an individual becoming infected with HIV, which is related to their risk of exposure, the risk environment they confront, and the riskiness of their behaviors (Loevinsohn and Gillespie 2003). Strategies that actively bolster the prevention of viral transmission should decrease individual susceptibility through such actions as behavior change and the modification of the environmental risk conditions faced by individuals.

The continuing stream of disturbing statistics on HIV incidence, especially among young adults, speaks to the inadequacies of an over-reliance on didactic, education-based behavioral change programs. Promoting a vision of ideal human behavior that pays limited attention to context or the real drivers of risk is bound to have limited impact. More focused attention is needed on how people actually behave or perceive the issues of susceptibility, risk, and HIV spread, and what they can do, and are actually doing, to avoid infection. While there is a push for more evidence of community-driven responses to the impacts of the epidemic, not enough attention is paid to individual and community perceptions of risk and how such perceptions determine the strategies they implement to deal with this perceived risk.

We relate this analysis to Barnett and Parkhurst's (2005) discussion on the adequacy of current prevention programs juxtaposed against the realities of sexual behaviors, choices, meaning, gender norms and perceptions about abstinence, condom use and faithfulness. They argue that an understanding of the context – the “socioeconomic and cultural realities in which sexual behaviors are shaped” (2005:592) – is required to formulate sound policy and programs. Latkin and Knowlton (2005) also discuss the need to shift from individual to social-focused

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interventions and integrate “HIV prevention with goals relevant to the population... to increase participant’s motivation” (2005:S106). The debate surrounding the ubiquitous “ABC”² approach to prevention further highlights the need to move beyond slogans and incorporate the local realities of sexual behavior when promoting prevention strategies that women and men can and will actually implement (van Kampen 2005). We present evidence from our study in Zambia to support these assertions, reemphasizing the importance of understanding socio-economic, cultural and environmental factors underlying susceptibility to infection. Two cross-cutting themes emerge from the data: i) a heavy gender bias against women ingrained in household and community members’ perceptions of risk behavior and ii) limited community, and individual agency to act and implement prevention strategies. These themes are woven into the discussion of factors underlying susceptibility and strategies to strengthen HIV prevention.

Structure of the paper

First, we provide a background to the history of HIV prevention in Zambia, before briefly introducing the communities and discussing the research methods employed in this study. Next, the context of risk of HIV infection is presented by focusing on perceptions of susceptibility and prevention strategies from community members and key institutional informants. Data from in-depth household and key informant interviews indicate the need to improve and alter the structural and environmental context – both the push and pull factors underlying risk of infection – such as gendered power relations, bargaining, lack of agency, and social and economic inequality that shape susceptibility in these communities. Since an individual-level focus alone may be too limited and ineffective when women and men have different access and ability to apply the prevention strategies, we also take a wider look at the environment in which sexual activity is occurring. Within the economic and social climate, this includes customs and tradition, gender norms of behavior, and resource access and control. After discussing local perceptions of susceptibility that inform behavior, we examine the actual prevention strategies in place (if any) and any new innovative responses in the four study sites. We analyze these and make recommendations for strengthening prevention in the context of these communities. The challenge at the end of this paper will then be -- given the context of HIV risk and a better understanding resulting from this evidence -- how can prevention strategies be more effectively supported? From such an improved understanding of how individuals, households, and communities perceive their susceptibility to infection and their agency in prevention, we consider what recommendations are relevant to policy makers and practitioners who are struggling to control the spread of HIV. By identifying socio-cultural and institutional factors that promote preventative behaviors within households and communities, we can move forward to find strategies for strengthening those attributes.

Background context

HIV spread throughout the Zambian population during the 1980s and 1990s. Among the critical factors that have contributed to the widespread HIV infection include a high level of sexually transmitted infections (STIs), low levels of male circumcision, very low levels of condom use, concentration of the population along the railroad lines, and a sufficient level of sexual networking to spread the virus. Early stages of HIV prevention in Zambia were characterized by the state-led approach of information, education, and communication (IEC) with mass media campaigns as the primary modality to warn of the dangers of AIDS and promote abstinence before marriage (AVERT 2006). This approach carried the assumption that individuals needed information about health risks and that providing knowledge would more likely result in behavior

² The ABC approach promotes the messages: “Abstain, Be faithful, and use Condoms”.

change (Pillai, Sunil, and Gupta 2003). Non-governmental organizations and churches provided services such as counseling and home-based care programs, but coverage has often been low and small in scale (NAC 2000).

In 1986 the government launched the National AIDS Prevention and Control Program. One of the first policy decisions created an emergency plan targeting the safety of the national blood supply. The first mid-range national plan (1988-1992) approached the epidemic from a medical standpoint with resources for IEC, counseling, lab testing and research and home-based care. A second mid-range plan (1994-1998) acknowledged limitations of the former, primarily its lack of intersectoral coordination, and moved toward multisectoral integration for AIDS, STD, and TB programming. These steps included greater condom promotion and distribution as well as strategies to mitigate the impacts of AIDS. Mass media campaigns focused on reducing HIV transmission to children, youth, and women. School curricula took on awareness and education objectives with promotion of life skills. Other efforts included workplace programs, early and effective diagnosis and treatment of STDs, blood screening, strengthened health services, and counseling and testing (NAC 2000). The first prevention of mother to child transmission initiative was launched in 1999 with a pilot program and later greater expansion by 2004.

In 2000, the Strategic Framework 2001-2003 promised a “renewed and consolidated response” by the Government of Zambia and its partners for the prevention and control of HIV. Political obstacles identified at this time included a need to better harmonize decisions and policy around HIV and AIDS. Around the same time, the Ministry of Education developed a four-year Strategic Plan (2001-2005) for response. Provisions included free access to condoms where appropriate, training and preparation for educators, and development and distribution of educational materials (Ministry of Education 2000). In Zambia, where the government prides itself on being a “Christian nation,” condom promotion is subject to much controversy. There has been a recent shift toward greater promotion of abstinence and restriction on condom access. The former president condemned condoms for being morally wrong and the current president with the endorsement of the head of the National AIDS Council banned their distribution in schools in 2004 (AVERT 2006; Reproductive Health Matters 2005).

The National HIV/AIDS/STD/TB policy and National HIV/AIDS Intervention Strategic Plan 2002-2005 define the Zambian response to the epidemic along a continuum of prevention, mitigation, and care and treatment. Prevention efforts are designed to help limit the further spread of the virus, mitigation efforts are intended to address the impact of the epidemic, and treatment and care programs are intended to support those who are already HIV-infected.

With respect to the policy environment, it is well appreciated that, the most relevant development planning instruments for addressing the AIDS epidemic and its impacts on rural livelihoods in poor countries that include Zambia are national poverty reduction strategies and plans (PSRP), HIV and AIDS policies, and policies promoting the advancement of women and gender equality. The agricultural contribution to the PRSP is the Agriculture Commercialization Program, which has been designed to promote the development of an efficient, competitive and sustainable agricultural sector. The Ministry of Agriculture recognizes that the unanticipated loss of progressive farmers and extension staff to AIDS, translates into a reduction in the availability of farm labor and viable agricultural sector that ensures food security and generates income. The country has developed a multi-sectoral National Strategic Framework being coordinated by the National AIDS Council and whose overall goal is to mitigate and reduce new infections and the socio-economic impact of HIV, with the main focus on prevention (FAO 2003).

Sample Selection and Research Methods

This study is a product of an interdisciplinary collaboration between Farming Systems Association of Zambia (FASAZ), the International Food Policy Research Institute (IFPRI), the Food Security Research Project–Zambia/MSU (FSRP), and the Zambia Agriculture Research Institute (ZARI) under the Ministry of Agriculture and Cooperatives. The field research was made possible by support from the Regional Network on HIV/AIDS, Rural Livelihoods and Food Security (RENEWAL), coordinated by IFPRI.³

Community selection

The study focuses on four rural areas in Southern Province stratified by adult mortality rates (AMR) and indicators of community resilience.⁴ The 2001/2002 Zambia Demographic and Health Survey estimated HIV prevalence among adults aged 15-49 of 17.6 percent for Southern Province, ranking it third behind Lusaka (22 percent) and Copperbelt (19.9 percent) provinces (CSO et al. 2003). In terms of agriculture, the province is among the top three major agricultural provinces though it has experienced the worst livelihood shocks in the last two decades, particularly due to drought and livestock diseases coupled with agricultural market liberalization that has translated into an increase in the agricultural input prices resulting in most inputs getting beyond the reach of most vulnerable rural households that include the HIV affected.

Community identification followed a two-stage procedure. In the first stage, we drew on findings from a 2001 and 2004 national panel post harvest survey of roughly 7,500 households in 400 Standard Enumeration Areas (SEAs)⁵ conducted jointly by the Central Statistical Office/Government of Zambia and the Food Security Research Project- Zambia.⁶ Previously, the prime-age mortality rates, defined as prime age deaths per 1000 person years, from the panel study have been found to be highly correlated (Pearson correlation coefficient = 0.84) with District HIV prevalence from antenatal clinics as reported in Zambia's Demographic Health Survey of 2001 suggesting that a large portion of prime-age mortality in the national study is due to AIDS-related causes (Chapoto and Jayne 2006). We computed and plotted changes in community welfare indicators particularly relating changes in asset value and income levels against the associated community adult mortality between the two post harvest survey rounds. This provided an indication of the extent of adult mortality in the community between survey rounds and whether they have been resilient or able to withstand the shock of adult mortality and chronic illness using the proxy of change in income and asset levels. In the second stage, four SEAs with relatively higher rates of adult mortality than the provincial HIV prevalence (17.6 percent) coupled with divergent measures of change of economic welfare were purposefully selected to provide insight into intra-community dynamics, needs, constraints of vulnerable groups, and strengths and weaknesses in responding to HIV. The four selected rural SEAs are not meant to be representative of the entire population. Each of the four SEAs is located in a different District within Southern Province: Japi/Kanyanga (Choma District), Garner/Musikili (Mazabuka

³ We gratefully acknowledge core support provided to RENEWAL by USAID, the Rockefeller Foundation, the Swedish International Development Cooperation Agency (SIDA) and the International Development Research Centre (IDRC).

⁴ We define resilience as the active responses that enable people to avoid the worst impacts of AIDS or to recover faster to a level accepted as normal (Loevinsohn and Gillespie 2003)

⁵ A Standard Enumeration Area is the lowest geographic cluster used by the Central Statistical Office of the Government of Zambia in demographic surveys.

⁶ See FSRP website for survey details <http://www.aec.msu.edu/agecon/fs2/zambia/>

District), Makunka (Kazungula District), and Banamwaze (Itezhi-tezhi District). Table 1 compares calculated AMR for each of the four selected SEAs.

Table 1 Study areas and prime age deaths per 1000 person years (2000-2003)

District	Study Area (SEA)	AMR for selected SEA
Mazabuka	Garner/Musikili	39.6
Choma	Japi/Kanyanga	33.1
Itezhi-tezhi	Banamwaze	25.2
Kazungula	Makunka	30.5
Southern Province	PH Survey Sample	13.3

Figure 1 below plots the difference in median household income between survey rounds in 2001 and 2004 by adult mortality rate for the interval of 2000-2003 for each of the selected four SEAs. All four SEAs record AMR higher than the average for the province.

Figure 1 Change in Median Household Income for SEA Between 2000/2001 and 2003/2004 Survey Rounds at Given Adult Mortality Rates (2000-2003) for Four Communities in Southern Province

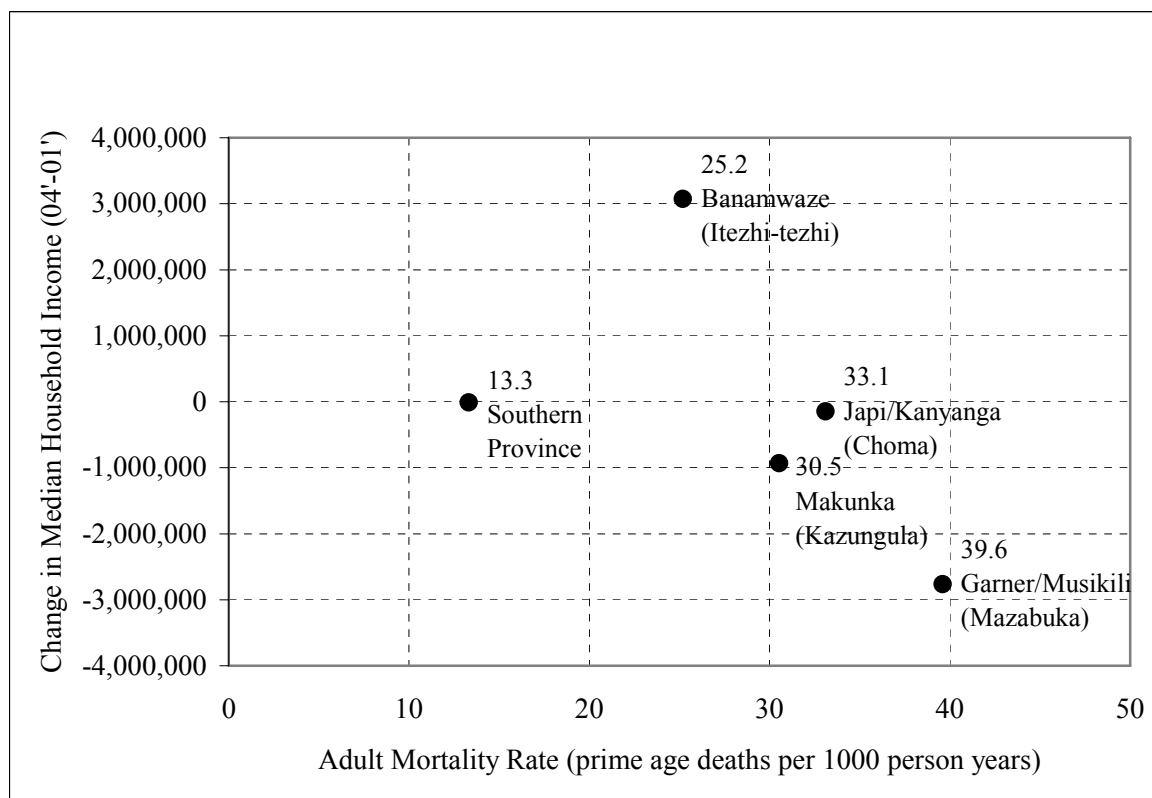


Table 2 contains CSO estimates of HIV prevalence over time for each of the four Districts where the study areas are located. The 2001-2002 ZDHS was the first nationally representative population-based survey to estimate the prevalence of HIV in Zambia rather than relying on anti-natal clinic sentinel surveillance sites (CSO et al. 2003). However, the ZDHS does not include district-level HIV prevalence. The estimates in Table 3 are District estimates calculated by the CSO based on the proportion contributing to the total province. The rates are different, but the relative order is similar to the PH Survey data.

Table 2 Estimated HIV Prevalence by District, (Females 15-49 and males 15-59)

District/Year	1990	1995	2000	2004
Mazabuka	19.1	25.0	24.6	22.5
Choma	16.3	21.3	21.0	19.2
Kazungula	15.7	20.6	20.3	18.6
Itezhi-tezhi	6.4	8.4	8.2	7.5
Southern Province	13.7	18.0	17.7	16.2

Source: Epidemiological Projections (CSO 2004)

Research Methods

Field research was conducted during April and May 2005 using a combination of qualitative and quantitative research methods. The research team spent approximately ten days in each of the four study areas. A short-quantitative household survey was conducted in each community. A random sample of 45-50 households per community was selected using the two stages of stratification of wealth ranking and shock/non-shock classification proportionate to the total number of households in each wealth category/household type for a total of 179 surveyed households. The sample purposefully included any household that was in the FSRP PH Survey samples from 2001 and 2004.

To gain an in-depth understanding of adult mortality and resilience elements among shocked households affected by HIV and AIDS (i.e., households nursing chronically ill person, households fostering orphans, widow headed households or households that have had a death in the past three years) the study team conducted a total of 60 semi-structured household interviews using a sub-sample of 15 households from the survey sample for follow-up in-depth interviews in each community. We purposefully over-sampled for households having incurred a recent (between 2002-2005) prime age death due to illness or that currently have a chronically ill adult member, widow/widower headed, or fostering orphans in the in-depth sample. Table 3 contains the quantitative survey results of households experiencing an adult death, supporting a chronically ill member, orphan, or widow, and households not afflicted by an adult death or other proxy indicator for being afflicted by HIV.

Table 3 Adult Mortality and Chronic Illness in Sample Households

Study Area by District	Percent of households in sample reporting an adult death in last 3 years (2002-2005)	Percent of households in sample with current chronically ill person, orphans, or widowed	Percent of households in sample without either an adult death, no child adoption and male headed	Total number of households in quantitative survey
Choma	20	28.2	32.1	46
Mazabuka	16	18.6	77.8	43
Kazungula	24	48.9	59.3	45
Itezhi-tezhi	42	35.6	66.7	45
Total sample	26	33.0	59.0	179

During the in-depth interviews the research team initiated a semi-structured discussion about susceptibility to illness and death and factors underlying susceptibility to illness and death in the community. Informants were asked about the following: why they think some households suffer more death and illness than others; why adult death and illness is more prevalent in some

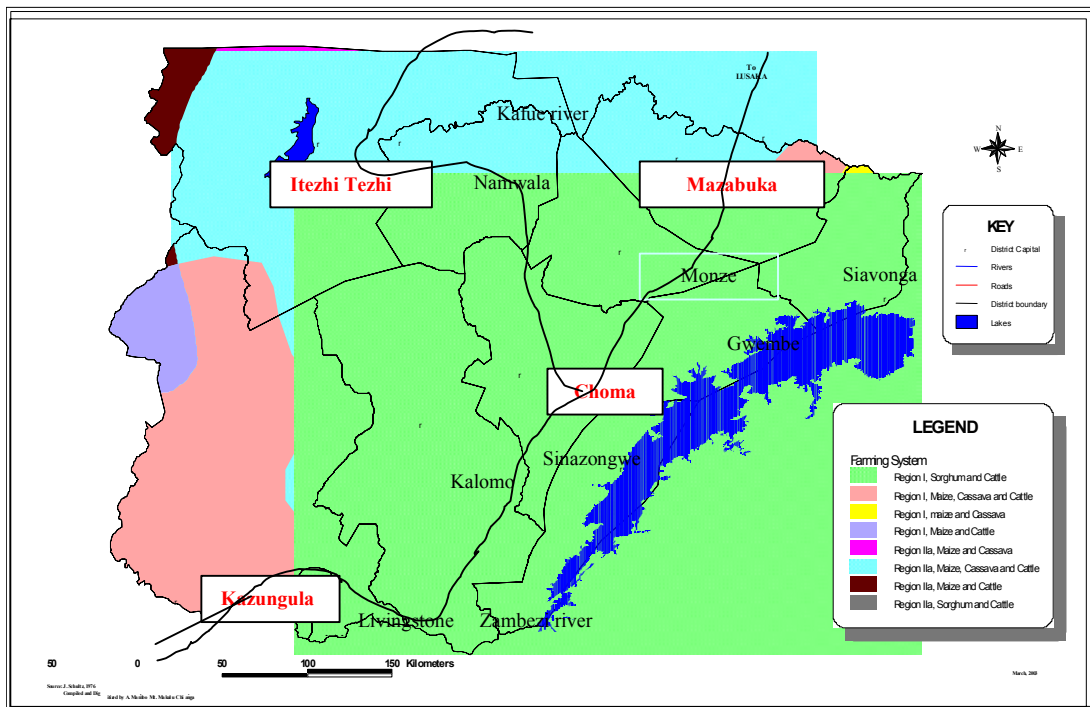
communities and not in others; factors that make people in their community susceptible to illness and death; what can be done to make people less susceptible; whether or not anyone actually implements such strategies; experiences in their own households with strategies for remaining healthy; and what enables and hinders prevention in their own community and whether or not such factors can be strengthened or reduced.

Key institutions and actors operating within and outside each community that may have an effect on HIV prevention behavior and mitigation were identified for individual interviews about the roles their organizations play in preventing the spread of HIV and mitigating the impacts of AIDS in the study areas. These included representatives from civil society (i.e. NGOs, CBOs, bi-lateral agencies), officers from the Ministry of Agriculture and Cooperatives and Ministry of Community Development and Social Services, religious authorities, health care providers, and extension agents.

Study Communities

The four Districts where research was conducted are highlighted in Figure 2.

Figure 2. Geographical location of the study Districts in Southern Province



Choma District

In Choma District, we conducted research in two adjacent villages, Japi and Kanyanga, which form a single SEA. The two villages are located about 20 km off the Lusaka-Livingstone highway at Pemba town and inhabited predominantly by Tonga families with some Lozi and Bemba households who have intermarried with Tonga. There has been a notably high level of NGO activities on HIV/AIDS awareness, food relief and agricultural input support programs for the vulnerable households in Pemba area. During a community meeting, residents identified water, livestock theft, and lack of follow-up by agricultural technical assistance as major

problems in the area. They also perceive an increase in the number of orphans and widows mostly due to AIDS-related illness.

Kazungula District

The sampled SEA in Kazungula District was administered under Livingstone District until it was designated as a District in 1996. It still shares most of the government services with Livingstone. Livingstone District has the highest HIV prevalence (30.9 percent) in Southern Province. Kazungula District shares international borders with Zimbabwe and Botswana. We interviewed households in three villages - Sikabimba, Muzumi, and Sihumbwa – that are oriented around an area called Makunka. Makunka is located about 50 km off the Livingstone-Sesheke road. Roads are very poor and the area is quite remote. The majority of the residents belong to the Tokaleya tribe, closely related to Tonga. There has been some intermarriage with Lozi people, a product of the close proximity to Western Province. Livestock disease and declines in agriculture due to frequent drought, poor soils, and low access to agricultural input support programs are believed by residents to have negatively affected human health and nutrition thereby lowering physical resistance to disease as well as encouraging higher risk economic activity out of need. Water was also a major constraint during the time of year we visited the community.

Itezhi-tezhi District

The third research area is located at the eastern side of Itezhi-tezhi District along the Kafue River. The study area is collectively called Banamwaze and is made up of eight interconnected villages, each with their own headman but under a single Chief, and serviced by the same school and health post. Banamwaze was originally part of Namwala District, but was reclassified under Itezhi-tezhi in 1996. In contrast to the other three research sites, the majority of the inhabitants of Banamwaze are Illa in tribal heritage. The economy is also historically more dependent on livestock (particularly cattle) than agriculture. The survey data captured the higher average number of cattle owned by households in Banamwaze (26) compared to the other three study areas of Choma (1.93), Mazabuka (1) and Kazungula (0.89). Fishing also plays a role in household livelihoods. Community members identified water for domestic use as a major constraint. The wells and pumps are dry and their boreholes are not working well. The Kafue River lies on the other side of the flood/grazing plains far from the homesteads.

Mazabuka District

The fourth site located in Mazabuka District is distinct from the other three in that the SEA selected consisted of two workers compounds situated on private land owned by a commercial farmer. The two compounds loosely form a community sharing a school, churches, and other resources. One of the formal employment institutions is Garner Farm, a privately owned commercial sugar cane farm. The second is Musikili Primary School, a private boarding school located on land owned by Garner. Structural factors of the economy in Mazabuka District may factor significantly into individual and community susceptibility to infection. Mazabuka District has the second highest HIV prevalence (22.5 percent) in Southern Province, after Livingstone District (CSO 2004). Structural factors that may enhance susceptibility are the same factors that lead the District to have a strong economy according to the United Nations Volunteer (UNV) working on the District AIDS Task force (DATF). Mazabuka District is home to the Zambia Sugar Company - the main driver of the local economy, drawing local and a significant proportion of migrant labor force to the area. The Zambia Sugar Company is one of the biggest sugar producing companies in Southern Africa with a workforce of about 6,000 of which 4,100 are seasonal workers (casuals) or part-time workers (EBZ 2005), mostly migrant workers hired from the Western Province of Zambia. The district is located along a major transport route. The

UNV explained that when truck drivers are idle waiting for work some engage in risk behaviors and create demand for transactional sex in the area. Fishing camps along the Kafue River located within the vicinity of the Zambia Sugar Company are also important areas for risk behavior, as are camps in commercial farm work and the second hand clothing trade.

The Local Context and Drivers of Susceptibility and Risk of HIV Infection

A clear understanding of individual and community perceptions of the factors underlying HIV transmission is essential in order to strengthen prevention efforts. Several key factors believed by informants to be driving the epidemic and affecting individual and community susceptibility emerged from the field study including mobility for business ventures, the economic dynamics of transactional sex, and alcohol abuse. These different factors interconnect and overlap, providing a window into the wider context of risk within these communities. Gender differences also cross-cut perceptions of risk of infection and application of prevention strategies. Across all four study areas, women were identified most with high risk behaviors such as transactional sex and were also the focus of suggestions for strategies to curb risky activities and lower individual, household, and community susceptibility to infection. Less attention was paid to affecting any change in male behavior, valued male social traits, or gender norms for sexual behavior. Below we discuss evidence from the field on local perceptions of factors conditioning risk of HIV infection.

Mobility

Nowadays disease is spread because we do not live in a closed community anymore, there is a lot of movement. – Elderly male resident of Banamwaze

The movement of individuals between urban and rural areas while engaging in small-scale trading and business activities, seasonal labor migration, and the cattle trade was identified as a key factor enhancing susceptibility to infection in all four study areas. Informants link mobility to other risk behaviors including transactional sex and promiscuity. Similar perceptions have been recorded in Zambia's Western Province (Baylies and Bujra 2000), and in general as a factor contributing to transmission of the virus (Loevinsohn and Gillespie 2003). In all four communities, albeit less so in Banamwaze, informants consistently acknowledged the introduction of HIV into their area through movement of people between rural and urban locales, specifically the back and forth movement associated with trading activities and migrant employment. In addition to such economically-fuelled drivers of risk, people are getting sick in urban areas and returning to be nursed by family members in their home village. Care for sick relatives returning from urban areas to the rural village is believed to account for some cases of HIV in rural areas. This pattern, is not, however cited by informants as a cause of new transmissions. It is interesting to note that in the central and northern Zambia, AIDS is locally dubbed "*Kalaye Noko*" a local expression meaning HIV/AIDS infected children in urban areas go back to their villages to be nursed and bid farewell to their mothers.

Small businesses and trading activities

Small business activities and trading are common livelihood activities as well as channels for residents of rural communities to access manufactured goods and other items. Both community and key institutional informants associate the mobility involved in trading with opportunity for sexual relations. There was also a strong undercurrent among informants labeling women as the vehicles for urban to rural HIV transmission as women and girls from the rural communities are said to engage in transactional sex with male traders. In Kazungula District, women were blamed

for bringing HIV into the communities through trading activities in Livingstone. We were told that women combine sex with the sale of material products to earn higher profits when they go to market in town and end up contracting HIV. According to our informants, the high degree of rural-urban movement is economically motivated by poverty, the need for financial resources, and a decline in agricultural production. The underlying driving force for increased rural-urban trade has been the decline in agricultural production that once served as the major source of income for over 90 percent of the rural households. Such decline in agricultural production is associated mostly with economic liberalization, which has resulted in reduced farmer access to agricultural inputs, also high incidence of drought in the past two decades. Majority of the rural households are poor and cannot compete effectively in a liberalized market environment hence have to resort to low-cost and easy to manage business ventures which end up making them vulnerable to HIV.

A Catholic Sister working at the Makunika Rural Health Clinic explained that women engage in relationships with traders thinking they may get some money, *“but they just get infected.”* A representative from the Department of Social Welfare in Choma District believes the main avenue for the spread of HIV in the Pemba area to be transactional sex as a means for women to get money: *“Poverty levels are too high; they are forced to put themselves into risk activities like trading and businesses...this can lead to sexual activities.”* The connection between risk of infection and trading was repeatedly mentioned, yet it was also acknowledged that it would be difficult to curb the urban-rural movements since much of the rural economy depends on traders and other mobile business people.

Migrant labor

Migrant labor is a major driver of enhanced HIV susceptibility in Mazabuka District where the sugar industry draws seasonal labor from other provinces. There is a regular pattern of seasonal workers, mostly from Western Province, coming to cut sugar cane for eight months. Cane cutters typically migrate alone, leaving spouses and families behind, and travel back home only when their eight-month contract is complete. However, most cane cutters usually have their contracts renewed in subsequent seasons, thus prolonging such enhanced susceptibility to HIV transmission. Cane cutters often form temporary marriages with local residents while they are working as seasonal migrant labor. Both residents and institutional actors working in the area view these temporary unions as high-risk behaviors. One nurse who operated a home-based care (HBC) network in the district observes that, *“the cane cutters are a big problem.”* She further explained that many HIV positive women in the home-based care program tell her *“my husband was a cane cutter”* when asked about their former partner or spouse.

The structural context of the labor arrangements also contributes to demand for transactional sex. While considered very arduous and physically demanding, cane cutting jobs command higher monthly wages than most permanent positions. In the two worker compounds that make up the study area in Mazabuka, informants explained that throughout the community people are aware that married women sleep with cane cutters to access resources they either need or want because the cane cutters have the means to give them more money than their husbands could. A man from the community stated that when a married man is poor and cannot meet his wife’s material needs or desires, she may go with another man who can give her money to buy cosmetics and in the process bring HIV into the household. He added that,

Women want to be comfortable, so as long as I am poor and there are things that she wants, this will continue.

– Married male resident of Mazabuka

Cattle trade

The movement of local people engaged in cattle trading between Southern Province and the Copperbelt Province is another livelihood activity our informants associate with the spread of HIV. Cattle traders move in and out of the communities where livestock are raised, buying and transporting animals to meet the demand for meat in other provinces. Itzhi-tezhi District traditionally has a pastoral based farming system where livestock, especially cattle rearing, is a very important economic activity for the Ila people. Traders will camp in a community for a month at a time while circulating to buy animals to transport north for sale. Community members recognize that individuals involved in the cattle trade create a bridging population for potential HIV transmission between communities and provinces.

The Economic Dynamics of Transactional Sex: Push and Pull

Informants identify transactional sex as a major factor increasing susceptibility to infection in all four study areas. However, the motives driving the behavior are described in two different yet related contexts: economic need versus economic want. Transactional sex was more frequently discussed from the position of women's participation – women often being vilified without an equal analysis of men's roles. Economic need (poverty) or the desire for material goods (want) are identified as the main push and pull factors behind women's participation in transactional sex. Informants relayed different perceptions of these push and pull factors in each community, some-based on differences in cultural norms of Tonga and Ila people. In three of the four areas, transactional sex was perceived as linked to unfavorable economic conditions and inequality. In the fourth study area in Itzhi-tezhi District, the behavior was more often associated with promiscuity and material want rather than absolute need. The two different contexts described in which the same risk behavior occurs are important to recognize. The way prevention strategies address transactional sex may vary depending on the context in which it occurs or is perceived to occur.⁷

Push factors

With poverty levels there is not much to do to get your money. There are no job opportunities, only commercial sex as an alternative.

–United Nations Volunteer for Mazabuka District AIDS Task Force

The main factor perceived as pushing women into participation in transactional sex is economic need. Informants in Choma District, for example, explained that after secondary school there are no employment options for youths or any colleges or industrial schools in the area. The sale and closure of companies due to economic liberalization in Zambia has further decreased wage labor opportunities. Schools in the area are purely academic, with no training in practical skills such as sewing, secretarial work or catering. Most students, on finishing their schooling, come back home and are unemployed. In our study areas economic opportunities are also more limited for women than men.

We were told by a married woman in the Musikili School compound of Mazabuka District that poverty stricken women need more support for food and therefore are “*falling in love*” for the sake of being supported. Another informant added that,

⁷ We are not able to test the causes of transactional sex in this study because we do not have data on patterns of sexual behavior. Rather, the in-depth interviews capture second-hand understandings of the process, what goes on, why it goes on, and the contributing factors in each community.

For women, the cause is poverty. They do not have enough money to feed their families so they sell themselves. For example, they go to the barracks where the cane cutters live in Kaleya Area. Also there are those that have dropped out of school and have nothing to do; they go for prostitution.

–Retired male household head in Garner Farm, Mazabuka District

Low risk economic strategies may be more limited and difficult to pursue in drought years when a food crisis results. The Clinic Officer in Makunka explained that poverty and hunger fuel promiscuity and people with resources take advantage of the less fortunate. We heard similar explanations in the other districts.

The biggest problem is hunger from a poor harvest; if we address hunger, then we will reduce promiscuity.

–Female resident of Japi Village, Choma District

Addressing structural constraints underlying poverty may be a far more important intervention than simply targeting behavioral change.

Pull factors

While many people in all four communities directly stated that poverty and economic need drive women to transactional sexual activities, others framed the behavior in terms of greed and the desire for luxury (status) goods such as the latest clothing, cosmetics, lotions, and beer that pull women into trading sex for resources with men of greater economic means than their husbands or partners. Informants stated that “*women want money,*” not need money.

A clear gender difference in causes attributed to HIV transmission surfaced in the in-depth interviews in Mazabuka. Women are blamed for not working hard enough in economic activities to get the money they need or want. Women are said to move around and “*give love for money*” – women who some believe could otherwise work hard and do not need to have sex for money. The fact that men pay for sex is rarely mentioned as a cause of the problem of transactional sex.

Transactional sex was perceived as a major risk behavior in Banamwaze (Itezhi-tezhi District), with community members attributing the increase in disease incidence to it. There are many obstacles to reducing transactional sex in Banamwaze and some informants declared it impossible to stop. The cultural roots of promiscuity and the custom of women seeking financial resources in exchange for sexual relations are strong among the Ila people. Norms of sexual behavior may also contribute to transactional sex among unmarried teens and young adults. We were told that promiscuity is part of the Ila society. Informants also report high levels of peer pressure on girls to trade sex for money is also strong in Banamwaze. Teenage girls are told by their peers that they are “*big girls*” and should not “*be scared of men.*” The extent to which intergenerational sex may figure into the trading of sex in this community is not known, but the qualitative data suggest that it is a problem in this area. Young adults are expected to have sex before marriage, posing additional obstacles to abstinence and condom promotion. This custom works against messages promoting condom use as sex is supposed to be without a condom. In frustration, one informant asked, “*with this background how can you stop this practice?*”

Personal characteristics were also blamed for participation in transactional sex. Single women, including widows, are said to engage in transactional sex for economic gain. For such households, economic empowerment through income generating activities may lower risk. However, there are also women who are not poor but do it anyway because they are “*born like that*” and considered “*naturally prostitutes*” according to some informants. Residents also perceived men as unable to abstain from transactional sex.

Gender and resource disparity

While our informants made links between women's need and/or desire for economic resources, gender discrimination in intra-household access to resources did not figure in local explanations of why women engage in transactional sex. The gender disparity in access to household resources, income, and decision-making that often underlies these push and pull factors was never mentioned by informants as a factor to risk during the interviews.

In all four areas, male involvement in transactional sex is not problematized as much as female involvement. We were told that if men "*see a different girl [who is] more beautiful than their wife, they will go and sleep out with her, and end up contracting the disease.*" Some informants also claimed that polygamous marriages are proof that men are more promiscuous than women, that some people are never satisfied with one partner and that there is nothing you can do about it because people are difficult to change. According to local explanation, men engage in transactional sex and are promiscuous, not out of economic need, but rather because they want to. These perceptions suggest that it is not just the supply side that needs to be addressed as most informants allude to, but also the steady demand by men for multiple partners that perpetuates this risk behavior. What is also of equal importance to recognize when addressing the problem is that men control the economic resources behind the transactions. In the rural areas of Zambia where we conducted our research females have less access to economic resources and males provide the demand for casual sexual encounters. At the household level, greater wealth levels and possibly wealth disparity in our study area of Itezhi-tezhi District may also fuel the pull factors of engaging in sex for material resources.

Alcohol Abuse

You think with this beer drinking people can be advised? Ha!

– Widow from Banamwaze

Alcohol abuse surfaced in all four areas as a cross-cutting social problem that not only influences risk behaviors and susceptibility to infection, but also agricultural production, family relations, and gender norms. "*Many people who used to frequent the bar in the village are now dead,*" declared one informant in Japi Village. Alcohol was repeatedly associated with extramarital sexual behavior, lower condom use, and greater promiscuity during drinking episodes. Similar findings have been found in other studies (e.g. Zablotska et al. 2006). We heard that some people can use condoms, but when they are drunk, they forget. Exposure to alcohol consumption begins at a young age, sometimes as early as eleven or twelve years. Peer pressure associated with drinking can undermine any instruction or rules about prevention originating in the home or church.

Also there is HIV/AIDS which has hit the younger generation. The young generation is the worst hit; they don't respect themselves, especially in drinking places. They meet a girl and do whatever they want. They will never reach our age.

– 70 year old male in Banamwaze area

Despite the widespread association made between alcohol and HIV susceptibility, community responses to the problem have been lacking. One elderly male informant in Mazabuka commented that "*now, even a mother with a child on her back can enter into these places [drinking establishments].*" However, this change in social norms of acceptable behavior has not been taken up as a community issue yet. In Banamwaze we were told that at one time the Chief

tried to introduce a law to punish anyone caught behaving badly after drinking, but leadership conflicts and power struggles in the area prevented its enforcement.

Although alcohol consumption was perceived as enhancing risk of HIV infection, especially in Kazungula and Itzhi-tezhi communities, the fact that brewing and sale of local beer is an important income generating activity (IGA) for women in the communities is also a constraint. Beer is sold for cash, bartered for food, and as in-kind payment for agricultural labor. Heavy drinking coincides with the harvest period when many people frequent drinking establishments. In Kazungula one female-headed household survived the drought period by brewing and selling sorghum and maize beer in the community. The female head claimed that her household is desperate and therefore continues to engage in beer brewing as a livelihood activity as there was no alternate income source.

Other socio-cultural factors underlying susceptibility

Traditional practices that carry a risk of infection include wife inheritance, sexual cleansing, and polygamy. There was a significant amount of discussion among informants about how these practices are changing and possible indications that the epidemic has led to modification of traditions. In the community timeline constructed in Banamwaze for example, community members marked the period between 1985-1990 as the time when they first began hearing rumors about AIDS. They subsequently mark the mid-1990s as the time when change in sexual cleansing and widow inheritance practices began in response to AIDS. In Japi Village, the Community Health Worker also described how sexual cleansing practices have been modified in the face of the AIDS epidemic. One modification involves substituting physical rubbing for sexual intercourse to achieve the ritual cleansing.

Strategies for Enhancing HIV Prevention

With a better understanding of local perceptions of risk and susceptibility to HIV infection, the discussion now shifts to individual and community responses to the epidemic. We examine whether individuals and communities recognize risk factors and modify behavior to strengthen their ability to avoid infection. The widespread promotion of prevention strategies and programs in sub-Saharan Africa in large part target HIV awareness and individual behavioral modification, most notably through the promotion of the ABCs of prevention. Yet, as will be discussed below, there are barriers to successful implementation of such strategies at the individual level. Deeper examination into why prevention messages are either taken up or disregarded is necessary to better tailor prevention programming. At the same time there is a growing emphasis on the importance of community-based responses to the epidemic implying that rural communities *may* already be proactive in addressing HIV risk. While this study found ample evidence from the field that individuals and communities perceive risk and understand modes of transmission, there was little indication of collective action to do something about it at the community-level.

In this section we present the individual and community strategies for avoiding HIV infection employed in the four study communities and then discuss possible reasons for the limited or passive response. Examples include weak community capacity and ability to work together on social issues; individual behavior-oriented prevention messages; wealth inequality; lack of incentive for group mobilization; and dependence on external interventions. Reinforcing the role the community can play in promoting preventative behavior is an area that needs further consideration given the obstacles discussed below.

Individual-level prevention strategies

We inquired about the different individual prevention strategies promoted in each community and gathered perceptions of their successful adoption from household members and key informants. General awareness and education about HIV and AIDS, practicing abstinence, being faithful to a single partner, using condoms, knowing your HIV status, and expanding income generating opportunities for women were strategies discussed in all four communities. While there is no means to verify community-level differences in implementation of these strategies in this dataset, we can compare and contrast the perceptions from the ground on what works and how people respond to promoted strategies to identify some of the factors enabling and hindering prevention.

Education and knowledge about transmission and prevention

A common theme that emerged from the in-depth interviews concerning HIV prevention and maintenance of good health in general was the role of education, especially abstinence education for unmarried youth. UNAIDS reports that countries missed 2001 targets that aimed for 90 percent of young people to have comprehensive HIV knowledge by 2005. Survey data indicates that fewer than 50 percent of youth reached these goals (UNAIDS 2006). Advice, education, and sensitization were repeatedly mentioned by our informants as key prevention strategies to keep the next generation of adults and youth healthy. However, there are mixed perceptions on the efficacy of prevention education and sensitization that should be analyzed further in the context of rural communities. The obstacles to individuals putting advice and knowledge into practice require attention by both communities and program designers.

Of the four study sites, HIV education and awareness campaigns have been strongest in the community in Choma District where sensitization has been coupled with agriculture and community development programs implemented by several development partners. At the other extreme, there has been very little to no formal education on HIV and AIDS in the Garner Farm and Musikili School compounds in Mazabuka District, with residents themselves recognizing the need for basic information on transmission and prevention. In Banamwaze area of Itezhi-tezhi District a newly trained Peer Educator is working to promote prevention strategies despite being under-resourced.

As the epidemic has spread, informants from key institutions and community members widely acknowledge that people have learned more about HIV and AIDS, but as one officer in the Department of Social Welfare and Community Development in Choma District mentioned, the impact of that knowledge has not yet been seen. In Mazabuka District we heard a similar assessment of awareness:

The messages about HIV/AIDS have sunk in. Ninety percent of the people know about HIV, but the thing is 'change' of these risk practices.

– UN Volunteer for Mazabuka District AIDS Task Force

This frustration was echoed by individuals in the communities.

Self-respect and following your intuitions are two ways of reducing prevalence. People need to follow the education they learn. The problem is that most people are not doing these changes, despite the sensitization.

– Resident of study community in Choma District

Community members report that it is difficult for young people in particular to take advice and put it into practice combined with the challenge for parents to monitor their movements. According to households in the study, these factors make the youth a difficult age group in which

to boost safer behaviors. Other household members mentioned using the tactic of reinforcement of preventative messages among peers and family as a strategy to prevent the spread of HIV.

Thus, even with adequate knowledge about transmission, barriers remain that inhibit behavior change and successful individual HIV prevention strategies. Given what we learned from discussions in each of the four communities and with key institutional actors, we ask why is prevention education not successful in affecting behavioral change? Possible environmental influences preventing women and girls from putting into practice safe behaviors when confronted by economic need or desire have been discussed at length in the previous section. Cultural norms of sexual behavior are also strong and reinforced by peer pressure. The context and motivations in which youth, women and other vulnerable groups have sex determines in part their ability to negotiate prevention strategies. The reasons why individuals cannot successfully implement the knowledge they have to lower their susceptibility needs to be taken up at the community-level because these reasons are rooted in local customs, group norms, and structural factors. We consider now the conventional ABC approach to prevention in the light of our findings:

A: Abstinence

Among the different ways individuals try to avoid HIV infection, abstinence was mentioned in all four communities. Community members are taught about abstinence in their churches, health clinics, and through the mass media and other prevention programming.

One of the more active NGOs operating in Itezhi-tezhi District is the Adventist Development and Relief Agency (ADRA). As the development arm of the Seventh Day Adventist church, ADRA preaches abstinence as the only method to prevent HIV infection. The organization does not have any empirical indicators that people are taking up this strategy – rather, they “*hope*” people are practicing abstinence. Anecdotally, they claim “*there is a decline in school-age children engaging in sexual activity*” in their coverage areas within the District, but have no data to support this claim.

The provision of health services and promotion of strategies to prevent HIV infection around Makunka area (Kazungula District) are heavily influenced by the Catholic Church which shapes the content of the information people receive on HIV and AIDS, namely endorsement of abstinence and opposition to condom promotion. We asked the Clinic Officer for his opinion on whether abstinence had been a successful prevention strategy there. He replied frankly,

No, abstinence has not been successfully promoted. Some can adhere to it, but we need to approach the problem from all angles.

In Choma District we heard that, “those who can abstain have a better chance of surviving.” This further illustrates how the abstinence-only approach may be oversimplifying the ability of individuals to follow prevention strategies. The approach as promoted provides no alternate strategies for avoiding infection for that segment of the population that cannot adhere to this behavior, which is only effective in preventing infection if it is practiced with 100 percent consistency. We have already discussed factors such as peer pressure, social and economic inequality, and cultural norms to premarital sexual behavior that make this strategy difficult to adopt. The recognition that abstinence is difficult should be used to figure out how individuals can more successfully adopt this behavior given the social and economic context in which they live and in the mean time consider what parallel strategies can be promoted. A combination of options for youth and adults would probably be more realistic and address the different contexts in which they engage in sexual activity.

B: Be faithful

Faithfulness to a single partner was a strategy discussed in all four communities. Informants recognize the custom of multiple partnerships among married and unmarried adults and teenagers as a risk factor. The perception that alcohol consumption leads to infidelity is common. Teenagers to 30 year olds were identified as the age group at highest risk of HIV because they are perceived as the most promiscuous.

You go to the hospitals and it is full of 15-30 year olds that are sick.

–Elderly male resident of Banamwaze

Gender aspects to faithfulness also emerged in conversation. The following quote highlights how women who follow the “B” strategy after marriage would still not ensure protection against infection.

Women, once married do not run around as much, but it is spread more by men because men tend to be non-selective...For married people, some men see other women and get attracted and forget about their wives and go and contract the disease.

–Elderly male resident of Kazungula

The deeply embedded gender inequalities in access to resources surfaced again in discussions about faithfulness and is illustrated by this quote:

Some men get fed up with their wives when they are not as beautiful. The best idea is to provide the wife with some resources so that her husband does not look at other women. Men should provide money to their wives for cosmetics so they can look beautiful. Another option is to just be faithful to the wife and she should be the only one for him. Keep your mind on just her.

–Married female resident of Mazabuka

This explanation of men’s extramarital affairs because they are drawn to more beautiful women than their wives came up repeatedly in Garner and Musikili. A link between beauty and material status was not mentioned in conjunction with promiscuity in the other three study areas. One possible explanation for this community variation is the close proximity to large district town center of Mazabuka – the regular cash-based livelihoods, and greater access (or exposure) to purchased goods and luxuries than in the other three areas. The suggestion that women should be given cosmetics to keep their husbands faithful exemplifies a lack of any recognition of the gendered nature of extramarital sexual behavior within the community. Men are characterized as being different from women, with a need for polygamous marriages. The above quote implies that women hold some of the responsibility for keeping their husbands faithful.

A Red Cross Field Officer with experience in the Makunka area believes that traditions like polygamy pose serious obstacles to HIV prevention. He explained how Red Cross programs that discussed faithfulness to one partner went against tradition, so it was hard for the message to be accepted.

Gender differences in norms for sexual behavior after marriage need to be brought to the forefront of discussions about HIV risk and preventative behavior if “being faithful” is going to be an effective strategy. The individual orientation of the “B” of ABC fails to address different cultural contexts – standard packaging simply does not suffice.

C: Use a condom

Impressions of condom use vary but actual indicators are few. We heard mixed testimony on whether condoms are being used to prevent HIV transmission. Reports ranged from “a lot are using them,” “a bit, through condoms and abstinence, but others do not,” to “very few are using

them... they do not want to eat sweets with the candy wrapper.” Childbirth outside of marriage and the distribution of condoms are the two closest indicators of actual uptake that anyone provided. Perhaps the most telling observation of non-adoption of condoms was the following comment by a woman in Kanyanga Village,

If I said they were using them, I would be lying...there are so many babies born here!

She uses the high number of children born outside of marriage and teen pregnancies as an indicator of the failure of prevention strategies in her community.

The Community Health Workers and Peer Educator in Banamwaze promote condom use and report that demand for both male and female condoms is high. The Peer Educator reported that initially people did not know how to use condoms, but now they do and she has seen improvement in their uptake and distribution. She observes that people have been returning to get more condoms since she started promoting them combined with free distribution at the Health Center, an indicator to her that they are being used. *“Some even come to my house at night requesting them.”*

There are still many obstacles to the uptake of condoms. Before the onset of the AIDS epidemic, condoms were not commonly used in the rural areas as a method of family planning. Accepted gender roles also present challenges to widespread use. We were told by informants that women need to force men to use condoms for their own and their children’s security or they will end up dying and leaving their children all alone. But lack of negotiating power and the stigma attached to women carrying condoms present obstacles to implementing this suggestion. One woman claimed that women who are seen carrying condoms are viewed as sex workers. Stigma is more of a barrier to women’s HIV prevention than men’s. Alcohol use, discussed in the previous section, was also identified as a major constraint to this prevention strategy.

Issues of trust and meaning tied to condom use were discussed as additional obstacles to uptake. Lack of trust among the unmarried exists where one partner may be faithful while the other is not. Some single people feel that if you tell your partner to use condoms it is like telling them they are HIV positive. Informants also claimed that married couples do not use condoms because to do so is perceived as portraying distrust and suspicion that the other spouse is not being faithful.

Myths and rumors about the efficacy of condoms abound in each community as well. Frequently cited beliefs include that condoms cause cancer, they are expired, they reduce sexual pleasure, and a suspicion about whether the lubricant inside is supposed to protect you or not. Still others consider condoms to be a poor strategy because they do not prevent promiscuity, which they consider the root cause of the problem.

Opposition to condom promotion from religious organizations was identified as an additional hindrance to this prevention strategy. Some examples from the field illustrate this obstacle. The UN Volunteer coordinating the DATF for Choma District explained that there are certain pockets within the district where the Catholic Church and other churches have a strong influence and the communities say “no” to condom promotion. Instead, these religious institutions advocate for total abstinence. In Kazungula District, the catchment area for the Makunka Rural Health Clinic is under a Catholic Mission so the condom is a *“non-starter.”* CARE tried to combine condom distribution with their targeted food aid program in Makunka, but the Mission Clinic threatened to withdraw assistance for the food distribution. Both the Clinic Officer and HBC volunteers stated that demand for condoms is high but because it is a mission clinic, the supply is very limited and erratic.

Condoms as a strategy to prevent the transmission of HIV were widely known in our sample. However, greater adoption of condoms faces several obstacles including stigma, misinformation, lack of trust between partners, and opposition from religious institutions. These barriers should be included in the design of condom promotion programs in order to address local attitudes that prevent wider adoption. Furthermore, with the recognition that multiple concurrent partnerships are an important feature of sexual behavior in sub-Saharan Africa (Halperin and Epstein 2004; SADC 2006), obstacles to higher condom use in long-term partnerships and marriages such as those mentioned by our informants warrant greater attention.

Voluntary counseling and testing (VCT)

According to secondhand information from household members and health workers, participation in voluntary counseling and HIV testing is low in all four areas. Fear and stigma were the main reasons mentioned for why people are reluctant to know their status. Yet at the same time, not knowing one's own HIV status or that of your partner was recognized by informants as hindering prevention. Informants in several communities suggested testing before marriage as a preventative strategy, but there was no discussion of anyone actually following this strategy. Lack of trust and confidentiality issues are barriers to wider testing, not lack of awareness of VCT. Advocacy for VCT in Zambia however started only recently and may require more time and effort before it is widely adopted, particularly in rural areas.

In Mazabuka we learned that there is a lack of open discussion or attribution of death to HIV in the community. Stigma is strong. Some respondents commented that it is often known that HIV is the cause of a death, but because of the custom of not discussing cause of death after the funeral, AIDS is not openly mentioned. There is very little testing for HIV status therefore people may not be willing to label the cause of death.

Whoever suffers, they don't believe it to be AIDS or they don't know for sure or don't disclose their status.
–Male resident of Mazabuka

What is evident from the comments made by informants is that without proof of a test or diagnosis no one can be sure that the illness or cause of death was AIDS-related and this prevents a more open discussion and response by communities. One woman in Musikili recounted how all her peers in their early 30s are falling ill and dying:

Yes, the cause of these deaths is mostly HIV. This age group, we are the most active, with the most movement around looking for money. Initially when HIV/AIDS came people thought it was just an urban disease, but then it was already in the rural areas.

Knowledge about why it is important to know one's own HIV status appears to be widespread, but realistic incentives to encourage VCT are absent. This may be related to a lack of accurate information and access to HIV treatment and care services in rural communities, though we did not pursue this discussion further in the interviews. One study on adolescent use of VCT services and preventative behaviors in the city of Ndola located in Zambia's Copperbelt Province concluded that communication strategies that promote discussion about VCT within families and among friends should be implemented to achieve greater utilization of testing services by youth. Further, they found a need to strengthen referral services that link HIV positive youth with care services (Denison et al. 2006).

Institutions engaged in prevention programming need to re-evaluate their impacts and re-adjust or modify approaches with respect to the specific obstacles to implementation. Understanding the behavior before the behavior change is key, albeit largely absent in most prevention programs in

these areas. In order to strengthen impact of prevention efforts, institutions need to evaluate the current strategies in the context of rural communities, customs, and why and how sex takes place.

The need to re-focus on social rather than individual-oriented prevention strategies means a reemphasis on community and social norms to reinforce safe sexual behaviors (Giles, Liddell, and Bydawell 2005). The largely individual-focused strategies discussed above are not sufficient to overcome prescribed social norms and meaning. Better understanding is needed of the different rationales for behavioral decisions and perceptions of risk and the ways in which they are embedded in social norms and constraints.

Expanding income-generating opportunities for women

Across all four communities, informants made a connection between poverty, economic activities, and individual behaviors that pose greater risk of infection. To lower susceptibility to infection, another strategy repeatedly suggested during in-depth interviews, in addition to behavioral change, was the development and supporting of women's income generating activities (IGAs). Women's IGAs -- as an alternate income source to transactional sex -- were one of the most commonly suggested strategies to bolster preventative behaviors in the community. This proposition was echoed in almost all study areas, where communities felt that once the women are empowered with financial sources, the rate at which HIV spreads may slow down as most women engage in sexual activities out of financial need. Analyses of the 2001 and 2004 rounds of the entire post harvest survey find that single women with a salary or wages were 5-10 percent less likely to die between the survey rounds than those with no wage income (Chapoto and Jayne 2006).

In three of the four communities, piecework and other IGA options are more readily available to men than women with the possible exception of Mazabuka District where the sugar cane plantations generate seasonal demand for female "casuals" to weed the cane fields. Informants suggested alternate IGAs for women including handicraft production, sewing, small businesses, piecework, vegetable gardening, charcoal burning, small livestock husbandry and the collection of wild fruits for sales in regional towns. Many of these activities were observed in the communities, particularly handicraft production of baskets, brooms, wooden stools, and woven mats. We also saw examples of other small business or trading activities, although informants view the initiation of new enterprises as costly and difficult under current economic conditions in the province. Start-up capital or seed money for small IGAs is difficult to access and considered a major constraint to initiating small business enterprises. There are no options for credit or loans. Successful implementation of this strategy would likely also strengthen future resilience to livelihood shocks of drought, land degradation, livestock loss, and chronic illness if household and individuals already have diversified livelihood activities in place. Individuals and households with small businesses or shops appear to have some fallback option for the vulnerability experienced during drought.

The implementation of IGA strategies faces structural barriers that also impede general economic development in the study area. In Makunika, for example, market access is a major constraint to expanding cash income activities. Poor infrastructure, high transport costs, and long distances to Livingstone are obstacles that shape the economy and livelihood strategies of the people in the villages. The roads are very poor and vehicles often cannot reach the villages. Without mobility, it is difficult to start a business and general economic development in the area is low. Water is a major constraint to vegetable gardening -- there are almost no pumps and the distance to access water for household consumption is greatest here out of the four sites. Other obstacles to pursuing low risk IGAs mentioned by informants include poverty, laziness, lack of capital, lack of

financial discipline, lack of employment opportunities after finishing school, and no youth training in livelihood skills.

Banamwaze is the only study area where the creation of alternate income opportunities was not widely discussed as a strategy for improving individual and community level prevention against HIV infection. This may be related to the observation that transactional sex in Banamwaze is attributed more to material desire than to dire economic need compared to the other three research sites. Addressing susceptibility and risky behavior, more specifically transactional sex, in Banamwaze will require a different approach to prevention than in the other three areas where suggested strategies include creating economic opportunities that pose less risk to individuals and households. One size clearly does not fit all and context-specificity is a crucial concern when designing policy and programs.

Community-Level Strategies

There is currently much discussion in the research and policy arena on community responses to the epidemic (see e.g. Binswanger, Gillespie, and Kadiyala. 2006). The impacts of HIV and AIDS on different communities vary significantly, as do the variety and the success of attempts made by communities to improve stem HIV spread and bolster their resilience to the impacts of AIDS. A general consensus is that greater emphasis needs to be placed on learning from, supporting and enabling community-driven responses and innovations. Indeed, the first recommendation out of a regional expert think tank on HIV prevention in the highly affected Southern African region was to ground responses to the epidemic in communities with support from leadership at all levels (SADC 2006). Communities usually have better, more relevant information (that responds to diversity and context-specificity) and they often have latent, untapped capacity e.g. unemployed or underemployed youth. Transparency and accountability may also be enhanced through local peer-oversight. Communities have incentives to act and they are responding – albeit not always optimally. But in general there's a need to start with an understanding of which community-driven responses are working, before looking at ways to provide relevant support where local capacity is exceeded.

In this study we investigated community responses or mobilization to lower risk. We found collective initiatives to lower susceptibility and promote prevention to be less common than individual strategies. However, the few group-level responses we observed, all recently initiated and confined mainly to one community, show promise. But the general absence of a strong community response across the study was a discouraging finding. Greater community engagement in HIV prevention efforts is needed.

In the socioeconomic survey, we asked respondents whether any social support groups have emerged in their community over the last few years to respond to the AIDS epidemic. The highest affirmative response was recorded in Banamwaze (96), followed by Japi/Kanyanga (67 percent) and Makunka (63 percent), with households in Garner/Musikili (19 percent) showing the lowest recognition of any such groups being initiated. The low recognition of social support groups in Garner/Musikili could be attributed to the structure of the community, this community comprises mostly migrant workers from within the district and outside who have no common ancestral background and whose existence in the area is associated with the economic need and will one day leave to go back to permanent homes. It is likely that in such a community, one may not expect strong social bonds such as support networks as mobility into and out of the community is very high. Recent formation of anti-AIDS clubs and women's groups in Banamwaze probably account for the high-level of positive response to the question. The low response in Garner/Musikili was confirmed by the lack of community action reported in in-depth interviews.

Despite the obstacles to lowering community susceptibility, there are signs of enabling factors that could be strengthened. All four communities have HIV education programs within their schools. The programs can initiate HIV awareness and education for the younger generation at an earlier point than the current exposed adult population, and tailor education more to the cultural context of risk and vulnerability. Other initiatives such as home-based care networks, women's clubs, peer educators, and anti-AIDS clubs hold promise for community responses to the epidemic. It is notable that apart from home-based care networks, all the other new initiatives are located in just one of the four study communities. Nevertheless, unless new initiatives have adequate resources, community support and are culturally acceptable, they are unlikely to be sustainable.

Home-based care

Home-based care (HBC) networks are active within or around all of the communities except for Banamwaze. While the primary objective of HBC networks relates more to individual and household resilience to the shock of chronic illness, they also hold potential for linking with prevention efforts. HBC workers are almost always volunteers who give their own time to attend to chronically ill patients and their households. Most have undergone some level of training and are legitimate figures within the community to partner with prevention efforts. The biggest constraint faced by HBC workers is lack of resources for the patients. Similar problems have been documented in South Africa where communities rely on volunteer caregivers who end up using personal finances to support patients or absorbing financial costs of care giving, lack recognition of the work they do, and lack of necessary supplies to treat patients (Homan et al. 2005).

Women's groups

One example of group mobilization is The Banamwaze Ng'ombe Women's Club formed in early 2005. Ng'ombe means cattle, the fundamental resource for Ila livelihoods. According to members, the club's purpose is to "keep our culture and fight AIDS." The club members stated emphatically that:

We love our culture, but need to fight widow inheritance. Women are oppressed by men, have no education so we want to start an adult school, fight polygamy and AIDS.

The club aims to change traditional practices that put people at risk of infection and promote alternate ways of cleansing a widow after the death of her husband such as body rubbing instead of intercourse. When we visited the community in May 2005, the club had already initiated the following income generating activities: sewing and knitting, beer brewing (which is a factor that has also been sited as a push factor for HIV susceptibility), making fishing baskets, raising chickens, and reselling chitenge cloth ordered from Lusaka. The women identified IGAs that can be profitable in their area and found the biggest demand to be for the sale of sweet beer, followed by cloth. These women were candid and outspoken about sexual relations and condoms, much less reserved than in the other three research sites (an apparent characteristic of Ila women when compared to the Tonga women.) The members do not just aim at income generation, but structural change is also a foundation and principle of the group -- an example of what Latkin and Knowlton describe as "integrating HIV prevention with goals relevant to the population... to increase participant's motivation" (2005:S106).

Peer Educator Program

A new initiative in Itezhi-tezhi District aimed at promoting HIV education and prevention among youth is the Peer Educator Program. In late 2004, three people were chosen from the Banamwaze

area to attend a seven-day seminar and training in the district capital. In total, 42 peer educators from the district were trained to educate and counsel on HIV and AIDS. Out of the three selected from Banamwaze, one married soon after and moved away and a second is not considered to be very serious about the work, leaving only the third, a single woman, to bear the responsibility of the position. In February 2005, the Peer Educator began lessons about HIV and AIDS in the villages within a 35 km radius. Topics covered include the difference between HIV and AIDS, VCT, condom promotion and distribution, stigma, and discrimination. Sometimes the Peer Educator teams up with health workers during the under-five clinics, as well as a teacher from the school that has some prior HIV training. The program has been well received and encouraged despite a lack of material support. The Peer Educator reports that peers have started conversations amongst themselves discussing prevention and awareness. As far as tackling one of the major problems in the area, transactional sex, she has put together drama groups to show its devastating effects and how to respond to it.

The Peer Educator program is clearly not without challenges. The human capital investment in three educators has been diluted to the remaining one. The coverage area is large and the Peer Educator has no transport. During the initial training at the district headquarters, the new Peer Educators were promised teaching materials that up to the time of our interview (May 2005) had not been delivered, just condoms. The absence of any resources has discouraged her but she has drawn on her own finances. Informants also commented on the importance of selecting role models to fill the educator position. In identifying potential sources of influence in the community, individuals whose lifestyles are consistent with the positive aspects of the intervention or promoted behavior should be sought out for roles such as peer educator (Latkin and Knowlton 2005: S108).

Anti-AIDS club

In the same community an anti-AIDS club associated with the school parent teacher's association was formed in 2005 to undertake HIV education. At the time of our research (May 2005), the club did not yet have any external support, but was only three months old. One teacher has teamed up with the Peer Educator to visit surrounding villages in education programs. The Chairman of the Anti-AIDS committee made the depressing comment to our team that basically "99 percent of the people in the area know how HIV is transmitted, but don't do anything." There is apparent momentum in the Banamwaze area to build on, if external support is available.

Lack of Response/Hindering Factors

Apart from the above examples from Banamwaze, we did not find much evidence of communities taking the initiative to respond to the AIDS epidemic and promote prevention programs at the community-level. More research is needed to identify factors that may contribute to group mobilization and the relative contributions of wealth levels, strong leadership, and cultural factors. Even in Banamwaze, ending sex work and curbing alcohol use are community-level challenges to prevention, yet there has been little formal community response to the two major risk factors. Yet transactional sex is not just a community-level problem because often the demand stems from outside the community. This highlights the need for wider engagement of neighboring communities and districts in addressing social problems that are associated with susceptibility to infection.

There has been no community initiative or response to the epidemic in Garner/Musikili, nor did we observe any signs of community initiative to respond to other general needs such as income generation. Lack of community capacity and leadership poses a huge obstacle for this area given the high district-level HIV prevalence, structural factors of the economy that are conducive to risk

behaviors, and seasonal movement of the population. During the household interviews the inability to mobilize community members for a common goal and lack of information or links to outside sources of support were evident. The area does not fall under the jurisdiction of many NGO programs because it is considered peri-urban and the land is privately owned by the farm and school - all of which are factors that result in the residents being left out of many programs.

Implications for Policies and Programs

This study set out to identify individual and community responses to the AIDS epidemic and strategies to prevent HIV transmission in order to better understand how to strengthen such responses. Several recommendations emerge from this research:

Address context and structural drivers of risk

The prevailing individualized focus on awareness generation and sensitization is not working in this area of Zambia. Individuals are not modifying sexual behavior simply by acquiring more knowledge about risk factors. We found ample knowledge about transmission of the virus among our informants, but community members themselves doubted whether this knowledge was being successfully applied. A similar situation was found in another RENEWAL study in rural Zambia that showed a clear disconnect between knowledge and behavioral change (Drinkwater, McEwan, and Samuels 2006).

Few prevention strategies deconstruct the barriers to successful implementation by individuals. More focus is needed on individual agency, or the lack of agency, as an obstacle to implementing prevention strategies. This is a timely issue with the current international investment (e.g. through PEPFAR and others) to fund prevention efforts from the perspective of individual behavior modification. Given the context in which sex occurs, as described above, the assumption of individual agency, especially among women, is misguided.

Better analysis and better action is required. First, epidemiological analyses (that focus on demographic groups and their HIV incidence) and behavioral analyses (focusing on knowledge acquisition and implementation by certain risk categories) need to be linked in with structured analyses of the social and economic ecology of HIV and AIDS. Social cohesion, gender inequity and poverty are all critical aspects of such an ecological analyses, but these are rarely undertaken. Second, more integrated approaches and comprehensive packages for prevention programming – that combine HIV awareness and education with strategies addressing structural constraints (e.g. poverty alleviation through income generating projects for women and youth) – are needed. In this, we echo Barnett and Parkhurst’s recommendation for comprehensive sex education and prevention strategies to avoid “losing sight of the importance of interventions to address the socioeconomic realities of people’s lives that shape their sexual behavior and possibilities of choice” (2005: 591). Puleritz et al. (2006) come to a similar conclusion in a recent study of the ABC approach in Kenya.

Such a broad-based orientation on risk and response needs to be mainstreamed within various national development programs. The lack of alternate income opportunities, especially for women, has to be at the forefront of policy to address HIV prevention. Long-term investments in prevention strategies and tools are needed, beyond superficial information campaigns or training without plans for sustained resource support.

To enable such broad-based approaches to be effectively developed, the specific structural context and drivers of risky behaviors – and the degree to which they can be changed -- must be

better understood and internalized by institutions. As part of this, discussion within the community of why women are *unable* to avoid exposure needs to be initiated. The push and pull factors driving risky behaviors, as clearly identified in this study, need to be confronted through tailored livelihood support strategies and appropriate social protection measures.

Strengthen community capacity

Interventions should be focused on – and as far as possible driven by – communities. Overlapping vulnerabilities and enduring social problems such as alcohol abuse and transactional sex need to be addressed at the community level because individual behavioral change faces other structural and environmental barriers such as peer pressures, strict gender norms, and stigma. Prevention needs to be made a community priority. With the few exceptions of recent initiatives (most of them in one study community), we found little evidence to suggest that communities are responding.

This in turn will entail more research on the determinants of successful community responses and analyses of what influences capacity positively or negatively. For example, if residents consistently identify promiscuity as the root cause of high susceptibility, then why are individuals and communities not tackling this issue better? At what point is HIV perceived as a community issue, and what mobilizes a community to engage in the promotion of prevention strategies? Ultimately, what determines “community competence” in the context of HIV and AIDS?

Prevention strategies should be coordinated through legitimate and relevant community-based institutions e.g. traditional authority figures, village headman, or chiefs. Local leadership is key. We learned that the credibility and effectiveness of the people involved greatly depends on who leads the response. In the case of Musikili School and Garner Farm – one of the most vulnerable populations in our sample – a lack of trust and a perception of being forgotten by external institutions has put the community on the defensive with regard to interventions. Despite weak community capacity to respond to HIV and AIDS, there are two high potential entry points for education and prevention efforts, namely the two institutions of formal employment: the farm and school. Social and economic life is oriented around these two institutions, and the lack of traditional community leadership structure can be overcome by working through them.

Focus on gender

The perceptions and beliefs about susceptibility to HIV infection and prevention in our study communities suggest that both women and men need to be targeted, with male roles in risk behavior and prevention requiring greater attention. Given the social structures in Southern Province, males have greater individual agency to dictate circumstances of transactional sex and so involving them is key. This recommendation for a greater focus on social norms and gendered roles in risk and prevention efforts has been echoed elsewhere (see e.g. UNAIDS 2005; UNAIDS 2006; SADC 2006; Baylies and Bujra 2000; Campbell and Kelly 1995). Women need stronger roles in sexual decision making, knowledge of safer behaviors and options for prevention that they can control. Women and girls are particularly vulnerable in the context of transactional sex and intergenerational sexual relations. The gender inequities that underlie vulnerability and agency must be addressed within prevention strategies.

Maximize scale

A major challenge concerns how to maximize scale while simultaneously addressing the local drivers of risk in thousands of different communities. The scale of organizational involvement

can be increased through mainstreaming intersectoral approaches within relevant ministries. Synergies between front-line officers from health, agriculture, and community development need to be identified and exploited.

Ultimately, a multi-pronged strategy is required – one that combines awareness and sensitization with more practical interventions that promote lower risk economic activities and enhance people's ability to make choices based on sound information. Resources should be invested in strategies that are effective, culturally appropriate, and sustainable over time – recognizing the long-wave nature of the AIDS epidemic and reflecting local priorities and needs.

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