
KEEPING UP WITH THE MOVEMENT

PREVENTING HIV TRANSMISSION IN MIGRANT WORK SETTINGS



and

**University of Washington
Center for Health Education and Research**

A research-based field
resource supported by the
The Synergy APDIME Toolkit
www.synergyaids.com

Transmission Settings, Part I – Migration
The Synergy Project

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CONTENTS

Foreword	iii
About the Synergy Project	iv
Acknowledgements	v
Acronyms and Abbreviations	vi
List of Figures and Tables.....	vii
I. INTRODUCTION	1
Levels of risk causation	1
Implications for program design.....	2
Migration as a transmission setting	6
How to Use this Document.....	14
II. KEY ISSUES: LEVELS OF RISK CAUSATION IN MIGRANT SETTINGS.....	15
Level One: Societal Context.....	15
Marginalization.....	16
Level Two: Community Context.....	18
Access to Health Services.....	18
Stakeholders and Gatekeepers	19
Level Three: Institutional Context.....	21
Migratory Cycle.....	22
Migrant Work Conditions.....	24
Migrant Housing, Squatter Camps, and Hostels	25
Level Four: Individual Context	27
Male Migrants.....	27
Female Migrants	29
Sexual Networking	32
Sexual Knowledge, Attitudes, Behaviors, and Practices.....	40
III. CASE STUDY INTERVENTIONS	43
Cost resource analysis.....	43

HIV/AIDS Counseling and Education Program for Migrant Workers, Bangladesh.....	45
The Lesedi Project, South Africa.....	52
The Carletonville-Mothusimpilo Project, South Africa	56
IV. CONCLUSION: WHAT MAKES INTERVENTIONS EFFECTIVE?	61
REFERENCES.....	65
APPENDICES	79
Appendix A-1: Female Migrants - case descriptions	81
Appendix A-2: Characteristics of Migrant Workers by Gender	84
Appendix B: Knowledge, attitudes, practices and behaviors.....	89
Appendix C: Condom use and accessibility – case descriptions.....	91
Appendix D: Intervention Cost Worksheet and Case study cost analyses.....	93
Appendix E: Background Information for Case Studies.....	101

Foreword

Keeping up with the Movement: Preventing HIV Transmission in Migrant Work Settings is one of three research-based resources focusing on HIV transmission settings developed by The Synergy Project (funded by USAID). Two other documents in this series include:

- ***Putting On the Brakes: HIV Transmission along Truck Routes in the Developing World***
- ***Room for Change: Preventing HIV Transmission in Brothels.***

These resources are primarily intended for HIV/AIDS program implementers working with population groups in high-risk transmission settings. Extensive research formed the basis for these documents, and findings can be used to help design new programs, or to evaluate and revise existing interventions, in a range of transmission settings.

All three documents in the series can be used in conjunction with The Synergy APDIME Toolkit. This user-friendly electronic toolkit includes resources, tools, worksheets, and guidance for assisting program managers in Assessment, Planning, Design, Implementation, Monitoring and Evaluation of effective HIV/AIDS responses worldwide. Readers are also invited to make use of the Synergy APDIME Toolkit Library, a searchable database which provides access to over 700 annotated resources, all of which were reviewed for the development of Synergy's resource documents on transmission settings.

Both can be accessed on the following website:

www.synergyaids.com

About The Synergy Project

The Synergy Project is supported under a five-year contract by the United States Agency for International Development (USAID). The project is designed to assist other projects and programs. Support is provided by the Synergy Project to programs worldwide to ensure the increased use of effective and sustainable responses to reduce HIV transmission, and to mitigate the impact of AIDS in resource-poor settings.

One of the Synergy Project's major activities has been the development of an on-line toolkit to help program managers and implementers through the following programming stages: Assessment, Planning, Design, Implementation, Monitoring and Evaluation (APDIME) referred to as the APDIME Toolkit. This Toolkit is a comprehensive resource to support USAID missions, field workers, consultants, and program managers throughout the developing world.

The Synergy Project is implemented by TvT Associates/Social & Scientific Systems Inc., with support from The Center for Health Education and Research (CHER) at the University of Washington, Seattle.

TvT Associates, a division of Social & Scientific Systems, Inc., based in Washington, DC, provides services in program and project evaluation, strategic planning, policy analysis, and technical assistance.

CHER, affiliated with the University of Washington, Seattle, is a multidisciplinary team of education, communication, and healthcare professionals devoted to enhancing health and quality of life for individuals and communities through education, training and research.

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Acronyms and Abbreviations

AIDS	Acquired Immunodeficiency Syndrome
AIDSCAP	AIDS Control and Prevention
BCC	Behavior Change Communication
BAHAP	Border Areas HIV/AIDS Prevention Project
CARAM	Coordination of Action Research on AIDS and Mobility
CHER	Center for Health Education and Research
DFID	Department for International Development
FSW	Female Sex Worker
HASAB	HIV/AIDS/STD Alliance Bangladesh
HIV	Human Immunodeficiency Virus
IEC	Information, Education, and Communication
IDU	Injecting Drug Use
ILO	International Labor Organization
IOM	International Organization of Migration
MSM	Men Who Have Sex with Men
NGO	Non Government Organization
PE	Peer Educator
SHISUK	Shikkha Shastha Unnayan Karzakram
STD	Sexually Transmitted Disease
STI	Sexually Transmitted Infection
SW	Sex Worker
UNDP	United Nations Development Program
USAID	United States Agency for International Development
WARBE	Welfare Association of Repatriated Employees
WHO	World Health Organization

List of Figures

Figure I-a	Individuals within a Context.....	3
Figure I-b	Typical Intervention Points for HIV/AIDS Programs	4
Figure I-c	Optimal Intervention Points for HIV/AIDS Programs	5
Figure I-d	Circular Migration Process	11
Figure II-a	Example of HIV Transmission in a Male/Female Migrant Sexual Network.....	36
Figure III-a	SHISUK Follow-Up Program.....	49

List of Tables

Table I-1	Definitions of Levels of Causation of HIV Risk	2
Table I-2	Summary of Major Migration and HIV Research in Africa	7
Table I-3	Types of Internal Migration	9
Table I-4	Sizes of Migration Populations Worldwide	9
Table 1-5	Regional Migration Patterns	10
Table III-1	HIV/AIDS Counseling and Education Program Resource Analysis	97
Table III-2	Lesedi Project Resource Analysis.....	99
Table IV-1	62
Table IV-2	Effectiveness Checklist for Use in Transmission Settings.....	63

I. INTRODUCTION

Historically, prevention efforts have been dominated by the perspective of AIDS as a disease affecting specific groups of individuals, with particular high-risk behaviors. However, it is now more widely understood that individual behaviors and their health outcomes are strongly affected by the larger social, political and economic contexts in which these individuals live and work. Sweat and Denison (1995) argued for an approach to HIV prevention efforts that takes the broader structural context into consideration. They noted that ‘while the relationship between social, structural and environmental factors and HIV/AIDS risk is now better understood, HIV prevention interventions that operate on these levels are sorely lacking.’ Nearly five years on, this situation in the field remains very much the same.

This document forms one of three research-based resources on HIV prevention among groups of individuals living and working in high-risk transmission settings. The purpose is to help encourage practical consideration and analysis of the contextual causation of HIV risk in the design of interventions. The approach is based on Sweat and Denison’s description of four levels of causation of HIV risk affecting individual behaviors, applied to each of three major transmission settings. This document focuses on migrant work settings, while two other documents examine brothel-based sex work and truck route settings. Each document considers specific issues relevant to the four levels of risk causation in each setting; case study examples of structural interventions addressing levels of causation; and summary recommendations for the design of effective interventions.

Levels of risk causation

Sweat and Denison (1995) referred to four levels of risk causation: super structural, structural, environmental, and individual. These four levels have been re-labeled for general field-level usage, and in this document are referred to as societal, community, institutional and individual (see Table I-1 for definitions).

Figure I-a, illustrates contributing factors for HIV risk within these four levels: societal, community, institutional and individual, clarifying the broader context of migrant work settings. All of the contextual levels in the diagram affect individual behaviors and therefore individual health outcomes. Analyzing a transmission setting in this way can help design more effective HIV prevention and care efforts.

Table I-1. Definitions of Levels of Causation of HIV Risk

Causal Level	Definition
Societal (super structural)	Macro social and political arrangements, resources, and power differences that reflect social inequalities.
Community (structural)	Laws, policies, and standard operating procedures; relationships between people and sectors who are formally or informally connected to a particular transmission setting, e.g. the migrant work setting.
Institutional (infrastructure /environment)	Individual living and working conditions; resources and opportunities; recognition of individual, structural, and super structural factors. E.g. access to appropriate health care services and family support.
Individual (targeted groups of individuals)	How the infrastructure and broader environment is experienced and acted upon by individuals.

Adapted, Sweat and Denison 1995

Implications for program design

Around the world, typical intervention points for HIV/AIDS programs continue to focus on targeted groups of individuals, their behavior, and/or their health problems (see Figure I-b). Programs which address migrant settings typically focus on the behavior of individual migrants and sometimes of sex workers who come to the work site to live or work. They most often target condom use and health-seeking behaviors related to STIs in order to reduce risk. What this approach lacks is consideration of the contextual issues which influence behavior.

A structural approach to intervention design, however, seeks to address multiple levels of HIV risk causation, considering not only targeted groups of individuals, but also their partners, families, and communities; the infrastructure and institutions that impact their daily lives; and the legal, political, and economic realities that constitute their society (Senderowitz 2000; Sweat and Denison 1995). This approach implies multiple intervention points (Figure I-c) which, together, aim to address key enabling factors which influence individual behavior.

This document will help program managers and implementers establish a framework for better understanding the levels of risk causation in migrant work settings. Key issues arising from the detailed exploration of migrant settings in section II can be used in the design of new interventions, and/or to improve existing interventions.

Figure I-a. Individuals within a Context

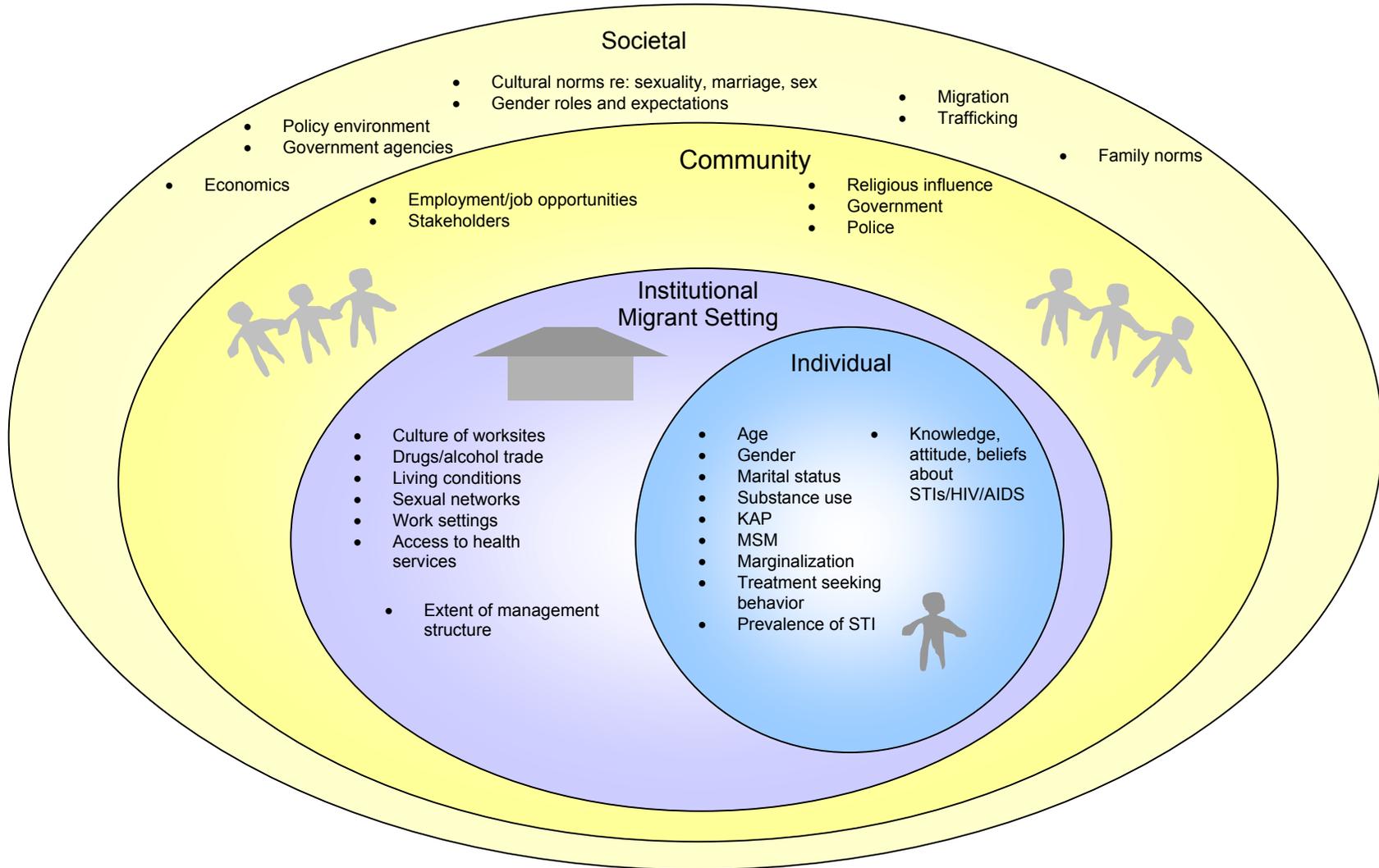
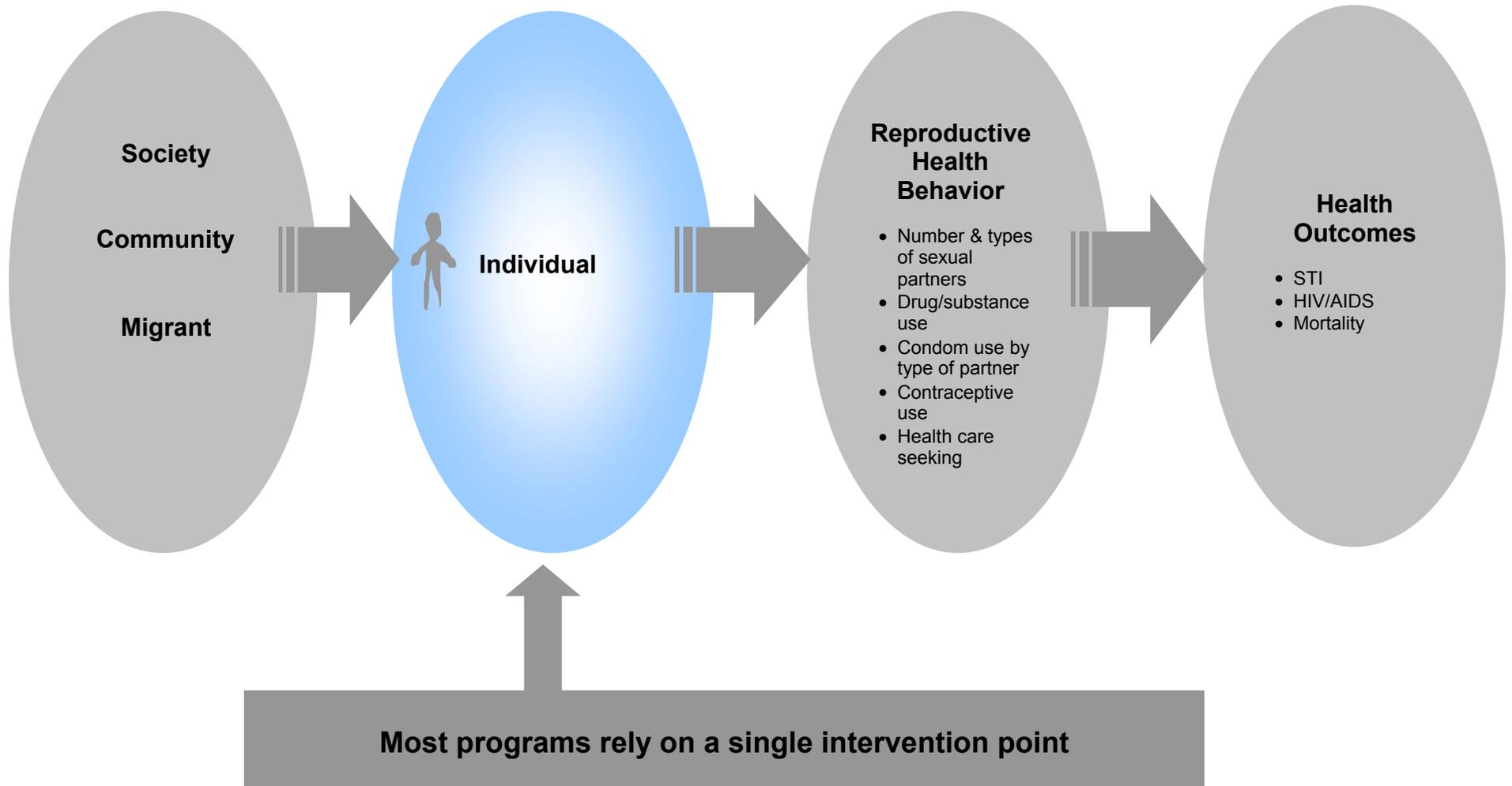
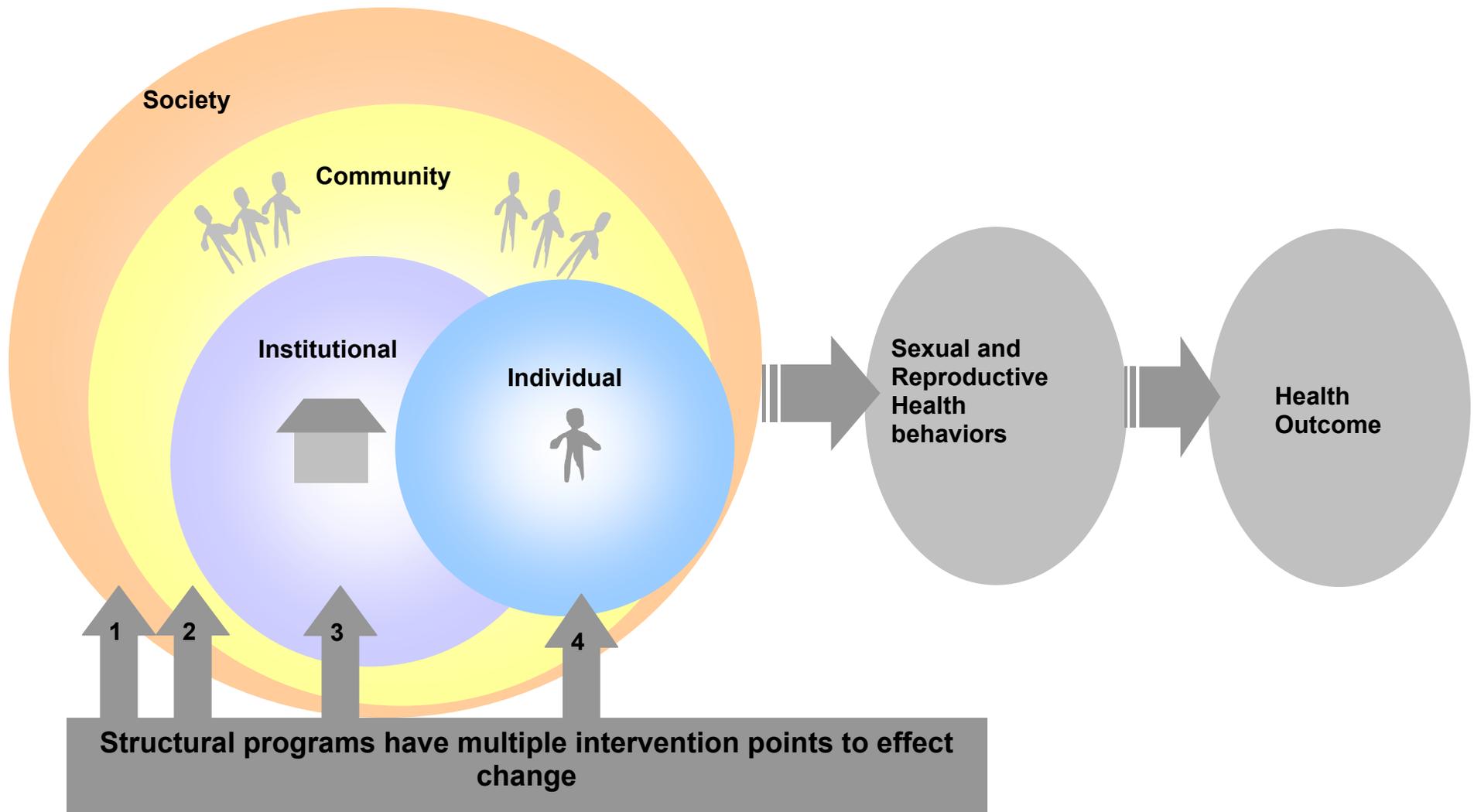


Figure I-b. Typical Intervention Points for HIV/AIDS Prevention and Care



Transmission Settings, Part I – Migration
The Synergy Project

Figure I-c. Recommended Multiple Intervention Points for HIV/AIDS Prevention and Care



Migration as a transmission setting

Review of research

People around the world are on the move. Economic, social, and political transformations impact population movements. Millions of people are seeking work, a new home, or safe places to live outside of their countries of birth. As of the year 2000, 150 million people lived, and often worked, outside of their country of citizenship, although many remained on the same continent. Of all international migrants, more than half live in developing countries (IOM 2000).

Hundreds of millions of people move within their countries each year. From 1975–1985, an estimated 750 million to 1 billion people were **internal migrants** (Schoofs 2000). For both internal and **international migrants**, there are **voluntary migrants** and **forced migrants**. Voluntary migrants are people who move abroad to work, study, join family members, or for other personal reasons. Forced migrants leave their countries to escape persecution, conflict, repression, natural and human made disasters, or situations that adversely affect their lives and freedom (IOM 2000). Attempts to estimate the volume, direction, and composition of all types of migration are challenging because definitions are not compatible, governments are not always willing to provide data, and existing data may be fragmented or incomplete (Appleyard 1991).

From the beginning of the HIV/AIDS epidemic, governments have been concerned that population movement between countries is contributing to the spread of HIV (Appleyard and Wilson 1998). According to UNAIDS (2001), migrants and mobile populations may be more vulnerable to HIV/AIDS than non-migrant populations.

“It is not a matter of only individual responsibility, but also of the creation of conditions of migration that make migrants so extremely vulnerable.”

(Wolffers et al, 1999)

Although research has identified migration as an independent risk factor in the transmission of STIs and HIV/AIDS, this reality has erroneously created the impression that migrants are to blame for the spread of disease in host communities (Ybanez 1999c). Interventions have often overlooked examining the factors that create vulnerability in mobile populations, as a basis for assessment, planning and design. This publication evaluates the realities of mobile populations, including the economic and social challenges facing these groups of individuals. It identifies cultural and social issues that contribute to HIV transmission, and highlights intervention programs that have had an impact on reducing transmission rates.

The term **migrant** in this publication refers to migrant workers, economic migrants, seasonal workers, and people who choose to migrate for “personal convenience” and “without intervention of an external compelling factor” (Appleyard and Wilson, 1998). However, many issues discussed in this document are relevant to members of mobile populations who do not establish fixed points of residence for significant periods of time.

Migrants become more vulnerable to HIV as they enter a population where there are higher rates of infection, and then engage in high-risk behavior. Some migrants may be particularly vulnerable to HIV/AIDS because of poverty, poor education and poor health, facing the added disadvantage of poor access to health care and psycho-social support. Among a group of rural Ugandan residents and migrants, people who moved within the last three years were three times more likely to be infected with HIV than those who had a stable residence of 10 years (Nunn et al. 1995).

Several migrant groups in Asia have been identified as susceptible to STI/HIV infection due to their mobile situation and risk behaviors (Asian Research Center for Migration, 1995). More studies are needed to understand the movement patterns and the potential impact on HIV risk in all affected world regions.

Studies on highly mobile groups such as truck drivers (Bhoruka Public Welfare Trust 1998; Jackson et al. 1997; Lacerda et al. 1997; Orubuloye et al. 1993), military personnel (Celentano et al. 1996; Mason et al. 1995), itinerant workers (Anarfi et al. 1997; Omorodion 1993), and seafarers (Cambodia Seafarers Research Team 2000; PATH Indonesia 2000; Vietnam Seafarers Research Team 2001) have shown that migration may be a factor related to infection. Table I-2 summarizes migration studies that illustrate the relationship between major migration and HIV infection in Africa.

Table I-2. Summary of Major Migration and HIV Research in Africa

Location, Year (Author)	Population	Main Findings
South Africa, 2000 (Lurie et al. 2000)	Migrant male laborers from two rural districts in Kwazulu-Natal and their rural partners, and non-migrant couples from the same locale.	Migration may be an important risk factor for men; the odds of a migrant being infected are 2.1 times the odds for a non-migrant.
South Africa, 1992 (Abdool-Karim et al. 1992)	Rural Kwazulu/Natal population.	HIV infection was approximately three times more likely in those who had changed their place of residence within the past year, and women had a 3.2-fold higher prevalence of infection than men.
Senegal, 1992 (Pison et al. 1993)	Male and female seasonal migrant laborers from rural South West Senegal.	Male migrants become infected while working away, then transmit HIV to their wives or other regular partners upon their return home.
Uganda, 1995 (Nunn et al. 1995)	Rural South West Ugandan population.	Individuals who were mobile within the last three years were three times more likely to be HIV infected than those who had a stable residence for 10 years.

Some recent studies have been undertaken in the Greater Mekong subregion to examine mobile groups and the links between mobility and HIV vulnerability (Calabria 2001; Chantavanich et al. 2000; Ministry of Health National Committee (Lao PDR) 2001; Scalabrini 2000). Many of these efforts have focused on “hotspots” (areas where risky behaviors for STDs and HIV take place) and mobile populations such as truck drivers, sex workers, fishermen, and cross-border migrants.

In a review of migration studies in Africa, Lurie et al. (1997) identified some important limitations to existing studies:

- 1) Migrants are often studied at their place of work with little or no focus on the effects of their return home to rural areas.
- 2) Few studies have focused on the rural partner's vulnerability to HIV and other STIs. Thus, there is a need for studies that examine the social and epidemiological implications of migration both at work and at home.
- 3) Migration status is often presented as a dichotomous variable. i.e., migrants are categorized as either migrant or non-migrant. Many studies look only at one-way, long-term migration, when in reality, migration is much more complex. A migrant's status can change many times during his or her life, and with different types of migration there is a different type of risk for sexually transmitted infection (STI). Lurie et al. recommend a contextualized approach to improve understanding of different types of migration.
- 4) The implications of research for intervention design have largely been ignored.

More extensive studies in various world regions are still needed to assist in the understanding of the extent of migration both internally and cross-border. There is a scarcity of information both on HIV/AIDS prevalence and on effective preventive and care interventions among migrant population groups. More information is also needed on access to services, and opportunities for more structural interventions.

Although research gaps have been identified by experts in the field, these gaps should not be interpreted as barriers toward action. Given the proven vulnerability to HIV among large numbers of migrants and mobile populations around the world, government responses to date remain inadequate. There is an urgent need to develop and implement more far-reaching interventions on international, as well as national, levels.

Definitions and Patterns

The International Organization for Migration (IOM) offers the following definitions and classifications for international and internal migration patterns.

International migration

International migration includes the movement of people from one country to another to seek employment, establish residence, or seek refuge from persecution. These migrants cross international borders when they move (IOM, 1995).

Internal migration

Internal migration includes the movement of people from one area of a country to another for work or to establish a new residence. This residence may be temporary or permanent and plays a role in shaping the development of nations, cities, towns, and rural areas. Internal migrants move but remain within their country of origin (IOM, 1995). Table I-3 provides an overview of the types of internal migration.

Table I-3. Types of Internal Migration

Types of Migration	Characteristics	Comments
1. Rural to Rural	Movement from one rural area to another. Consists of both short- and long- distance movements of traders, pastoralists, and agricultural workers.	
2. Rural to Urban	Movement from rural to urban areas driven by poverty, low agricultural productivity, population growth, shortages, fragmentation and inequitable distribution of land, environmental degradation, and lack of economic opportunities in rural areas (Oberai 1987 cited in IOM 1995).	The most common form of internal migration. By 2020, the populations of urban areas of the developing world are expected to increase by nearly 1 billion people (UN Secretariat 1994 cited in IOM 1995).
3. Urban to Urban	Movement from one urban area to another, usually for employment.	A dominant form of migration in countries that are highly urbanized, e.g., countries in North America and Europe.
4. Urban to Rural	Movement from cities to rural areas, often as part of a "new settlement" plan; some return to their rural homes after having migrated to cities.	

Source: IOM 1995

Table I-4. Sizes of Migration Populations Worldwide

Population Type	Size (millions)	
Labor migrants	25–30	Source: Ghosh 1994 and UNHCR 1994 cited in IOM 1995
Undocumented migrants	30	
Refugees	18.2	
Other	24	
TOTAL	97–102	

It should be noted that calculating accurate numbers of international migrants is complex and not always systematic. Definitions are not always compatible and sources can vary in their estimates, depending on the reasons for the estimated calculations (IOM 2000). Both internal and international migration occurs in all countries and affects towns, villages, and rural areas throughout the world (IOM 1995). Table I-5 provides an overview of regional migration patterns.

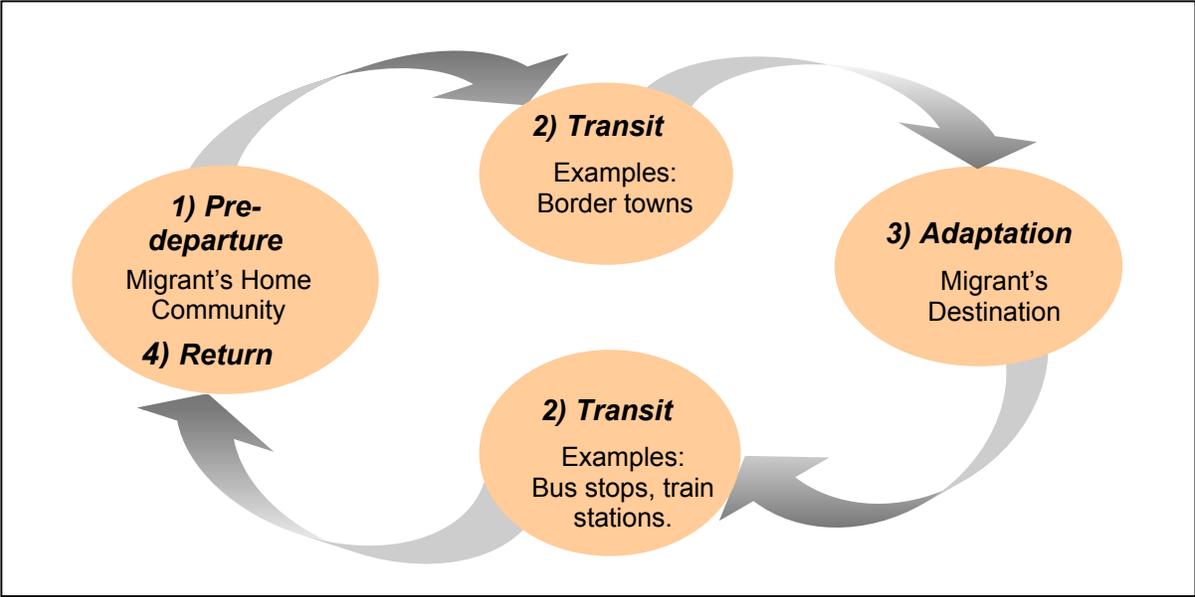
Table I-5. Regional Migration Patterns

Geographical Area	Migration (millions)	Size	Characteristics
Africa	22–26		Internal and international migration occurring. Largest portion of international migrants from sub-Saharan Africa remain on the continent (Adepoju 1994 cited in IOM 1995).
Middle East, South and South East Asia	17–21		This region is considered a main source of emigration to all other parts of the world. From the 1970s to 1980s, demand for contract workers in the Middle East attracted laborers from the Asia Pacific region and from other Middle Eastern countries.
North America	25–27		
Europe	23–24		
Other (including Latin America, the Caribbean, and East Asia)	12.5–18		
TOTAL	9.5–116		

Source: IOM 1995

This document focuses primarily on HIV transmission in circular migration patterns, in which people leave and return to their place of origin one or more times (see Figure I-2). These patterns include groups who travel voluntarily from their homes to other locations for paid or contract work. Migrants who are involved in circular migration take up residence for a substantial period of time at or near fixed sites or work sites. They live relatively far from their original homes and families and return home occasionally to visit family or to wait for new employment opportunities. This category of migrant includes miners, fishermen, farm workers, laborers at major worksites, and shipyard and factory workers. Settings for potential HIV transmission include transit points, fixed sites such as work places, and home communities. People in each of these settings are often at risk for HIV and other STIs.

Figure I-d Circular Migration Process



Demographics of Migrant Workers

Most migrant workers are at prime reproductive age (15-29) and travel to their work setting without their regular sexual partners. Gender distribution of migration differs depending on the region and type of work. For example, male workers are generally drawn to industries such as mining, construction, fishing, and agriculture. Female workers are generally drawn to itinerant trading work (selling food or clothes), farming, entertainment jobs, restaurants, domestic work, and factory work (Appleyard and Wilson 1998).

Thousands of Bangladeshis are working as laborers in the Gulf states; millions of miners from Lesotho, Malawi, and Mozambique are living in hostels in South Africa; and almost 20% of young migrant men from Burkina Faso travel south for seasonal work in the plantations of Côte-d'Ivoire (Ivory Coast) in West Africa (Decosas 1996). They reside for substantial periods at or near the work sites, which are relatively far from their original homes, and return to their families occasionally, depending on the length of distance they must travel.

Migrant women often occupy the lowest and most exploited strata in the global division of labor, evidenced by the heavy employment of women in jobs that are menial, low-skilled, and low-paid. In addition, some migrant jobs, such as those related to the entertainment industry (Asian Partnership on International Migration n.d.), increase their exposure to sexual assault and STIs/HIV.

Statistics on gender distribution of international migrants show that approximately 52.5% are male and 47.5% are female (IOM 2000). The feminization of migration streams is a recent trend. Rather than accompanying migrating family members, female workers are now relocating as principal wage earners. About 1.5 million Asian women were working abroad by the mid 1990s and in many migratory movements they outnumber men (IOM 2000). For example, until 1980, the majority of Sri Lankan migrants were males. Since then, women have dominated the migrant labor force. According to government statistics, 73% of the migrant workforce in 1995–1996 were women. This rise was influenced by various factors, including the high demand for domestic helpers (Asian Migrant Center Online, Sri Lanka 1997). In the Philippines, women account for 60% of legal migrant workers, excluding seafarers (Fernandez 1998). In some countries, such as Thailand, women dominate rural to urban migration streams (Ito and Chunjitkaruna 2001).

Examples of Migrant Worker Occupations

(countries listed here represent both sending and/or receiving countries)

- Dam construction workers (Lesotho, Ghana)
- Domestic workers (Mali, Malaysia, The Philippines, Saudi Arabia)
- Factory workers (Thailand, Nepal, India)
- Farm workers (Zambia)
- Fishermen & fishmongers (Thailand, Cambodia, Kenya)
- Miners (South Africa, Tanzania)
- Mobile borehole drilling (Uganda)
- National parks (Zambia)
- Nurses (The Philippines)
- Palm oil workers (Senegal, The Gambia)
- Sex Workers (India, Nepal, Thailand)
- Shipyard workers (India)
- Sugar plantation workers (Dominican Republic)
- Tour operators (Zambia)

In contrast, in Southern Africa there are still more male than female migrant workers, although female migration is on the rise. In Zambia, most migrant farm workers are young men, employed on a temporary basis and living without their spouses in camps (Bond and Dover 1997). These types of migration patterns often result in an imbalance in the male-female ratio within migrant living settings. Appendix A lists characteristics of migrant worker populations by gender, in selected countries.

How to Use this Document

This document is divided into four main sections:

- 1) The **Introduction** (above), which outlines the importance of developing structural approaches to the design of interventions among population groups in high risk transmission settings. The introduction also provides an overview of migration as a particular transmission setting.
- 2) The **Key Issues** section which describes four levels of risk causation in migration settings and helps the reader to gain a deeper understanding of the realities of these settings. Overall, it also helps to provide a framework for the design of structural interventions, where each of the four contextual levels described above should be taken into account.
- 3) The **Case Study Interventions** section which discusses selected HIV/AIDS prevention strategies, from pre-departure settings to programs which focus on migrant work sites, including migrants and their sexual networks.
- 4) The **Conclusion** which synthesizes the two previous sections, summarizing key issues related to the risk of HIV transmission in migrant work settings and common themes in effective interventions.

Citations database

References are included at the end of this document. The publications listed here are only a small portion of the publications and grey literature which were reviewed by the Center for Health Education and Research, at the University of Washington, Seattle, during the research and writing process. Readers are encouraged to make use of the Synergy APDIME Toolkit Library, a searchable citations database which provides access to over 700 annotated resources, including those reviewed for the development of Synergy's resource documents on transmission settings.

The searchable database can be accessed via the following website:

www.synergyaids.com

II. KEY ISSUES: LEVELS OF RISK CAUSATION IN MIGRANT SETTINGS

This section explores levels of risk causation in depth, to help increase understanding of the contextual factors influencing migrant behaviors, and incorporation of these factors in the design of interventions. Through understanding the key issues behind societal, community, institutional, and individual levels of risk, program planners can adopt a more effective approach to problem solving.

Level One: Societal Context

Causal Level	Definition	Key points
Societal [super-structural]	Macrosocial and political arrangements, resources, and power differences that reflect social inequalities.	<ul style="list-style-type: none"> • Migrants are affected by regional differences in HIV prevalence and exposure to existing prevention efforts. Migrants with a low level of HIV awareness are at particularly high risk in high-prevalence countries (Chantavanich et al. 2000; Appleyard and Wilson 1998). • Migrants may be among the least privileged members of the community and are often overlooked by programs or public services offered to the general population (Bollini and Siem 1995).

‘Many of us have preferred to remain silent on this issue [HIV spread among migrant workers in Africa] out of fear of having our analyses denatured into arguments for mass testing and deportation. But silence has ceased to be an option. Population migration has become a central theme in the discussion of AIDS, and we have an obligation to engage in this discussion in order to prevent it from producing grist for the mills of xenophobia.’ (Decosas et al. 1995).

During the process of migration worldwide, many issues stemming from cultural transitions and cross-cultural encounters can arise, affecting the reactions and behaviors of individual migrants. These include the breakdown of traditional norms and institutions, resulting in confused, unstable, and insecure behavior, and difficulties in understanding and accepting the new environment (Shtarkshall and Soskolne 2000). Cross-border migrants face the issue of legal status in destination countries and a lack of access to culturally and linguistically appropriate HIV information and health facilities.

Migration affects not only the people who leave, but also the partners who are left behind. For migrant workers and their sexual partners, vulnerability to HIV is greatest when there are conditions of poverty, inadequate financial resources, low status, a feeling of powerlessness, social instability, and unequal gender relations.

Marginalization

International and internal migrants can face marginalization while in transit, at their destination, or upon their return home. Marginalization can take the form of discrimination, xenophobia, exploitation, and harassment (UNAIDS 2000b). This dynamic in host countries, compounded by social isolation, contributes to vulnerability to HIV infection. Migrant workers are often viewed as an inexpensive source of labor and are expected to leave when the work ends. Undocumented and illegal migrant workers have even less access to health and support services during and after migration (Appleyard and Wilson 1998).

The residents of receiving countries often look at migrant workers as competitors for local resources and national healthcare programs (Ybanez 1999b), and many host country governments do not view the needs of migrant workers as their responsibility. Therefore, migrants have limited access to public services such as health care, social welfare, and other services funded by taxpayers. For example, in many countries only residents can use public services, and many migrants, especially temporary and international migrants, do not meet the criteria for residency (Guest 1999). Some countries charge foreigners higher hospital fees, as in Malaysia, where non-citizens are charged twice as much as locals when receiving outpatient treatment (Ybanez 1999b). Thai male migrants to Japan encountered problems with labor issues such as levies, dismissal from their jobs, labor insurance, and unpaid wages (Ito and Chunjitkaruna 2001).

Although there are international regulations and guidelines to prevent discriminatory practices against migrant groups, many countries continue to have testing requirements for seasonal and migrant workers (Appleyard and Wilson 1998; US Dept of State 2001).

South Africa provides a historical example. In 1986, the Chamber of Mines, an organization of the South African mining companies, began screening its recruits for HIV, many of whom were from heavily recruited Malawi. By mid-1988, approximately 200 Malawians tested HIV-positive. In response, the Chamber of Mines banned further recruiting of Malawian mine workers by its agent, the Employment Bureau of Africa, and repatriated more than 13,000 of those already working in the South African mines, regardless of their HIV status. South African legislation, since 1987, makes it an offence for an individual or institution to knowingly assist an HIV-positive person to enter, work, or stay in the country (Chirwa 1997).

Migrants are often suspected of carrying HIV/AIDS and, subsequently, an increasing number of countries require HIV testing prior to entry. The test is usually required as part of a medical examination for long-term visitors such as workers and students. Based on February 2001 information available from the U.S. government, these countries include the Central African Republic, Cyprus, Egypt, the Republic of Korea, Lebanon, Malaysia, Mauritius, the Federated

States of Micronesia, Papua New Guinea, Saudi Arabia, St. Kitts and Nevis, and the Seychelles (US Dept of State 2001). Panama requires HIV tests for women intending to work in the sex trade; Singapore requests HIV tests for workers who earn less than \$1,250 per month; and South Africa requests tests for all mine workers (US Dept of State 2001). In Thailand, illegal workers are allowed to register only after they have a medical examination (Ybanez 1999b) and (presumably) are found to be HIV-negative.

In *Singapore*, Michael Ewing-Chow, a legal expert at the National University of Singapore, stated that the Singaporean government has become increasingly worried about the more than 2,000 foreigners living and working in Singapore who are known to be HIV-positive. In response, the government amended the Immigration Act in 1998, stipulating that individuals with entry permits and passes can be forced to undergo a medical examination at any time and that the information can be made public to the federal Controller. Individuals who refuse may be fined a maximum of \$2,000, imprisoned up to six months, and face revocation of their passes. People living with HIV/AIDS are, under this amended legislation, prohibited immigrants and may be denied entry or repatriated (Ewing-Chow 2002).

In the *Dominican Republic*, illegal Haitians who work on sugar cane plantations, in coffee, cocoa, and rice fields, or in the building industry have no legal protection (Severino and de Moya 1999). Haitian migrants also report paying bribes in order to cross the border, and women have reported physical and sexual abuses during border crossings (Severino and de Moya 1999).

Migrant workers are affected by differences in culture, language, and social values, and affinity between migrant workers and their host countries varies depending on these factors. The degree of similarity or difference in language, religion, and ethnicity depends on where workers migrate. Community tensions can arise when migrants and members of the host country are unable to communicate effectively because they lack a common language. This dynamic is exaggerated by residential segregation, which limits regular social interaction. Migrants are often blamed for the spread of disease and for increases in crime and other social ills.

Level Two: Community Context

Causal Level	Definition	Key points
Community [structural]	Laws, policies, and standard operating procedures; relationships between people and sectors who are formally or informally connected to a particular transmission setting, e.g. the migrant work setting.	<ul style="list-style-type: none"> • Migration patterns are dynamic and change depending on economic opportunities, political situations, and national policies. • Many migrants have difficulties comprehending prevention messages designed for a host country. • Lack of access to appropriate sexual health information and health care services place migrants at greater risk of STI/HIV/AIDS. • Migrants face structural barriers to seeking diagnosis/treatment for STI/HIV/AIDS because of their illegal status, cultural differences, social stigma and fear of losing their jobs. • Prevention interventions need to incorporate key stakeholders in all communities through which migrants pass, when assessing, planning, designing, and implementing interventions.

***'If you want to spread a sexually transmitted disease, take thousands of young men away from their families, isolate them in a single-sex hostel, and give them easy access to alcohol and commercial sex. Then send them home every once in a while to their wives and girlfriends. And that's basically the system we have with the mines.'* (Schoofs 2000).**

Access to Health Services

Timely treatment of STIs not only minimizes the risk of migrant workers' contracting HIV, but also gives healthcare providers an opportunity to interact and promote condom use, thereby reducing or preventing high-risk behavior. Migrants generally do not have access to effective health and STI services for a variety of reasons, including illegal status, the lack or withholding of public services for migrant workers, the stigma of being a migrant worker or having an STI, cost of care, and language barriers.

Employer-sponsored health care is one way to increase migrant workers' access to health services and STI prevention and care. A positive impact on health-seeking behavior is seen in cases where such healthcare programs exist. A study of miners in Carletonville, South Africa, found that the miners sought out health services when experiencing symptoms of STIs, and were less likely than men and women in the nearby town to wait for the symptoms to pass without seeking care (Gilgen et al. 2000).

Except in cases of employer-sponsored health care, migrant workers generally do not seek medical assistance until their illnesses are serious. Often health services are inaccessible or

unaffordable, and migrants may have other priorities. In some cases, work contracts stipulate that employers will cover some medical expenses, but, in reality, coverage often is not provided. Also, illnesses can be used by the employer as grounds for dismissal, so many migrant workers tend to self-medicate and endure pain instead of seeking medical assistance (Ybanez 1999b).

The stigma surrounding STIs/HIV affects the willingness of many migrants to seek treatment in clinics. In a focus group of migrant men in Mpendle, South Africa, participants said that the nurses intimidated them by making comments (Hlongwa 2000a). Such behavior by healthcare providers creates a barrier to positive health-seeking behavior.

The combination of inaccessible and unaffordable care, workers' illegal status, and the embarrassment of having a STI often result in migrant workers seeking out healers. Among Cambodian fishermen, healers were the most frequently named sources of STI cures, and fishermen found them to be convenient, cheap, and effective (Greenwood 2000). Unfortunately for many people, effective treatment means alleviation of the STI symptoms rather than treatment or cure of the disease.

Migrants who leave home without their families express a sense of isolation and lack of support in acquiring care.

A South African miner with tuberculosis said: "There is no one who can help me here and it is quite impossible for me to know all my needs. If I was nearer to my wife, she would take care of me, look after me" (Campbell 1997). Many suffer from illnesses and transmit them to the community at large. For example, South African mine workers were familiar with tuberculosis and some had first-hand experience with it, yet few knew that it was infectious (Williams et al. 1998). Healthcare providers and employers have key roles in meeting the healthcare needs of migrant workers.

The Carletonville-Mothusimpilo Project A Community Intervention

One of the biggest gold mining complexes in the world is based in Carletonville, South Africa. The mines employ about 70,000 migrant male workers from the Southern Africa region, who live in single-sex hostels without their wives or families. Women from all over migrate to Carletonville to sell sex and alcohol (UNAIDS 2001).

The Carletonville Project, an intervention to reduce STI/HIV incidence in the mining community, focuses on implementing and improving syndromic management of STIs and developing strong peer educator programs in the sex worker community, the mine worker community, and among township youth. The project involves businesses, government, and communities to create a mobilized environment at the grassroots level (Campbell et al. 1999).

Stakeholders and Gatekeepers

Migrants contribute to and are part of larger systems. Governments, industries, small and large companies, and communities are supported by migrant work labor as well as impacted by it. Gatekeepers and stakeholders are crucial to the interaction between migrant workers and others. Primary gatekeepers/stakeholders related to migrant work settings include:

1. Government agencies and health departments
2. Employers and supervisors of migrant workers and labor recruitment agencies
3. Family members
4. Employers and supervisors of sex workers
5. Trade unions

6. Community leaders from migrants' home areas
7. Community based organizations in home communities (e.g., sports clubs, burial societies, religious organizations)
8. NGOs
9. Healthcare providers

While it is recognized that HIV and migration are related and are important issues, governments do not always include these issues on their political agendas (Appleyard and Wilson 1998). Governments of sending countries are not necessarily eager to protect their migrating nationals from increased vulnerability to HIV infection. Local governments are interested mainly in research and interventions that emphasize migrants as potential carriers of HIV, rather than understanding the conditions that make migrants more vulnerable to HIV/AIDS (Wolffers n.d.).

While stakeholders have not been heavily involved in migrant-related HIV prevention programs, one example of how they could work together to address migrant work issues was the September 2000 Asian Summit on pre-departure, post-arrival, and reintegration programs. This meeting brought together officials representing health ministries, labor and immigration organizations working with migrants, NGOs, recruiting agents, employers, and physicians to develop a regional plan and manual for service development and national guidelines for countries that test migrants for HIV (Wolffers and Painter 2001). The interventions section of this publication addresses the importance of including stakeholders and gatekeepers in intervention design and implementation.

Level Three: Institutional Context

Causal Level	Definition	Key points
Institutional [infrastructure, environment]	Individual living and working conditions; resources and opportunities; recognition of individual, structural, and super-structural factors. E.g. access to appropriate health care services and family support.	<ul style="list-style-type: none"> • The commercial sex trade flourishes at large, mostly male, migrant work sites, as does trading in alcohol and drugs. • Culturally and linguistically appropriate sexual health education information is generally not available to migrant workers in host communities. • Migrant workers in host communities lack a social support network and health services tailored to their needs and working conditions. • STI/HIV/AIDS education programs for risk reduction should be in place at pre- and post-departure sites. • In pre-departure settings, information, education and communication efforts should seek to provide migrant workers with awareness and knowledge on the following issues: <ul style="list-style-type: none"> ○ working and living conditions in the destination countries; ○ commercial sex environments and the risks of contracting STIs/HIV during migration; ○ reproductive health issues and information on HIV/AIDS; ○ available health programs and services in the destination countries.

The institutional context describes migrant settings in terms of the roles of employers and managers, working conditions, health services, and the migratory cycle and associated risks – including the inherent pre-departure, transit, adaptation, and return characteristics that affect sexual interactions. This section also discusses condoms as a resource and condom use as an opportunity, while recognizing that individual and societal factors impact condom use.

Family members who remain behind usually are hopeful that their financial future will be improved by additional income received from the migratory worker. This expectation puts pressure on migrants to earn more and to regularly send money home, and migrant workers often endure oppressive working environments to be able to do so. In some cases, female workers feel pressured to engage in part-time sex work as a way to pay off pre-departure debts at home and to meet high family expectations (Ybanez 1999a).

Labor migration is a highly complex issue. There are several distinct categories of workers that migrate, differentiated by their skills, the permanence of their residence in the host country, and their legal status. International migrants pick fruits and vegetables, manufacture garments and other items, process meat and poultry, work as nursing home and hospital aides, clean restaurants and hotels, work in gardens, labor in construction, take care of children and the elderly, and provide a myriad of other services. They work in almost all parts of the globe (IOM 2000).

Migratory Cycle

There are several risk factors associated with each stage of the migration process. It is critical to understand these different stages and the risks involved in order to identify appropriate times, places, and services for migrant workers. In this section, we divide the migration process into four stages: *pre-departure*, *transit*, *adaptation*, and *the return home* [based on the framework developed by Coordination of Action Research on AIDS and Mobility (CARAM) and other relevant sources]. Background information relevant to designing interventions is provided for each stage.

While looking at the typical migration process, it is important to keep in mind that migration is not a fixed activity. It is a dynamic process where migratory patterns are in constant flux, influenced by economic opportunities, political and national situations, and national policies. Changes in migration patterns may lead to different needs among the target populations and affect existing outreach work. For example, migrant workers who lose their jobs are more likely to become illegal workers and subsequently become difficult to reach.

Pre-departure

Prospective migrants may not be aware of the risks associated with migration, including vulnerability to STIs/HIV/AIDS. While there are pre-departure programs in a few countries, they are not frequently offered or conducted in a timely manner and may not provide up-to-date reproductive health and HIV/AIDS information. In Bangladesh, for example, the Bureau of Manpower Employment and Training offers a briefing session for prospective migrant workers, but in actuality, only 10% of outgoing migrant workers have attended (SHISUK-CARAM n.d.). In the Philippines, despite a national AIDS law requiring outgoing migrants to receive a short orientation on HIV/AIDS, such information is not a standard segment of the mandatory one-day pre-departure orientation which covers airport procedures, programs and services for migrant workers, and situations to expect in the destination country (Wolffers et al. 1999). In Thailand, the Ministry of Labor and Social Welfare and concerned NGOs offer various pre-departure programs to prospective migrant workers. In general the programs are brief, voluntary, inconvenient, and exclude the short distance migrant workers. The pre-departure programs do not cover those who intend to migrate with undocumented legal status, as most would not know about the program and those who do know are unlikely to attend (Ito and Chunjitkaruna 2001).

Transit

The transit stage spans the time between departing from a place of origin to arrival at a final destination. It can be a long process with several opportunities for exposure to STIs/HIV. For example, the mapping of HIV prevalence rates in Southeast Asia strongly suggests that HIV prevalence is much higher in “border area” provinces than in most other provinces in the region. HIV prevalence rates in two Cambodian provinces with major border crossings into Thailand are more than 10% compared to 6.6% elsewhere in the country (Bardon and Em-Im 2000). Many border areas that were previously closed for political and security reasons are now opening up. Jobs, the trading of goods, tourism, political conflict, reunion with family members, and illegal trafficking in women and children all contribute to migration patterns in this region. Many of

these individuals stay for a few days in the border towns or ports, which characteristically have large marketplaces, several bars and other drinking establishments, and active commercial sex (Spatt and Gonzales 2001).

During transit, male migrant workers are exposed to risks and experiences similar to truckers. They pass through railway junctions, bus and truck stops, and border crossings, all of which share a prevalence of alcohol-related establishments and commercial sex services designed to attract transients. Anonymity, brief interactions at drinking establishments and transit hotels, and the lack of social controls promote risk behavior, making both transient and resident populations highly vulnerable to STIs/HIV (AIDSCAP 1999a).

In Bangladesh, an estimated 100 foreign ships, more than 2,000 sailors, and some 12,000 long-distance truck drivers transit through Chittagong, the country's major port city, and join 3,500 dock workers, thus creating a large demand for commercial sex (AIDSCAP 2000). A similar pattern is found in Haldia, a major port and industrial town in the Midnapore District that is visited by seamen and migrant laborers. Approximately 300-400 trucks and tankers move in and out of the port everyday. The area has both brothel-based and "floating sex workers" (women who live in surrounding villages but come to the area to sell sex). Data from a 1995 report describes sex workers as young, 25-29 years of age, and 60% suffering from STI problems but few visiting doctors. Reported condom use in this vulnerable group was low, with 48% of the sex workers stating that they did not use condoms because their clients did not do so. Nearly 60% of the sex workers who live in Haldia migrated to the area (Vivekananda 1999).

Adaptation in destination area

The adaptation process differs significantly depending on characteristics of the migrant workers and the social and political environment of the receiving countries. Education level, character (personality of the individual), and length of intended stay (short-term migration versus long-term migration) influence the ways in which migrants adapt to their new community (Shtarkshall and Soskolne 2000). National policies related to documented and undocumented migrant workers can significantly impede or facilitate their adaptation process (Wolffers et al. 1999).

During adaptation, establishing or tapping into existing social networks and support systems becomes crucial for migrants. In some areas where communities of migrants are well-established, social networks have been developed that help facilitate the transition for new arrivals. For example, neighborhoods in the larger West African cities (Accra, Abidjan, Lomé, and Lagos) have strong and longstanding relations with specific communities in countries of origin and provide migrants with access to housing, jobs, information about local police practices, credits, and assistance with repatriation in cases of serious financial difficulty, illness or death (Wolffers and Painter 2001).

Return

Seasonal migrant workers – seafarers, miners, and truck drivers – return home to rest and visit their families between trips or during festivals and holidays. Others are repatriated.

Re-integration into their home community is not always easy. Returning migrants often find they have undergone personal and cultural transformations, and long absences away from home change or weaken family ties (Wolffers et al. 1999).

Migrant Work Conditions

Migrant workers often endure oppressive working conditions, working long hours and in dangerous situations which endanger their health, lives, and general well being. This is in part due to high unemployment rates, declining wages, and inadequate basic social services (Santos 1999).

In *South Africa*, male migrants work in the mines where the work is physically difficult, dangerous, temporary, and often well paid (Williams et al. 2000). Studies have shown that a gold miner in South Africa has a 1-in-3 chance of being seriously injured and a 1-in-40 chance of being killed in an underground rock fall.

Commercial fishing and construction are similarly hazardous for male migrant workers. In *Southeast Asia*, fishermen of Koh Kong, Cambodia contend with powerful storms, pirates, armed robbery, and the possibility of death. Pirates are known to take the fishing catch and boat machinery (Greenwood 2000).

Filipino domestic workers in Hong Kong report the following work conditions:

- Long and demanding work days and little sleep, at times only three to four hours.
- Eating arrangements are irregular, late, and inadequate.
- Poor accommodation: some sleep on the floor or near the bathroom.
- Controlled mobility: Some are not allowed to use the phone or interact with other workers.
- Sexual advances by the employer.
- Contract violations: Some are not given any days off, some are underpaid. Some are victims of sponsorship contracts.
- Lack of medical attention: Driven by a fear of being fired, workers tend to self-medicate and do not tell their employers about illnesses.
- Dismissal without justifiable cause and negative release papers from their employers.

(Ybanez 1999c)

Migrant workers labor for long hours and often work several days consecutively. Seafarers endure weeks, and sometimes months, at sea (Ybanez 1999b). Such dangerous work may influence men's sexual attitudes – those who face daily risks at work may be less likely to worry about the long-term risk of HIV infection (Campbell 1997). Interviews with migrant miners suggest that the risk of HIV/AIDS is perceived as minimal compared to the risk of death underground. Miners were relatively fatalistic about the possibility of work accidents and felt

powerless to change their circumstances. The feeling of powerlessness may be an important determinant of health-related behavior (Rivers and Aggleton 1999).

In a study of Thai migrant workers (men and women) in Japan, 40% of 100 workers interviewed worked more than 12 hours per day, including 3% who worked as many as 15 hours per day. In addition to long hours, most workers tend to work more days, taking few holidays; 24% took only 4 days off per month (Ito and Chunjitkaruna 2001).

Both male and female Thai migrants reported problems in the workplace, although their problems differed. Males encountered problems such as work dismissal and unpaid wages; females reported social and personal problems related to cultural aspects of their life such as male-female relationships, marriage, divorce, parenting, and domestic violence (Ito and Chunjitkaruna 2001).

While the work of some female migrants may be less physically taxing than that of males, females also endure oppressive working conditions. In a 1998/99 study of migrant Filipino domestic workers in Hong Kong, respondents reported long and demanding work days, sexual advances from their employers, and a lack of medical attention (Ybanez 1999c).

Migrant Housing, Squatter Camps, and Hostels

Male migrant workers are often housed at or near work sites that may be already relatively isolated from the surrounding communities. The size of these compounds depends on the type of industry. Rural settlements for migrating agricultural and construction workers generally tend to be smaller than urban settlements. In rural Zambia, for example, 2,500 seasonal migrant workers might live on large commercial farms owned by multinational companies (Bond and Dover 1997). The sugar plantations of the Dominican Republic can have anywhere from 21 to 7,100 workers living on site (Brewer et al. 1998).

Industrial and urban migrant work settlements are a different order of magnitude. At a shipyard in Bhavnagar, India, about 20,000 workers work on site and live in settlements near these sites (Vaishnav 1998). Nearly 80,000 miners, the vast majority of whom are male migrants, live in the vicinity of the Carletonville gold mines in South Africa, predominantly in single-sex hostels (Gilgen et al. 2000).

Very often, these settlements are single-sex (male) and are characterized by loneliness, lack of privacy (Crush 1995), and poor living conditions. In Khutsong township in South Africa, migrants with little money live in council hostels and squatter camps (informal settlements). As many as ten people, usually all men, share a room. Some cooking and sanitation facilities are offered but are often shared by men from other rooms (Gilgen et al. 2000).

‘Combating HIV infection in South African mining communities is a high priority because working and living conditions of the miners make them particularly vulnerable to HIV infection.’

(Meekers. 1997)

These large all-male settlements attract an active commerce in “entertainment” (Quinn 1994). In urban settings, this has the effect of creating a thriving zone of bars and brothels (Roets et al. 1996) in the neighborhoods where the migrant worker hostels are located. In rural areas, these settlements draw large numbers of the local population into sexual activity, either selling sex for money or in exchange for gifts (Bond and Dover 1997).

Similar housing situations and conditions exist elsewhere. The following case example illustrates conditions found in South and West Africa, the Caribbean, and Asia.

In the *Côte D’Ivoire, West Africa*, large agricultural businesses may have camps of as many as 2000 young male migrant workers. At home, these men are often subject to the strict social control of their village. Once in the camps, however, these barriers are temporarily removed; the young men find themselves single and with money in their pockets. On the weekend after payday, a convoy of 30 to 40 female sex workers may arrive at the plantation, often brought from town by the employer. The women can service up to 25 workers each over a period of two nights (Decosas et al. 1995).

Level Four: Individual Context

Causal Level	Definition	Key points
Individual (targeted groups of individuals)	How the infrastructure and broader environment is experienced and acted upon by individuals.	<ul style="list-style-type: none"> Individual concern about HIV/AIDS can only form part of an individual's broader lifestyle concerns, which in turn are molded by the environment – in this case, migrant settings, as outlined above. General misconceptions around STIs/HIV/AIDS exist among migrant workers. Female migrant workers are often subjected to oppressive working conditions and abuse which affects self-esteem and self-efficacy at the individual level. Dangerous and risky work may affect the attitudes men have towards sex and sexual risk-taking. Migrants are often far from their homes and families and experience feelings of boredom, stress and loneliness. Usual home community restrictions on migrants' behavior are removed. There is often resistance to change high-risk behaviors, due to lack of motivation and/or skills/abilities to change. Solicitation of commercial sex, multiple partners and unprotected sex are common practices. <p>Male migrants who have sex with other men may not be reached by programs targeted at men who have sex with men (MSM). Many male migrants who experience same-sex relations are married, and/or may not otherwise identify themselves with messages tailored to MSM..</p>

Male Migrants

In new working and living environments, male migrant workers may have more freedom and opportunities and may experience strong peer pressure from coworkers. Living conditions may be crowded and lack privacy. Workers also may face language and cultural differences. Separation from family and socio-cultural norms, isolation and loneliness, and a sense of anonymity are all factors that increase risky sex practices.

Some male migrants work in dangerous environments, such as gold or coal mines, where the risk of injury is high. Anxiety about working and living conditions, coupled with separation from their families, can lead these men to escape-seeking behavior during leisure time, including drinking and seeking the company of women (Meekers 2000). Men become clients of sex workers and also have sexual relations with non-sex workers (both women and men) (Jochelson et al. 1991).

Today STIs have become an important health problem among mine workers in South Africa, with rates substantially increased since the mid-1970s. Data from a 1986 survey of 240 migrant mine workers attending an STI clinic in a Transvaal mining town showed that 49% had contracted an infection from a regular girlfriend, 33% from casual sexual contacts, and 15% from local prostitutes (Jochelson et al. 1991).

These sexual experiences have implications for the spread of STIs/HIV when migrants return home for scheduled visits or after their work contracts end. In South Africa, returning miners often suffer from health complications such as silicosis and other occupational diseases, as well as from tuberculosis and/or HIV/AIDS (Williams et al. 1998). The few studies that have been done on HIV prevalence among migrant populations have shown alarming results. A 1992 study of migrant, predominantly male workers laboring on the Lesotho Highlands Water Project, a dam construction project in rural South Africa, found an HIV prevalence of 5.3% in the workers, as compared to 0.8% among age-matched villagers living near the construction area (Kravitz et al. 1985). A 1993 socio-behavioral study conducted in Ghana found that 59% of male and 55% of female migrants reported that they had had sexual contacts at their place of destination within the previous month (Anarfi 1993).

Key issues that place migrant men at risk for STIs and HIV:

- Living at major work sites, far from homes and families;
- Living and working in dangerous and stressful conditions;
- Feelings of isolation and loneliness that may foster sexual partnerships with sex workers or multiple sexual partnerships with both women and men;
- Complacent beliefs and attitudes about sexual risk and prevention and the unlikelihood of using condoms;
- Prior STIs;
- Consumption of high quantities of alcohol and/or drugs;
- Illegal status in the host countries;
- Lack of access to basic health services, especially treatment of STIs;
- High prevalence of HIV in the community.

Female Migrants

While the number of female migrants has increased in the past decade, migration studies and prevention programs continue to focus primarily on the experience of men (Asian Partnership on International Migration, n.d.), which reflects the marginalized status of women in general. Their particular needs have often been overlooked in migration-related programs and their conditions insufficiently studied as a consequence of this marginalization.

It is estimated that there are at least 50 million female international migrants, 30 million of whom live in developing countries. In 1990, according to United Nations estimates, Asia was host to some 20 million female migrants, followed by North America and Europe with about 12 million each and Africa with more than 7 million (IOM 1999). A study in rural Hlabisa, South Africa, found that 30% of kraals (a collection of households located on the same property and inhabited by members of the same family) had a female migrant, and another 15% had two or more female migrants (Lurie et al. 1997).

The economic downturn in Asia has impacted women's financial situations, whether they are spouses of migrant workers employed overseas, women who are dependent on male migrants, or women who are themselves migrant workers with dependent families either at home or abroad. As women, as migrants, and as workers, migrant women are often victims of specific forms of exploitation, abuse, and discrimination (Asian Partnership on International Migration n.d.).

Understanding gender-power dynamics in migration is key to understanding STI/HIV transmission and the implementation of effective programs in migrant work settings. Faced with extreme economic hardship, women migrants are at particularly high risk of HIV infection. In a 1998 survey conducted in Carletonville, South Africa, 24.9% of the 833 women interviewed self-identified as migrants. HIV prevalence was significantly higher among migrant women (50.9%) than non-migrant women (38.7%). Age-specific HIV prevalence rates were consistently higher among migrants, reaching a peak of 80% in the 20-24 year age group compared to 58.6% in non-migrant women aged 25-29 years. Of the migrant women, 58.45% were unemployed, 41.55%

Global Recognition of Gender Issues

The role of sex and gender in women's health has finally been broached in the global arena. At two United Nations-sponsored conferences – the 1994 International Conference on Population and Development in Cairo and the 1995 World Conference on Women in Beijing – the definition of health was broadened to encompass women's physical, emotional, and social well-being. Furthermore, health was placed in the larger context of women's social, political, and economic life. Conference attendees encouraged reproductive health programs in developing countries to take a more holistic approach to women's health through:

- Examining underlying gender issues that affect health issues.
- Addressing women's health needs at all ages.
- Viewing sexuality as a positive part of a woman's life.

Integrating this approach, also called a gender perspective, into health and development efforts has not been easy. Despite efforts to broaden services and increase sensitivity to the social context in which women live, reproductive health programs and policies often pay inadequate attention to the social, economic, political, psychological, and sexual dimensions of women's health and well-being. However, governments renewed their commitment to the "Beijing platform" at the United Nations Women 2000 Conference by formally recognizing that gender issues shape the transmission and impact of serious diseases, such as HIV/AIDS.

were employed, and 52.04% were sex workers. Of those who were unemployed, 61.67% received payment for sex during their last sexual encounter with a casual partner (Zuma et al. 2001).

'I left my country because there is so much unemployment. I had heard that in Argentina working in houses you could earn up to 10 times more. I have two children in university, one in secondary school, and twins who are still babies. I paid 1,200 US dollars to some people who were in charge of organizing everything, they even promised us a job upon arrival. I had seen these agencies advertised in local newspapers, but everything turned out to be a 'ripoff.' I arrived on a bus with more than 40 others who were also coming here to work. After four days traveling, we realized that what had been promised did not exist and we had no choice but to sleep in the train station until we could find somewhere decent to sleep and some work. These were very tough days; I used to think of my children who had stayed behind with their father and my mother, and really, those days were the bitterest days of my life. I cried so much and was desperate until I finally found work in a geriatric home as a nurse's assistant and I am paid 200 US dollars. After a few days I wrote to my husband. I hope I have the strength to stay and continue the struggle because I want my children to finish their university degrees and have a better life. I also pray that they never find out how much I am suffering.' (Cross-border migrant working in Argentina, IOM 1997).

In a study conducted in Hlabisa, a rural district of about 210,000 people in Northern KwaZulu/Natal, South Africa, HIV prevalence in women attending antenatal clinics increased from 4.2% in 1992 to 25.9% in the first four months of 1997. All of the HIV cases detected in this pilot study were either migrants or partners of migrants (Lurie et al. 1997). One finding was that women migrants from this area tended to travel shorter distances and were more tightly clustered geographically than their male migrant counterparts. The women were therefore able to return home more frequently – at least a few times monthly – and maintained closer links to their families. Interestingly, no women migrated to Johannesburg or its environs, despite the fact that the Johannesburg area was the most common migration destination for males from Hlabisa. If interventions are to reach both male and female migrants, programs need to assess and tailor interventions to male and female migration patterns.

Key issues that place women at risk for STIs and HIV:

- Economic need, lack of employment opportunities, and low-wage jobs;
- Disproportionate rates of illiteracy and poverty;
- Poor access to STI/HIV/AIDS education and information;
- Local traditions;
- Women practicing survival sex to support themselves and their families;
- Sexual exploitation, rape, and physical violence;
- Inability to negotiate condom use;
- Increased restrictions in labor importing countries, leading to police harassment, raids, and detention;
- Illegal status;
- High prevalence of HIV in the community.

The causal levels of society, community, and institutional structure affect individual behaviors and health outcomes. The individual level, defined as how the environment is experienced and acted upon by individuals, is the last level that the *Key Issues* section addresses. This section describes individual factors such as alcohol and drug consumption; knowledge, attitudes, practices and behaviors; treatment-seeking behavior; transactional sex; and men who have sex with men. This section emphasizes sexual networks, examining the situation with the network of sexual partners in mind.

Sexual Networking

Male migrants

Migrant workers are a high-risk group, at their work site, during transit, and when they return home, where there are opportunities for sexual mixing. In residential compounds at work sites, there are increased opportunities for casual or commercial sex with multiple partners and men who have sex with men. Enroute between work sites and home communities, transportation stops and border crossings contain a concentrated number of bars and brothels. Migrants then

CASE STUDY 1: Sexual networks of migrant men

Themba* was born in Nongoma, a rural area in KwaZulu-Natal, South Africa. He went to school until standard 5 (grade 7), and started working in the mines when he was 22 years old. Themba has three wives at Nongoma, and four casual partners at the work site in Carletonville. He occasionally has sex with sex workers while he is at the work site.

When he arrived at the mine, Themba had one wife at home. Soon afterwards, he became involved with a woman in Carletonville. He said that in Carletonville, because they make a steady salary, women think miners have gold and they always want money if they see them. So he was involved with that woman who always wanted money when he was visiting. A year later the woman got pregnant and had his child. At around the same time, he got another casual partner near the mine. Three years later, he married his second wife, who now has two children. He had a disagreement with his second casual partner and that led him to have a third casual partner in a squatter settlement near work. He said he occasionally visited this casual partner at Khutsong township. He was going home three times a year. In 1993, Themba married his third wife.

In the same year, he became involved with a fourth casual partner, someone he met in Carletonville town. He said sometimes he only visits his casual partners every month or two. Though Themba had four casual partners at the place of work, he also sometimes had sex with commercial sex workers. He said he often goes to sex workers when he has less money, as he cannot visit casual partners without food parcels. Sex workers charge from R10 (approximately \$1 US) to R50 (approximately \$5 US), but Themba has never paid R50 for sex.

Themba has never used a condom and despite the fact that he is HIV positive he refuses to use a condom. He said he does not like them. He does not believe his HIV results, saying that how can he be HIV positive when he is fit and healthy? Two of his wives who also joined the project are HIV negative (Dladla, Lurie 2002).

* All names used in this case study are pseudonyms.

See Appendix E for background information.

return to their home communities and their wives, girlfriends, and casual partners. Each of these points along the migration loop can be defined as “Risk Zones,” where migrant workers and their partners are vulnerable to HIV/AIDS.

Migrant labor can change the material base of society, which in turn affects its moral values. Men who migrate for work typically have several sexual partners, and sex with a large number of women is usually reinforced by society for men and especially for migrant men. In many parts of the world, having many sexual partners is associated with masculinity and social and economic wealth (Lurie et al. 1997).

A literature review found several studies that indicated migrants are more likely than non-migrants to have more sexual partners (Lurie et al. 1997). In Zimbabwe, HIV-positive urban

male factory workers were more likely to live apart from their wives and have multiple partners (Bassett and Mhloyi 1991). In Uganda, migrants had more sexual partners than non-migrants (Nunn et al. 1995). In Malawi, of 163 migrant workers interviewed, 51.5% stated that they had more than five regular sexual partners during the first 12 months after their return from working in South Africa, mainly as a symbol of economic and social success and as a form of entertainment (Chirwa 1997). Migrant men who earn money and accumulate goods for use at home also tend to spend money when they return home because their incomes are often higher than the incomes of those in their home community. These men thus become attractive to women in the community, providing them with opportunities for sex or alliances with multiple partners (Chirwa 1997).

The sex trade

The generally well-paid nature of mine work creates a large demand for commercial sex and other forms of transactional (i.e., gift-giving) relationships. Chirwa's (1997) study of migrant laborers from Malawi links the material rewards of migration with opportunities for sexual networking and multipartner sexual relationships in the communities where they live. It has been shown that the migrant labor system in South Africa created the market for sex work in mining towns. For example, Carletonville is home to approximately 100,000 mine workers, at least 60% of whom are migrants. Some US\$18 million is paid out in wages monthly, and with these wages comes commercial sex. Approximately 400 to 500 sex workers cater to these miners (Topouzis and du Guerny 1999).

Commercial sex and sex with affection are not always mutually exclusive, especially for migrants who are away from their families for long periods of time (Chirwa 1997). With little if any opportunity for men to visit their spouses, the sex trade flourishes. Entertainment establishments near transit centers and work sites encourage migrants to spend their earnings on sex workers. This type of entertainment is symbolic of social and economic success.

Living conditions in the work settlements support the sex trade. In South Africa, gold miners are housed in all-male hostels, where dozens of men share rooms as small as 20-by-20 feet. Impoverished women migrate to these areas and become sex workers. The going rate for sex is 20 rand or 3.25 US dollars. Women are known to sell sex for as little as five rand or 80 US cents. In hotspots like Mogweba squatter's camp, 67% of female sex workers are infected with HIV, while rates among miners in the area vary from 27% to 41% (Lurie et al. 2000).

In a study of Bangladeshi men and their sexual relationships at home and abroad, 9% of first-time migrants visited sex workers at home and 6% of repeat migrants visited sex workers while at home. However, 17% of all migrants in the study reported visiting sex workers while abroad (Gomes et al. 1999).

Field interviews with Malawian migrants on their way to South Africa found that almost all of them who passed through Blantyre on their way to and from the mines felt that it was a place where HIV could be easily contracted by both migrants and sex workers (Chirwa 1997). Sex workers, particularly female sex workers, are often infected early in an epidemic (van Vliet et al.

1997). However, the degree to which sex workers maintain the spread of STI/HIV varies considerably and is moderated by at least three factors (Padian 1988):

1. Cultural differences in the prevalence of sex worker use by clients;
2. The efficiency of amplification (i.e., the efficiency of female-to-male vs. male-to-female transmission);
3. Certain demographic variables of sex workers, such as their socioeconomic status, health, and income level.

Epidemiological risk for acquiring and transmitting HIV is not contingent on receiving money, goods, or favors for sex. It is, however, related to women and men who have many sexual partners and who practice risky sex with these partners. When looking at HIV transmission, sex workers and their clients are both part of the equation.

In some parts of the world, there is evidence that male migrant workers are being more selective with their sexual partners in response to the HIV epidemic. A 1997 study of mine workers in South Africa found that the percentage of miners who reported that they stopped seeing sex workers significantly increased from 2% in 1995 to 9% in 1997 ($p < .01$) (Meekers 2000).

Transactional sex

Women, and sometimes men, have casual relationships or engage in sex work in order to supplement their income; this is referred to as *transactional sex*. This means that, in addition to another job they may have, they occasionally exchange sex for economic or social capital. Those who engage in transactional sex may not always be identified as sex workers.

In home communities, women left behind by their migrant husbands or boyfriends may engage in transactional sex while their partners are away. They may exchange sex for gifts or for physical and emotional comfort.

Few sexual networks bear the imprint of transactional sex as strongly as migrant worker settings. For example, in an area of rural Zambia where there are a large number of male migrant workers, women who are trying to survive in a harsh economic climate come under “exceptional pressure to have money for gifts and any sexual relationship outside the marriage involves ‘presents’” (Bond and Dover 1997). Transactional sex brings more partners into the sexual network of migrant work settings and increases the risk of STI/HIV infection for both migrant workers and their partners.

Men who have sex with men (MSM)

The existence of MSM is usually denied by governments, health authorities, funding agencies, and even by men themselves. There is a growing body of literature suggesting that same-sex contacts throughout Africa, Asia, and Central America may be common among some populations. Literature on Sub-Saharan Africa suggests that MSM activity may be common particularly among migrant, military, and prison populations. Although the body of social and behavioral research on MSM is growing, there is a general absence of well-evaluated intervention studies on MSM in the developing world, and this has resulted in a lack of

intervention programs (Aggleton et al. 1999). In some parts of the world, sex between men is the main route of transmission of HIV. Nearly everywhere, it is a significant part of the HIV/AIDS epidemic and it must be taken into account (UNAIDS 1998a).

The particular situation of male migrant workers – unusually close peer proximity, lack of access to female sexual partners during the work week, alcohol consumption, and isolation from broader societal norms – permits a high level of MSM activity. A review of HIV interventions for MSM found that contexts in which men have sex with men are important; in some contexts, homosexual behavior may seem reasonable and acceptable, whereas in other circumstances they might be unthinkable. For example, the sexual segregation and social hierarchy characteristics of most penal environments, and many military environments, may facilitate male-to-male sex (Aggleton et al. 1999). In a 1989 study, Malawian migrants who were interviewed after returning from South African mine work made constant references to homosexuality in the compounds where they had lived and worked. The men also acknowledged that because of these sexual networks the possibility of contracting HIV within South Africa was high (Chirwa 1997).

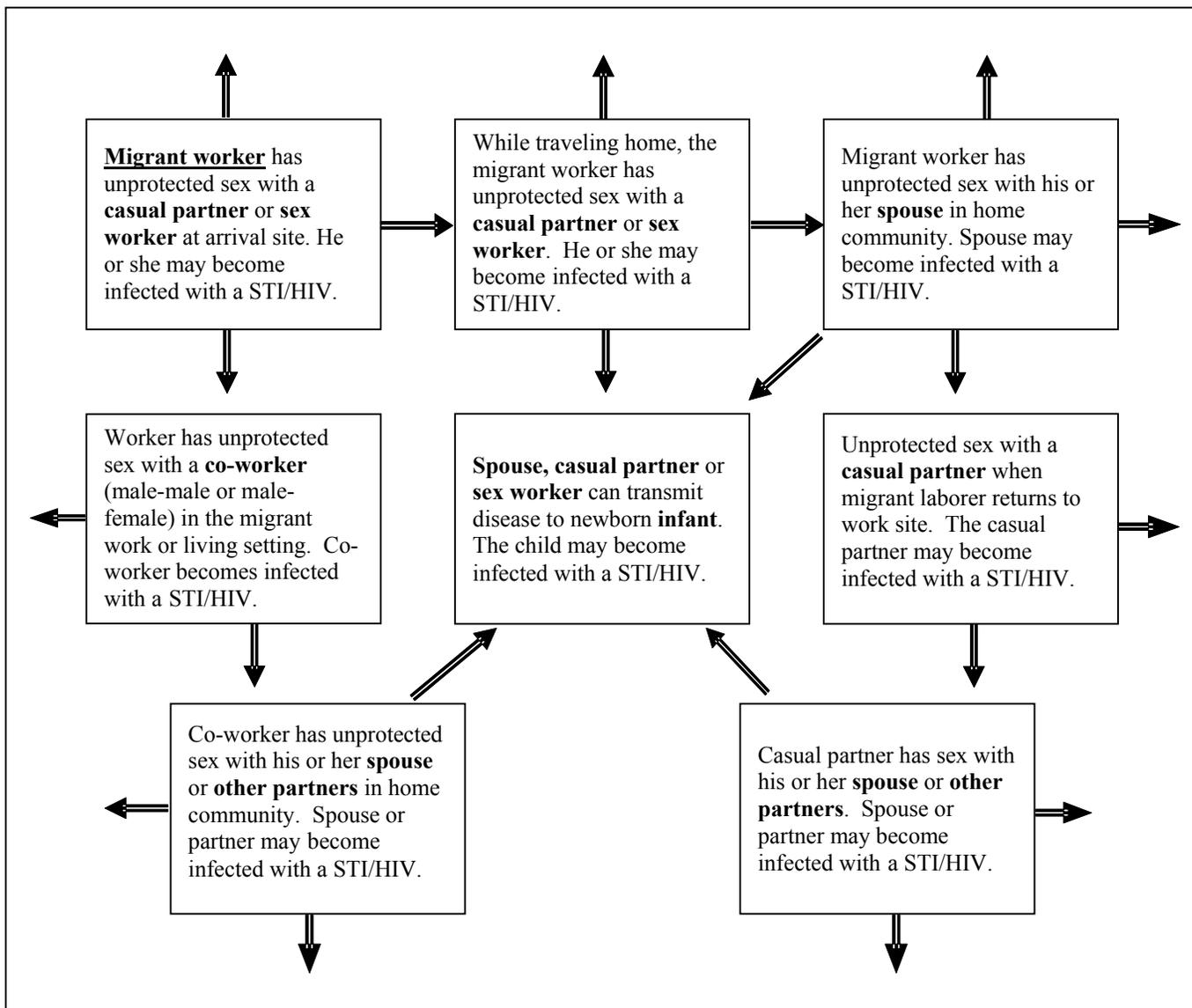
There is a diversity of individual and social identities that can accompany sex between men. In some contexts, sex between men may be described as “fun” or “something that happens,” and in some cultures it may be considered just as “manly” to have sex with women and men as it is to have sex with only women (Aggleton et al. 1999; McFarland and Caceres 2001). Even in places where there is a visibility and certain openness of MSM, there are many men who do not self-identify as gay or bisexual for various reasons, including stigmatization, fear of discrimination, and lack of role models (UNAIDS 1998a). In some parts of Africa, homosexual behavior is an extremely sensitive issue and men deny any familiarity with the subject. Although homosexual behavior appears to be an emerging issue in larger urban centers in Southern Africa, in rural areas male-to-male sex is often a taboo or private subject (Chirwa 1997; Aggleton et al. 1999).

Governments have resisted working with men who have sex with men. One approach that could be used to reach this population is to identify networks and informal community groups of self-identified gay men who are interested in carrying out HIV prevention and care activities among MSM (UNAIDS 1998a).

It is beyond the scope of this document to cover all of the intervention needs of MSM contexts. It simply should not be overlooked that homosexual and bisexual behaviors do exist in most populations, including those involved in circular migration and migrant-work settings. It should also not be overlooked that several seroprevalence and seroincidence studies have shown that substance use among MSM has often been strongly associated with HIV infection itself (Stahl et al. 2000).

Figure II-1 shows the constellation of sexual partners sometimes referred to as a sexual network, and provides an example of the flow of HIV transmission in this network. All people who partake in high-risk behavior in migrant transit areas are vulnerable for contacting HIV. When they have multiple partners, and those partners have multiple partners, many more people are at risk. The figure demonstrates the vulnerability to HIV infection for male and female migrant workers and their partners.

Figure II-a Example of HIV Transmission in a Male/Female Migrant Sexual Network



Women and spouses at home

Young women throughout the developing world are particularly vulnerable to STI/HIV infection. Many are exposed to HIV predominately by their husbands, boyfriends, and male clients, since their male partners may be having sex with other partners (Lurie et al. 1997; Bassett and Mhloyi 1991; Nunn et al. 1995) and may not be using condoms.

Female partners of male migrant workers may know their partners are not monogamous while away from home. For example, a study in Kwazulu/Natal noted that female partners of male migrants in this area did know that their partners were not monogamous (Lurie et al. 1997). In the Hlabisa District of Kwazulu-Natal, some 62% of households have one or more male migrant workers. Sex outside primary relationships is accepted and almost inevitable in separated families, for both men and women. Of Hlabisa's migrant couples, 27% are HIV discordant (only one partner is infected). Within these discordant couples, the female was positive in 39% of the cases while the male was positive in 61% of the cases (Lurie et al. 2000).

Family separation changes the status of sexual relationships outside marriage. Often, in migrant work settings, men and women form new or regular partnerships at their place of work, sometimes replacing their original relationships. In such cases there can be catastrophic consequences for the rural wife, ranging from reduction of remittances to divorce.

Wives of migrant workers may also have sexual networks of their own. In Nigeria, more than 75% of all married drivers' wives were in polygamous marriages, compared with 41% of wives across Nigeria (Orubuloye et al. 1993).

When migrant workers become vulnerable to STIs/HIV/AIDS, so do their families. Transmission can occur in two ways: 1) when migrant workers contract STIs or HIV/AIDS while away, pass on the disease to their partners at home; and 2) when

CASE STUDY 2: Kanisha's Story

Kanisha* is a 35-year-old woman married to Siphoh. She has been married for six years. She has 4 children – three boys and one girl. Siphoh is a migrant mine worker who has been working on the Carletonville gold mines since 1986. When Kanisha joined the study in July 1999, she wanted to be tested for HIV and her results came back positive. During pre-test counseling, she said she thought she might be HIV positive as she had previously had many partners. In post-test counseling she was not shocked by the HIV positive results, although she was not willing to disclose her HIV status to her husband. She feared that Siphoh would kick her out of the house or even kill her.

When asked how she might have been infected, Kanisha explained that Siphoh has been working in the Carletonville gold mines since the beginning of their relationship and, thus, was not coming home frequently. After their first child was born, he did not send her money to support their child. She started to have sex with men who offered her gifts in return, such as food and clothes for the children or even money. Because Kanisha was afraid that Siphoh's relatives might find out and tell Siphoh, she chose partners who were not from the area – mostly military men who worked at a nearby military base for a short time. She continued to have casual partners as a way to support her children.

Kanisha believes she might have gotten HIV from one of her casual partners in the military. When asked about using condoms, she said she had never used a condom in her life. She explained that she was not well educated about HIV or condoms and had never considered using condoms. None of her partners mentioned condoms to her. When asked about protecting her husband, Kanisha explained that this would be difficult. Even if she wanted to protect him, she is afraid to disclose her HIV status because she doesn't know how he would react. Siphoh was HIV negative at the time of his last HIV test in October 2001 (Dladla, Lurie 2002).

* real names have not been used.

See Appendix E for background information.

women left behind in the home communities form sexual relationships with local men or (more often) men outside the community including truckers, soldiers, and traders. These situations are complicated by low condom use in countries of origin.

Wives of migrant men are also at high risk because of their limited negotiating power for safer sex (Ybanez 1999b). In many countries, this may be affected by cultural norms and traditions that curtail women's knowledge of/discussion about sexual matters. Wives are usually rendered powerless to demand safer sex because sex is viewed as a spousal responsibility or they are economically dependent on their husbands (Brown 2000). Other factors that prevent women from insisting on condom use are social expectations and fear of disrupting family life (Raj 1999).

Among a group of Philippine migrant seafarers wives, feelings and attitudes toward their husbands were extremely intricate. They experience a variety of emotions, including acceptance of their husbands' extra-marital activities, denial of reality, trust, resignation, fear of losing family harmony, willingness to take that risk, and helplessness (Ybanez 1999a). The study pointed out that wives trust their husbands to be faithful while abroad partly because they have no control over the situation. Therefore, it is a "trust" marked by resignation. Study findings indicate that these wives either tolerate the multiple partnerships of their husbands or have complete trust in their faithfulness. Furthermore, despite awareness and fear of vulnerability to STIs and HIV, wives do not take steps to protect themselves and some admit to a willingness to take such risks (Ybanez 1999d).

Introducing condoms in marital sex inevitably brings up sensitive issues about spousal sexual activity that are difficult to discuss. People in many cultures find that negotiating the use of condoms can jeopardize relationships, introduce mistrust, and undermine intimacy. In settings where condom use is generally believed to be a form of birth control and only acceptable for protective sex outside of marriage, volunteer condom use within marital sex is often perceived as an admission of guilt. A wife who suggests condom use also suggests mistrust of her husband.

Circular migration has important consequences for women in rural home communities. While the level of exposure to HIV is increased, prevention programs rarely focus their efforts in home settings. Interventions for mine workers cannot reach the origin points of rural Southern African countries. Therefore, the rural-based spouses and girlfriends of mine workers remain unprotected (Campbell and Williams 1999).

Alcohol consumption, drugs, and sexual activity

The consumption of alcohol is closely related to high partner turnover and commercial sex transactions in migrant work settings (Chirwa 1997; Gilgen et al. 2000; Greenwood 2000; Moodie and Ndatshe 1994). An ethnography of mining communities in Gauteng Province, South Africa, covering approximately 30 years of research, concluded that “miners have three main preoccupations after work – drinking, the seduction of town women, and homosexuality” (Moodie and Ndatshe 1994). Sex workers often operate out of bars, restaurants, and canteens near the work sites, and migrant workers seek casual sexual partners in these establishments. In many areas, migrant settlements and migration routes attract entrepreneurs to start up bars and other drinking venues (Chirwa 1997). Alcohol consumption inhibits the use of condoms and undoubtedly has major repercussions for risk of exposure to STIs/HIV/AIDS. A study of 251 mineworkers in this region found that drinking alcohol, either daily, weekly, or monthly, was a significant risk factor for being HIV-positive (Gilgen et al. 2000).

After work, miners face the lonely hours of the evening. When workers describe how they spend their leisure time, the dominant theme is the need to escape the mine environment, to bury anxieties about work and the separation from home

(Jochelson et al, 1991)

Drinking usually takes place in a group context, with friends and at favorite entertainment spots. Migrants gather, drink beer, talk, play cards, or gamble. They drink to relieve stress and the loneliness of being away from home, as well as for pleasure, strength, and health. Often drinking is followed by visits to sex workers, sex without condoms, and domestic violence (Greenwood 2000). Although many migrants understand the link between alcohol consumption and unsafe sex, they feel they are unable or unwilling to alter their behavior.

Cambodian taxi drivers and fishermen in the Koh Kong province of Cambodia who participated in focus groups in 1999 reported alcohol, karaoke, and women as their key sources of entertainment. Alcohol was a key factor in men frequenting brothels, not using condoms, and getting STIs. These men said that alcohol made them “brave” and made them want to have the “good feeling” (Greenwood 2000). The fishermen also acknowledged the consequences of drinking, such as its impact on decision-making and damage to the liver, lungs, and stomach. Alcohol was commonly believed to induce “bravery,” inhibit “shame,” make men “forget everything,” thus inhibiting fears of STIs/HIV/AIDS that might otherwise motivate condom use.

A longitudinal study of focus groups of Thai military conscripts in Northern Thailand during 1991 and 1992 found similar dynamics. Men reported that drinking alcohol reduced the inhibitions constraining their interpersonal interaction with women and with each other, lowered inhibitions to sexual risk-taking, provided a socially acceptable excuse for not using condoms, was associated with brothel attendance, and enhanced their sexual pleasure. Condoms were reported to reduce pleasure (MacQueen et al. 1996).

Although not frequently reported, drugs classified as amphetamines are used to increase energy and to minimize the need for sleep. In Cambodia, one such drug, “Maya,” is used to increase

strength and reduce the need for sleep, allowing men to work longer hours. Fishermen believed that sex workers feared men who consumed Maya because men often become violent. Mototaxi drivers in Koh Kong province, Cambodia, reported using Yamma, a drug comparable to Maya, to increase their sexual prowess before visiting sex workers (Greenwood 2000).

Sexual Knowledge, Attitudes, Behaviors, and Practices

Although migrants may have moderate awareness of HIV/AIDS, it is often mixed with misconceptions which vary geographically, and may not translate into behavioral change. Migrant workers have a variety of beliefs and attitudes regarding their susceptibility to HIV infection, and when inaccurate, these beliefs endanger them. For example, a common belief is that only sex workers and homosexuals are likely to contract HIV.

The above examples provide only pieces of the context that shape the behaviors of migrant workers, but the data suggest that those with misconceptions about HIV/AIDS are at increased risk for being infected with STIs/HIV. In site assessments conducted in 1998 and 1999 by CARE Thailand, Cambodian migrants (including female sex workers), fishermen, and the partners of fishermen were found to be at high risk for contracting STIs/HIV/AIDS and had misconceptions or incomplete knowledge (Spatt and Gonzales 2001). An evaluation in 2000 of mobile populations on the borders of Cambodia, Thailand, Laos, and Vietnam reported a high degree of misconception about STDs/HIV/AIDS and low condom use among migrant laborers who work in trade, the fishing industry, logging, fruit picking, and construction work (Spatt and Gonzales 2001).

For interventions to be effective, it is important to take into account cultural explanations and people's perceptions of illness, disease, and well being (Gilgen et al. 2000). For example, mine workers in South Africa believe that high blood pressure is likely to develop in individuals who do not engage in enough sexual intercourse (Molapo 1995 cited in Campbell 1997). Many mine workers stress that health depends on maintaining a good balance of blood and sperm in the body and that frequent sex was important to maintain this balance (Campbell and Williams 1999). In one study of Cambodian migrant workers with STIs, there was a high degree of self-medication and high use of traditional remedies before seeking formal health services, in part driven by fear of arrest. Sex workers inconsistently used condoms with their clients due to the lack of familiarity with condoms, discomfort, and the inability to negotiate condom use because of low bargaining power (Spatt and Gonzales 2001).

The lack of knowledge about STIs/HIV/AIDS, generally held misconceptions, and resistance to change all contribute to vulnerability and high-risk behaviors among migrant laborers and their sexual networks.

Treatment-seeking behavior

Migrant workers generally do not seek timely and effective treatment for illnesses or STIs from qualified healthcare workers. Many of the reasons for this are discussed in the community context section under “Access to Health Services.” However, it is important to emphasize some of the individual characteristics that affect treatment seeking behavior, because timely treatment of STIs not only minimizes the risk of contracting HIV, but also provides health workers an opportunity to interact with the client and promote condom use, thereby possibly preventing high-risk behavior. Social isolation and language barriers may prevent workers from seeking health services and other community resources, and educational materials on HIV/AIDS are often not available for migrant workers in their home languages (Ybanez 1999b).

Stigma in the community makes it difficult for migrant workers to seek health services, as they internalize the stigma and become intimidated or embarrassed. These feelings are often reinforced when healthcare workers treat migrant workers poorly (Hlongwa 2000a). Cambodian fisherman reported that they are generally embarrassed about having contracted an STI and when they were sick, they avoided discussion of their symptoms and did not seek treatment (Greenwood 2000).

Condom use

Condom use is one of the major strategies for the prevention of sexually transmitted diseases (STDs), including HIV. Although many migrant workers are aware of HIV/AIDS and are anxious about being infected, their use of condoms is limited, inconsistent, and complex due to their cultural and social beliefs. The problems associated with condom use are not limited to migrant workers or the countries discussed above. Numerous studies throughout the world report discomfort as one of the reasons for not using condoms. For example, focus group findings in three townships in South Africa cited the main reason that men and women did not use condoms was that “condoms impair the physical sensation during sex and may burst.” Young women also said that if they insisted on condom use they may be accused of already being infected with HIV or of not trusting their boyfriends.

Abstinence and faithfulness within marriage are not likely to be options for migrant workers. Correct and consistent condom use continues to be the most effective means of preventing the transmission of STIs/HIV/AIDS. Effective intervention strategies must be developed to promote condom use within the cultural context of migrant workers and their sexual networks. Thus, the promotion of condom activities should be managed and designed with the input of the men and women who will be using them.

Prevalence of STIs

STIs are a predisposing factor for the transmission of HIV. Young people between 20 and 24 years of age are at highest risk of STI infection, and many cases of STI are asymptomatic in both sexes, especially in women. This has important repercussions both for reproductive health and increased risk of infection with HIV (WHO 1997).

Male migrants are vulnerable to STIs and HIV/AIDS for different reasons than women. Men, for the most part, have more power to determine how, when, and with whom sex will take place. Male masculinity emphasizes male sexual pleasure and freedom and encourages men to have several sexual partners (Rivers and Aggleton 1999). This places both men and their partners at increased risk for STIs/HIV/AIDS.

High rates of STIs, including HIV, exist among migrant workers and their sexual networks, as shown in the following studies from Africa and Southeast Asia:

South Africa. A biomedical and social survey conducted in 1998 in Khutsong, South Africa studied four groups: mine workers, women in hotspots, men living around Khutsong, and women living around Khutsong. The hotspots are places close to the mine hostels and shafts where commercial sex takes place and alcohol is informally sold and consumed. Of the men living around the township, 14% had experienced one or more STIs (syphilis, gonorrhea, and chlamydia), and 11% of men who worked as miners had experienced one or more STIs. Among women living around the township, 22% had been infected with one or more STI, and 36% of the women working in hotspots had experienced one or more STIs. TPHA and RPR tests indicated that having had syphilis at some time in their life was high among both men and women in all four areas. Thirty percent of the mine workers, and more than 77% of the women working in hotspots had had syphilis at some point in their life. Interestingly, across all three STIs, prevalence rates in Khutsong were approximately twice as high for women as for men, and prevalence among women in hotspots was twice as high as among women in Khutsong (Gilgen et al. 2000).

In 1996-1997, the Lesedi Project in South Africa implemented an intervention of presumptive STI treatment to high-risk women and local miners living in three mine hostels. In 1997, the intervention was expanded to cover over 100,000 people, including 6,000 miners living in 6 hostels. Miners from the hostels who presented to the mine health clinics were tested for genital ulcers and discharges. Miners (5,831) who received the intervention were compared to 3,728 miners who lived nearby (10 km), and to 1,866 miners who lived a distance of 20 km from the intervention area. The rates of genital ulcers were 3.9 times higher among miners from hostels outside the intervention area, and discharges were more than twice as common. Rates of genital ulcers at the most distant hostels were more than six times higher than the intervention area rates. Similar but smaller increases were measured for urethral discharge (DeCoito et al. 1999).

Myanmar, SE Asia. In Shan and Kachin, two states in northern Myanmar, seasonal Burmese migrants go to the area to mine jade, rubies, gemstones, ores, and metals. These mines attract 100,000 to 150,000 migrant workers during the dry months. Sanitation in the large temporary camps is minimal or non-existent, and drug use and prostitution are widespread. Among 3,200 drug users and mine workers studied, nearly 100% reported STIs in the past and nearly all had visited sex workers (Southeast Asian Information Network 1998).

III. CASE STUDY INTERVENTIONS

Effective programs share one thing in common. All strive to understand existing sexual cultures among migrants and their partners who live and work in transit settings. These programs use information about contextual realities of people involved in the migrant process to design and implement suitable programs. Three such interventions focusing on migrant populations and their partners are described in this section.

1. **The HIV/AIDS Counseling and Education Program for Migrant Workers** is a multi-country prevention intervention for mobile populations. This project engaged the community to develop a migrant perspective in the design of the intervention, which translated into an intervention where advocacy is an inherent component. The program works with migrants at several stages including pre-departure, departure, arrival in the host country, and return to the home community.
2. **The Lesedi Project** in South Africa is an example of a core group intervention for female sex workers and miners. The project successfully implemented an intervention that included presumptive treatment to control STI infection.
3. **The Mothusimpilo Project** in Carletonville, South Africa is an example of a community based intervention that focuses on the treatment of STIs, peer education, and condom distribution.

Cost resource analysis

A cost/resource analysis was carried out for each case study. The resource analysis provides a description of the structure of the project and the number and type of inputs. The inputs include the number of staff at different levels, number of volunteers and incentives offered to them, number of condoms and other supplies, and number and type of training workshops. The data on quantities is more transferable to designing projects in the future, because prices vary over time and from one country to the next.

There are advantages and disadvantages to conducting this type of analysis. The advantages are that cost analysis provides an opportunity to learn about the resources needed to be successful. Projects change over time for several reasons. Implementers may learn that the project needs more outreach workers or fewer computers. The structure of the project may change in the transition from a demonstration to a multi-site project. Most new interventions cost more than previous standard practice, so there is little motivation to conduct a cost analysis until an intervention has been shown to be effective, when it is helpful to know the resources and costs required to implement it.

A disadvantage of cost analysis is that the data often need to be collected retrospectively. Retrospective data may not be as detailed or as complete. It may also be difficult to capture some components. For example, it may be difficult to know how many people were exposed to an IEC or BCC message if data were not collected during the intervention.

For this publication, retrospective data on resources and costs were collected in five steps:

1. Development of an intervention cost worksheet based on the UNAIDS Costing Guidelines for HIV Prevention Strategies (UNAIDS 2000). This worksheet is included as Appendix D.
2. Completion of worksheets partially based on project documents, including journal articles, project reports, and evaluations.
3. Communication with key contact person for the project, who reviewed the partially-completed worksheet and who was invited to an interview to facilitate clarification of details.
4. Interviews with key contact person conducted. When the contact person made special comments about the resources used, those comments are included.
5. Estimation of two types of costs for each intervention: budget and social costs. The budget refers to actual expenditures by the implementing entity. Social costs refer to both monetary and in-kind contributions that make a project a success. In-kind contributions include the volunteer time of peer educators or the time that beneficiaries spend attending BCC sessions or receiving treatment at clinics.

The results of the resource and cost analyses include the following, and findings are included in Appendix D:

- Description of the project's structure.
- Description of the number and type of inputs.
- Estimates of the budgeted costs.
- Estimates of the social cost.
- Estimates of cost per beneficiary.

HIV/AIDS Counseling and Education Program for Migrant Workers, Bangladesh

Implemented by SHISUK-CARAM¹ Bangladesh (Morshed 2002)

Description

CARAM Asia is a regional network with partners in Cambodia, Indonesia, Malaysia, Philippines, Thailand, Vietnam, India, Nepal, and Bangladesh. SHISUK is the focal point of CARAM's work in Bangladesh.

In 1995, SHISUK-CARAM Bangladesh began focusing on migration issues, gathering information, identifying and mobilizing stakeholders, and advocating for policy changes. In 1997, SHISUK brought together repatriated migrants to form a self-help group, to organize themselves for advocacy and peer support of other migrant workers. This organization, the Welfare Association of Repatriated Bangladeshi Employees (WARBE), has worked with SHISUK and other rights advocacy organizations, in different events, to establish migrant workers' rights. They took the lead in observing International Migrants Day, which takes place in Bangladesh on 18 December. WARBE has been developing income generating programs to support their members.

In December 1999, the organization began implementing a pre-departure program for migrant workers called "HIV/AIDS Counseling and Sexual Education Program for Documented Migrant Workers." The program is supported by the HIV/AIDS/STD Alliance Bangladesh (HASAB) which is the Bangladesh partner organization of the International HIV/AIDS Alliance based in the United Kingdom.

In July 2000, SHISUK began implementing several pilot programs, including pre-departure briefings on HIV/AIDS for migrating workers with the leading overseas migrant worker recruiting agencies in Bangladesh; developing community based interventions for potential migrants and their spouses and family members; publishing a newsletter for migrant workers; and developing entrepreneurship for reintegration (Morshed 2001). Developing entrepreneurship merits some discussion, as it illustrates how a intervention acknowledges contextual factors and addresses multiple levels of a migrant's reality.

Entrepreneurship. This activity was designed to mobilize the community to explore potential resources such as developing skills, savings, and unutilized land, for developing community based commercial enterprises. Most people choose to migrate because they cannot maintain a livelihood for themselves and their families. Often a migrant's skills are undeveloped, they are marginalized, and/or they are cheated by employers who take advantage of their lack of organization. Most migrant workers and their families spend their earnings for day to day consumption without the benefit of savings or productive investment. This has been identified as a major obstacle to reintegration. SHISUK has been working since 1995 with the Ministry of

¹ SHISUK is Shikha Shastha Unnayan Karzakram and CARAM is Coordination of Action Research on AIDS and Mobility.

Fisheries on a model of self-help community activities in flood areas. SHISUK is guided by the belief that there is an immense potential within the community to develop its own resources, and this should be fully explored before any external financing is offered.

This program is supported by UNDP Bangladesh and CARAM Asia. These programs are still very new, and a comprehensive evaluation has not been conducted.

The Pre-Departure Program: Finding strategic points to reach migrant workers

Bangladesh did not have a pre-departure program for migrant workers. SHISUK initiated the *HIV/AIDS Counseling and Sexual Education Program* to establish a process for reaching large numbers of migrant workers going abroad. With the support of UNDP Bangladesh, SHISUK organized pre-departure briefing sessions for outgoing migrants in 4 recruiting agencies. Although the Bureau of Manpower Employment and Training did conduct briefings prior to a migrant's departure from the country, they were not adequate or conducted in a timely manner. HIV was not addressed and few workers were reached. The SHISUK program has created a positive attitude among key stakeholders such as recruiting agencies and the Bureau of Manpower because it enabled a practical understanding of the migrant situation that led toward the design of feasible interventions.

In the absence of counseling programs in Bangladesh, migrant workers had to go through mandatory HIV testing without counseling. With the financial support of HASAB, SHISUK initiated a pilot project at two diagnostic centers. Although SHISUK opposes mandatory HIV testing, they selected the diagnostic centers as program sites because they were a good entry point for accessing migrants. The project has provided sexual health and HIV/AIDS education, including counseling, to migrant workers since January 2000.

Implementation

SHISUK spent the first year focused on preparation and the second year on finding ways to increase the program's popularity and credibility with the target population, other diagnostic centers, and the government.

A trained counselor works with a group of 5 to 8 migrants for one hour, and three sessions are conducted daily. Demographic information (passport number, destination, education/experience, type of job, etc.) is collected from each migrant as s/he attends follow-up sessions.

Goals and Objectives of HIV/AIDS Counseling and Education Program

Goal:

Reduce migrant workers' vulnerability to STIs/HIV/AIDS by developing awareness about HIV and sexual health.

Objectives:

- 1) Strengthen the organizational capacity to provide HIV/AIDS counseling, sexual health education and referral service.
- 2) Increase migrant workers' access to information, education and support.
- 3) Establish a follow-up mechanism for the post departure program.

(SHISUK-CARAM n.d.)

During the sessions, migrants are provided with information and education on:

- Basic information on sexual health and HIV/AIDS;
- Information on HIV testing and implications of both positive and negative results;
- Counseling on safer sex practices;
- How to use condoms and condom demonstrations;
- The importance of maintaining continuous contact with their families at home;
- How to refer HIV-positive migrants working abroad to support organizations;
- Information on how to find overseas jobs.

The program assists migrants with the migration process. Counselors and outreach workers help them complete the necessary forms, and negotiate on their behalf with stakeholders. Often a migrant has paid “contact money” before arriving at a medical checkup. If the migrant is found medically unfit, the program staff negotiates with the recruiting agency or middleman for the return of the money.

Many migrant workers come from rural backgrounds and during the migration process they face problems in obtaining safe accommodations. In such cases SHISUK refers them to related services and assists them in finding safe accommodations.

For those who are diagnosed HIV positive, the program arranges for additional tests and provides them with HIV-positive counseling in collaboration with professional counselors.

Finally, SHISUK is developing a strong network of legal aid organizations, STI service providers, and HIV specialized physicians to further support migrant workers (SHISUK-CARAM, n.d.).

Networking and mobilization of stakeholders

SHISUK works in close relation with Teneganita, CARAM’s NGO partner in Malaysia that also works with Bangladeshi migrants. This collaboration includes peer program activities and follow-up of migrants during their stay in Malaysia and when they return to Bangladesh. SHISUK provides Teneganita with a list of peer educators. Teneganita provides post-arrival orientation at a migrant community in Malaysia, and support services to migrant workers for getting access to health service and protection of their labor rights. They also provide legal assistance to Bangladeshi migrant workers to claim their rights and payments.

One of SHISUK’s objectives is to develop a favorable environment where a good governance system can be established. There is often a gap in coordination between governments, NGOs, and civil society – for example, a discrepancy between national policy and the actual practice of HIV testing. National policy states that testing should not be mandatory, and all test results should be supported by counseling. However, due to ignorance and stigma about HIV, police, local authorities, and community members often harass people identified as HIV-positive. SHISUK’s national level advocacy efforts have focused on the coordination of migration and HIV issues among stakeholders involved in the migration process. These efforts have led to a collaborative and supportive environment for HIV infected migrants.

SHISUK has motivated a number of diagnostic centers to replicate the program in their own settings. It has also worked extensively to sensitize various stakeholders and power structures, and has gotten support and commitments to collaborate in implementing HIV/AIDS education and counseling programs for migrants. Through these collaborative efforts with stakeholders and participation in National policy meetings, the organization has successfully added migration as a priority issue to be addressed in the national action plan.

In August 2000, SHISUK organized the National Consultation on Pre-departure, Post-arrival, and Reintegration Program for migrant workers. This program brought together government agencies, NGOs, recruiting agencies, medical centers, and associations of migrant workers to build a national consensus on migrant related issues and to recommend a generic module for regional workshops. This module, *Migration and HIV/AIDS*, can be used as a reference and guideline for the design and development of a national intervention module and manual. The module's content is based on the experience of CARAM partners in 10 different countries, and on the outcome of the regional workshop.

The recommendation was presented at the Asian Summit on Pre-departure, Post-arrival and Reintegration Programs for Migrants held in Kuala Lumpur in September 2000 (SHISUK-CARAM, n.d.).

Follow up with migrant workers

The AIDS Counseling and Sexual Education Program established a follow up mechanism so that behavior change communication can be extended even after the workers leave for their destinations. First, workers at the diagnostic center are provided with communication kits that include passport bag, writing pad, prepaid envelopes, pens, condoms, and other useful items. Relevant messages and SHISUK's address are printed on all these materials.

Once the counseled migrant workers go back to their home communities (it takes 3-6 months before migrants depart for their overseas work), SHISUK communicates with them by post. This follow-up communication is used to get them back for further feedback, to remind them about counseling issues, and to inspire them to share information with others. Migrants are requested to visit the SHISUK information desk before departure. Many who do visit before their departure write back to SHISUK requesting additional information.

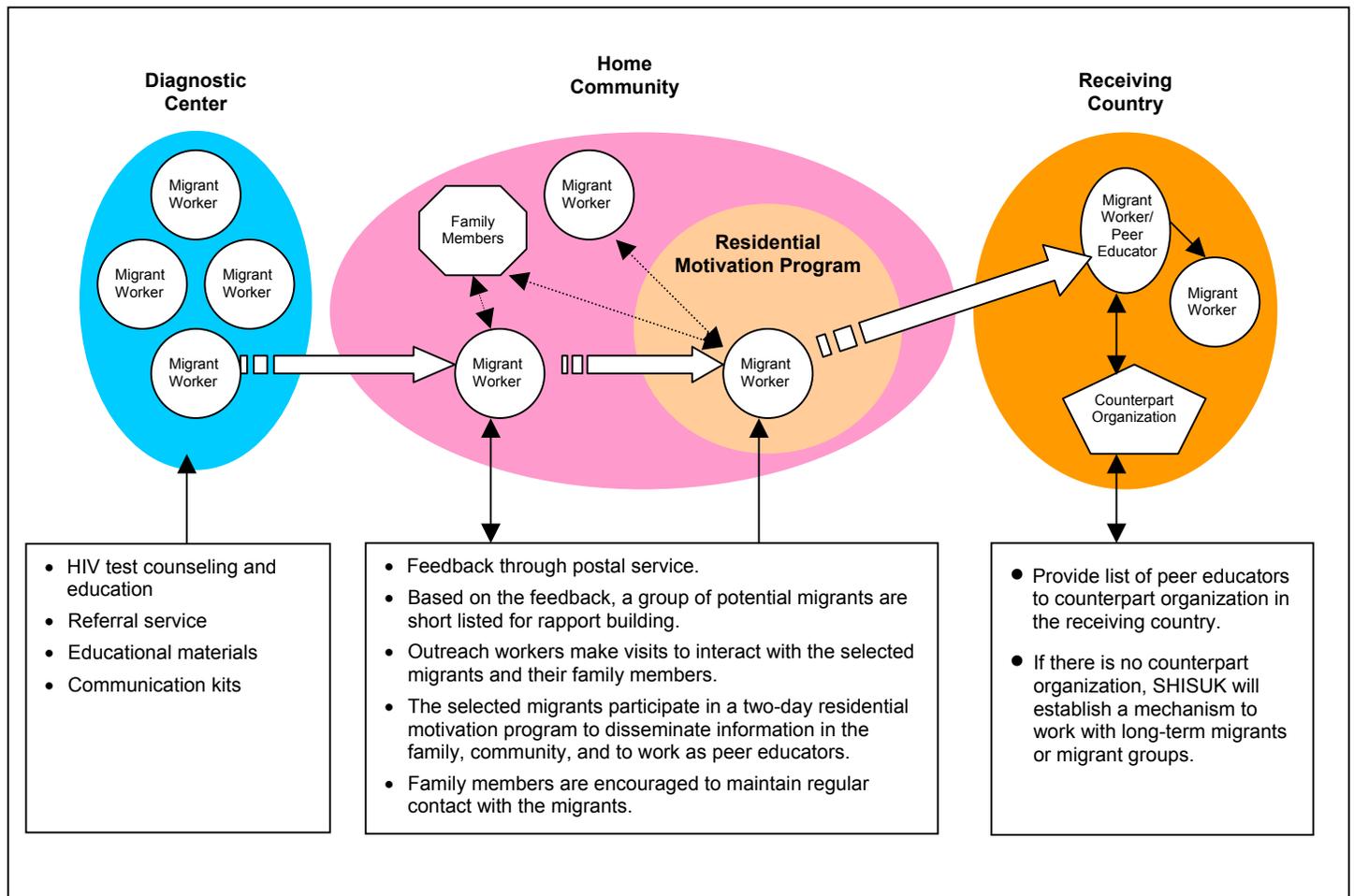
SHISUK identifies individuals to work as peer educators through this process, based on their interest and their capacity to deliver information. Selected migrants are then invited for peer training programs (currently a two-day residential motivation program, soon to be a three-day program) on how to disseminate information in their home communities and to work as peer educators among other migrants in the receiving countries. SHISUK outreach workers make visits to identified geographical areas to interact with the selected migrants and their communities.

SHISUK provides the list of peer educators to counterpart organizations in the receiving countries for post departure follow up. In countries where there are no organizations that work

on migration issues, SHISUK is attempting to establish a mechanism for working with existing migrant groups. Peer educators work on a voluntary basis, but are paid a conveyance for attending trainings, workshops, and organizing peer meetings in their locality before departure.

SHISUK-CARAM Bangladesh is experimenting with a peer approach for three different groups – potential migrants, recruits for departure, and returnees in three different communities – with the support of UNAIDS, ILO, IOM and UNDP Bangladesh. The objectives in involving the different groups are 1) to identify the most effective intervention strategy, and 2) to develop peer volunteers for sustainable knowledge in the community.

Figure III-a SHISUK Follow-Up Program



Lessons learned

One of the key lessons learned is that the effectiveness of peer educators depends more on skill building and scope than on group affiliation; the involvement of different groups as peer educators is more effective than using one particular group. The social recognition they receive as peer educators encourages them to work as volunteers. The program should build peer educators' capacity to analyze the situation and scope, to further enable them to assume a leadership role.

Implementation issues addressed

- Develop migrant workers' access to information, education, and support on migration, HIV/AIDS, safer sexual behavior, and counseling.
- Develop peer volunteers for sustainable knowledge in the community.
- Develop a favorable environment for HIV infected and affected people.
- Establish a follow up mechanism for pre- and post-departure programs and repatriation.
- Develop an intervention approach that includes advocacy to change policies that marginalize the migrant.
- Address poverty, discrimination, segregation, and lack of legal status.

Evidence of effectiveness

- The project has successfully established a working relationship with worker recruiting agencies and diagnostic centers, who in the past did not allow outsiders to interact with their clients.
- Currently the Bangladeshi government is trying to scale up HIV testing and counseling activities to include all 31 diagnostic centers approved for migrant medical checkup.
- Formerly, the medical check-up report was sent directly to work recruiting agencies. At present, 8 leading diagnostic centers are referring the positive results to SHISUK for confirmation of HIV results and post-test counseling.
- Currently, most of the national and multi-national implementing agencies have expanded their focus from sex workers, MSW, transport workers, and IDU to now include migrant workers. The issue of migration has been added as a priority issue in the national action plan.

Effectiveness Checklist	
Intervention Design Characteristics	HIV/AIDS Counseling and Education Program for Migrant Workers
Addresses the broader structural context.	✓
Identify and address key enabling factors to behavior change.	✓
Key gatekeepers and stakeholders involved.	✓
Communications efforts linked to direct services.	✓
Target beneficiaries involved.	✓
Deliver information at the level needed.	✓
Clear messages repeated using multiple strategies.	✓
Immediate positive gains in adopting changes emphasized.	✓
Condom demand created, and availability ensured.	
Skills-building opportunities for behavior change.	✓
Basic needs of beneficiaries met.	✓
Program has ample duration and intensity.	✓

The Lesedi Project, South Africa

Implemented by FHI/AIDSCAP, Harmony Mine Hospital, and the South African Institute for Medical Research (Steen et al. 2000, 2001)

Description

The Lesedi Project was set up in response to high rates of STIs, including rapidly increasing HIV prevalence in South African mining communities. The project provides STI treatment and prevention services to high-risk women in gold mining communities that have a large male migrant population. Intervention-linked research was conducted from October 1996 to June 1997 to assess the immediate impact of the services on STI prevalence. Project activities were implemented as a collaboration between Harmony Mine Hospital, the South African Institute for Medical Research, and Family Health International's (FHI) AIDS Control and Prevention (AIDSCAP) Project, with funding from the United States Agency for International Development (USAID). Ongoing STI surveillance and operations research guide current project implementation.

The initial Lesedi Project was implemented in the Free State town of Virginia, which has an estimated population of 80,000, including approximately 13,000 miners. Ninety percent of the miners live in single-sex hostels near the mineshafts. A mobile clinic service for high-risk women was set up near three mine hostels that have a miner population of approximately 3,700. Other more distant hostels served as control sites for project evaluation. Community mapping was used to identify taverns, shebeens (unlicensed liquor outlets), and other meeting places where miners relax after work. Many women frequent these establishments, providing sexual services to the miners in exchange for money or other material benefit.

In the first nine months of the project, peer educators raised awareness of STIs and prevention methods. Peer outreach workers referred high-risk women to a mobile clinic where monthly examinations, presumptive treatment, prevention education, and condoms were provided. All women referred to the clinic received an initial assessment and treatment or referral. Those who reported participating in commercial sex work or having at least three regular or non-regular partners were invited to participate in the intervention and advised to return for monthly clinic visits.

All participants were given a one 1-gram dose of azithromycin under direct observation as presumptive treatment for gonorrhea, chlamydia and chanroid.

Additional syndromic STI management was offered to women with symptomatic STIs. Women with genital ulcerations were administered a supplemental single intramuscular injection of 2.4 million units of benzathine penicillin to provide coverage for primary syphilis. Women with vaginal discharge received additional treatment to cover bacterial vaginosis and *Trichomonas vaginalis*. Participants were counseled about medication as well as prevention. A nurse promoted condom use at each clinic visit and peer educators did likewise in the field.

At monthly follow-up visits, risk behavior was assessed using a brief questionnaire to determine symptoms, number and types of sexual partners, and condom use. Physical examinations were repeated and urine was collected for Ligase Chain Reaction (LCR) testing.

Miners living in hostels in the intervention area were examined and treated for signs and symptoms of STIs at baseline and nine months later.

Implementation issues addressed

- Migrant labor practices separate families, which increases vulnerability in men and women and contributes to STI transmission in such high-risk environments.
- Health services, particularly STI services, are generally not available or accessible to female sex workers or other women at risk in migrant settings.
- Periodic presumptive treatment (PPT), along with syndromic management of STIs and prevention education as treatment strategies, can reduce STI burden in women who use the services.
- Promoting condom use and ensuring availability are essential components of any service that provides STI treatment services.
- Because of a concern that monthly treatment might have a negative impact on the adoption of preventive measures, adequate risk-reduction education was provided from the start of the intervention, and reported condom use with clients increased significantly with women's use of services.

Periodic Presumptive Treatment

Periodic presumptive treatment (PPT) is a strategy that provides STI treatment for people who are presumed to be infected with STIs (based on symptoms and or known high risk behavior) without making an individual diagnosis.

PPT of selected STIs for epidemiologically defined core groups can achieve rapid decreases in communities' reservoirs of STIs. It has the advantage of achieving a decline in STIs more quickly than sexual behavior change alone, as well as reaching asymptomatic individuals who would not otherwise seek care. However, careful research is needed to ensure that this approach does not promote antibiotic resistance, disrupt individuals' normal biological resistance to sexually transmitted infection, or lead to an increase in high-risk behavior.

(AIDSCAP 1999b)

Evidence of effectiveness

Reduction in STI prevalence. Women attending the clinic and local miners were tested for STIs using sensitive assay (LCR) to determine whether the intervention had an effect on STI rates. Continuous monitoring of STI clinic attendance rates in intervention and nearby non-intervention communities has been carried out to follow trends in the common STI syndromes.

The prevalence of curable STIs among women who attended the Lesedi clinic for the first time was high. Ten percent of the women had genital ulcers diagnosed on examination, and a quarter had either gonorrhoea or chlamydial infection confirmed by LCR. One in three women had a positive syphilis serology (RPR), and half had one or more of the aforementioned curable STIs.

Significant reduction in STI rates was documented among women returning for monthly visits, although reinfection was common. Within a month of the first visit, 12.3% of returning women had a new gonococcal or chlamydial infection. Despite high rates of exposure, however, monthly treatment effectively suppressed STI prevalence among the women attending the clinic. When calculated as person-months of infection compared to baseline, prevalence of the most common curable STIs decreased by 70-85%. Additional evidence suggests that chancroid may have been eliminated from the local mining community within the first few months of the intervention.

Significant decreases in STI prevalence also occurred among miners. Miners screened after the start of the intervention had 43% fewer gonorrhoea and/or chlamydial infections and 78% fewer genital ulcers. Ongoing surveillance at mine clinics continues to show much lower rates of both ulcerative and non-ulcerative STI syndromes for miners living near PPT sites than for those more distant. Similar reductions were seen in the mines around Carletonville following implementation of a PPT project there in 2000. Sizeable reductions in STD prevalence, measured at different times in several different mining communities, provide evidence of the sustainability and replicability of the intervention.

Behavior changes. Women's self-reported condom use with their clients at Lesedi increased from 3% at baseline to almost 60% in 2001. In Carletonville, an increase from 63 to 71% condom use at last sex was reported after one year by women attending the PPT clinics.

Data from miners also indicated a decrease in multiple partners and an increase in condom use during the project period. Peer educators reported that women and miners were having fewer sex partners, were trying to limit the number of casual contacts, and were more likely to use condoms, particularly with new or casual partners (Steen et al. 2001).

Reasons for success

Female sex workers and their partners have significantly higher rates of STIs and more frequent exposure than the general population (Henry 1996; Groennings 1997). The intervention attempted to ensure that preventive and curative services reach those at highest risk of infection. Intensive disease control interventions such as presumptive treatment may be justified when prevalence levels are high enough that the benefits outweigh the costs and potential drawbacks. When effectively implemented, they eventually alter the conditions that justify their use. Other longer-term interventions are needed to keep STI prevalence low and maintain high rates of condom use.

Effectiveness Checklist	
Intervention Design Characteristics	The Lesedi Project, South Africa
Addresses the broader structural context.	
Identify and address key enabling factors to behavior change.	✓
Key gatekeepers and stakeholders involved.	✓
Communications efforts linked to direct services.	✓
Target beneficiaries involved.	✓
Deliver information at the level needed.	✓
Clear messages repeated using multiple strategies.	
Immediate positive gains in adopting changes emphasized.	
Condom demand created, and availability ensured.	✓
Skills-building opportunities for behavior change.	✓
Basic needs of beneficiaries met.	
Program has ample duration and intensity.	✓

The Carletonville-Mothusimpilo Project, South Africa

(Williams et al. 2000; Williams and MacPhail 2002) Implemented by the Council for Scientific and Industrial Research (CSIR)

Description

The goal of the Carletonville-Mothusimpilo intervention is to limit HIV transmission through community-based interventions at the world's largest gold mining complex. All sectors of the community have been involved and special attention is paid to influencing social and cultural factors. Detailed monitoring and evaluation measures the intervention's efficacy and sustainability.

The initial phase of the project was funded by the UK Department for International Development for three years, from January 1998 to December 2000. The underlying assumption is that the program should eventually be self-sustaining, with funding provided by local organizations.

The districts in Carletonville include Carletonville town, Khutsong Township, twelve mine shafts, and some smaller residential areas. The mineshafts are surrounded by hostels, clinics, and concession stores and can be thought of as separate social units. Many of the women who come to the mines seeking employment become commercial sex workers and live either in Khutsong Township or in small squatter settlements close to the mine compounds. The women are marginalized from their home communities, have little contact with their families, and have little education. The intervention area is approximately 25 x 25 kilometers.

Pilot survey

Results from a pilot survey indicated high HIV prevalence among mineworkers, single women in "hotspots" (places close to the mine hostels and shafts where commercial sex takes place and alcohol is informally sold to consumers), and adolescents. Adolescents are approximately aged 15 to 20 and essentially include all those at secondary school and some young people who have left school early and are still unemployed.

Rates of HIV infection were high among young people in the general community, with almost 60% of 25-year-old women in Khutsong infected. In discussions with local community representatives, three high-risk groups were identified: mineworkers, sex workers, and people living in squatter camps.

Implementation

The project began by recruiting and training peer educators from groups of single women and adolescents, who would then provide education and training to people in these groups. The use of peer educators provided a context within which people could collectively challenge group norms and create an environment that enabled and supported behavior change.

Almost 100 sex workers were recruited and trained as peer educators. A list of peer educators was compiled by the community outreach coordinator. The community was then engaged to create their own list of individuals they thought would be good peer educators. The two lists were then compared and peers selected. This process invited community input into the selection of peer educators. Peers were then recruited and placed on probation to assess their performance. Peer educators were not paid until they had proved their dedication and skill.

Most of the women recruited had approximately 6 years of education and were socially and economically marginalized. Many of them were migrants who came to Carletonville believing they would make their fortunes there. Most had little or no contact with their families and their families did not know about their occupation because of the stigma attached to sex work.

The adolescent peer educators were recruited through the schools for a program called "I Have Hope" that was conducted by Old Mutual Insurance Company. Five children were recruited from each Carletonville school. After the training with Old Mutual, the peer educators returned to school and encouraged further volunteers. In most schools this brought the numbers up to about 20-30. These volunteers were then trained by the community outreach worker in participatory methods such as drama, song, and role plays to facilitate their educator role.

During 1999, more than 1500 meetings were held in various communities, including bars and shebeens, with almost 400,000 individuals attending, including repeat attendees. Though the target of these meetings was to reach out to other sex workers, mineworkers also benefited. During the meetings, people were taught about the symptoms of STIs, the link between STIs and HIV, the need to seek rapid treatment, and the value of condom use.

A critical aspect of the project was to train 114 nurses, as well as 57 of the district's 68 doctors, in the syndromic management of STIs. The project provides an ongoing program of continuous medical training, and STI statistics are routinely collected to help monitor the project's impact.

Evaluation

Project evaluation, in addition to annual biomedical and behavioral surveys, included an extensive qualitative outcome analysis and process analysis using in-depth interviews and focus groups. The interviews and focus group discussions were conducted to understand attitudes and beliefs about health, STIs/HIV, and health-seeking behavior within the context of the mining industry. Focus groups with young people were conducted to understand why few young people consider themselves at risk.

A key component of the evaluation was the continuing stakeholder analysis – an assessment of the project's success in coordinating the efforts of various services providers and interest groups such as STI services provided by mines and provincial clinics; general practitioners and traditional healers; and peer education activities among mineworkers, sex workers, and other residents of Carletonville. The involvement of the various groups represented on the stakeholder committee, and the extent to which they engage their constituencies in providing a context that

enables and supports the project, was examined. Although the project pulled together a highly diverse group of stakeholders, including the mining industry, trades unions, provincial health department representatives, local community groups, researchers, and international funding agencies, the management of this multi-stakeholder project has proven to be challenging.

Various stakeholders have different perceptions of the HIV problems in the community, leading to disagreement. One of the lessons learned from the project was that people don't always know how to be a stakeholder and it is important to explicitly address the role of the stakeholder at the beginning of such projects. One of the biggest challenges was that the representatives of the various stakeholder groups were often too junior to be of assistance to the project, i.e., they often did not have the authority to make decisions or commit resources.

Lesson learned

Stakeholder representatives need to have a personal commitment and passion for AIDS prevention and must have the power to make decisions on behalf of their organizations.

Implementation issues addressed

- Migrant labor practices separate families, increasing vulnerability and high risk environments for both migrants and their partners.
- Involving stakeholders can facilitate the sustainability of the intervention project.
- STI services are not available or accessible to vulnerable groups such as miners, their partners, sex workers, and adolescents.
- Syndromic management of STIs and prevention education, as treatment strategies, can reduce the STI burden in men, women, and youth who use the services.
- Hard to reach communities can benefit from peer education and outreach.
- Understanding the beliefs and attitudes toward health, sexual health, and health-seeking behavior in the context of the mining industry is essential to intervention planning.
- Promoting condom use and ensuring availability are essential components to any service that provides STI treatment.

Evidence of effectiveness

- Among participant groups which included Khutsong men and women, mineworkers, and women in hotspots, information about HIV knowledge increased and accurate perceptions of HIV/AIDS were evident in participants' spontaneous answers to multiple-choice questions. Between 83% and 87% of participants correctly answered questions about the importance of faithfulness with regular partners, condom use, and use of clean needles in the prevention of HIV transmission.

- Two years after the start of the intervention, HIV and AIDS have a higher profile, and community involvement and intervention activities around home-based care and among youth has increased.
- There has been substantial progress in the empowerment of women at high risk.
- The status of women (most of whom are sex workers) in the community has increased.
- The community has acknowledged the skills that women have developed, and community members have given the women their vote of confidence to operate the project.
- The community has acknowledged the importance of including women as representatives when addressing women's issues.
- New committees are democratically elected by the community and participants include both men and women.
- Political, religious, and other groups are starting to take their own initiatives.
- The project is providing periodic presumptive treatment to women at high risk.
- Mining houses, trade unions, and health authorities are discussing how they might take over the funding and support of the intervention. This effort is an important move toward sustainability of the intervention.

Effectiveness Checklist	
Intervention Design Characteristics	Carletonville-Mothusimpilo Project, S. Africa
Addresses the broader structural context.	
Identify and address key enabling factors to behavior change.	✓
Key gatekeepers and stakeholders involved.	✓
Communications efforts linked to direct services.	✓
Target beneficiaries involved.	✓
Deliver information at the level needed.	✓
Clear messages repeated using multiple strategies.	✓
Immediate positive gains in adopting changes emphasized.	
Condom demand created, and availability ensured.	✓
Focus on behavioral skills.	✓
Address basic needs.	
Have ample duration and intensity.	✓

IV. CONCLUSION

What makes effective interventions?

This section briefly reviews key points arising from exploration of the levels of causation of risk among migrant populations, explored in the previous section. Specific implications for effective HIV/AIDS interventions within migrant and other transmission settings are identified. General characteristics of effective HIV/AIDS programming are explored in The Synergy Project's on-line programming toolkit, of which this printed document forms a part, linked to Module 3, Design. The Synergy Toolkit covers the practical steps involved in Assessment, Planning, Design, Implementation, Monitoring and Evaluation, and is known as the APDIME Toolkit. It can be accessed on the following website:

The Synergy APDIME Toolkit
www.synergyaids.com

In general, there is much evidence to suggest that the focus of successful intervention design in migrant settings lies not on the migrants themselves, but on addressing the conditions that migrants face; conditions which ultimately affect lifestyle concerns, and the motivation and ability of migrants to change high-risk behaviors.

Intervention design should take into consideration a diagnosis of risk causation on four contextual levels, as illustrated in figure 1-a, in the introductory section.

Table IV-1 below summarizes key points for consideration in the design of HIV/AIDS interventions among migrant populations, arising from exploration of four levels of HIV risk causation in migrant settings.

Table IV-2 provides a useful reference tool at any stage in the programming cycle – a checklist of key characteristics shared by successful interventions dealing with transmission settings.

Table IV-1

Causal Level	Definition	Key points
Societal [super-structural]	Macro social and political arrangements, resources, and power differences that reflect social inequalities.	<ul style="list-style-type: none"> • Migrants are affected by regional differences in HIV prevalence and exposure to existing prevention efforts. Migrants with a low level of HIV awareness are at particularly high risk in high-prevalence countries (Chantavanich et al. 2000; Appleyard and Wilson 1998). • Migrants may be among the least privileged members of the community and are often overlooked by programs or public services offered to the general population (Bollini and Siem 1995).
Community [structural]	Laws, policies, and standard operating procedures; relationships between people and sectors who are formally or informally connected to a particular transmission setting, e.g. the migrant work setting.	<ul style="list-style-type: none"> • Migration patterns are dynamic and change depending on economic opportunities, political situations, and national policies. • Many migrants have difficulties comprehending prevention messages designed for a host country. • Lack of access to appropriate sexual health information and health care services place migrants at greater risk of STI/HIV/AIDS. • Migrants face structural barriers to seeking diagnosis/treatment for STI/HIV/AIDS because of their illegal status, cultural differences, social stigma and fear of losing their jobs. • Prevention interventions need to incorporate key stakeholders in all communities through which migrants pass, when assessing, planning, designing, and implementing interventions.
Institutional [infrastructure environment]	Individual living and working conditions; resources and opportunities; recognition of individual, structural, and super-structural factors. E.g. access to appropriate health care services and family support.	<ul style="list-style-type: none"> • The commercial sex trade flourishes at large, mostly male, migrant work sites, as does trading in alcohol and drugs. • Culturally and linguistically appropriate sexual health education information is generally not available to migrant workers in host communities. • Migrant workers in host communities lack a social support network and health services tailored to their needs and working conditions. • STI/HIV/AIDS education programs for risk reduction should be in place at pre- and post-departure sites. • In pre-departure settings, information, education and communication efforts should seek to provide migrant workers with awareness and knowledge on the following issues: <ul style="list-style-type: none"> ○ working and living conditions in the destination countries; ○ commercial sex environments and the risks of contracting STIs/HIV during migration; ○ reproductive health issues and information on HIV/AIDS; ○ available health programs and services in the destination countries.
Individual (targeted groups of individuals)	How the infrastructure and broader environment is experienced and acted upon by individuals.	<ul style="list-style-type: none"> • Individual concern about HIV/AIDS can only form part of an individual's broader lifestyle concerns, which in turn are molded by the environment – in this case, migrant settings, as outlined above. • General misconceptions around STIs/HIV/AIDS exist among migrant workers. • Female migrant workers are often subjected to oppressive working conditions and abuse which affects self-esteem and self-efficacy at the individual level. • Dangerous and risky work may affect the attitudes men have towards sex and sexual risk-taking. • Migrants are often far from their homes and families and experience feelings of boredom, stress and loneliness. • Usual home community restrictions on migrants' behavior are removed. • There is often resistance to change high-risk behaviors, due to lack of motivation and/or skills/abilities to change. • Solicitation of commercial sex, multiple partners and unprotected sex are common practices. <p>Male migrants who have sex with other men may not be reached by programs targeted at men who have sex with men (MSM). Many male migrants who experience same-sex relations are married, and/or may not otherwise identify themselves with messages tailored to MSM..</p>

Table IV-2 Effectiveness Checklist for Use in Transmission Settings

Intervention Design Characteristics	Ideal Project x
Addresses the broader structural context.	✓
Identify and address key enabling factors to behavior change.	✓
Key gatekeepers and stakeholders involved.	✓
Communications efforts linked to direct services.	✓
Target beneficiaries involved.	✓
Deliver information at the level needed.	✓
Clear messages repeated using multiple strategies.	✓
Immediate positive gains in adopting changes emphasized.	✓
Condom demand created, and availability ensured.	✓
Skills-building opportunities for behavior change.	✓
Basic needs of beneficiaries met.	✓
Program has ample duration and intensity.	✓

Some general points for consideration in the design of successful interventions within migrant and other transmission settings are listed below:

1. Effective interventions are based on sound analysis of the dynamics of transmission within and between settings in the migration cycle.
2. Networking analysis, using qualitative and quantitative data, is often necessary to gain this kind of information.
3. Interventions which incorporate advocacy for human rights, and for positive changes in the living and working environments of vulnerable groups in key transmission settings, can have a significant impact on health outcomes.
4. Interventions need to assess current levels of stigma associated with vulnerable groups in transmission settings, and develop designs which seek to decrease stigmatization of vulnerable populations and/or avoid increasing stigma.

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APPENDICES

Appendix A-1: Female Migrants - case descriptions

Techiman and Yeji markets, Ghana. In 1995, Anarfi et al. (1997) undertook a study to better understand women's involvement in the migration process via itinerant trading in Ghana, and explored their associated risk factors for HIV. Surveys were conducted at the weekly, three-day-long market in Techiman and at the daily fish trade market in Yeji, with a total of 207 itinerant women traders interviewed. Focus group discussions among itinerant women traders, local married women traders, local single women traders, local married men, and local single men supplemented the survey findings.

Women traded in clothing, cereals and legumes, yams, fruits and vegetables, and smoked fish. More than 50% of the women sold goods and 42.5% bought goods. Only 6.3% were involved at both ends of trading. For almost 87% of the women, trips took between one and three days, with three days the most common length. Fifty-six percent of the women visited the markets weekly and 28% each fortnight. The majority of women had been itinerant traders for less than five years.

Seventy percent of the itinerant women traders were between the ages of 25 and 44. Forty-three percent did not attend school or had not finished primary education, 47% had finished the basic level of schooling, and 10% had some secondary schooling or vocational training. Of the 207 women surveyed, 71% were married, with 74% in their first marriage. The majority of the women were Christian and 16% Muslim. Women gave birth to an average of 4.1 children, and almost half of the respondents had an oldest child that was under 15 years of age. The traditional inheritance system favors a husband's brother or nephew, rather than the husband's spouse or children. This system, and the belief that women are responsible for the ongoing care of their children, motivates women to establish an economic livelihood and seek jobs away from their homes for short periods of time.

Trading is a difficult occupation, made stressful by wearying and dangerous traveling conditions and unreliable transportation. The cost of transport is driven by high fuel prices, and almost half of the traders, 101 of the 207 respondents, reported that it was difficult to pay the transport cost up front. Of these women, 47.5% negotiated special arrangements with the drivers and 39.6% borrowed money from other traders.

Lodging also presented challenges. Women itinerant traders were most likely to stay in transit quarters or warehouses, where they could watch over their goods and not pay fees for lodging. A field interviewer observed hot rooms crowded with goods, no bathrooms or toilets, and only a mat or cloth spread on the floor for sleeping. Of the women interviewed, 38.2% reported staying in transit quarters, 23.2% with friends, 7.2% in rented rooms, 7.2% were dependent on the goodwill of others, 5.3% slept in a vehicle, and 4.3% had no fixed accommodation. Only 2.9% of the women stayed in hotels.

The economics of trading creates loopholes of vulnerability. On the demand side, traders may not earn enough capital through retail sales and must depend financially on others, which can

dovetail into intimate relationships. On the supply end, the need to buy large supplies of goods at affordable prices, and the cost of transporting these goods, adds to the vulnerability of women itinerant traders and increases the possible points at which women may be exploited (Anarfi et al. 1997).

A middle-aged woman I know got some money and decided to go into itinerant trading. She set off among a group of women who were already in the trade to the north to buy yams. While the other women were able to buy large quantities of yams at reasonable prices a few days after arrival, the newcomer didn't get any to buy. Her colleagues told her that she had to be nice to the farmers to be able to get some yams to buy. In the end she came back without any yams. On hearing her case, a young woman approached and agreed to go to buy the yams on certain terms. Before this new woman set off she bought four pieces of male underwear, toilet soap, powder and toothpaste. A few days later she returned with plenty of yams. Asked how she did it she said I only complied by the rules of the game and the things I bought were used to kill the unpleasant side of it.

- Local unmarried woman in a focus group discussion (Anarfi et al. 1997).

At the Techiman weekly market, itinerant traders are banned from buying directly from farmers; instead, they are forced to buy from indigenous traders. In an effort to circumvent these regulations, women may find local male escorts who will take them to the farms and safeguard them from robberies. In some cases, these escorts have sexual relationships with the women.

Men hold paradoxical opinions about the women traders. In the focus group discussions, men spoke about having a special interest in the women traders because the women are new to the area and are regarded as unattached. Along the same line, 39% of the women said that while working, men had proposed love to them. On the other hand, all participants in the focus group of married men said they would not allow their wives to do such work and that itinerant trading has a bad reputation in terms of sexual activity (Anarfi et al. 1997).

New Benin Market, Nigeria. Another West African study, published in 1993, looked at sexual networks among market women or long-distance traders. A survey of 100 interviewees in the New Benin Market in Benin City, Nigeria, found that 70% of the women had extramarital sexual relationships (Omorodion, 1993). These female long-distance traders of market goods and cloth would spend days away from their families. The declining economic situation in Nigeria has hastened women's entry into this area of work, but even the income from trading appears to be insufficient to cover family and child-related costs.

Of the 100 women surveyed, 65 were married, 20 were divorced or separated, 10 were concubines and 5 were widowed. Over half of the women (59) reported that they were in a polygamous marriage (usually as the second wife) and 37 reported that they were in a monogamous marriage. Women, on average, marry at 19 years of age and have five living children. Forty-eight of the women were traditionalists, 35 were Christians, 11 were Muslims, and 6 reported no religion. Sixty-five women had some education; 35 had no education.

In terms of primary sexual partners, 30% of the women surveyed had sexual relations with their spouses. In addition to having sexual relations with their spouses, 44% had sex with boyfriends and 26% with strangers. Seventy percent of respondents reported extramarital sexual relations. Of those involved in relationships outside of marriage, 38% said they did so for economic reasons, 26% reported receiving gifts and money from their sexual partners, 24% did so for enjoyment and fun, 7% said they were divorced or separated, and 4% provided no reason. Researchers wonder if the high level of sexual networking was the result of an average income that is too low to meet daily needs.

In response to questions about STIs, 12 of the women said they had contracted a STI and 74 said they knew friends or relatives who had contracted a STI. These cases were treated by one or more of the following methods or in the following settings: 47% of the cases were treated in private clinics, 44% by traditional treatment, 41% by friends or relatives, 35% by chemist stores, 35% by hospitals, and 15% from medicine stores. Based on these findings, researchers surmised that the majority of respondents had not received effective treatment (Omorodion 1993).

Appendix A-2: Characteristics of Migrant Workers by Gender

Country	Area	Characteristics of Migrant Worker Populations	
		Male	Female
Examples from destination countries or reflective of internal migration			
Senegal, 1993 (Lagarde et al. 1997)	Zuguinchor (rural area 25km north of the Guinea Bissau border)	<ul style="list-style-type: none"> Majority of adult population spends at least half the year in seasonal migration. Both men and women migrate seasonally before they are married. Men continue to migrate seasonally until the age of 60, regardless of marital status. 82% of men aged 20-40 years work as migrant laborers annually (Appleyard and Wilson 1998). 70% of men ages 15-54 years migrated to other regions of Senegal during the dry season, mostly to harvest palm wine. 	<ul style="list-style-type: none"> Majority of adult population spends at least half the year in seasonal migration. Both men and women migrate seasonally before they are married. Once married, women do not migrate. In 1992, 62% of women aged 10-29 years left to work as maids in major cities of Senegal and Gambia. 80% of women aged 15-24 work as migrant laborers annually (Appleyard and Wilson 1998). Age at marriage is higher than the national average, and migrations are relatively very frequent.
South Africa, 1997 (Lurie et al. 1997)	Hlabisa region, KwaZulu/Natal, South Africa	<ul style="list-style-type: none"> Approximately 60% of households have a male family member who is a migrant. 50% of kraals (a collection of households on one piece of property, inhabited by family members) have one male migrant, and an additional 30% have more than one. 	<ul style="list-style-type: none"> One-third of kraals have a female migrant, and another 15% have two or more.
Zambia, 1997 (Bond and Dover 1997)	Chiawa area	<ul style="list-style-type: none"> Mostly composed of young men, employed on a temporary basis, living without their spouses in camps. 	<ul style="list-style-type: none"> Seasonal disparity exists between men and women in Chiawa, with many more migrant men than women residing in the camp compounds.
Sri Lanka, 1997 (Asian Migrant Center Online, Sri Lanka 1997)	Not specified	<ul style="list-style-type: none"> There are an estimated 600,000 Sri Lankan migrant workers. The primary destination is the Middle East. Workers also migrate to Singapore, Hong Kong, and South Korea. In 1996, the annual outflow of migrants was about 163,000 First wave of migrant workers, from 1960 to the mid-1970s, were professionals and technical persons moving to developed countries. Second wave were workers migrating to petroleum-producing countries in the Middle East and Africa. Until 1980, the majority of migrants were male. Based on 1993-94 data, the average age is 25 to 29 years. The majority of migrant workers are married. 	<ul style="list-style-type: none"> There are an estimated 600,000 Sri Lankan migrant workers. The primary destination is the Middle East. Workers also migrate to Singapore, Hong Kong and South Korea. In 1996, the annual outflow of migrants was about 163,000. After 1980 the majority of migrants were female, driven in part by the demand from developing countries for domestic helpers and the high unemployment rate in Sri Lanka. In 1994, 79% of migrant workforce female; in 1995 and 1996, 73% of migrant workforce female. Based on 1993-94 data, the average age is 30-34 years. The majority of migrant workers are married.

<p>Bangladesh, 1997 (Asian Migrant Center Online, Bangladesh 1997)</p>	<p>Not specified</p>	<ul style="list-style-type: none"> • Between 1976 and 1997, 2 million workers migrated. The primary destination for Bangladeshi migrants is Saudi Arabia, followed by Malaysia, Kuwait, and Oman. Workers also travel to Singapore, Korea and Brunei. Between 1991 and 1996, the annual outflow of migrant workers averaged 200,000. • In the mid-70s, there was a mass migration to the petroleum-producing Middle East, driven by poverty and unemployment in Bangladesh and the possibility of higher wages and jobs abroad. 	<ul style="list-style-type: none"> • Between 1976 and 1997, 2 million workers migrated. The primary destination for Bangladeshi migrants is Saudi Arabia, followed by Malaysia, Kuwait, and Oman. Workers also travel to Singapore, Korea and Brunei. Between 1991 and 1996, the annual outflow of migrant workers averaged 200,000. • In the mid-70s, there was a mass migration to the petroleum-producing Middle East, driven by poverty and unemployment in Bangladesh and the possibility of higher wages and jobs abroad.
<p>China, 1997 (Asian Migrant Center Online, China 1997)</p>	<p>Internal and international migration</p>	<ul style="list-style-type: none"> • Internal migration: 80 to 100 million migrants from rural areas travel to the coastal provinces. • International migration: As of 1996, an estimated 380,000 migrants worked abroad. Based on oil economics and recessions in several countries, the market for Chinese migrant workers shifted from the Middle East to the former Soviet Union and East and Southeast Asia. The most common destinations are Hong Kong, Japan, South Korea and Singapore. • Migrants follow one of three patterns: traveling to other provinces and returning only for the New Year festival or not at all; traveling to larger cities in the home province; or traveling to the main towns or village enterprises in the home county and returning to their families on the weekends. • Based on a survey in Henan province, more than one-third of households had at least one migrant member. Ninety percent were male, and more than half worked in construction. • Massive projected state layoffs, high unemployment and underemployment rates, and rural-to-urban migration are expected to lead to a situation of more workers than jobs. 	<ul style="list-style-type: none"> • Internal migration: 80 to 100 million migrants from rural areas travel to the coastal provinces. • International migration: As of 1996, an estimated 380,000 migrants worked abroad. Based on oil economics and recessions in several countries, the market for Chinese migrant workers shifted from the Middle East to the former Soviet Union and East and Southeast Asia. The most common destinations are Hong Kong, Japan, South Korea and Singapore. • Migrants follow one of three patterns: traveling to other provinces and returning only for the New Year festival or not at all; traveling to larger cities in the home province; or traveling to the main towns or village enterprises in the home county and returning to their families on the weekends. • Based on a 1995 survey in Shanghai, women held slightly more than half of the migrant worker positions in manufacturing and 40% of the restaurant and street trading jobs. • Massive projected state layoffs, high unemployment and underemployment rates, and rural-to-urban migration are expected to lead to a situation of more workers than jobs.
<p>India, 1997 (Asian Migrant Center Online, India 1997)</p>	<p>Not specified</p>	<ul style="list-style-type: none"> • Indians migrated to the Middle East during the 1970s and '80s oil boom, working in construction and as domestic workers, nurse aids, technicians, engineers, accountants and laborers. 	<ul style="list-style-type: none"> • Indians migrated to the Middle East during the 1970s and '80s oil boom, working in construction, and as domestic workers, nurse aids, technicians, engineers, accountants and laborers. • The primary countries women migrate to for domestic work positions are the Gulf States, Hong Kong, Singapore, and in smaller numbers, the United Kingdom, Italy and the United States. • Based on data from a 1995 survey, most domestic workers were between 25 and 40 years of age, and a large percentage were separated, divorced or abandoned. • Recent trends indicate women aged 18-25 years are seeking such work in hopes of making a high income. • Domestic helpers have had little schooling.
<p>Thailand, 1997</p>	<p>Not specified</p>	<ul style="list-style-type: none"> • Similar to other examples, Thai workers emigrated to the Middle East in the '70s, particularly Saudi Arabia. A diplomatic break between the two countries forced workers to look for work in Southeast and East Asia. 	<ul style="list-style-type: none"> • Similar to other examples, Thai workers emigrated to the Middle East in the '70s, particularly Saudi Arabia. A diplomatic break between the two countries forced workers to look for work in Southeast and East Asia.

(Asian Migrant Center Online, Thailand 1997)		Taiwan is the primary destination, followed by Malaysia and Singapore.	Taiwan is the primary destination, followed by Malaysia and Singapore.
Indonesia, 1997 (Asian Migrant Center Online, Indonesia 1997)	Not specified	<ul style="list-style-type: none"> In the early '80s, the primary destination for migrant workers was the Middle East, particularly Saudi Arabia. In the 1990s, the flow of labor shifted course to East and Southeast Asia, primarily Malaysia and Singapore. Unemployment levels, low wages, bad working conditions, a neglected agricultural sector, and poor education in rural areas that inadequately prepares rural workers for employment in the cities force many to seek work abroad. Migrants work in agriculture, transportation, construction, mining and quarrying, manufacturing and service sectors, and the electricity, gas and water industries. 	<ul style="list-style-type: none"> In the early '80s, the primary destination for migrant workers was the Middle East, particularly Saudi Arabia. In the 1990s, the flow of labor shifted course to East and Southeast Asia, primarily Malaysia and Singapore. Unemployment levels, low wages, bad working conditions, a neglected agricultural sector, and poor education in rural areas that inadequately prepares rural workers for employment in the cities force many to seek work abroad. Migrants work in agriculture, transportation, construction, mining and quarrying, manufacturing and service sectors, and the electricity, gas and water industries. As of 1997, there were 1.95 million Indonesian migrant workers, of which 65% are women. Low education and lack of job skills force women to seek domestic work.
Philippines, 1997 (Asian Migrant Center Online, Philippines 1997)	Not specific	<ul style="list-style-type: none"> The Philippines is the largest exporter of labor in Asia, with 3.5 million workers abroad according to government data and 7 million according to NGOs. The Philippines has a long history of labor migration, beginning under American colonial rule, when farmers were hired on by Hawaiian plantations and then California fruit orchards and wineries. Workers migrate primarily to North America, Saudi Arabia, Hong Kong, Taiwan and Japan. 	<ul style="list-style-type: none"> The Philippines is the largest exporter of labor in Asia, with 3.5 million workers abroad according to government data and 7 million according to NGOs. The Philippines has a long history of labor migration, beginning under American colonial rule, when farmers were hired on by Hawaiian plantations and then California fruit orchards and wineries. Workers migrate primarily to North America, Saudi Arabia, Hong Kong, Taiwan and Japan. Between 1994 and 1996, among new hires, the proportion of female overseas workers increased from 50.7% of total deployed workers to 60%. Of these, 45% were domestic helpers and entertainers. Based on a 1996 report, out of 60,926 Filipino registered emigrants, 36,477 were women.
Thailand (Ford et al. 1996)	Urban Thailand		<ul style="list-style-type: none"> A high proportion of the young people who migrate from rural to urban parts of Thailand are women, whom industrial employers prefer because they are more malleable, more docile, and less unionized than men. Thus large numbers of young women exchange the social restraints of their home environs for the greater independence, anonymity and risks of the city.
Examples from receiving countries			
Dominican Republic (data from 1994–1995) (Brewer et al. 1998)	Sugar cane plantations in the Dominican Republic	<ul style="list-style-type: none"> During the 5-6 month harvest season, 30,000 young Haitian men cross the border to cut cane in the Dominican Republic. 	<ul style="list-style-type: none"> The mean age of women migrants is 36.3 years, and 75% are between 22 and 50 years of age. The mean years of education is 1.4 years, with 58% receiving no formal education. Women account for less than 10% of migrants. Of the women who come to work in the plantations: <ul style="list-style-type: none"> - 10.8% are considered single. 74.4% are involved in consensual unions.

			<p>14.2% are involved in legal unions, and the remainder are either separated or widowed.</p> <ul style="list-style-type: none"> - 20% have a history of exchanging sex for goods or money, including 2.6% who identify themselves as prostitutes. - 45% come to the DR without a partner and 55% with a partner.
<p>Thailand, 1997 (Asian Migrant Center Online, Thailand 1997)</p>	Not applicable	<ul style="list-style-type: none"> • Internal migration in Thailand left a worker shortage in the farming and fishing industries. This is filled by migrants primarily from Burma. Others include Cambodians, Laotians, mainland Chinese, and South Asians. • About half of the fisheries workers in Thailand are Burmese. Others work in warehouses, small factories, and restaurants and bars. 	<ul style="list-style-type: none"> • Internal migration in Thailand left a worker shortage in the farming and fishing industries. This is filled by migrants primarily from Burma. Others include Cambodians, Laotians, mainland Chinese, and South Asians. • Burmese women often work as domestic helpers or are forced into sex work.
<p>Malaysia, 1997 (Asian Migrant Center Online, Malaysia 1997)</p>	Not applicable	<ul style="list-style-type: none"> • As of 1997, there are an estimated 3 million migrant workers from the Philippines, Indonesia, Thailand, Myanmar, Bangladesh and Sri Lanka. Malaysia is the largest importer of foreign workers in East Asia, and based on World Bank estimates, Malaysia is expected to have one migrant worker for every six non-migrant workers. 	<ul style="list-style-type: none"> • As of 1997, there are an estimated 3 million migrant workers from the Philippines, Indonesia, Thailand, Myanmar, Bangladesh and Sri Lanka. Malaysia is the largest importer of foreign workers in East Asia, and based on World Bank estimates, Malaysia is expected to have one migrant worker for every six non-migrant workers.
<p>Japan, 2001 (Ito and Chunjitkaruna 2001)</p>	Not applicable	<ul style="list-style-type: none"> • The majority of male migrant workers, primarily from China and Korea, are undocumented workers in construction and the manufacturing and food processing industries. • Recently there are an increasing number of foreign trainees, imported to Japan as de facto legal unskilled laborers, who work in small- and medium-sized businesses. 	<ul style="list-style-type: none"> • The majority of female migrant workers, primarily from Thailand and the Philippines, are undocumented workers in the service industry. This includes sex-related work. • Recently an increasing number of female migrant workers are integrating into the same traditional industries of male migrant workers, such as food processing factories. • Female migrant workers, in particular from Thailand, are sometimes victims of human trafficking by organized crime.

Appendix B: Knowledge, attitudes, practices and behaviors

The following studies highlight the knowledge, attitudes, practices, and behaviors of migrants working in different parts of the world:

Cambodia. In focus groups of Cambodian fishermen working in and around Koh Kong, sex and commercial sex were identified as means of STI transmission; however, there was little understanding of how STIs are transmitted through sex. Transmission was ascribed to urine, contact with an infected person, and certain foods. These men also believed that men and women have different levels of vulnerability to STIs, that men were less vulnerable to infection than women, and that “male strength vis-à-vis women” could reduce a man’s risk of getting STIs. (The study did not expand upon the meaning of this expression.) The men believed that women are more vulnerable because they sit to urinate and can acquire STIs from toilet seats. Some participants believed that STIs are transmitted to both men and women through urine or by urinating in the same place as an infected person (Greenwood 2000).

Philippines. A 1997 study of Filipinos departing from the Philippines to work abroad found that 66.2% knew about AIDS and recognized it as a sexually transmitted disease that could be avoided by not engaging in risky sexual behavior. Fewer were clear on other modes of transmission and tended to blame sex workers, foreign tourists, and gay men for the spread of HIV/AIDS (CARAM-Asia 1998). In another study, some migrants thought that HIV/AIDS could be contracted only from foreigners and that it is permissible to be sexually risky with someone of the same nationality (Ybanez 1999b).

Bangladesh. A 1997 study of Bangladeshi migrant workers found that 61.2% had heard about AIDS. Of those, only 50% of returning migrants and 42% of first-time departing migrants knew AIDS was sexually transmitted, and only 16% reported being aware of condoms as a prevention method (Gomes et al. 1999).

South Africa. In a 1998 study conducted in Carletonville, where there are a high number of migrant gold mine workers, participants were familiar with the main modes of HIV transmission and prevention, and 85% of participants knew that condom use, being faithful, and using clean needles could reduce HIV transmission. However, approximately one-third of all men and women believed that people infected with HIV always show symptoms of illness and more than 43% believed that a good diet protects one from becoming infected with HIV. Researchers hypothesized that an educational message stating that infected people remain healthier longer when maintaining a good diet had been misrepresented or misinterpreted (Gilgen et al. 2000).

Information gathered during a focus group with partners of migrant workers in Impendle, South Africa, found that knowledge and experience of STIs varied among these women (Hlongwa 2000b). They believed that STIs were curable by either traditional healers or doctors and, therefore, did not regard STIs as a serious risk (Hlongwa 2000b). Men participating in a focus group of migrant workers in Mpendle, South Africa, reported that when they were infected with STIs they did not go public about their status because they feared victimization through gossip and rejection by women. Depending on the symptoms, men sought clinic or traditional doctors (Hlongwa 2000a).

Senegal. Studies conducted with various groups of migrant populations in Senegal indicated that there were many misconceptions about modes of HIV transmission, and that most people have misconceptions about HIV transmission and very little knowledge of STIs. There were reports that one can contract STIs without having a sexual relationship. As in the Cambodian study, workers said that STI transmission occurs through contact with the urine of an infected person (UNAIDS 2000a).

Haiti and Dominican Republic. A 1999 review of the literature and report on the implications of migratory flows from Haiti to the Dominican Republic found that Haitian women in the Dominican Republic had less knowledge about HIV transmission than Dominicans and Arrayanos (Dominican-Haitian people). A 1992 survey of family planning in 27 bateyes (sugar agricultural colonies where workers live) found that 63% of women who were born in the Dominican territory knew about the existence of condoms, while only 30% of the women born in Haiti had such knowledge (Severino and de Moya 1999).

Appendix C: Condom use and accessibility – case descriptions

The following studies support the need for increased condom promotion activities, and condom accessibility to migrant workers.

Zambia. Researchers exploring problems associated with condom use by migrant workers in rural Zambia report numerous negative attitudes toward condoms. Men appeared to have psychological anxieties about sexual performance when using condoms and stated that prolonged use of condoms led to impotence (Bond and Dover 1997).

Haiti/Dominican Republic. A 1990 study of Haitian migrant women living in the Dominican Republic found that 85% were not willing to use condoms when having sexual relations with their spouses. However, all of them were ready to have an "AIDS Test" if it was for free (Severino and de Moya 1999).

Philippines. A 1997 survey of young (20-24 year old) Filipinos, migrating for work for the first time, provides insights to factors that make them vulnerable to HIV/AIDS. Respondents were young, single, and at their sexually reproductive age. They left their country to work in Asia (39%), the Middle East (24%), and Europe (12%). Most of the respondents were heterosexuals (96.4%), sexually active (64%), and a third of them were single (33.8%). Only 75% of the respondents used condoms, the majority of whom were single (74%). Of those who reported engaging in casual sex pre-departure, 55% do not usually insist on condom use in casual sex. Condom use was also low among regular sex partners; 70% had never used them with these partners (CARAM-Asia 1998).

Reasons for not using condoms included lack of sexual experience (47.8%) and dislike of condom use (17%). Among those who were not sexually experienced, 41% stated that they were not likely to use condoms because their partners might disagree to its use. Eighty-five percent of women interviewed reported never having used condoms and of those who did, 51% used them for contraception and 40% used them as protection against STIs. The migrant workers who participated in this survey do not generally practice the use of condoms in their home communities and this practice does not change when they migrate to other locations. The respondents also indicated a general mistrust of the ability of condoms to protect against HIV/AIDS (CARAM-Asia 1998).

Thailand. Among rural to urban migrant workers in Thailand, reasons for non-usage included a lack of perceived risk of infection from steady partners, diminished feelings of trust and emotional closeness, detraction from the physical pleasure of intercourse, the expectation that females are innocent and should not broach the subject, and little communication between partners about family planning and matters related to HIV (Ford and Kittisuksathit 1996). In a study of migrant Burmese women in Thailand who were married to fishermen, these women reported no condom use when they have sex with their husbands, even in situations where their husbands have other partners or visit sex workers (Paul and Chantavanich n.d.).

South Africa. Among migrant mine workers in South Africa, migrants linked sex to masculinity and perceive masculinity to be a manly desire for ‘flesh-to-flesh’ contact, meaning sex without a condom (Campbell 1997). Masculinity is important to men’s day to day functioning in the mines, as a coping mechanism for stressful and dangerous working conditions, yet it is also linked to behaviors that heighten exposure to HIV. Flesh-to-flesh contact seems particularly important to mineworkers, perhaps as a substitute for emotional intimacy in working and living situations where men experience loneliness and little social support (Campbell 1997).

Other studies have focused on the link between dangerous working conditions and risky sex practices. In the mines, the danger of a rock fall or underground avalanche is a common reality. In 1997, more than 5,700 miners were injured and 279 died (Schoofs 2000). Several South African studies show that many Carletonville miners do not use condoms or even perceive themselves to be in danger of becoming infected. One miner commented that "the risk of HIV/AIDS appeared minimal compared to the risks of death underground" (Campbell 1997).

India. The degree to which one values life, and the association to risky sex practices, was discussed by sex workers in India. They indicated that men who frequent brothels may be more risk-taking than men who do not and may be more likely to behave irresponsibly. In order for people to want to wear a condom, they need to be in a position to value their own lives and protect their health. Sex workers felt it is important not to assume that clients are in a position of valuing their own lives and health (Prostitutes’ Education Network 1997). It is important not to assume this for migrant workers.

Cambodia. Among Cambodian fishermen, confidence was an important factor in using condoms. In four of eighteen of the discussion groups, men said they did not know how to use condoms. In one case, this led men to throw away condoms that an organization had distributed. One participant said, “They came to distribute condoms before, but we don’t know how to use (so) we threw away” (Greenwood 2000). Men in the focus groups expressed a variety of estimates for the effectiveness of condoms. In one group condoms were seen as a relatively effective means of protection, although not foolproof. In another group, men felt that condom use made no impact on disease transmission (Greenwood 2000).

Appendix D: Intervention Cost Worksheet

This worksheet was developed to obtain transferable information on the cost of interventions. That is, costs related to resources required, not monetary value.

Recurrent Costs

I. Personnel

a) Paid staff – part- and full-time

Title/Role	FTE	Local hire? (yes/no)	Professional (yes/no)	Beginning Date	Duration

Average salary of local professionals. _____

Average salary of international professionals. _____

Average salary of unskilled workers (drivers, etc.) _____

Exchange rate at end of project. US\$ 1 = _____

b) Volunteers

Title/Role	Number	FTE	Beginning Date	Duration

Incentives _____

Rate of incentive payment (e.g., for every 10 people a peer educator contacts, s/he gets one pound of rice) _____

If monetary, what was the total used over the course of the project? _____

If tangible, how many (or how much) were acquired over the course of the project?

II. Supplies

a) Condoms

Number of condoms distributed _____

Cost per unit _____

Produced locally? yes no

b) Other Supplies

Total cost of medical supplies (not equipment), including medications, laboratory reagents, etc. _____

Total cost of other supplies, e.g., soap, gasoline, paper _____

Other intervention supplies, e.g., penis models

Item	Number	Cost per Unit	Total Cost

III. Participants

Target Group	#	Level of Investment (average time spent per individual over course of program)	Incentives

IV. Contracts, e.g., consultants, printing, video producer, media fees, etc.

Contractor	Product	Approximate Cost

Capital costs

I. Vehicles

Type	Number	Purchased Locally	Purchased from Abroad
All-Terrain			
Sedan			
Motorcycles/ Motorbikes			
Bicycle			
TOTAL			

II. Large equipment (items that cost more than \$1,000) purchased, e.g., computers, generators, x-ray machines.

Item	Number	Approximate Cost

III. Space

Space	Location (rural or urban)	Square Footage	Monthly Cost	Duration

IV. Training Events (workshops, seminars, etc.)

Topic/Name	Location	Participant Type	# of Participants	Length of Training	# of Trainers	Trainer FTE Required

Case study cost analyses:

HIV/AIDS Counseling and Education Program for Migrant Workers, Bangladesh

SHISUK is a non-governmental organization in Bangladesh that provides several interventions for HIV/AIDS and migrant workers. The resource and cost analysis will focus on interventions at two levels: 1) the community intervention, which provides outreach to migrants' communities of origin; and 2) the migrant worker intervention, which provides IEC/BCC at recruiting agencies and counseling for HIV testing at diagnostic centers. Their organization is structured with a head office and staff for each of the interventions.

A description of the number and type of inputs is presented in Table III-1. Six people who work in the head office devote 50% of their time to management and materials development for both interventions; they include the director, the research coordinator, and accounting and administrative staff. Seven people work full-time at the community-level, including a coordinator. Six people work with migrants at recruiting and diagnostic centers, including an outreach worker, three counselors, and accounting and administrative staff. In addition, SHISUK has been training some migrant workers to serve as peer educators who receive an allowance to cover their expenses.

The estimated budget for these two interventions is \$73,300 for one year. Forty-one percent of the budget is for personnel, 5% for peer-educators, 18% for supplies, 34% for rent, and 2% for capital. Expenses for supplies are primarily to produce IEC materials and a quarterly newsletter that is distributed to migrant workers and 937 libraries throughout Bangladesh. Training costs are reflected in the costs of personnel and volunteers.

Assuming that the budget is evenly divided between the two interventions, the budget per community member is \$3.33 and per migrant worker \$4.58. Every one of the 10,000 to 12,000 residents at the community intervention site has some contact with it through cultural events for youth, health camps for spouses, or other activities. The migrant worker intervention reaches about 2,000 workers per year at each of 4 recruiting agencies for a total of 8,000 workers.

The estimated social cost of the intervention is \$97,500, which includes the donated condoms and the value of participants' time. The social cost is 33 percent higher than the budget. As shown in the table, 22 percent of the social cost is attributable to the time value of participants.

Table III-1 HIV/AIDS Counseling and Education Program Resource Analysis

Exchange Rate = 53 Taka per US dollar.				% of Social Cost
PERSONNEL	Number	FTE		
Head Office in Dhaka				
Director	1	0.5		
Research Coordinator	1	0.5		
Materials Development	2	0.5		
Accountant	1	0.5		
Administrative	1	0.5		
Community				
Coordinator	1	1		
Community workers	5	1		
Office Assistant	1	1		
Counseling				
Counselors	4	1		
Administrative	1	1		
Accounts	1	1		
Subtotal Personnel				31%
VOLUNTEERS	Number	Day/week	Incentive/month	
Peer educators	13	2-3	20-30	4%
PARTICIPANTS	Number	Hours	Salary/ month	
Community	10-12000	5	50-60	
Migrants @ station	8000	1	50-60	
Subtotal Participants				22%
SUPPLIES	Number	Cost per unit		
Condoms (donated)	20000	0.04		
Newsletter	5000	0.05		
BCC/IEC materials	20000	0.05		
Events	4	500		
Subtotal Supplies				17%
RENT				26%
Head office	1			
Community offices	3			
CAPITAL	Number	Cost/unit	Depreciation	
Computer	7	1000	5	1%
TRAINING	Number trainees	of	Length of training	of
Peer educators	13		3 days	

The Lesedi Project, South Africa

Implemented by FHI/AIDSCAP, Harmony Mine Hospital, and the South African Institute for Medical Research (Steen et al. 2000, 2001)

The Lesedi Project was initiated in 1996 for sex workers in the context of a mining community in which migrant workers were already receiving treatment for STIs from 1994-1996. The goal was to reduce the incidence of STI prevalence in the community (which included miners, high risk women and others) by providing treatment to their sexual partners. Consequently, the cost estimates represent the marginal costs of adding an intervention for partners to an existing sexual health program for workers.

A description of the number and type of inputs is presented in Table III-2 below. As shown, the project was primarily implemented by a nurse and two outreach workers. They received support from the mining company's medical manager and clinic administrator, as well as technical assistance. Although several weeks of technical assistance were devoted to designing and evaluating the project, one week or less would be required to replicate it (Steen, personal communication, February 12, 2002).

Steen et al. (2001) conducted an analysis of the costs of the Lesedi Project during the first year, from the provider's perspective. The estimated budget for the project was \$53,760 per year. Thirty-three percent of the budget was devoted to personnel; 6% to incentives for outreach workers; 54% for supplies, which were primarily drugs to treat STIs; and 7% to rent a camping trailer that served as the mobile unit. The nurse received a 3-day training in syndromic management of STIs, and the outreach workers received training from the nurse each week. These costs are included with the personnel and outreach worker expenses.

The estimated budget per sex worker was \$134 per year, based on data showing that 400 women visited the mobile clinic at least once during the first 9 months of the project.

The estimated social cost was \$72,500 per year and includes general health services that the Department of Health provided at the mobile unit; donated condoms; and the time value of the medical manager, administrator, consultant, and participants. General health services included family planning and screening, such as pap smears. Condoms were donated by Population Services International (PSI), who was concurrently implementing a condom-social-marketing campaign, and the Department of Health. The table shows the distribution of social cost across inputs. The social cost was 34 percent higher than the budget; the social cost per sex worker was \$181 per year.

After the initial success of the first year, the mining company agreed to fund the services on an on-going basis with the support of the Department of Health. The mining company provided a fixed site for the clinic, and expanded the service to include three full-time nurses and two fully-equipped dedicated mobile units. A cost analysis of these expanded services is currently being conducted.

Table III-2 Lesedi Project Resource Analysis

Exchange Rate = 11.44 SAR per US dollar.

	FTE	Local hire		% of Social Cost
PERSONNEL				
Central				
Medical Manager of Mining Co.	< .05			
Administrative Support	.05-.1			
Mobile Unit				
Nurse	1	x		
Subtotal Personnel				29%
Technical assistant - 1 week visit				14%
VOLUNTEERS				
	Number	Day/wk	Incentive/ month	
Outreach workers	2	2-3	140	5%
Participants	Number	Time*		
Sex Workers	400	4 hours		1%
*2 visits per year and 2 hours per visit				
SUPPLIES				
	Number	Cost per unit		
Male condom*	20800	0.04		47%
STD Drugs				
Ministry of Health tests, drugs and family planning				
*Condom estimate is 400 sex workers * 20% protected * 10 encounter/week * 50% donated.				
RENT				5%

The Carletonville-Mothusimpilo Project, South Africa

(Williams et al. 2000; Williams and MacPhail 2002) Implemented by the Council for Scientific and Industrial Research (CSIR)

The project was implemented by a team of three people in Carletonville who received support from a backstop office in Johannesburg. The intervention team included a project manager, STI coordinator, and community outreach coordinator. The STI coordinator organized trainings in syndromic management of STIs for physicians and nurses at public, private, and mining company clinics. The trainings were conducted by faculty at the South African Institute of Medical Research. The community outreach coordinator provided training and support to the peer educators, especially the sex workers.

When this publication was being finalized, The Population Council and FHI were performing a cost analysis of the project in cooperation with researchers in South Africa. At their request, no estimates of budget or social costs of the intervention are included here.

Appendix E: Background Information for Case Studies

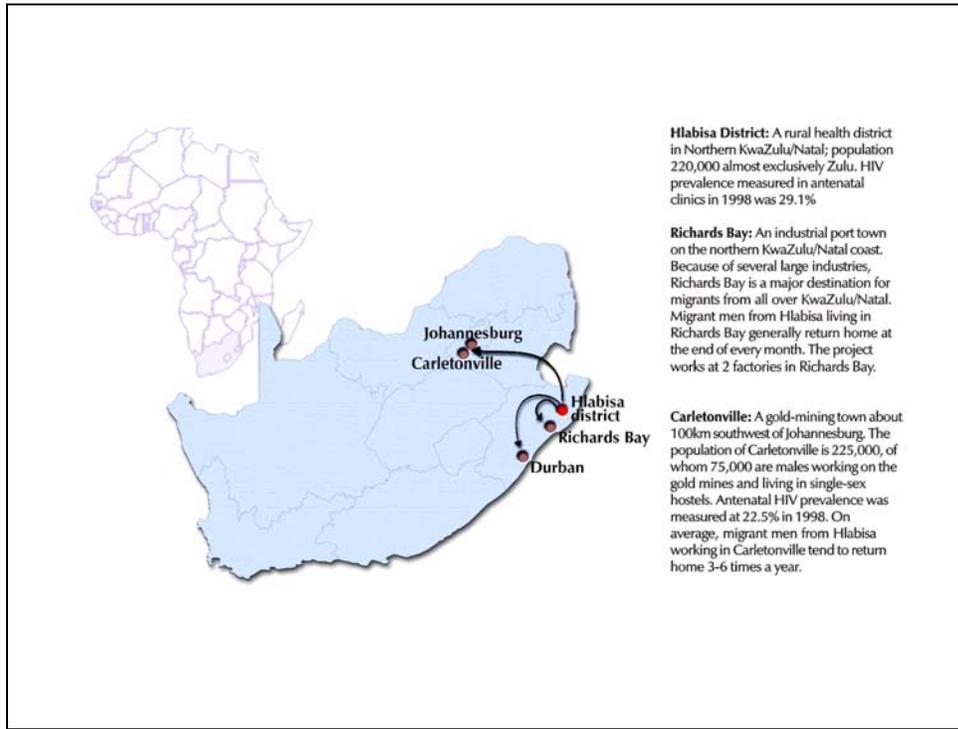
The case studies came from the Migration and the Spread of HIV and Other STDs in South Africa Project, a three-year cohort study funded by The Wellcome Trust and the South African Medical Research Council (Dladla and Lurie 2002).

With 2.5 million registered migrants and countless other "unregistered" migrants, South Africa has a highly mobile population. Patterns of movement developed out of a century of laws that controlled the movements of the majority of the population. As a result, the main mode of migration today is that of male migrants moving to work in urban areas for periods of time and returning home occasionally, depending on the distances involved. In South Africa, male migrants tend to maintain close ties to their rural homes.

The project was designed to learn more about the relationship between migration and the spread of HIV in South Africa in order to better understand the epidemic and to inform interventions for migrants and their partners. To do this, project implementers studied three groups of people (see map below):

1. Male migrants from rural Hlabisa district who were working at one of two common migration destinations (Richards Bay and Carletonville);
2. Their female partners from Hlabisa; and
3. A group of non-migrant couples from Hlabisa.

The project measured HIV and STD prevalence and incidence, patterns of migration, sexual behavior, and a host of other variables among these groups. Staff collected qualitative, behavioral, and biological data.



Map: Mark Lurie and Graham Rochester

