Chapter 1: HIV Infection among Migrant Population: The Context

1.1 Introduction

The human immunodeficiency virus (HIV) and acquired immunodeficiency syndrome (AIDS) are still major public health concerns throughout the world. HIV, since it was first identified 30 years ago, has remained a formidable challenge. The Joint United Nations Programme on HIV/AIDS (UNAIDS) reported an estimated 33.3 million people living with HIV in 2010 globally, with the worst of the epidemic centered in sub-Saharan Africa. Globally, the total number of people living with HIV has been stabilizing at a high level due to the ongoing occurrence of new infections, infected people living longer as a result of treatment, and high population growth (1).

After sub-Saharan Africa, Asia with some of the most populous countries of the world, carries the greatest risk. In South Asia, in particular, the HIV epidemic is heterogeneous in its dynamics with diverse modes of transmissions. Within this region, HIV prevalence in Bangladesh remains relatively low among population groups most at risk, with the exception of injecting drug users (IDU) where prevalence continues to grow. However, the risk is high in Bangladesh as it borders India and Myanmar and is in close proximity to Nepal, where the epidemic is severe (2).

India, Myanmar and Nepal are the three out of five countries that bear the heaviest HIV burden in South-East Asia[1] (3). Migration or trips to the neighboring states or cities of Bangladesh and India, or Bangladesh and Myanmar are common. Manipur and Nagaland, the two Indian states bordering Bangladesh have high HIV prevalence (4). Similarly, a study conducted among boatmen in Teknaf reported them to be at risk of HIV infection due to cross-border mobility and unsafe sexual practices in Myanmar (5).

Bangladesh, with a population of about 150 million in a small geographic area of 147,570 square kilometers, is one of the most populous and densely populated countries in the world (2, 6). Though HIV prevalence remains low (<1%) in Bangladesh (7), an estimated 12,000 people are living with HIV in the country (8). High rates of unprotected sex with sex workers reported by selected groups of men (both married and single), and the prevalence of other high risk factors in Bangladesh, suggest that HIV prevalence is likely to increase (2, 7, 9). The first HIV case, identified in 1989, was from a returned migrant worker in Bangladesh (2).

Migration has become a common phenomenon in the world today, with 214 million international migrants, suggest a rapid increase from 191 million in 2005. As well as international migrants, the United Nations Development Program (UNDP) estimates that in 2009 there were 740 million internal migrants, bringing the total number of migrants to just under one billion today (10). Bangladesh is also one of the major labour exporting countries in the world. Each year a large number of people voluntarily migrate overseas

[1] The WHO South-East Asia Region comprises 11 countries, which are Bangladesh, Bhutan, Democratic People's Republic of Korea (DPR Korea), India, Indonesia, Maldives, Myanmar, Nepal, Sri Lanka, Thailand, and Timor-Leste. World Health Organization. HIV/AIDS in the South-East Asia Region: Progress report 2010.

for both short- and long-term employment. On average, over 200,000 people go overseas each year for short-term employment. This short-term migrants are mainly low- or semi-skilled workers engaged in menial and laborious jobs overseas (11).

Labour migration plays a vital role in the economy of Bangladesh (12). For example, the financial remittances of over US$ 11 billion in 2010 contributed significantly to the Gross Domestic Product (GDP) of the country (13). In fact, the country earns the largest amount of foreign exchange from remittance (14, 15), followed by the ready-made garments industry. Remittances keep the economy moving, provide balance of payment support and, to a great extent, support imports for the country's growing industrial sector.

Less is known about the HIV/AIDS situation in the countries of the Middle East because of a lack of epidemiological data (16, 17). Insufficient data synthesis on HIV/AIDS in the region creates a big gap globally. However, in a review document, the authors stated that there is considerable HIV infection and risk behaviours among the high-risk groups (injecting drug users, males having sex with males and commercial sex workers) in the region. The review also documented that the heterosexual sex networks involving female sex workers and their clients are comparatively larger than the groups of injecting drug users and males having sex with males in the Middle East. This indicates that the possibility of future epidemic will remain confined among these groups.

This thesis focuses on short-term low- or semi-skilled migrant workers from Bangladesh working in countries in the Middle Eastern region. With low education, this group of migrant workers, particularly from a low HIV prevalent country, is most vulnerable to acquiring HIV as they are less aware of the syndrome. The risk is even higher for these

people in an unknown country because of language barriers, which limit their access to healthcare information and services. Besides, they work in the informal sectors like households, construction, et cetera. They are not covered by health insurance nor are they entitled to other facilities.

Although the debate about the link between migration and HIV/AIDS is on-going, several research studies have documented a relationship between them (18-27). The debate is about the line or route of transmission of HIV. Some studies identify migration as a risk factor for HIV infection, while some argue that it is not migration, but rather the conditions or environments that make migrants vulnerable to HIV. On the other hand, some report that migrant workers carry the disease to the host countries, while others discuss the spread of HIV by migrants to their countries origin. Whatever the case, research reports the obvious – that migrant workers are at risk of HIV and create risks for others. This accounts for extensive research on migrant workers globally.

Research on migration and the risk of HIV/AIDS has generally focused on the migrants themselves and the place where they live, rather than on their families or countries/communities of origin. Several studies (28-30) reveal that wives of migrant workers are at risk because of their husbands' unsafe sexual encounters. A study of employment seekers in Shanghai, China, concludes that rurally located partners and wives were at increased risk of HIV infection (28). Another study conducted in Nepal of male migrant returnees and non-migrants found that returnees from Mumbai (India), in particular, had engaged in risky sexual behaviours (31). It concluded that a behaviour change program was urgently required in the area to prevent the spread of HIV into the

general population as the returnees had unsafe sex with their wives or partners upon return (29, 31).

In the context of Bangladesh, only a few studies have been conducted involving the migrant population. HIV/AIDS behavioural surveillance suggests that married women may be at risk because of their husbands' risky sexual behaviours, which to some extent may be associated with living and working away from home. Two studies document risky sexual behaviours among male migrants while they lived away from their wives (32, 33). A study based on passive reporting and another hospital-based study document the extent of HIV among the wives of migrants (34, 35). Since migrant returnees have unsafe sex with their wives upon their return, it is likely that infections among their wives will increase. Thus, the spread of HIV from male migrants to their wives and sex partners remains an immediate challenge particularly in high migration prone areas.

Most research on migration has concentrated on demographic characteristics and economic issues. Similarly, a large number of studies on HIV/AIDS have concentrated on risky behaviors' and the lack of knowledge about HIV/AIDS. Thus, the two important issues either ignored or not studied in sufficient depth are i) the social and cultural consequences related to the migrants and their wives who remain in the home country or in the rural areas, and ii) how these factors make them vulnerable to HIV.

In understanding the vulnerability, the socio-cultural context is crucially important, more so as the social and cultural environments are often different between Bangladesh and the destination countries. Several studies conducted in other countries have documented the influence of social detachment, loneliness, laxity in imposing social norms, anonymity,

and freedom in destination countries on migrant workers' risky sexual behaviours. The socio-cultural issues, as they relate to the low-or semi-skilled migrant, have not been extensively explored in Bangladesh. Migration is not a stand-alone phenomenon. It is influenced by various socio-cultural and economic factors. Therefore, any attempt at understanding the phenomenon of migration and the attendant issues should extend due importance to the larger context in which migration takes place.

1.2 Aims and Objectives of the Study

The aim of this thesis is to better understand and explain risky sexual behaviours in the given socio-cultural context that make the study population vulnerable to HIV/AIDS infection. The research project intends to explore the extent of the risk factors, perception about extra-marital sex, and the socio-cultural dynamics that amplify or impede the risk behaviours of the migrant population relevant to Bangladesh.

The central research question is: What are the factors that put the wives of the migrants and non-migrants at risk of contracting HIV infection, and how does the given socio-cultural context shape the risky sexual behaviours of the migrant workers and their wives who are left behind at home, and how does this increase their vulnerability to HIV/AIDS?

The thesis consists of both quantitative and qualitative components. The objectives of the quantitative component are:

1. To assess associations between selected socio-demographic characteristics and migration status of respondents, which make them vulnerable to HIV/AIDS.

2. To examine sexual risk behaviours and risk of HIV infection among the wives of migrants and non-migrants included in the research project in Bangladesh.

Since the qualitative component includes men in the sample, the objectives of the proposed qualitative component are:

1. To understand socio-demographic, cultural and economic factors influencing sexual behaviours among migrant populations in Bangladesh.
2. To explore the socio-cultural and religious norms that influences the individuals' behaviours and shapes the vulnerabilities of the migrant population.
3. To elaborate on the women's vulnerability particularly the vulnerability of the wives of the migrant workers when their husbands are living away from them.

1.3 Significance

The results of the research provide a better explanation for the risk of HIV/AIDS infection among migrant men and their wives who are separated temporarily because of husbands' work-related migration. The two objectives of the quantitative component were met by undertaking a detailed secondary analysis of data from a cross-sectional survey conducted in 2004, explaining the risk that existed among the wives of the migrant and non-migrant workers. The objectives of the qualitative component were accomplished by conducting thematic analysis of in-depth interviews carried out for this research project. The information from the qualitative component explains the risk behaviours, the socio-cultural norms and beliefs embedded in society that shaped the risk behaviours of the migrant workers and their wives particularly when they lived away

from each other. The results from quantitative and qualitative analysis provide an understanding of the behavioural pattern of the migrant population as it relates to HIV/AIDS infection. The aim is to improve the body of knowledge about migration and HIV/AIDS and thereby aid researchers, policy makers and programmers to design appropriate intervention in the future.

1.4 Overview of Thesis

The thesis consists of seven chapters including the introductory chapter (Chapter 1) that provides a context for the thesis. Chapter 2 presents the review of the literature and documents in the area of migration, HIV/AIDS and the association between migration and HIV/AIDS—the main themes of the study. The chapter consists of two sections. Section 1 describes the migration and HIV/AIDS context by providing data from global to country situation—the foundation of Section 2. Additionally, the chronological description provides an overview of how Bangladesh fits in the global perspectives in the area of migration and HIV/AIDS. Section 1 also highlights the theoretical issues underpinning migration and risk-taking behaviours. Section 2 reviews published literature and reports assessing the association between migration and HIV/AIDS, and the factors influencing risky sexual behaviours. It also presents the gaps in knowledge identified through the literature review. A project framework is presented that was the basis for designing and analysing the qualitative component of the research project. Chapter 2 forms the background for the study from which aims and objectives of the study were formulated.

Chapter 3 details the methods used in undertaking the study. The chapter describes the research setting, study design, ethical considerations, sampling and sample size, data collection, data analysis and limitations of the study. Description of each step begins with the quantitative component followed by the qualitative component.

Chapter 4 is the first of two chapters that present and discuss the results of the quantitative survey of the wives of the migrant and non-migrant workers in Bangladesh. It describes the results in relation to the two objectives of the quantitative component. The chapter comprises three sections. The first section provides a profile of the wives of the migrant and non-migrant workers. It also presents socio-demographic characteristics of respondents by their husbands' migration status. The second section provides the findings using univariate and bivariate analyses. The chapter discusses risky sexual behaviours of respondents. Section 3 presents HIV risk among respondents by their socio-demographic characteristics using bivariate and multivariable logistic regression analyses.

Chapter 5 presents a brief description of the socio-cultural context and attempts to explain the reported extra-marital sex of the wives of the migrant and non-migrant workers. The information was captured in field notes from the quantitative component of the research project. The analysis produces a link between quantitative and qualitative components of the thesis.

Chapter 6 presents the findings gathered from the qualitative interviews. The chapter discusses the findings under different themes such as economic vulnerability, social vulnerability and sexual vulnerability of the married migrant population particularly

when the wives are living away from their husbands. All these make the migrant population vulnerable to HIV/AIDS and STIs. The chapter also discusses the participants' views about socio-cultural norms and values, and how these affect individual behaviours. In addition, the study investigates the social, economic, sexual and HIV/STI vulnerabilities of the women in general.

Chapter 7 integrates the findings of both quantitative and qualitative components of the present research. It draws attention to some of the findings that suggest that there are a number of socio-cultural factors and epiphenomena that may shape the vulnerability of the migrant population. The chapter also discusses strengths and limitations of the study. This thesis concludes by highlighting the key issues emerging from the research. The study also demonstrates implications of this research project and possible future directions in research on HIV/AIDS among migrant population in Bangladesh.

1.5 Candidate's Background and Context for Study

I completed my Bachelor in Medicine in 1992 from Bangladesh and then pursued and completed my Master of Public Health (MPH) from the Royal Tropical Institute (KIT), the Netherlands, in 2002. My research interest in the area of HIV/AIDS developed upon my return from the Netherlands when I began working with the Bangladesh National AIDS and STD Programme (NASP) in 2003.

I began my career in public health as a Research Investigator during 1996-97 at the former urban Maternal and Child Health-Family Planning (MCH-FP) Extension Project of the International Centre for Diarrhoeal Disease Research, Bangladesh (ICDDR,B)

located in Dhaka, Bangladesh. ICDDR,B is a world-renowned research institute which won the prestigious 'Gates Award for Global Health' in 2001. At the beginning of my career, I was involved in applied health research, particularly in designing, implementing, monitoring and evaluating interventions on issues related to Essential Services Package (ESP). I have gathered substantial knowledge and experience in both quantitative and qualitative research methodologies in the field of health and population. I have already published a number of working papers as principal and co-author (Appendix A).

In 2003, I became involved, as co-investigator, in the national surveillance on HIV/AIDS conducted by the ICDDR,B. I became a member of the HIV Surveillance Advisory Committee (SAC) where different stakeholders, government and non-government organisations (NGOs) worked together to review the overall HIV/AIDS situation in Bangladesh and provide guidance on program development. While working with different stakeholders, I became interested in the challenging work on migrant population and HIV/AIDS. During that time, overseas migrant workers had been discussed and identified as an emerging group with the risk of introducing HIV/AIDS in the country. However, little was known about migrant workers and their risk behaviours. The lack of knowledge in the area of migration and HIV/AIDS encouraged me to carry out research. As principal investigator, I, together with my colleagues, designed and implemented a cross-sectional survey on 'vulnerability to HIV/AIDS of migration-affected families'. This survey was completed in August 2005. The one-year-long project, funded by USAID Bangladesh, was a quantitative cross-sectional survey.

As is evident from the above, I have gathered considerable experience working in the field of HIV/AIDS and migration. This experience was in the areas of identification of the problem, design of a research study, engaging with the scientific research committees such as Research Review Committee (RRC) and Ethical Review Committee (ERC), conducting field work, analysis and producing results, and disseminating findings to the scientific communities through presentations and publications. While doing the fieldwork, I came across some important socio-cultural norms and practices relevant to the study of HIV/AIDS among migrant workers and the wives of migrant workers, left behind at home, which could not be captured through a quantitative survey. Therefore, the present research included a qualitative component through which it was possible to explore some of the socio-cultural issues that might influence or hinder the risk behaviours of the migrant workers or wives of the migrant workers.

Chapter 2: Literature Review

2.1 Introduction

This chapter discusses the literature review for this thesis and begins with a general description about the context of migration and the HIV/AIDS scenario in Bangladesh. The chapter then provides a theoretical and conceptual description underpinning the risk-taking behaviours and the vulnerabilities of migrant workers and their wives. Following the theoretical insights, the chapter presents critical arguments in the literature on the association between migration and HIV/AIDS, the risk-taking behaviours of migrants and their wives and the socio-cultural factors that may influence their risk behaviours. This chapter also examines the arguments relevant to the relationship between migration and HIV/AIDS that make migrant workers and their wives, who remain in their home country, vulnerable to HIV and sexually transmissible infections (STIs). Finally, the chapter identifies gaps in the research into socio-cultural factors, most notably the investigation of socio-cultural factors that may play a role in determining individuals' behaviours that make them vulnerable to HIV/AIDS and STIs. This leads to the framing of the research questions for the present study.

2.2 Understanding the Context: Migration and the HIV/AIDS Situation

This section focuses on the overall migration trends and patterns that encompass the global, South Asian (regional) and Bangladesh situation to provide a glimpse of the study. The description begins with a broader perspective providing a global scenario, then narrows it down to regional pictures, finally focusing on the country situation. The

context of migration specifically highlights the migration of low- or semi-skilled migrant workers, as they are the focus of the study. A discussion on HIV/AIDS will follow the discourse on the context of migration. Again this will begin from the global perspective and then will deal with specifics of the country situation.

2.2.1 Migration: Definitions

Migration is a common phenomenon, more so in the present-day world where communication has become much easier and the global economic situation has made migration almost inevitable (36). The United Nations defines a migrant worker "as a person who is engaged or has been engaged in a remunerated activity in a state of which he or she is not a national" (37, page 4). Migration includes internal migration as well as international migration. Internal migration refers to a movement of people from one area of a country to another for the purpose or with the effect of establishing a new residence (38). International migration occurs when a person crosses a country's boundary and stays in the host country for a minimum length of time. International migration occurs for many reasons and, broadly, it is of two types, permanent or long-term migration, and temporary or short-term migration. Permanent migrants intend to settle in a new country after obtaining the country's citizenship. Temporary migrants stay for a certain period of time until the end of their work contract (39-41).

2.2.2 Migration trends and patterns: How Bangladesh fits into the global context

Human mobility or migration within or across countries takes place for several reasons stemming from work, education, family and social networks, business and many other

purposes (36). Migration patterns vary across countries and regions depending on various factors. Migrants from African countries move to other African countries. Asia provides the largest number of temporary migrant workers worldwide with large intra-regional flows of migrant workers as well. A large number of migrants move internally in India and China.

International migration has always been a significant choice, a possible option that, across South Asia, holds out the promise of a better living (11, 42). Extreme poverty, population growth, land scarcity, unemployment have all worked as incentives to migrate. Additionally, the destination countries have attractions such as expanding markets, labour shortfalls and an aging population that have influenced people's movement (39, 42-44). South Asia remains one of the poorest regions of the world and hosts about one half of the world's poor–from 470 to 550 million extremely poor (living under $1.25 a day) and from 709 to 978 million vulnerable poor (living under $2 a day) (11, 45).

Different trends and patterns have been observed in the area of migration in South Asia. Long-term migrants from South Asia have mostly gone to the industrial countries in Europe and to the United States of America and Canada, whereas short-term migrants have mostly gone to the Middle East or South East Asia (36, 39) where the oil boom in the 1970s, and the rapid infrastructure development of the towns and cities, required a large number of semi- or low-skilled workers (39).

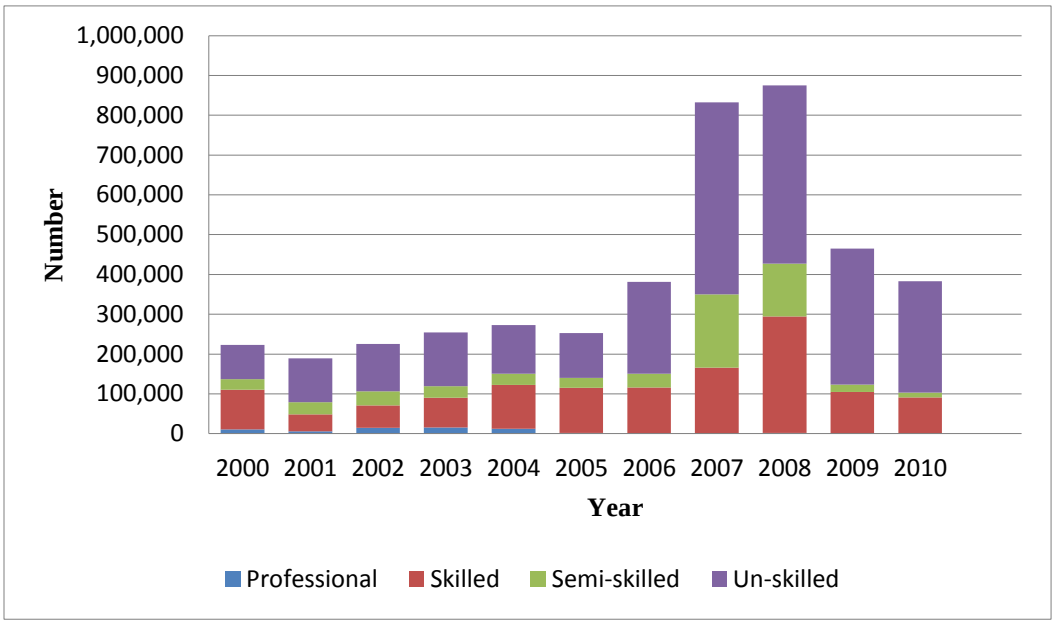
Globally, migration is increasingly recognized as an important and complex issue (10, 38, 39, 42, 46) which needs to be understood from multiple points of view. The number of

both international and internal migrants is on the rise. In 2010, an estimated 214 million people were residing outside their home country (10); up from an estimated 200 million in 2008 (47). The developed regions of the world have experienced the largest influx of migrants. Most of the world's migrants live in Europe (70 million) constituting one third of the global total migrant stock. Asia (61 million) hosts the second largest migrant population, followed by North America (50 million) (48). Cities are the destinations of most internal migrants, and currently worldwide there are an estimated 740 million internal migrants living in cities. This is four times more than the number of international migrants. It is expected that almost 70 per cent of the total world population will live in urban areas by 2050 (10, 48).

Bangladesh is one of the most populous and least developed countries in the world (49, 50). Its small geographic area of 147,570 square kilometers and population of about 160 million, makes it one of the most densely populated countries in the world (51). The average per capita income was about US$580 in 2009 (52). In Bangladesh, the proportion of people living in poverty below $1.25/day has been reduced over time, from 40 per cent in 2005 to 31.5 per cent in 2010 (53).

While many people are still poor, migration is an important livelihood strategy for many people in Bangladesh. About 10 per cent of people migrate from rural to urban areas, while a quarter migrates to overseas destinations (54). In Bangladesh, foreign employment is seen as an attractive way of overcoming poverty by many low- or semi-skilled people, mostly from rural areas (39, 55). In 2006, according to the Bangladesh Bureau of Manpower, Employment and Training (BMET), over 3.5 million people

officially went overseas for work (56). The cumulative figure from 2000 to 2010 among different categories has increased to over seven million (57). Figure 2.1 presents the overseas job categories of people from Bangladesh during the period from 2000 to 2010.



Source: Bangladesh Bureau of Manpower, Employment and Training (BMET 2010) (57)

Figure 2.1 Overseas employment based on job category from 2000 to 2010

BMET groups workers into categories depending on their skill level. Doctors, engineers, teachers and nurses are classed as professionals; drivers, electricians, and computer operators as skilled workers; tailors and masons as semi-skilled workers; and domestic workers, agricultural labourers and menial labourers are considered unskilled workers (11, 55, 57). Thus, as evident from figure 2.1, the un-skilled and semi-skilled migrants together constituted the largest group (67.2 per cent) of the total official migrants. Both unskilled and semi-skilled migrants are the major focus of this study.

The increased degree of migration, both internal and international, is having a significant effect on the economies and societies in the host regions and the host countries (36). The international remittance flow was estimated to have reached US$440 billion in 2010. The remittance flow was stable after the recent economic crisis and it showed positive growth in the six developing regions (58). In Bangladesh, the remittances sent by the international migrant workers are a major contributor to the country's gross domestic product (GDP) (12, 14). In 2010, Bangladesh was among the top seven remittance recipient countries globally and second in South Asia after India with a remittance flow of US$11.1 billion (13, 58). However, the actual remittance figures from migration are far higher than the official estimates as they do not include the unofficial or illegal migrants and the illegal or informal channels of remittance.

2.2.3 HIV/AIDS Pandemic: Implications for Bangladesh

According to the World Health Organization (WHO), the human immunodeficiency virus (HIV) is a retro virus which infects cells of the human immune system, impairing their function or destroying them. There are no symptoms in the early stages of infection. However, symptoms appear as the infection progresses. The immune system gets weaker and the person becomes more susceptible to infections. Acquired immunodeficiency syndrome (AIDS) is the advanced stage of HIV infection. It can take 10–15 years for an HIV-infected person to develop AIDS. The antiretroviral drug can only slow the progress of the disease. HIV is transmitted by unprotected vaginal or anal sexual intercourse, contaminated blood transfusion, the sharing of contaminated needles and from mother to children during pregnancy, childbirth and breastfeeding. HIV transmission can be

prevented in several ways. The most effective preventive interventions include condom use, male circumcision, the provision of clean injection equipment, the treatment of sexually transmitted infections, and HIV testing and counselling. In the health care setting, preventive measures include blood safety, injection safety, safe waste disposal and standard precautions overall. An AIDS vaccine has not yet been developed but antiretroviral therapy can delay the development of AIDS (59).

Since 2000, HIV/AIDS has become one of the ten leading causes of mortality or disability, globally. The HIV epidemic has caused an unparalleled setback to human health progress, and there is uncertainty about the future course of the epidemic in Asia (60). Experts have been trying to estimate where AIDS ranks in the global burden of diseases, but continuous research is required to find its precise level. In a recent estimate, AIDS remained the leading cause of mortality in Africa and the sixth highest cause of mortality worldwide (8, 61).

Although there has been some progress in meeting some milestones of the Millennium Development Goals around HIV/AIDS, it is still a major public health concern throughout the world (1, 3, 62). Over the last 30 years, since HIV was first identified in the United States, the epidemic has claimed more than 25 million lives and over 60 million people are affected in the world so far. The epidemic has now stabilized at a very high level. An estimated 33 million people were living with HIV in 2007 and the figure stood at 33.3 million in 2010 (3, 62, 63). Globally, women were sharing 50 per cent of the HIV infection burden, which remained stable for 10 years until 2007, and an estimated 45 per cent of those infected were young people (15-24 years) (61). The share

of women infected with HIV increased by one per cent in 2009 (3).

Sub-Saharan Africa is the most HIV-affected area in the world with 22.5 million living with HIV/AIDS in 2009, constituting 68 per cent of the global total (1). HIV prevalence in most countries in sub-Saharan Africa has either stabilized or begun to decline except in Kenya where HIV prevalence is on the rise from 6.7 per cent in 2003 to between 7.1 per cent and 8.5 per cent in 2007. In Africa, women are disproportionately more affected than men (1, 62). In sub-Saharan Africa, transmission has occurred mostly via heterosexual intercourse (1, 62).

The epidemic in Latin America is multifaceted; HIV has spread through homosexual and heterosexual contacts and by injecting drug use. In the Caribbean, an estimated 230,000 people are living with HIV, while an estimated 20,000 were newly infected and 16,000 died of AIDS in 2007. In the Caribbean, the main mode of transmission is heterosexual intercourse, paid or otherwise (62).

The epidemic is moving slowly among the vulnerable population in high-income countries. In 2007, an estimated two million people were living with HIV in North America and Western and Central Europe, of which more than half (1.2 million) were residing in the United States of America. In these countries transmission takes place mostly through homosexual and heterosexual relations and through injecting drug use (62, 63). In Eastern Europe and Central Asia, the HIV transmission is increasing among the networks of injecting drug users and their sexual partners (1).

The epidemic in Asia is diverse because of different modes of HIV transmission. The epidemic is concentrated among people with one of the following risk behaviours: injecting drug use, commercial sex, heterosexual sex, and sex between men (1). China's HIV epidemic is caused by heterogeneous modes of transmission and is surfacing at different rates in different regions. The combination of injecting drug use and sex work is an important aspect of China's epidemic (64). In the Middle-eastern countries, little is known about the HIV/AIDS situation. However, the available reports suggest that HIV prevalence, new HIV incidence and death due to AIDS are increasing (1, 65).

The South Asia region comprises seven countries, Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan and Sri Lanka (42). In South Asia, the HIV epidemic is heterogeneous in its manifestation. There has been a decline in the number of people living with HIV from about 5 million in 2007 to 3.5 million in 2009 (42, 66). The new infection rate has dropped by 31 per cent from 320,000 in 2001 to 220,000 in 2009. Within the South Asia region, India and Nepal are the most affected and HIV is transmitted through sex work, injecting drug use and unprotected sex between men. On the other hand, Bangladesh, with less than one per cent HIV prevalence, is the country with the lowest HIV prevalence rates (42). Although Bangladesh is considered to be a low HIV prevalent country, it shares its border with India and Myanmar, the two countries with the highest HIV infection rates (42).

India's epidemic is highly varied across states and regions, and various trends are apparent in different parts of this large country. An estimated 2.4 million people in India were living with HIV in 2009 with the adult HIV prevalence at 0.3 per cent of the

population (3). Although the adult HIV prevalence was estimated at below one per cent in Nepal, with an estimated 64,000 people living with HIV in 2009, the prevalence is much higher among the groups of the population who are at most risk, namely, migrants and their wives (3).

In Bangladesh, the first HIV case was diagnosed in 1989 (2, 67-69). The Government of Bangladesh had reported on World AIDS Day 2010 that 850 people were living with HIV/AIDS in the country. Table 2.1 provides information about HIV/AIDS situation in Bangladesh. Last year, 343 people were diagnosed with HIV, 231 developed AIDS and 37 died (cited in 70).

Table 2.1: Summary of HIV/AIDS in Bangladesh

Total Population*	158 million (mid-2010)
Estimated population living with HIV/AIDS**	12,000 [7,700-19,000] (end 2007)
Adult HIV prevalence**	<0.1% [<0.1%] (end 2007)
Highest HIV prevalence (IDUs)**	7.0% (male, Dhaka) (2009)
Reported HIV cases***	343
Reported AIDS cases***	231
Reported AIDS death***	37

Source: USAID, Bangladesh. * U.S. Census Bureau **UNAIDS 2010
*** World AIDS Day report 2010 (source: Government of Bangladesh)

However, in Bangladesh, the overall HIV prevalence remains below one percent (7, 67, 71-73), despite HIV cases being found in successive rounds of sero-surveillance surveys among injecting drug users, sex workers and other vulnerable populations. For example,

in one area of Dhaka City, HIV prevalence among injecting drug users (IDUs) has risen from 1.4 per cent in 2000 to 7 per cent in 2007/8 (2, 7, 74). This high rate of HIV prevalence among IDUs indicates the existence of unsafe injecting practices. The risk of spreading infection through IDUs is a concern as they often act as professional blood donors and sell blood. Furthermore, their mobility from one city to another and sharing needles in different cities also poses a risk (74). Finally, IDUs visit sex workers, and there is a risk that HIV infection may spread to sex workers and ultimately to the general population (67, 75).

Despite the low HIV prevalence overall, Bangladeshis are highly vulnerable to acquiring HIV infection because all of the factors that allow the rapid spread of infection leading to an epidemic are present (67, 72). These factors include high-risk behaviours, lack of awareness, mobility of people due to various reasons and the proximity to countries like India and Myanmar that have higher HIV prevalence (2, 7, 68, 72, 76). Some research (32, 33) suggests that groups like the migrant population, including both internal and international migrants, that go to cities and overseas leaving their families behind are at a greater risk of acquiring and transmitting STIs and HIV because of their high risk behaviours such as while they live away from their families.

2.3 Conceptual and Theoretical Approaches to Migration and HIV/AIDS

Migration or mobility is a rational decision for many people from all countries, developed or developing, and is normally taken for the hope of a better lifestyle. Over the years, migration has drawn attention from sociologists, economists and demographers. Table 2.2 provides some theoretical perspectives about migration. There have been many

theories on migration, mostly linked to the positive aspect that migration can result in increased income, better nutrition, ability to access health care and thus, better health status.

Table 2.2: Theoretical insights on migration

Authors	Viewpoints	Observations
Todaro 1969; Harris and Todaro 1970	Neo-classical explanation of migration	Migration eliminates unequal supply of labour and capital. Some areas or regions have labour surplus and some have labour shortage. This leads to migration from labour surplus to labour shortage areas. Similarly, with regard to wage differences, migration ensures wage maximization for low wage areas (77, 78).
Borjas 1989; Massey et al. 1993	Neo-classical economic theory of migration	The immigration market of host country makes migration offer based on which an individual makes choices and takes decisions to migrate to another country and maximize their well-being. Equilibrium of the immigration market occurs at a certain point when population movements settle down after meeting the market needs in the host countries (79).
Massey et al. 1993; Stark and Bloom 1985	New economics of migration	Several authors critique the neo-classical theory on the grounds that migration is not only an individual choice; migration is a collective decision involving many people particularly family members taken in order to maximize income and minimize the risks (80, 81).
Massey et al. 1993; Massey 1990	Network theory of migration	Migration creates networks of migrants, former migrants and non-migrants in the countries of origin and destination countries. When networks reach a critical threshold, both the cost of movement and risks come down for new sets of migrants and the process goes on (80, 82).

Traditionally, migration is considered socially and economically beneficial. The neo-classical theory of migration, better known as the Todaro migration model developed around internal migration, assumes that the migration takes place because of difference in "expected rather than actual earnings" between urban and rural areas (78, page 314). Migration decision is based on the "expected" gains from migration, which is measured in terms of actual income differences between urban and rural areas and the probability

for a potential migrant worker to obtain a job in urban areas.

The model, which was also known as Harris and Todaro model, explains that migration occurs from higher labour and lower wage areas to lower labour and higher wage areas (77, 78). This has been the case in Bangladesh where rural to urban migration for better income is a common phenomenon, although unemployment is higher in the urban areas in the formal job market than in the informal market (55). Similarly, international migration is on the rise in Bangladesh due to high labour demand and better employment opportunities in some host countries (40, 55).

However, others critique the Todaro model which only emphasizes individual decision. In a new economic migration theory, several authors point out that migration entails a collective decision, involving other family members, which eventually decreases the cost and risk and maximizes benefits (80, 81).

In the neo-classical theory of migration, the authors explain labour migration as a process of economic development where migration, usually taking place from higher labour and low wage areas to lower labour and higher wage areas, creates a state of equilibrium. Here, a potential migrant, estimating the cost and benefit, makes a rational decision to migrate into a country that would bring him/her the maximum returns (79, 80). However, several authors critiqued the neo-classical theory of migration (80, 81). They discussed new economics of migration where household decision is shown as more important than individual decision for migration—somewhat similar to the network theory of migration. In the new economics of migration, while explaining the key issues of migration the authors present the view that migration decision is taken by a relatively large group of

people, not just an individual. The family or household members take such a decision to improve the financial situation of the family. Here, household or family becomes responsible for any negative impact that may arise from migration (80).

The network theory of migration emphasizes the role of a network among migrants, former migrants and non-migrants in the countries of origin and destination countries in reducing the cost and risk related with migration (80, 82). In the network theory of migration Massey (1990) conceptualizes migration as a holistic social and economic process where a new migrant creates a network and social ties in the destination places by making new sets of friends. This network facilitates migration of more people and reduces cost of migration. Such networks also help reduce uncertainty prevalent in the job market and the risks the migrants usually face otherwise (82).

In Bangladesh, most migrations, both internal and international, are better explained by the network theory of migration. Simply explained, people from rural areas go to city areas following a trail of other family members, friends or neighbours and they concentrate in one area of the city. Similarly, for overseas migration, potential migrants make connection with relatives, friends and neighbours who already live overseas and go to the same country, if possible to the same city. This reduces costs and risks and helps new migrants get initial support while living in an unfamiliar place.

Table 2.3: Theoretical insights about risk and HIV vulnerability

Authors	Viewpoints	Observations
Maticka-Tyndale 1992	Construction of common sense knowledge about HIV/AIDS risk	Social construction of safer sex rules are guided by the faith that if infected with AIDS one could be cured. Besides, by not choosing a wrong partner one can be safe, with an underlying presumption that the partner is to be blamed. With regard to condom use the following factors were considered to interfere with condom use: use of condom if the partner is considered to be infected; low reliability of condom compared to oral contraceptives; dislikes for condoms; gender differences in condom use (83).
Rhodes 1997	Social construction of risk and risk behaviours in HIV prevention	Rhodes examined two theories: situated rationality theory and social action theory. The situated rational view depends on an individual's decision and action. Whereas the social action theory argues that individual decision and action are largely shaped by the social factors (84).
Rhodes and Cusick 2000	Love and intimacy in risk management in HIV prevention	The authors observe that risk management in HIV prevention is largely influenced by love and intimacy. The virus threat becomes less important and individuals ignore condom use in a relationship where love and intimacy receive more attention (85).
Haour-Knipe and Grondin 2005	Risk and social vulnerability	Social factors influence individual's sexual behaviours. The behaviours may be different if people are away from their own social community and away from regular sex partner. Loneliness or social pressure in the host countries may play a role in engaging in behaviour that puts them at risk (86).

Table 2.3 presents some theoretical viewpoints on risk and risk-taking behaviours. There are several theories to describe risk behaviours. The concepts of risk, sexual risk-taking behaviours and vulnerability are important for this study. Despite the knowledge of how HIV is transmitted or can be prevented, people are engaged in risky sexual behaviours, and this is often difficult to explain as a number of reasons may lead to risky sexual risk behaviour (87).

Moore and Oppong (2007) identify some factors that may shape an individual's risk behaviours. The authors discussed the findings from a study of sexual risk behaviours

among people living with HIV/AIDS in Togo using theoretical explanations like social representation theory, situated rationality theory, and social action theory. The result suggests that some people deliberately ignore the risk because of other priorities (88).

Rhodes also examined two theories—situated rationality theory and social actions theory—to review the risk behaviours for HIV infection among drug users. The situated rationality theory is associated with the concept of risk perception and the behaviour change is based on individual cognitive decision. This theory observes that risk depends on how people perceive their risk, which may vary from person to person and may be classified as immediate versus distant risk (84) depending on their risk-taking proclivities. The migrant workers, who already take the risk of going overseas to face an unknown situation, may not categorize unsafe sex as an immediate risk. As evident, perception of risk is relative. The migrant workers, who have taken bigger risks, do not recognize or perceive unsafe sex as an immediate risk. One critique against the situated rationality theory is that this is perceived more of an individual decision although risk does not occur in a context free situation. The argument is that individual action and decision are largely shaped by the social factors—the basis of social action theory. The social action theory blends socio-cultural dynamics with risk behaviours focusing on a particular social setting. The theory further advances over situated rationality theory in two ways. First, it considers that the risk behaviours are the outcome of social interactions. For example, in case of sexual negotiations, the risk shifts from individual to a social interaction. Secondly, the theory explains that individual perceptions are formed and social interactions take place under the influence of socio-cultural norms and factors. The argument is that despite having knowledge, people make irrational choices driven by

power at their disposal (84) or the circumstances they are faced with. For example, the use of condoms may not be possible if the partner refuses to use one. In addition, access to condoms may be a problem in an unknown situation. Furthermore, sexual activity between a man and a woman often occurs in unanticipated situations where condoms are not available.

According to Haour-Knipe (2005), being away from one's social community and regular sexual partner, suffering from loneliness, and many other factors have an influence on people's behaviour and lead a person into a risky or vulnerable situation (86). Migrant workers, particularly the low- and semi-skilled migrant workers go overseas to a new and unknown place, away from their families and their sex partners, and away from a settled life in their community, are therefore exposed to all these influences. Similarly, the wives of the migrant workers do live and suffer from loneliness and have dependency on other men in their husbands' absence. These factors would be sufficient enough to provide a context where migrant workers and their wives who are left behind at home, may be involved in sexual relationship outside their marriage while living away from each other.

Rhodes and Cusick (2000) report that unsafe sex is often opportunistic, unlike a situation in which there is love and intimacy. Judgment about whether an act of sex is safe or not is also sometimes perceived to be linked to the perception of infidelity in the relationship (85). Therefore, it is almost a taboo to bring up the question of safety in a loving relationship. Trust is considered an important element in marital relationships in many societies. Generally, in marital sex, the husband and wife do not use a condom unless they wish to prevent pregnancy. In many societies, the wives of migrant workers contract

the HIV infection unknowingly from unprotected sex with their returned husbands or partners.

The different theoretical perspectives on migration, risk and HIV vulnerability have advanced the knowledge in these areas. Some of the theoretical perspectives on migration provided insights into links between the social issues and risk factors for the project framework. Migration creates temporary detachment between migrants and their families and migrants and their communities. This can cause social issues, such as lack of social control and absence of direct family ties while living overseas, which have an influence upon their sexual behaviour. On the other hand, theories on risk and vulnerability suggest the influence of some socio-psychological factors like separation and loneliness in shaping the risk behaviours and vulnerability. These are to be explored in the present research and are therefore incorporated in the project framework.

2.4 Migration and HIV Association

Several studies conducted globally have discussed an association between human mobility and increased risk of HIV infection (18-27, 34, 89-95). There has been considerable debate about the relationship between HIV and migration, a relationship that varies from country to country, and from region to region. The common assumption is that migrant men bring the disease to the country of origin from the destination countries. The explanation is that migrant men become infected while overseas and, upon their return home, they resume unprotected sex with their wives and infect them (21, 22, 96, 97).

Some studies conducted in developing countries have cited migration as one of the important factors for HIV transmission (18, 25-27, 30, 93, 98, 99). In South Africa, a study among migrant and non-migrant men and their rural women partners showed that being a male migrant was one of the main risk factors for HIV infection among men, although being a partner of a migrant was not a significant risk factor for HIV infection among women. Lurie and colleagues (2003) documented that among the rural partners, having more than one sexual partner was the most significant risk factor (18). In another study, Lurie and colleagues (2003) concluded that the migrant men not only spread the infection to their rural partners, but married women also transmit infection to their migrant partners (22). However, the situation may be different in Bangladesh compared to Africa since overall HIV prevalence is still below one per cent and it is very unlikely that HIV would spread from the rurally located partners to their husbands returning from overseas countries or from elsewhere in Bangladesh.

Deane and others (2010), from a study conducted in Tanzania, argued that mobility or migration is considered an important vehicle for an HIV epidemic, but they suggest HIV transmission is a complex issue which can be influenced by many factors. For example, who moves for what reason and to what place can all play an important role in HIV vulnerability. The authors argue that analyses of many studies that included mobility and number of sex partners miss the 'more complex dynamics for HIV incidence' (100, page 1461).

Others argue that the risk factor for HIV transmission is neither migrants themselves nor migration, it is the conditions and the unknown environment that create greater risk for

the migrant workers (23, 44, 56, 101, 102). The initial few months in the host country are considered a crucial period of adjustment due to movement to an unknown place and separation from the family and regular sex partner. A combination of living away from their regular sex partner, and the desire to have sexual relations, coupled with loneliness and a sense of isolation in a new country may be a common set of circumstances leading to risky sexual behaviours (56).

Some literature suggests that HIV can be introduced from a high HIV prevalent country to a low prevalent country (29, 91, 95, 103). Migrants returning from working in a high prevalence country are one of the main ways HIV infection is introduced into low prevalence countries. In some countries, HIV prevalence is higher among labour migrants than any other groups at risk. A systematic review of the studies conducted on HIV in Nepal revealed that HIV prevalence is highest among migrant labourers and female sex workers who had returned from India, a country already affected by an HIV epidemic (95). However, caution is necessary in interpreting the information about higher HIV prevalence among migrant workers in a place or a country as there may be a selection bias specific to the study objectives; for example, a study may recruit migrant workers who have returned from a higher HIV-prone area (29).

HIV can be introduced from low prevalence countries as well as vice versa. HIV prevalence is low in countries in the Middle East where many Bangladeshis go to work temporarily, although there is HIV infection among sub-sections of the population (104). Studies conducted in Bangladesh and Pakistan documented a higher level of HIV among overseas returnees, mostly from the Middle East countries (34, 90). Again, these were the

studies based on clinical samples or clients from voluntary counseling and testing centres (VCT) in Pakistan and Bangladesh, where people, including migrant people, voluntarily go for HIV testing. This means they consider themselves to be at risk of HIV infection. Thus, a higher level of HIV among this group may not reflect the actual HIV scenario among the migrant population in general. There is a paucity of information about HIV among migrant workers from the countries of Middle East; however, Akhtar and Hammed (2008) reported some data from routine HIV screening of migrants upon entering into Kuwait which showed a low HIV prevalence (0.021%) (105).

2.4.1 Risky sexual behaviours among migrant workers

Globally, most studies among migrant workers show that migrants have higher risky sexual behaviours compared to non-migrants (18, 21, 28, 32, 33, 92, 94, 97, 98, 106-114). Different studies define risky sexual behaviours based on the study objectives, and they vary from study to study.

Brockerhoff and Biddlecom (1999) indicated migration as a 'critical factor' in risky sexual behaviours. They explained that in Kenya, male returned migrants from urban to rural areas were engaged in risky sexual practices conducive to HIV infection (23). A study in Tanzania showed that both the migrant workers and their partners at home were engaged in risky sexual behaviours (92). Similarly, studies conducted in South Africa found higher levels of risky sexual behaviours both in migrant workers and their rurally located partners compared to non-migrants (18, 22). Coffee and others (2007) argued that HIV transmission in rural areas of South Africa occurred because of higher levels of risky sexual behaviours irrespective of the degree of HIV prevalence in the areas of migration

(107).

Migration affects both married and unmarried men and women. Pre- and extramarital sex and risky sexual behaviours are common in every society and particularly among migrant workers (115-119). A study conducted among taxi drivers in Bangladesh migrating from rural to urban areas documented very high levels of risky sexual behaviours. The study surveyed 437 men, of whom 84% reported premarital sex and 51% reported extramarital sex. Among the married participants who reported sex in the last year, 98.7% of the respondents reported sex with sex workers, followed by sex with male sexual partners and trans-genders (20.4%); on most of these occasions the sex was unsafe. Multivariate analysis showed that the risk behaviours were higher among the unmarried men and the married men who lived away from their wives (33). An ethnographic study conducted in rural South India showed higher premarital sex among unmarried men than extramarital sex in married men. The study also documented higher extra-marital sex among the wives of the migrant men compared to the wives of the non-migrant men (118).

In a study in Bangladesh, the researchers defined and used the following variables to understand risky sexual behaviours: extra-marital sex, multiple partners and unsafe sex with other men or women (32). The study was conducted among married male returned migrants and non-migrants and the wives of the migrants who had been abroad and elsewhere in Bangladesh during the interviews, and wives of the non-migrants. The study reported a significantly high rate of risky sexual behaviour among migrant workers compared with the non-migrants. Whereas 60-67 per cent of migrant workers reported having extra-marital sex whilst living apart from their wives, only 26 per cent of non-

migrant workers reported having extra-marital sex. Among the wives, the wives of overseas migrant workers and internal migrant workers showed significantly higher levels of extra-marital sex (6.8-10.6%) compared to the wives of the non-migrant workers (3%) (32).

Several studies in Nepal reported that a significantly higher proportion of the men who had lived away had at some time had sex with a sex worker. Upon return to their home country, some of these migrants had frequent sex with multiple partners. Studies also reported about excessive alcohol consumption before sex, which results in indifference to the risk factors. A lack of access to, or reluctance to buy condoms from the local shop or pharmacy is important factors behind unsafe sex. The Nepalese study also mentioned that condom use depends on the appearance of sexual partners, that is, condoms were not used if the sexual partner looked good or healthy (29, 31, 103, 120).

In a study conducted in China, the authors measured sexual risk behaviours using five variables, namely: those who had ever had multiple sexual partners; number of multiple sexual partners in the previous month; engagement in commercial sex in the previous six months; never having used condoms; and not using condoms in their last three sexual intercourses. The study reported higher risky sexual behaviours among migrants after they had returned to their village home compared to the non-migrants of their area (94).

The use of variables in defining the risky sexual behaviours depends on the study objectives. Moreover, researchers may want to repeat the same variables used in other studies or they may want to examine new variables based on their study objectives. Available research studies or documents discussed in this section highlight the magnitude

of the risky sexual behaviours among migrant men and their wives who are left behind, and this allows for a better understanding of the factors behind the risk behaviours.

2.4.2 Factors influencing risky sexual behaviours

Some studies conducted in South Asia have identified a number of reasons behind risky sexual behaviours of migrant workers (29, 99, 103). Some authors have cited the age of migrants as a factor (93, 99) as migrants often go overseas at a young age when they have a high libido and are sexually explorative. In the absence of regular sexual partners in the host country, they find other ways to fulfill their desires. Wolffers and colleagues (2002) have identified three important aspects that influence migrants' sexual behaviour. Firstly, the sexual need in a situation of relative freedom, which may be fuelled by loneliness, homesickness and the wish to belong to the community. Secondly, the dependency on others, which affects his/her safe sexual behaviour, and thirdly the migrant identity that emerges in order to deal with the differing expectations of the families and communities back home on the one hand, and the needs and opportunities in the host country on the other (99).

The destination of migration and the duration of separation also play a role in risky sexual behaviours. A study conducted in Nepal among migrant workers who had returned from Mumbai in India reported that the longer the migrants stayed in Mumbai, the higher the chances were they would get infected with the HIV virus (29). In Bangladesh, a study also demonstrated a link between the duration of the stay abroad and risky sexual behaviours among migrants compared to non-migrants, that is, the longer a migrant stayed abroad, the higher the risk behaviours were (32). Living away in

four or more places during a lifetime was also found to be a risk factor in a South African study (18).

As mentioned, globally, the association between migration and HIV is well documented, but the factors, particularly the socio-cultural factors, still remain poorly understood in many countries including Bangladesh. Deane and others critique the absence of economic and social considerations in the research around mobility (100). Detachment from the usual social cultures enables migrants to be anonymous, allowing them to deviate from their prior social values of morality and sexual fidelity and encouraging them to participate in commercial sex and other risky behaviours (102). Decosas and others (1995) discussed the 'social disruption and stigmatization' that occur in certain types of migration and act as determinants of migrant workers vulnerability to HIV (20).

In many societies conservative socio-cultural norms play a major role in, or act as a barrier against, extra-marital sex. In a study among 983 married and never married men conducted in Bangladesh, Caldwell and others (1999) observed that social conservatism prohibited the discussion about premarital and extramarital sex in society, which ultimately created a risk rather than giving protection. Premarital and extramarital sex were viewed as a sinful act socio-religiously, which allows many people to engage in premarital and extramarital sex secretly, and in most cases unprotected. This increases the risk of acquiring infection (116). Another study, in Bangladesh, which assessed the community readiness for HIV/AIDS preventive interventions showed strong socio-cultural views against premarital sex and the use of condoms. Most participants were against condom use by unmarried males and also against sex outside of marriage (121).

Contrary to the above conservative view, another study in Bangladesh claimed that the religious inhibition together with the strict social control acted as a protective factor which reduced the risk behaviours compared to those in other societies (122).

While looking into the cultural norms and values regarding HIV-related sexual behaviours among women in Kampala, Uganda, a study documented that women were engaged in extra-marital sex despite cultural inhibition because of economic reasons and greater sexual satisfaction (123). Socio-cultural norms and beliefs act as a barrier or reduce risk behaviours and create stigma which prohibits open discussion about sexual issues. On the other hand, due to inhibition, 'socially unacceptable sex' most often takes a clandestine route, which increases the possibility of unsafe sex. Awareness about HIV/AIDS would neutralize many of these stigmas and help society devise strategies to combat HIV/AIDS.

2.4.3 Awareness about HIV/AIDS

Information and knowledge of HIV and the level and frequency of risk behaviours related to the transmission of HIV is important in identifying and developing a better understanding of the populations most at risk of HIV. Inadequate knowledge about sexually transmitted infections including HIV has been documented in many studies conducted in Bangladesh and other countries (124-127). Besides limited knowledge, many people have misconceptions about the transmission of HIV (103).

Sometimes knowledge is not a strong deterrent in restraining men and women from risky behaviours (128). There may be many other factors that influence risky behaviours.

Socio-cultural norms are one such factor that often makes knowledge ineffective. In many societies, condoms are not used during marital sex for reasons of trust. One study in Senegal demonstrated that the cultural norms of not using condoms in marital sex inhibited some migrant men when they returned home and had unprotected sex with their wives even though they had engaged in risky sexual behaviours overseas (129).

In many societies, condoms are considered a contraceptive method that prevents transmission of HIV/STIs from one person to another. Some countries have adopted a universal condom use campaign in order to prevent HIV/STIs. However, there is a discrepancy between knowledge and practice about condom use. Infrequent condom use or unprotected sex has been documented in several studies conducted in Bangladesh and other countries (5, 18, 29, 32, 33, 93, 97). There are various factors that influence the decision to use or not to use condoms. The common explanation for unprotected sex or not using condoms during marital or extramarital sex is that the condom reduces sexual pleasure (32, 103, 130). Khan and colleagues (2004) conducted a qualitative study among 55 adult men and suggested that sexual pleasure without a condom was better explained as a socially constructed issue, very much related with an emotional aspect in men, trust in a relationship and a perceived image of a good man as opposed to that of a promiscuous man (130). Poudel and others (2004) in a focus group discussion with 53 returned migrant participants mainly from Mumbai, India explained that the participants did not use condoms with local women as they were not like sex workers of Mumbai, while some mentioned that they used condoms only to prevent pregnancy. Besides, the participants also reported lack of access to condoms as a reason for low condom use together with a low risk perception about HIV/STIs, and excessive alcohol consumption

(103). Yang et al. (2005) discussed economic consideration as another reason, particularly in paid sex, where sex without a condom is more expensive (131).

Negotiations about the use of condoms and decision-making about sex have a gender dimension (26, 132). Steinbrook (2007) explained that the discussion about condom use with a husband is socio-culturally inappropriate for a wife. Moreover, in India, condom promotion is seen as advocating promiscuity (26). A study conducted in Uganda revealed that women had less control over the timing of sex and discussion about sex with their partners. The study concluded that women were less knowledgeable about the message that condoms prevent HIV transmission than their male partners (132). The perception of fidelity plays an important role in not using condoms with a regular partner or in a stable relationship (132, 133). Blanc and Wolff (2001) argued that the existence of social norms negatively influenced both men and women from proposing condom use to avoid distrust in a stable relationship, and this might make women vulnerable through "sexual double standards and economic dependencies on men" (132, page 26).

Lower perception about the virus and disease is another factor which plays a role in unsafe sex. Several research studies reveal that most migrants do not perceive that they are at risk of getting infected with HIV, even if they engage in risky sexual behaviours (32, 103). The common notion is that if they go to a healthy looking sex worker or partner, there is no chance of getting the disease (103). Condom use during sex with a sex worker is higher compared to that in casual sex with other women (33). However, a study conducted among Tajik male migrant workers in Moscow reported no use of condoms during sex with sex workers mostly because of less awareness, consideration of pleasure

and the effects of alcohol consumption (111).

Evidently, there are many gaps in the research with regard to the relationship between migration and HIV/AIDS, particularly in relation to the social-cultural issues that have a significant bearing upon sexual behaviour of the migrant workers and their partners who remain at home. This is discussed in the following section.

2.5 Gap in Knowledge in the Link between Migration and HIV

Globally, most literature about migration and HIV/AIDS is limited to examining the sero-prevalence, risky behaviours and the knowledge about HIV/AIDS in migrant workers. Worldwide, there has been little research on the families and particularly on the wives of migrant workers compared to the amount of research on migrant workers themselves (30). In Bangladesh, to date, there has only been one research study conducted among the wives of migrant workers in 2004, part of which was analyzed for this study. In rural Bangladesh, most of the wives of migrants live with the in-laws' families in the absence of their husbands, and they have little emotional, social and economic support. The wives who remain in the home country become more socially vulnerable, compounded by poverty and economic dependency on men. A study conducted among the wives of male migrant workers in Nepal highlighted limited financial support from their migrant husbands with 48% of the wives reporting that their migrant husbands did not send money during their migration and 22% reporting receiving money only once a year (134).

Wives of the migrant workers who are left behind are vulnerable in many ways. Studies conducted globally and in Bangladesh have documented that wives have been infected

from their husbands through unprotected sex (30, 35, 135-138). Studies have also highlighted spousal sexual risk behaviour, that is, wives themselves are engaged in extra-marital sex, while living away from their husbands (22, 30, 32, 44, 138). Thus, the left-behind wives are vulnerable firstly because of the risky sexual behaviours of their husbands, and secondly, and equally, for their own risky behaviours.

The other gap in research is the exploration of religious values in given socio-cultural context, which have a considerable influence on individual's attitude and behaviours. In a review article on "The Ubiquity of Islam: Religion and Society in Bangladesh", Huque and Akhter (1987) discuss the religious values that are deeply embedded in the Bangladeshi society. While explaining the influence of religion in our everyday life, the authors observe that an individual grows up in a family or in a society where the religious values lay out the predominant ethos that dictate one's everyday behaviour. Often, they seek moral endorsement for their work from religion and display their devotion to religion although a large number of them do not perform mandatory religious rituals. In Bangladesh, the religion of the majority of the people is Islam. It is largely a conservative patriarchal society where people do not speak out against religion openly without personal risks of various natures (139).

The religious values and family and social values are often intertwined. In a society which is essentially religious in belief, if not so much in practice, the social values are built on the edifice of religious values and these values also become the constant reference point to judge the propriety of any act both in social life and individual life. Some studies on religion conducted in the Western countries also observe that people

who uphold religious values have less permissive attitude and are less experienced sexually (140, 141). On the other hand, some studies in Bangladesh, probing into sexual risk behaviours in a conservative Muslim society, reported that though pre-marital or extra-marital sex is not permissible, some people are still involved in such sexual acts secretly, which may make them vulnerable to HIV/AIDS (115, 116).

While describing a traditional and rural Islamic society in another study conducted in rural Bangladesh, the authors highlighted that in the patriarchal system a woman is dependent on men and this dependency on men limits the power of women to act independently (142). This qualitative study will explore some of the issues related to wives' vulnerability in rural Bangladesh.

2.6 A Research Framework

A framework for this research project was developed after a literature review and review of different theories on migration and risk behaviours vis-à-vis HIV/AIDS. Figure 2.2 presents the relationship among migration, sexual behaviours and HIV vulnerability in the context of Bangladesh as envisioned in this study.

The framework has two parts. In the first part, a link is drawn between migration and risky sexual behaviours. It is evident from the literature review that low- or semi-skilled married male migrant workers and their wives who remain at home are engaged in extra-marital sex, mostly unsafe, when they are temporarily separated. It is also evident from the literature that deep-rooted socio-cultural and religious factors play a role and shape individual risk behaviours.

The socio-cultural factors between the countries of origin and the destination countries may vary. This can also possibly be the case within the same country between rural and urban areas. Therefore, the first part of the framework will highlight how an individual fits into different social settings and what the sexual norms and practices are in the given social context. In the second part, the framework illustrates the relationship between risk factors that migrant workers and their wives experience while they are living away from each other that lead to risky behaviours and make individuals susceptible to HIV/AIDS.

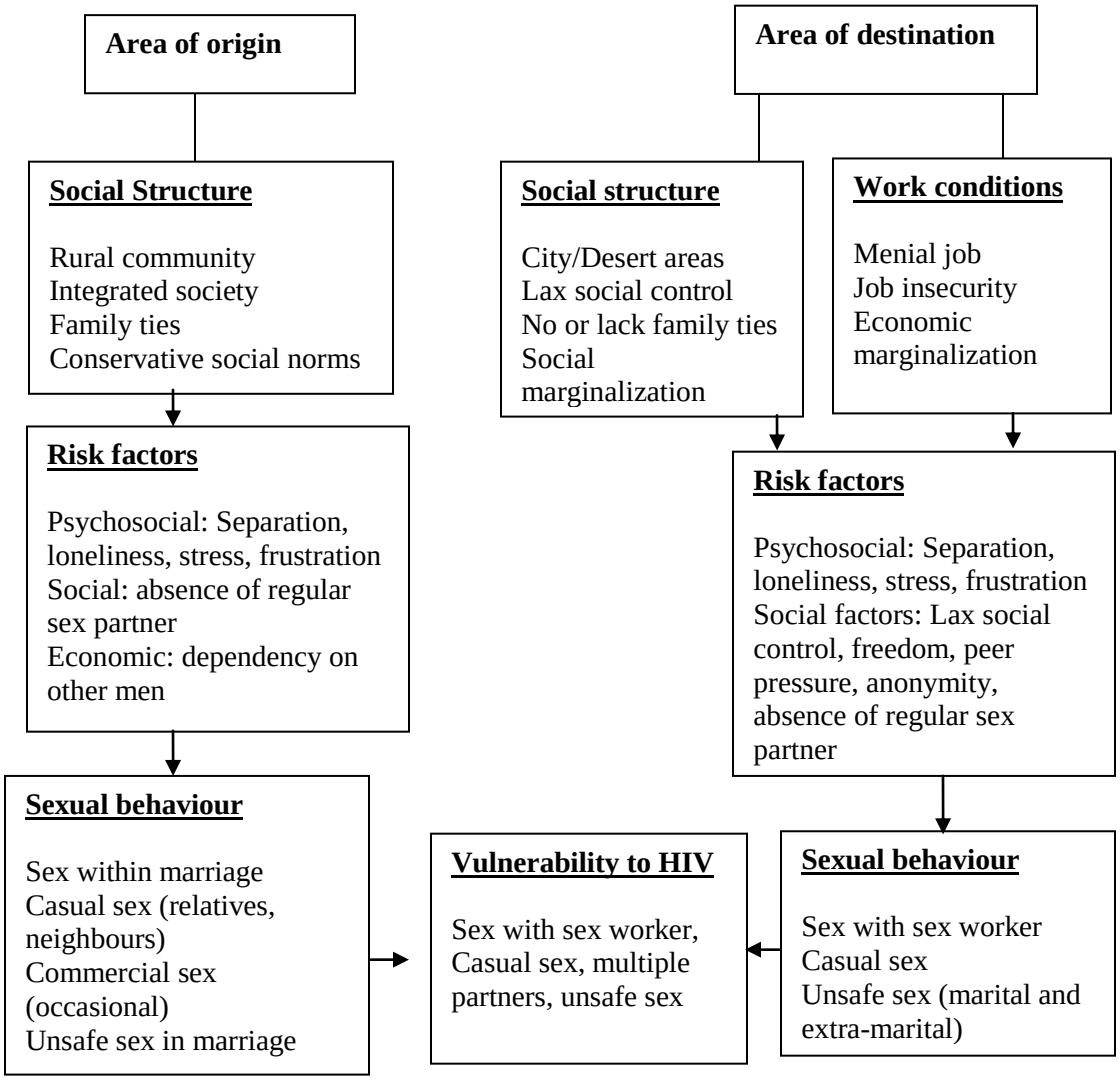


Figure 2.2: Sexual behaviour and HIV vulnerability among migrant population

Globally, literature demonstrates a link between migration and HIV/AIDS through heterosexual transmission in most cases. This study considers both internal and overseas migration. However, the main focus is on overseas migration since vulnerability to HIV is higher among overseas migrant workers and their wives. Although the framework shows a relationship among migration, risky sexual behaviours and risk of HIV, it is beyond the scope of this study to show any direct relationship between migration and HIV. This study aims to explore and explain some of the socio-cultural factors that may shape the risk behaviours of the migrant workers and their wives from their lived experience.

2.7 Summary

In Bangladesh, HIV among migrant workers and their wives who remain has not reached the endemic proportions that it has elsewhere in the world. Yet, there are risks given the high-risk behaviours reported in many studies, and the fact that HIV exists as a concentrated epidemic among certain groups of the population. Therefore, there is no room for complacency. Rather, preemptive interventions are needed to reduce HIV risk among various groups, particularly the migrant population.

This chapter collates knowledge in the area of migration and HIV, and presents a scenario from the global to the country (Bangladesh) situation. This chapter also discusses relevant theories on migration and the risks of HIV, and how these are linked to socio-cultural factors and practices, and how they shape individual understanding.

The chapter also discusses the studies conducted globally and in Bangladesh in relation to the association between migration and HIV/AIDS. The literature review highlights the gaps in research in the context of Bangladesh, and that the wives of the migrant workers constitute an under-researched group with high vulnerability due to high sexual risk behaviours of the migrant workers while they live away from their wives. The socio-cultural and economic factors also feature quite strongly in explaining the vulnerability of the migrant workers and their wives, and their risky sexual behaviours. The following chapter will discuss the methods used in this research project.

Chapter 3: Methodology

3.1 Introduction

This chapter presents the methodology of the research project which consists of both quantitative and qualitative components. The quantitative component includes secondary data analysis from a cross-sectional survey. The qualitative component was designed to further investigate the sensitive issues included in the survey. The primary focus of the quantitative component was the wives of the migrant and non-migrant workers, while the qualitative component comprises both migrant and non-migrant workers and the wives of the migrant and non-migrant workers. Under the quantitative component, the risk of HIV infection and the associations between socio-demographic characteristics and sexual risk behaviours of the wives of the migrants and non-migrants in Bangladesh were investigated. The relevance of the socio-cultural and economic context in explaining the risky sexual behaviours of the migrant population that made them vulnerable to HIV/AIDS was examined in the qualitative component.

The quantitative component includes secondary data analysis from a cross-sectional survey which was carried out in 2004-2005 among migrant population. The qualitative component was designed on the basis of the analysis of the quantitative component to further investigate the sensitive issues included in the survey. Data for the qualitative component were collected in 2009-2010. The primary focus of the quantitative component was the wives of the migrant and non-migrant workers, while the qualitative component comprises both migrant and non-migrant workers and the wives of the migrant and non-migrant workers.

This chapter provides a description of the research setting, which was common for both the quantitative and qualitative components, and it begins with the quantitative component followed by the qualitative component. Each component includes study design, data collection tools and data collection process, data analyses and the limitations.

The use of both quantitative and qualitative methods in a study has increasingly become a popular method in social research in recent years, despite the debate about different philosophical perspectives (143-149). Almost all who advocate mixed method research emphasize pragmatism – the realistic use of multiple approaches to answer a variety of research questions (144, 150, 151).

Mixed method research is considered the "third methodological movement" after the developments of quantitative and qualitative movements in research (151, page 15, 152, page 1). Johnson and Onwuegbuzie (2004) defined mixed method research as "the class of research where the researcher mixes or combines quantitative and qualitative research techniques, methods, approaches, concepts or language into a single study" (151, page 17). Regarding types of mixed methods research, Tashakkori and Creswell (2007) identified different types of mixed methods studies based on the ways the quantitative and qualitative approaches have been combined. Differences in these mixed methods depend on the research questions, sampling procedures, data collection procedures, type of data, data analysis and conclusions.

Researchers from different disciplines have used different mixed method designs. Johnson and Onwuegbuzie (2004) mention two major types of mixed method research. One is a mixed-model that mixes quantitative and qualitative approaches within or across

the stages of the research processes. The second type is a mixed-method which features the inclusion of a quantitative phase and a qualitative phase in the research study. The authors also mentioned two other important issues that would have bearing upon the decision as to whether a mixed method should be used in research, namely, a) whether one wants to operate largely within one dominant paradigm or not, and b) whether one wants to conduct the phases concurrently or sequentially (148). For health research, Morgan (1998) finds a complementary design more appropriate. This again has four types, qualitative preliminary, quantitative preliminary, qualitative follow-up and quantitative follow-up (149). Tashakkori and Teddlie (2003b) describe five designs for research in social and behavioural sciences. These are multistrand designs, concurrent mixed designs, sequential mixed designs, multistrand conversion mixed designs and fully integrated mixed model designs (153). In the discipline of nursing, Sandelowski (2000) identifies four types of mixed method designs, sequential, concurrent, iterative and sandwich designs (154).

However, there are still some grey areas and inconsistencies in conceptualizing the methods and methodologies in mixed method research, particularly in the area of integration (143, 144, 147). Integration was limited only among some components of the research design without considerable integration between the quantitative and qualitative components in general (143, 148).

Mixed method research proved to be an effective method of research, as it provides precise descriptions of the complexity of a phenomenon with the use of both quantitative and qualitative methods in the research (145). The main justification for mixed method

research is that it can provide comprehensiveness by providing both depth and breadth of information, which quantitative or qualitative research alone cannot account for (148, 152). The other advantage of mixed method research is that it is more 'practical' in view of the fact that a researcher enjoys flexibility to use all possible methods combining 'inductive and deductive thinking' to address the problems under investigation (152, page 13).

The present research project adopted a combination of quantitative and qualitative research designs to answer the central research questions presented in Chapter 1. The questions for the quantitative component were developed from the existing literature review and theoretical perspectives on migrations and associated vulnerabilities related to HIV infection. The qualitative component helped investigate the hidden and stigmatizing behavioural and social factors related to HIV infection (155). The current research followed a strategy where the quantitative component was followed by the qualitative one. The data from each component have been analysed and results have been reported separately. Later on, the results have been discussed together in one chapter.

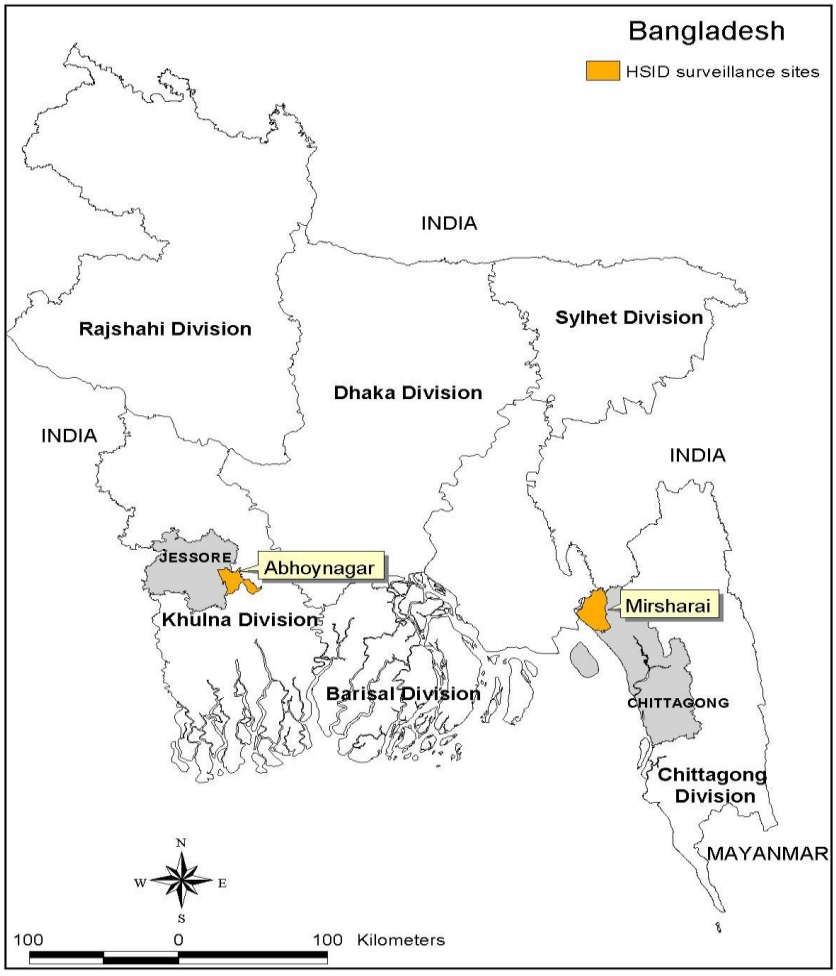
3.2 Research Setting

The research project on which this thesis is based was conducted in Mirsarai and Abhoynagar, two rural areas of Bangladesh. Bangladesh is divided into seven administrative divisions, each named after their respective divisional headquarters: Barisal, Chittagong, Dhaka, Khulna, Rajshahi, Sylhet, and Rangpur. Divisions are sub-divided into 64 districts and each district is again sub-divided into upazila (sub-district). There are 461 upazilas in the country and each upazila is divided into several unions and

each union consists of many villages. Each upazila has an average area of approximately 25 square kilometres and with a population of around 200,000 (156). Mirsarai and Abhoynagar are two of the upazilas located in Chittagong and Khulna Division respectively.

Mirsarai is located in the industrial belt of Chittagong Division in the south-eastern part of Bangladesh and is 90 kilometres away from the country's largest seaport. The population in Mirsarai is conservative in its attitude towards and acceptance of immunization and family planning services (157). Abhoynagar is located in the industrial belt of Khulna Division in south-western Bangladesh. Although it is a rural sub-district, the area is more progressive in terms of greater mobility of men and women and higher acceptance of immunization and family planning services (157).

The quantitative component of the research project was a cross-sectional survey conducted by ICDDR,B with funding support from USAID Bangladesh in 2004. The survey was designed to be conducted in the two ICDDR,B surveillance areas where the Demographic and Health Surveillance System (DHSS) is operational. Both Mirsarai and Abhoynagar DHSS were included as the two sites for the cross-sectional survey. This surveillance system comprises collection of key demographic data quarterly including information from married women of reproductive age (MRWA) and records of in-coming and out3-going people. Five unions of Mirsarai and five unions of Abhoynagar have been included in this surveillance system since 1994 and 1982, respectively. However, two additional unions at Mirsarai surveillance system were included in 1999.



Source: Centre for Child and Adolescent Health (CCAH), ICDDR,B

Figure 3.1: Mirsarai and Abhoynagar areas of Bangladesh

The two areas, Mirsarai and Abhoynagar are predominantly rural areas. A stratified two-stage sampling design was followed to identify unions and villages. In first stage unions were selected randomly followed by random selection of households in second-stage. The sampling was designed in a way that each household had an equal chance of being included in the sampling frame. The households were identified using a systematic random-sampling technique. However, different sampling fractions were used for the two

areas, for example, for Abhoynagar field site, every sixth household was identified as study household which was every fourth household for the Mirsarai field site.

The reasons for choosing these two areas for the cross-sectional survey were as follows: a) Mirsarai is an area from where a large number of people go overseas for temporary work, b) a large number of adult males in Abhoynagar travel to other places in Bangladesh, c) Abhoynagar is close to the Indian border and men in this upazila make short visits to India frequently, d) both Mirsarai and Abhoynagar are included in the DHSS of ICDDR,B. As discussed in Chapter 1, the cross-sectional survey was conducted between 2004 and 2005 and data were collected during October-December 2004 (Appendix A). The qualitative component was conducted only in the Mirsarai area.

3.3 Quantitative Component

The quantitative component of the thesis comprises secondary analysis of a cross-sectional survey dataset which aimed to understand the demographic, socio-economic and reproductive characteristics associated with the risky sexual behaviours of wives of migrant and non-migrant workers in Bangladesh which increased their vulnerability to HIV infection. In addition, the survey collected data on knowledge and awareness about HIV/AIDS and STIs. The quantitative component also included data collection and analysis of field notes where the interviewers provided a description of the context and the way the respondents reported their extra-marital sexual relationships.

3.3.1 Surveillance database

The surveillance database of the two areas comprised married women of reproductive age (15-49 years). This was designed in a way to collect key demographic events quarterly including migration in and out, dates of events, reasons and destination from married women of reproductive age (MRWA). The database of migrant husbands is updated based on the information collected during each round (quarterly). There were 11,160 married women in Mirsarai and Abhoynagar in the third surveillance round of 2004. Among these women, 8,961 (80.4%) were wives of non-migrants, 985 (8.8%) were wives of internal migrants and 1,214 (10.9%) were the wives of overseas migrants. The cross sectional survey was designed to collect data from five female and three male groups of different migration status. Out of these, only three female groups were analysed for the current thesis. The other male and female groups had been analysed earlier and report was also published (32).

3.3.2 Study sample

The target population included in the cross-sectional survey included married women of reproductive age (15-49 years) who were living in the Mirsarai and Abhoynagar areas and sampled under ICDDR,B surveillance. They belonged to any of the following three groups: 1) wives of non-migrants, 2) wives of internal migrants, whose husbands had returned home from elsewhere in Bangladesh during the time of interview and 3) wives of overseas migrants whose husbands had returned home during the time of interview. The respondents were randomly selected from the surveillance database and the randomization of respondents in each category was done separately. As the surveillance

database captures information on incoming and outgoing migration, it was possible to identify married people who were, or had been, separated from their wives and those who were not separated. The study included the following spouse groups: women whose husbands had returned from elsewhere in Bangladesh (n=125); and women whose husbands had returned from abroad (n=178). They were compared with a group of women whose husbands were non-migrants (n=396).

For the group of women whose husbands were non-migrants, the sample was taken among the women who were consistently present in all rounds (quarterly) since 1999. Similarly, for the other two groups, the sample was chosen from the group of women whose husbands had gone abroad or elsewhere in Bangladesh and stayed there for at least 60 days and returned home.

The group of women whose husbands were non-migrants was sampled by random sampling of the married women of reproductive age from the surveillance database using computerized randomization as there were a large number of potential respondents in this group. However, the total number of respondents for the other two groups, such as respondents whose husbands had returned from elsewhere in Bangladesh and respondents whose husbands had returned from overseas was not enough for random sampling. Therefore, the sampling of those two groups was done by selecting alternate respondents from the two separate lists of total respondents who were grouped as married women whose husbands had gone and returned from elsewhere in Bangladesh or overseas. The husbands of alternate married women of different migration status were interviewed and the data were analysed separately. The selection of alternate women was done in order to

avoid interviewing any couple. There were a number of sensitive issues discussed during the interviews, which could have led to some sort of marital conflict.

As mentioned, the research aimed to examine the risk of HIV/AIDS among the respondents included in the project. However, there was no previous information on the estimated proportion of HIV/AIDS risks in any of the respondent groups. An assumption on the proportion of HIV/AIDS risk in each respondent category was made at 0.50. Based on this assumption, the number of respondents calculated for inclusion in each category was 384 with 95 per cent confidence interval and the statistical power of 80 per cent.

3.3.3 Data collection

Data were collected on socio-demographic characteristics, sexual behaviours and awareness about HIV/AIDS and STIs using a semi-structured questionnaire. The questionnaire had the following four sections: Section 1 included basic socio-demographic information, for example, age, own and husband's education, own and husband's occupation, monthly household expenditure, duration of marriage. In addition, information about husbands' migration with duration of separation from wives included in the questionnaire was sought from the wives of migrant workers. The second section contained marital information including number of living children, size of the family and use of contraception.

The third section contained the most sensitive information on extra-marital sex. The section began with a general query about the respondent's perception of extra-marital sex among married men and women in society, who lived apart or did not live apart from each

other. The responses were taken using a 10-point scale, and were grouped into three categories, namely, more than 5 out of 10, 2 to 5 out of 10, and 1 out of 10. After that, all the respondents were asked about their own experience of extra-marital sex and condom use during marital and extra-marital sex. The last section was confined to knowledge about HIV/AIDS and STIs and their perceived risk of contracting HIV/AIDS.

3.3.3.1 Data collection process

Two workshops were organized in the two study areas (Mirsarai and Abhoynagar) in order to involve the local level health managers and other officials, inform them of the purpose and the future use of the study, and keep them on board with the survey. Female interviewers were recruited to carry out the field work of the cross-sectional survey. They were provided training for three weeks on the questionnaires and different issues pertaining to the study.

The development of questionnaire went through different stages. Initially, all team members in the survey team participated in a brainstorming session to identify different sections including contents of each section of the questionnaire. A co-investigator of the survey team, then drafted a questionnaire based on the outline discussed in the team during brainstorming meeting. The team also used the national HIV behavioural surveillance questionnaires for different groups. The questionnaire was first drafted in English for all the eight groups of respondents (five female and three male groups) and was finalized after addressing feedback from all the team members. At the second stage, all the questionnaires were translated in Bangla, the language in which the interview was

conducted. The translation was done in keeping with the Bangla questionnaire of the national HIV behavioural surveillance.

Pre-testing of questionnaire was done in one non-surveillance union of Mirsarai area. Altogether, 20 interviews were conducted, at least two from each group. Some follow-up questions in each section were added. Besides, a description about the content of each section was added before starting of each section. After pre-testing, this was felt very important particularly for section three, which contains information on sexual risk behaviours to re-inform the respondents about the nature of the questions s/he might be expecting soon and to provide reassurance that any time they can withdraw themselves from the interview if they felt uncomfortable. The interviewers were provided with a list of the sample population with household addresses and locations. The interviewers prepared the household addresses along with locations with the help of the staff from ICDDR,B Mirsarai field office. The interviewers were instructed to approach each respondent for the interview, and if they agreed to the interview, it was conducted on the same day, otherwise they made an appointment according to the respondent's convenience. If a respondent was not at home when the interviewer visited, the interviewer would return a maximum of three times. The interviewers checked the completed questionnaires each day, and they were crosschecked by another interviewer for any gaps or discrepancy before submission to the field coordinator. Field coordinator further checked the questionnaires before sending them to the Dhaka office for data entry and analysis. The details of the cross-sectional survey including my role have been elaborated in the appendix (see Appendix A).

3.3.3.2 HIV risk measurements

Globally, there have been many variables identified as risk factors for HIV/AIDS. UNAIDS suggested some variables as the global indicators of the risk behaviours, which are, number and types of sexual partners, condom use, age at first sex, commercial sex and age mixing in sexual relationships. However, Slaymaker (2004) critiques the UNAIDS indicators, stating that measurement of sexual risk behaviours still remains a challenge as sexual behaviour relies upon people reporting their activities and there are no biological markers that can replace this (158). Some studies in India identified low level of knowledge, sex with sex workers, low use of condoms, pre-and/or extra-marital sex, multiple casual partners, sexually transmitted infections, peer pressure, alcohol and low risk perception as important risk factors (29, 159) for HIV infection. Lurie and others (2003) demonstrated HIV risks among those who have one or more casual partners and experience of STIs symptoms in the last 4 months (18). In his study Devendar (2010) used the following variables to identify HIV risk: having casual partners in the city in the last 12 months, having had sex with a commercial sex worker in the city in the last 12 months, and no or inconsistent condom use with sex workers (113).

HIV risk for the present study was defined with inclusions of the following variables: reported extra-marital sex (yes/no); experienced symptoms of STIs (yes/no); and never heard of HIV/AIDS (yes/no). These variables have been chosen to reflect the HIV risk behaviours among married women, wives of migrant and non-migrant workers in the context of Bangladesh.

The reported extra-marital sex among respondents would constitute an important HIV risk behaviour in any setting. Having STI infection increases the risk of acquiring HIV infection manyfold. Several studies have identified a relationship between extra-marital sex and STIs, and this has the potential to impact upon a possible HIV epidemic in Bangladesh (32, 116, 160). A significantly higher proportion of married men and women who had reported extra-marital sex, had reported experience of STIs in their life (AOR 1.9, 95% CI= 1.2-3.0 for women and AOR 5.7, 95% CI= 3.7-8.7 for men) (32). Bogaerts and others (2001) identified 'husbands living away from home' or 'suspected of being unfaithful' for married women having STIs (160).

'Never heard of HIV/AIDS' was considered an important variable for married women. Obviously, 'heard about HIV' does not guarantee enough knowledge about HIV/AIDS, and thereby, reduce the HIV risk. However, the women who are really unaware of HIV, bear the most risk given the fact that most/all have unprotected sex with their husbands upon their return home. In 2006, according to a report by the National AIDS STI Programme (NASP), approximately 67 per cent of identified HIV-positive cases in the country were returnee migrant workers and their spouses (7). Despite the fact that Bangladesh is a low HIV prevalence country, reported HIV cases are disproportionately high among migrant workers, and thus knowledge of HIV among their wives is of crucial importance in order to understand the risks they are vulnerable to.

3.3.3.3 STI symptoms measurements

There were six questions to measure STI symptoms in the questionnaire. First, the respondents were asked whether they had heard about the diseases (other than HIV) that

can be transmitted through sexual contact (yes/no)? If yes, the second question was, "What are these?" Multiple responses were recorded but respondents were not prompted about any disease. The third question was whether the respondents knew any sign/symptom of the disease that could be transmitted through sexual contact. Multiple responses were recorded but not prompted. The fourth question was whether the respondents had ever experienced any of the symptoms they had mentioned in the third question. The response was yes/ no. Those who reported 'yes' were considered as having symptoms of STIs in the present study since they conceptualized this as an STI. While naming the diseases, the majority of the respondents mentioned vaginal discharge as a disease that is transmitted sexually. Most studies did not show any association between vaginal discharge and STIs. While this is true, some studies also showed positive correlation between vaginal discharge and sexually transmissible infections (161-167). Tosh and others observed in a study conducted in a primary health care clinic that Mycoplasma genitalium is positively associated with women having signs/symptoms of vaginal discharge 3.30 (1.54-7.03). Another study conducted among pregnant women in Malawi showed a positive association between bacterial vaginosis and HIV infection (168). Some of these studies were conducted among women who were at risk. In the context of Bangladesh, the study population, wives of the migrant workers, were also considered vulnerable because of their husbands' risky sexual behaviours. Still, a significant proportion of those having vaginal discharge do not have an STI, as evident from these studies around the globe.

3.3.4 Secondary analysis of survey data

The cross-sectional survey included three distinct data sets of wives of migrant and non-migrant workers; these were, wives whose husbands were non-migrants, wives whose husbands had returned from elsewhere in Bangladesh and wives whose husbands had returned from overseas. All the data files were obtained in electronic format of a statistical package for the social sciences (SPSS), version 14, both on a CD-ROM disk and on a USB flash drive. At the beginning of the analysis, the three groups of data sets were combined into a single data set and used for the analysis. Data analysis was conducted initially using SPSS/WIN (Version 16 and 17). Finally, data were transferred to STATA (Version 11) and some bivariate and multivariate analyses were conducted.

Several variables were recoded in order to make them more usable for further analysis. Some variables were collapsed because of the small number of responses. Details of some of the salient data transformation include age, education, husband's education, monthly household expenditure, duration of marriage, number of living children, and family size. For example, with regard to age of the participants, the participants aged above 45 years were collapsed and grouped with the category 45+ as the number of respondents was small (26 out of 699). In order to understand the age characteristics of the study population, the following four age categories were created: 15-24 years, 25-34 years, 35-44 years and 45 years and above. The age was again recoded into two categories, age below 35 years, and 35 years and above. Similarly, respondents' and their husbands' education was transformed primarily into five categories: zero (0) schooling, 1-5, 6-10, 11-12 and 13-16 years of schooling. Both respondents' and their husbands' education again were recoded

and categorized according to the following three variables, no education (never attended school), primary (1-5 years of schooling) and above primary education (6 or more years of schooling). Monthly household expenditures was recoded into two categories, which were, below Tk. 5000 (US$[2] 66) and Tk. 5000 and above.

Marital duration was categorized into the three variables: ≤ 9 years, 10-19 years and ≥ 20 years. The years of marital duration above 20 years was collapsed with the last category. Number of living children of respondents was categorized into the two following categories: ≤ 2 and > 2. Similarly, respondents' family size was also divided into three categories, 2-4, 5-7 and ≥ 8. Family sizes above 8 were collapsed with the last category.

A univariate analysis was conducted to describe the study population by their socio-demographic characteristics and to describe respondents' own sexual experience outside marriage and also their views on other men's and women's infidelity. The analyses also included condom use during marital and extra-marital sex and awareness about STIs and HIV/AIDS.

Selected socio-demographic characteristics, sexual risk behaviours and awareness about STIs and HIV/AIDS were analysed across three groups of respondents by their husbands' migration status. The differences between socio-demographic characteristics and different groups of respondents by migration status were assessed using Pearson's chi-square test. An association was also measured among respondents who were at risk or without risk for HIV with the socio-demographic characteristics. In the analysis, 'HIV risk' was defined as any woman who had reportedly never heard of HIV or had extra-marital sex or

[2]One US dollar was equivalent to 75 taka (Bangladeshi) during the period analysis was conducted.

experienced any STI symptom. For the outcome variable of ‘HIV risk’, a single variable of interest was selected each time and observed whether there was a statistically significant association between them using a contingency table with a Pearson’s chi-square test. Unadjusted odds ratios (OR) and 95 per cent confidence intervals (CI) were estimated to measure how large and effective the association was.

Multivariable regression was applied to the outcome variable ‘HIV risk’. For the outcome variable of ‘HIV risk’, selected socio-demographic factors and migration groups of respondents were considered as the candidate variables. All the variables were checked for any missing data and correlations before using them in a regression analysis. The multivariable logistic regression was performed using backward stepwise logistic regression to identify a/the predictor of ‘HIV risk’ (169). In the selection of candidate variables for regression, a p value of less than 0.25 in the univariate analysis was considered. The socio-demographic variables of age, education, husband's education, areas of residence, marital duration, number of living children and family size were used in the regression model. Migration statuses of respondents and monthly household expenditure were also considered as candidate variables and included in the regression model, though the p value was more than 0.25, to see if there was any significant association after controlling for other socio-demographic variables. In order to assess the statistical significance of each of the candidate variables, the Log Likelihood Ratio Test Statistic (LR test) was used. The candidate variable was retained in the model when the LR test yielded a chi-square p value of less than 0.05. The candidate variables which showed the lowest association were removed from the model one by one until the model

was significant ($p < 0.05$). Table 3.1 presents a list of socio-demographic variables and sexual risk behaviours and risk of HIV/AIDS.

Table 3.1: List of selected variables

Socio-demographic	**Sexual risk behaviours and risk of HIV/AIDS**
Age	HIV/AIDS risk
Respondent's education	Extra-marital sex (Perception and own experience)
Husband's education	
Monthly household expenditure	Condom use (in marital and extra-marital sex)
Marital duration	Knowledge of HIV/AIDS
Number of living children	Knowledge of STIs
Family size	Risk perception
Area of residence	

3.3.5 Field notes: Data collection and analysis

This description was written on a separate piece of paper and attached at the end of the survey questionnaire. Considering the limitation of the structured interviews where the response categories were limited to yes or no, the interviewers were instructed to write a note describing the situation which influenced the circumstances leading to extra-marital sex. Fifteen out of 25 respondents who reported extra-marital sex were considered worthy of separate field notes. Fifteen field notes were obtained as the instruction about writing field notes was delivered to the interviewers a little late during data collection and some of the interviews had been conducted before the instruction. These field notes were analysed and results presented in Chapter 5. Of the 15 field notes, six field notes were on

the wives of migrants and the remaining nine field notes were on the wives of the non-migrants. The field notes, from half a page to one and a half page in length, were written in Bangla.

A thematic analysis was undertaken. A review of the open-ended comments contained in the field notes was coded. The overarching theme was 'women's vulnerability' that reflected the situation that determined how the wives made sense of their experiences. The various subthemes within the overall theme of women's vulnerability included opportunistic sex, sexual abuse or forced sex, and poverty-related sex. Many of the themes were found to be interlinked. The field notes were in Bangla, the native language, but all coding and analysis was undertaken in English.

3.3.6 Ethical considerations

Approval was obtained from the Ethical Review Committee (ERC) of ICDDR,B for the secondary analysis of the survey data set for this research project (Appendix A). Data were obtained from ICDDR,B in de-identified files for the purpose of secondary analysis, so that no link could be made with the master sampling file. Even though I was the principal investigator (PI) of the survey, there was no way I could identify the original participants for secondary analysis. Furthermore, the files across the two areas were merged by migration status and delinked to ensure anonymity of the participants and their details.

There was no physical or emotional risk involved as far as the participants of the quantitative component were concerned as it did not require any recruitment of

participants and data were obtained from the data archive of ICDDR,B. Three separate electronic data files based on the three groups of respondents were collected for the secondary analysis and stored in the principal researcher's computer, which has been used for the PhD study. Only the principal researcher had access to these files.

3.3.7 Limitations

In the secondary analysis of cross-sectional survey data, a number of methodological limitations need to be considered when interpreting the results. The quantitative component was conducted in the two ICDDR,B surveillance areas. This might create a selection bias and the findings may have been specific to those areas only. However, the objective of the research project was to examine the HIV risk among the wives of migrant and non-migrant workers and to identify association between socio-demographic characteristics and different migration status.

Both these areas, Mirsarai and Abhoynagar, are quite well-known for outward migration. The data set used for this research project was from an observational cross-sectional survey. Therefore, it only provides a snapshot of a particular time (170), and caution is required in the interpretation of any observed association. It might not possible to establish a temporal relationship between risk factors and HIV vulnerability because of cross-sectional design, which could have been possible with cohort or case-control studies.

Secondary analysis of the data set drawn from a survey may generate questions with regard to validity of this research project in relation to inaccuracies in data collection or entry of data. However, these are not expected to be a problem as I was the PI of the cross-

sectional survey from where the data set was taken for this research project. I coordinated the field work, data collection process and data entry, which was elaborated in Chapter 1. In addition, a cleaned dataset of the wives of migrant and non-migrant workers was obtained from ICDDR,B for this research project.

Because of the small number of responses, analysis was restricted to some of the outcome variables, for example, extra-marital sex and condom use in extra-marital sex. There is also a likelihood of under-reporting as the respondents were women in a conservative social setting. The study did not show any HIV risk among wives of migrant workers. This could have occurred because of the small sample size among the wives of the two migration groups compared to the wives of the non-migrant group, in addition to the possibility of under-reporting of sensitive information.

There may have been some biases in creating the outcome variable 'HIV risk', which is a composite outcome variable. This may not have taken cognizance of certain factors which could be important. The study attempted to combine the previously verified variables in other studies with the ones that had not been examined at that time, for example, 'never heard of HIV.' This was combined in the 'HIV risk' variable together with 'extra-marital sex' and 'experience of STI symptoms.'

3.4 Qualitative Component

The qualitative component of the research project constituted in-depth interviews with married male migrants and non-migrants, and wives of the migrants and non-migrants. The aim of the qualitative interviews was to better understand and explain how the socio-economic and cultural context may influence the belief and behaviours of the participants and make them vulnerable to HIV infection.

3.4.1 Research design

Taylor and Bogdan (1998) state that in-depth interviews allow greater flexibility of discussion among participants to get their views and experiences in their own words (171, page 88, 172) rather than in those of the researcher. The participants are in a better position to describe a phenomenon or a context meaningfully without any restriction from pre-identified categories, and this leads to more credible and valid research (172). The in-depth interviews for the present study were designed to investigate sexual risk behaviours and understandings regarding risks associated with HIV/AIDS of married men, migrants and non-migrants, and their wives in the context of their social, cultural and economical status. Individuals' experiences of sexual risk behaviours or understanding about their socio-cultural context provided different views that shape the meaning of vulnerability to HIV/AIDS of the migrant population. The qualitative component adopted a project framework, presented in Chapter 2, which was developed by integrating the findings from a literature review in the area of migration and HIV/AIDS, and the theoretical paradigms around migration and HIV vulnerability.

3.4.2 Enrolment of participants

The participants were identified from the surveillance data base as this data base contained information on inward and outward migration. Thus, it was possible to make a list of married women who were, or had been, away from their husbands, and those who had not lived apart. A list of 50 married women whose husbands had returned from elsewhere in Bangladesh and overseas with their home addresses and locations was prepared purposively with the help of the ICDDR,B field office, Mirsarai.

All married women of different migration status under the surveillance system were suitable to be included in the study. For the male participants, husbands of the married women living in the surveillance areas were eligible to participate in the study. Non-migrants and wives of non-migrants were identified with the help of migrant participants. The migrant participants were asked whether they could identify non-migrant participants who might be interested in participating in the interviews. Also, while preparing the list of participants, the following factors about the participants were considered: a) age of the participants, b) one participant from a family c) participants from adjacent villages. For example, for female participants, women between the ages of 20 and 35 years, and for male participants, men between the ages of 30 and 45 were thought to be appropriate for inclusion in the study in order to acquire more information.

Although the qualitative component included both male and female participants, couple interviews were not done for the sake of confidentiality and to avoid familial conflict as the discussion included some sensitive issues. Thus, from one family either the husband or the wife was chosen as a participant. Selection of participants from adjacent villages

helped reduce the researcher's travel time. The researcher contacted each participant by visiting his/her house and approached the participant for an interview. If he/she agreed then the interview was conducted on the same day or an appointment was made for a later date convenient for the participant.

Table 3.2: Recruitment characteristics of study participants

Variables	Sub-categories
Gender	Male Female
Three groups of married women	whose husbands were non-migrants whose husbands had returned from overseas whose husbands had returned from elsewhere in Bangladesh (two interviews from each group were conducted)
Two groups of husbands	who were non-migrants (two interviews from this group were conducted) who had returned from overseas (four interviews from this group were conducted)
Age groups	Male: 30-45 years Female: 20-35 years

Table 3.2 describes recruitment characteristics of the participants. The female groups were married women whose husbands had returned from abroad or elsewhere in Bangladesh. The other female group was married women whose husbands were non-migrants, living at home. The male groups comprised married men who had returned from overseas, and men who were non-migrants, living with their wives.

3.4.3 Sampling and sample size

The qualitative component of the research project adopted purposive, convenience and snowball techniques to identify the respondents for in-depth interviews. At the initial stage of sampling, purposive and convenience sampling procedures were followed to identify and list the participants. Purposive sampling is the most commonly used method for sample selection where the researcher or expert uses judgment in selecting participants purposively (173, 174). One basic characteristic of purposive sampling is to identify the sample on the basis of some pre-set criteria based on research objectives (175). In order to better understand the socio-cultural aspects around the sensitive issue of extra-marital sex at home and overseas among married men and women, both purposive and snowball sampling techniques were used to identify the study participants (173).

Snowball sampling was employed to identify the potential non-migrants and wives of non-migrant participants. Four non-migrant (two men and two women) participants were selected and interviewed using the snowball technique. First, a wife of an overseas returnee was asked to provide the name of a wife of a non-migrant worker of similar age, living in a nearby village who will be outspoken and be able to provide information on similar issues. This wife of a non-migrant, after completion of the interview, was asked to provide three other names of people with similar characteristics. From the list of three participants, one was interviewed. Similarly, a male overseas returnee was asked to provide the name of a male non-migrant worker that he thought could be interviewed on similar issues. This male non-migrant participant, after the interview, was asked to provide three other names. One of them was interviewed.

It was planned initially that three interviews would be conducted from each category of the potential participants, which would have led to a total of 18 interviews. However, the researcher stopped after completing 13 interviews for the qualitative component as the information received from the interviews became repetitive and indicated a situation of data saturation. Purposive sampling usually depends on data saturation, a point when no new information or themes emerge from the data (175). Thus, in total, 13 in-depth interviews were conducted. However, one interview was stopped as the participant was uncomfortable with the discussion about sexual issues and the interview data was omitted from the analysis. The twelve interviews were considered to be sufficient with regard to in-depth understanding and explanation of sexual risk behaviours and the context. The completed interviews were used for the study, which comprised six interviews with male participants and six with female participants with different migrant status. The male group included four returned migrant workers and two non-migrant workers. The female groups consisted of two participants in each of the three categories (women whose husbands were non-migrants, women whose husbands had returned from elsewhere in Bangladesh, and women whose husbands had returned from overseas).

3.4.4 Data collection

Data were collected between November 2009 and January 2010. The researcher visited each house according to the list of potential participants and approached each for an interview, if available. Only one participant agreed to be interviewed on the day he was approached. The rest of the participants were either absent or did not have time to be interviewed during the first visit. For those who did not have time, the researcher made an

appointment with the participant and organized an interview on a later date convenient to the participant. For those who were absent, the researcher took the mobile number of the participants and made tentative appointments based on their wives knowledge of their availability (this only occurred with male participants). The tentative appointment was confirmed by contacting the particular participant by telephone. Three participants took part in a second interview. The reason for a second interview was to clarify and obtain more information on some of the responses from the first interview after initial analysis.

As mentioned previously, the plan for the fieldwork was set out in discussion with the supervisors. After completion of the first interview, the researcher transcribed the whole interview and sent it to the supervisors. After receiving feedback from the supervisors, the researcher went back and re-interviewed the participant on issues which were not elaborated on in the first interview. The revised transcript was reviewed by supervisors and approval given to proceed to undertake the second interview. This process was followed for three successive interviews until the supervisors were satisfied with the quality of information collected and advised the student researcher to undertake the remaining interviews. All the interviews were audio-taped on a digital recorder with permission from the participant. Interviews were conducted in Bangla, the native language, but the transcription was done directly in English. The supervisors had access only to English transcripts.

Developing rapport with the participants was an important part of the interview process. In order to put the participant at ease and develop rapport, each interview began with an appropriate greeting and an introduction of the researcher followed by a discussion on a

general theme such as the health and wellbeing of the participant and the family members. For example, the participants were asked "how has your day been so far?" or "is everything all right with you?" before going into the study-related issues. The objective of the interview was then explained to the participants. The initial discussion also included the interview process and the use of digital recording. Although there were interview guidelines to maintain the overall focus of the interview, the interview generally proceeded with discussion of inter-related topics rather than jumping into the next question as set out in the interview guidelines. This allowed for a more natural conversational style of interviewing.

3.4.4.1 Data collection guidelines

The interview guidelines were prepared in line with the research framework presented in Chapter 2, and included questions on socio-demographic characteristics, information about men's migration, discussion on sexual risk behaviours, explanation of socio-cultural context regarding sexual issues, and discussion about HIV/AIDS (see Appendix B3).

There was a master interview guide, from which four different versions were developed to customize semi-structured questions for the four groups of participants. The contents of the guidelines were more or less similar except non-migrant participants and wives of the non-migrant participants were not asked about the details of own/husbands' work experience and sexual risk behaviours outside their home country. The guidelines were modified, as needed, based on the information received in the first three interviews. The modification included the issues related to the process of migration, work experience in the destination country and the reluctance of overseas Bangladesh embassies to provide

assistance.

The interaction between participants and researcher began with descriptive questions, which enabled participants to discuss their experiences, own interpretations of the issues while describing their perception, experience or views. For example, all migrant participants were asked to discuss their general experiences about living abroad. Minichiello et al. (2008) observe that a non-probing question to start a topic allows participant to take control over the flow of information (172). A migrant participant said that "living overseas is like living in a jail without wall". The interviewer probed into this experience to elicit more information by asking "can you please elaborate what you mean by "jail without wall"? This probing question helped the interviewer obtain more detailed information in relation to the original question (172, 176).

3.4.5 Data analysis

As mentioned, the interviews were transcribed directly into English through listening to the audiotapes, all except for one interview which was first transcribed and analysed in Bangla (the language in which the interview was conducted) and then translated into English. The same Bangla transcription was translated into English by another person and both the English transcriptions were compared for any discrepancy. The researcher undertook the transcription of the initial six interviews through which different codes were identified and several themes emerged. The six interviews, which were fully transcribed, included the two women participants whose husbands had returned from overseas, two men participants who had returned from overseas and two non-migrant male participants. Since different codes and themes have already been developed from the analysis of the six

interviews, partial transcription of the rest of the six interviews relevant to different codes and themes was done to accommodate the time constraints in consultation with the supervisors.

Later on, the researcher only transcribed the important parts of the remaining six interviews relevant to the codes already developed. While transcribing, the researcher gave a pseudonym to each participant and used those names beside each quotation in the qualitative data analysis. The total number of transcription pages was 124 (single space), of which 98 pages were from the first six interviews, where transcription was done for full interview. A total of 26 pages of transcriptions were from the last six interviews where only important parts of the interview were transcribed related to different codes identified already in the first six interviews.

The analysis involved data coding and identification of various themes. The initial three transcriptions with codes were shared with the supervisors for their feedback. One supervisor also took part in developing the coding system separately with the initial two interview transcriptions which were compared with the researcher's codes to come to a consensus about various codes.

To develop a coding schema, codes were allocated manually to the text. The transcripts were read thoroughly and meticulously to identify commonalities in expressions—words, phrases or sentences, and codes were assigned to the texts with common meaning. Often a word or a phrase was chosen from the text as a code (177). While naming codes, descriptive and interpretive words or phrases were used to best describe the text. For example, the codes 'social isolation', or 'separation from wife', provided a scenario of

loneliness and best described the situation while husbands were away from wives.

Some codes appeared connected and similar in nature. Such codes were merged together under a single category. For example, the category ‘sexual exploitation’ was derived from the codes ‘sexual abuse’, ‘forced sex’, ‘accepting the reality’ along with some other poverty-related codes. Figure 3.2 illustrates the relationship between codes and the category of ‘sexual exploitation’.

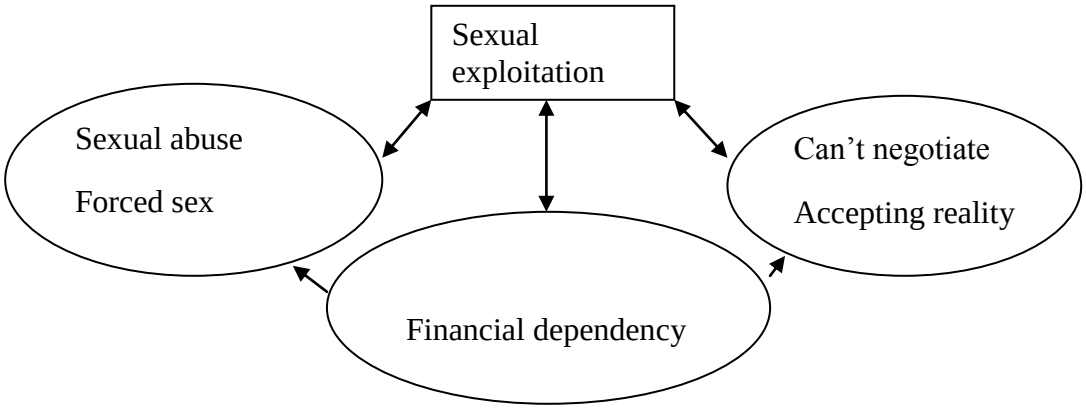


Figure 3.2: Relationship for the category of ‘sexual exploitation’

A deeper analysis of the interview transcripts, based on the initial set of codes and categories, revealed some close and rational relationships among categories, which led to the last steps of coding—generation of themes. A constant comparison of codes and data evolved into categories and subcategories. Different codes linked categories with subcategories. Analysis was conducted on the basis of the research framework in Chapter 2. During analysis, it appeared that the migrant workers and the women in general were the most vulnerable groups. Given the conservative socio-cultural context, both the wives

of migrant and non-migrant workers were found to be equally vulnerable. Figures 3.3 and 3.4 illustrate the relationships among codes, categories and themes that explain the vulnerabilities of migrant workers and women in general.

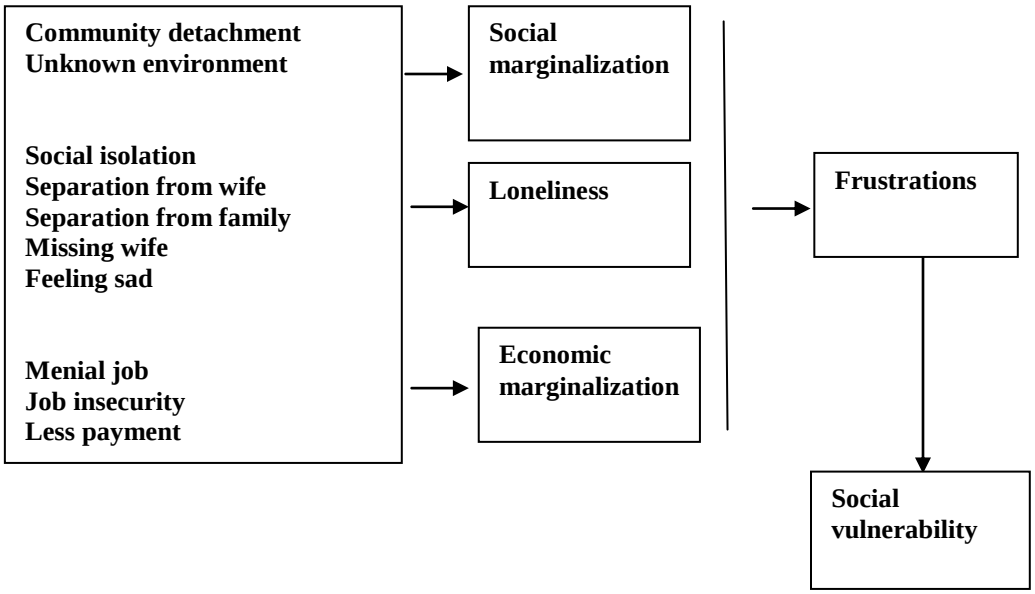


Figure 3.3: Relationships among codes, categories and a theme of social vulnerability

Figure 3.3 illustrates the vulnerability of migrant workers while they lived away from their wives and families due to work-related migration. A major category 'frustration' appeared from the data which was connected with different codes on the left side of the box through three subcategories in the middle and eventually connected to a theme of 'social vulnerability'. This highlights the vulnerability of migrant workers. The codes and categories that were identified from the data reflected similarities presented in the research

framework in Chapter 2.

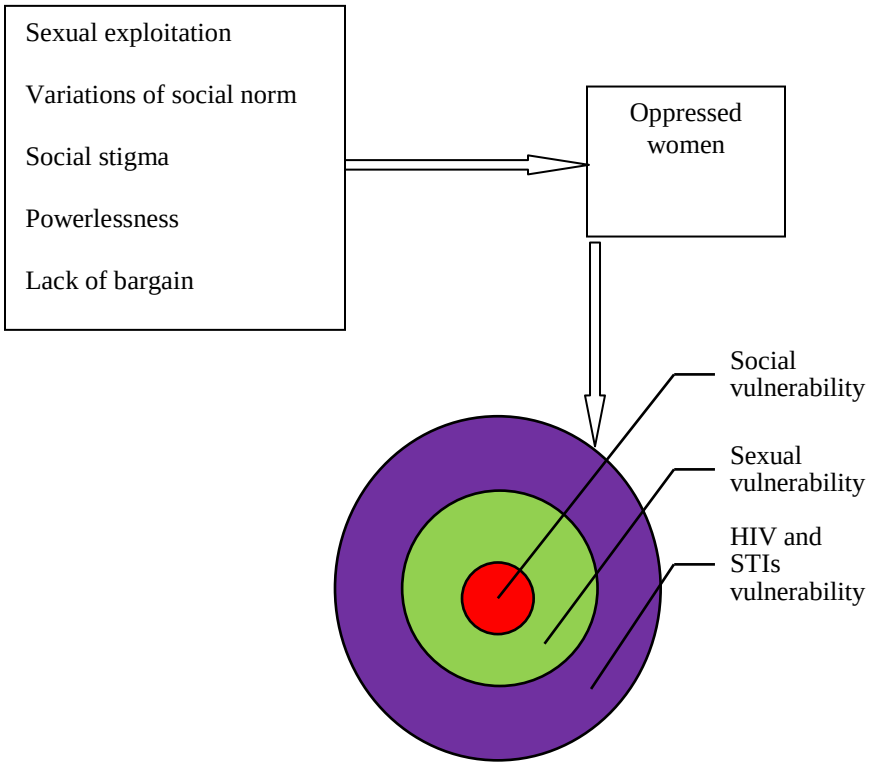


Figure 3.4: Relationships between categories and themes, highlighting women's vulnerabilities

Figure 3.4 shows overlapping relationships between categories and themes that emerged from the data and explained the vulnerability of women in general. A major category 'oppressed women' was generated from a number of subcategories presented in the box on the left side above and linked with various themes as shown in the circle below on the right hand side.

The sub-categories of 'variations of social norm' and 'social stigma' were the product of conservative society as detailed in the research framework of Chapter 2. The other categories, 'powerlessness' and 'lack of bargain', reflect the norms of a patriarchal society that favours men over women, and highlight the experience of oppression among women–both social discrimination and sexual risk of HIV/AIDS.

The sexual and HIV vulnerability are socially produced as the 'social vulnerability' remains at the core of that which makes women vulnerable to HIV/AIDS infection. The next section discusses rigour and trustworthiness in line with the use of qualitative methods.

A general criticism against qualitative research is the preponderance of subjective interpretation that makes it much less objective than quantitative research. Thus it is the researcher's responsibility to create truthful and dependable data from qualitative research. According to Lincoln and Guba (1985), the meaning of trustworthiness of a good quality study is simple; it means to convince or influence the readers that the findings are 'worth paying attention to.' Koch (1994) describes rigour as a 'decision trail' which includes the whole process of the researcher's experience in making the data (178).

Certain criteria, for example, credibility, transferability, dependability and confirmability (179, 180), were used to measure the trustworthiness of this study. These are discussed below. According to Koch (1993), credibility depends upon the researcher's experience and interpretation of his/her research. Lincoln and Guba (1985, 1989) discussed several techniques to enhance credibility. This research followed some of these techniques. For example "engagement, persistent observation, peer debriefing" and some forms of

"member checking" process were used in the present study as recommended by the authors (179, 180).

The researcher enhanced engagement by undertaking a field visit for two and a half months to conduct twelve interviews. During this time, the researcher was in regular contact with the participants and met three participants a second time for clarification of some issues. During the second meeting with the three participants, the researcher shared the summary of his/her interview.

Regular peer debriefing about interview techniques, gaps in the interviews (through looking at the transcriptions) and discussions about the initial analysis plan were held with the supervisors through electronic communication while the researcher was in Bangladesh for data collection. The process provided an opportunity for external checking of the data.

The research process used in this study was to accumulate participants' views about risky sexual behaviours particularly when migrant workers were living away from their wives. The research process also incorporated participants' beliefs and faith from the point of socio-cultural context that might shape their understanding of risky sexual behaviours. The study findings may be transferable in similar social contexts since they reflect participants' explanations not the researcher's own interpretation.

All the interviews were conducted in close contact with and under the guidance of the supervisors, and one of them has long experience of working in qualitative research. One supervisor undertook coding on the initial two transcripts separately, and these was later compared with the researcher's codes in order to reach a consensus, and they were also

examined by other supervisors in separate supervision meetings. In addition, this research maintained proper documentation of all records; for example, all the interviews were recorded digitally, which were then transferred and saved on the researcher's computer. The Word document of all the transcriptions were also saved both electronically and as hardcopies with codes and notes kept in a separate filing cabinet. Lincoln and Guba (1985, 1989) called this systematic process of documentation an audit trail (179, 180). In addition, some preliminary analyses of the study were presented to fellow students and academics at in-home conferences.

3.4.6 Ethical approval

The qualitative component of the study was reviewed and approved by the Human Research Ethics Committee of the University of New England (see Appendix B1). The study also went through the expedited review of the Research Review Committee (RRC) and the Ethical Review Committee (ERC) of ICDDR,B for approval. The data collection began after receiving approval from all ethics committees (see Appendix B1).

Written consent (Appendix B2) was sought and obtained from all the participants after providing the details of the study. There were two participants who could not read or write. Verbal consent was sought and obtained from them. The interview included discussion on sensitive and personal issues in relation to their sexual behaviour and sexual experience. Each participant was told that their participation in the study was voluntary and they could withdraw themselves at anytime if they found the topic to be very sensitive and felt too uncomfortable to continue.

As mentioned, the interview guidelines were prepared based on the research framework (Chapter 2), and included questions on socio-demographic characteristics, information about men's migration, discussion on sexual risk behaviours, explanation of socio-cultural context regarding sexual issues, and discussion about HIV/AIDS (see Appendix B3). Confidentiality was maintained throughout the data collection phase. The participant's name was not asked and all participants were given a pseudonym while preparing the transcripts of the interviews. All the interviews were recorded digitally after obtaining permission from the participants. The recordings were then transferred to the researcher's computer. The data (electronic copy and audio files) were kept secured and locked in the researcher's room.

3.4.7 Limitations

The researcher had to drop the plan of interviewing the married male migrant workers group who had returned from elsewhere in Bangladesh because of the difficulty in reaching them. On four occasions (twice with two participants) they missed the appointments. It was understandable that the internal migrants were usually very busy and visited home with many household related work schedules in hand, and they hardly had any spare time for such an interview. The researcher then interviewed two more returned migrant participants. This brought the total number of returned migrant participants to four.

Some participants were more involved in the interview process than others, and as the interviews were longer and transcripts contained many more comments that could be included as quotes, they were cited more frequently in Chapter 6. Those who were less

responsive were probed in different ways to encourage better participation. For example, 'What else?', 'Can you elaborate a little more?' Often, the researcher summarized to the participants what had already been reported and asked what else could be added. The researcher moved on to another topic when the participant stopped talking for a while.

Given the sensitive nature of the study, initially it was thought that it might be difficult for the female researcher to interview male participants since the study included both male and female participants. However, all the interviews were completed successfully except on one occasion where a male participant felt uncomfortable about the topic and seemed reluctant to proceed. The researcher decided to stop that interview by asking some general questions related to his work overseas and omitted him from the analysis as well.

The present study was limited to low- or semi-skilled migrant workers. However, it was not the objective of the study to assess migrants' jobs based on their skills, although the migrant participants reported that the jobs were menial. Rather, the research focuses on the sexual risk behaviours given the socio-cultural context that make them vulnerable to HIV infection.

It would have been useful to explore socio-cultural differences that the migrants face in the Middle East, Europe and North America. As we know from the literature, the socio-cultural contexts of Europe and North America are more liberal than conservative Middle East countries where most of the Bangladeshis go. However, this issue was not explored in the present study.

3.5 Summary

This chapter discusses the methodology used in this research. The present research used both quantitative and qualitative methodologies in order to collect and analyse information from the migrant and non-migrant population, and provide a socio-cultural explanation of the sexual vulnerability of the migrant population. The quantitative component contains a data set obtained from a cross-sectional survey, data collection of which was conducted between October and December 2004. The qualitative component comprised in-depth interviews with returnee migrant workers, non-migrant workers, and wives of the returnee migrant and non-migrant workers, conducted from November 2009 to January 2010.

The use of both quantitative and qualitative methods ensured in-depth investigation of the topic from different viewpoints. The limitations of both the components were addressed separately in the relevant sections. The following next three chapters present the findings of the study based on the methodologies discussed in this chapter.

Chapter 4: Sexual Risk Behaviours and Risk of HIV/AIDS

4.1 Introduction

The findings from the quantitative component of the research project are presented in Chapters 4 and 5. Chapter 4 comprises three sections. Section I describes the profiles of the respondents, wives of the migrant and non-migrant workers living in Mirsarai and Abhoynagar, Bangladesh, and their association with the migration status of the respondents' husbands. This section investigates whether there are links between socio-demographic characteristics and the migration status of respondents using univariate and bivariate analyses.

Section II describes respondents' sexual risk behaviours and awareness about HIV/AIDS and STIs. The section also investigates whether respondents' risky sexual behaviours and HIV/AIDS and STI awareness varied with their husbands' migration status. Section III focuses on the HIV risk of the respondents. This section presents the results of bivariate and multivariable logistic regression analyses in the investigation of the association between HIV risk and selected socio-demographic characteristics.

As described in Chapter 3, the quantitative component of the thesis comprises secondary analysis of a cross-sectional survey undertaken to identify the factors that were associated with respondents' risky sexual behaviours and aims to investigate respondents' risk of HIV/AIDS. There were two hypotheses: 1) the socio-demographic characteristics, risky sexual behaviours and awareness of HIV/AIDS of the respondents varied by their husbands' migration status. 2) the risk of contracting HIV/AIDS by the wives of migrants

varied according to their socio-demographic characteristics and their husbands' migration status.

4.2 Section I: Profile of Respondents

The data of the cross-sectional survey were obtained from the ICDDR,B data archive which elicited information on a range of socio-demographic characteristics of the wives of the migrant and non-migrant workers. In the survey, the respondents were all currently married and the key socio-demographic characteristics investigated during the survey included age, education (respondents' & their husbands'), occupation (respondents' & their husbands'), monthly household expenditure, marital duration, number of living children and family size, and the area of residence.

4.2.1 Age, education, occupation, household expenditure and area of residence

The mean age of the respondents was 31.8 years (SD± 8.8) with the range from 15 to 55 years. The sample comprised a higher number of younger women with about 61 per cent of the respondents aged 35 years or younger. Of the women aged less than 35 years, 7 per cent were aged below 20 years (see Appendix C1). As described in Chapter 3, the variable "age" was recoded as a categorical variable with four age groups (15-24, 25-34, 35-44 and 45+ years). The proportion of respondents in each category were 26.0, 35.1, 29.0 and 9.9 per cent respectively, evidently with the largest proportion from the respondents aged 25-34 years and the smallest proportion from the oldest group of respondents aged ≥ 45 years (see Figure 4.1). The respondents' age was recoded into two categories, those less than 35 years and those aged 35 years and above. Similar age

categorization was reported in another study (32). A couple of ways was followed while recoding the respondents' age into two categories, those less than 35 years and those aged 35 years and above. Similar age categorization has been observed in other studies (32, 22). In their study Lurie et al. (2003) observed that HIV risk is associated with age for participants aged below 35 years together with some other variables (22). An analysis from a facility-based study among 109 HIV-infected patients in Bangladesh showed that the mean age of HIV-infected patients was 33.4 years, and the median age was 35 years (34).

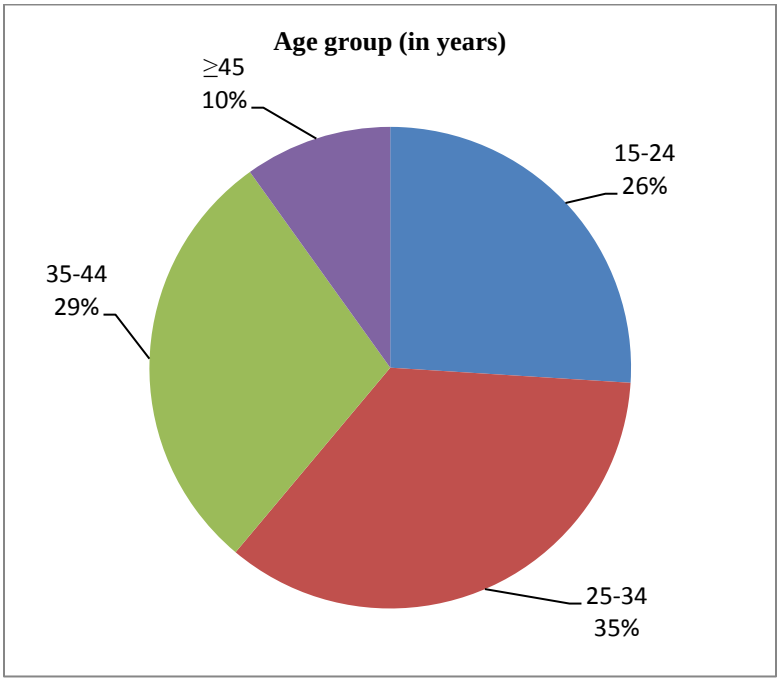


Figure 4.1 Per cent distribution of respondents by age group (N= 699)

Education was measured in terms of years of formal schooling, ranging from 1 to 16 years. In Bangladesh, primary and secondary education includes first to fifth, and sixth to tenth years of schooling respectively. College or higher secondary education comprises the eleventh and twelfth years in education. Bachelor and Masters comprise thirteen and sixteen years of education respectively. The median number of completed years of schooling of the respondents was nine years. The years of schooling of respondents and their husbands were grouped into three categories: no education (0 years), primary (1-5 years), secondary and above (≥ 6 years). More than one-third of the respondents (35.8 per cent) had no education or did not have formal schooling, approximately a quarter (26.8 per cent) attended primary school and about one-third (32.9 per cent) reported having secondary education. About four per cent (29/699) of the respondents had higher secondary schooling (11-12 years) and only 3 respondents (0.4 per cent) reported more than 12 years of schooling (see Appendix C1). The respondents' education in relation to age and area of residence is outlined in Table 4.1.

Table 4.1: Per cent distribution of respondents' education by age and area of residence (N = 699)

Characteristics	**Education (Years of schooling)**			**Pearson chi^2 p value**
	No education (0) n (%)	Primary (1-5) n (%)	Secondary+ (≥ 6) n (%)	
Age (Years)				
< 35	96 (38.4)	117 (62.6)	214 (81.7)	< 0.001
≥ 35	154 (61.6)	70 (37.4)	48 (18.3)	
Area of residence				
Abhoynagar	85 (34.0)	76 (40.6)	84 (32.1)	NS
Mirsarai	165 (66.0)	111 (59.4)	178 (67.9)	

Educational achievement varied by age categories. Older respondents in the sample had fewer years of formal schooling compared to younger respondents groups ($p < 0.001$). Most of the respondents (81.7 per cent) who had secondary education or above were aged below 35 years; the remaining respondents (18.3 per cent) who had had secondary education or above were aged below 35 years. The majority of respondents (61.6 per cent) aged 35 years and above had no education or formal schooling; the remaining respondents (38.4 per cent) aged below 35 years reported no education. Respondent's education was also measured by area of residence, but there was no significant difference observed between educational categories in relation to area of residence (Table 4.1).

Analysis of the data with regard to husbands' education showed a similar profile with regard to the median number of completed years of schooling (i.e. nine years). Thirty seven per cent of respondents reported that their husbands had attained secondary education and 21.9 per cent had primary education. A small proportion (6.3 per cent) reported that their husbands had achieved higher secondary education and 3.9 per cent had 13 to 16 years of schooling. The proportion of those who had never been to school was lower for husbands compared to the respondents (30.8 per cent as opposed to 35.8 per cent) (see Appendix C1).

The survey asked respondents about their own and their husbands' employment and occupation at the time of interview. Most of the respondents (87.8 per cent) reported that they were housewives and conducted household activities as their main work. The rest were engaged in some income-related activities, for example, working as day labourers, or involved in small business or tailoring at home. On the other hand, around half of the

respondents reported that their husbands were engaged either in farming or they worked as day labourers. About a quarter of the husbands were involved in small businesses. The small business involved selling goods, or working in a roadside food shop. Table 4.2 provides information about respondents' monthly household expenditure in relation to age, respondents' education, husbands' education, and area of residence.

Table 4.2: Per cent distribution of respondents' monthly household expenditure by age, respondents' education, husbands' education, and area of residence (N = 699)

Characteristics	Monthly household expenditure (Tk.)		Pearson chi^2 p value
	< 5000 n (%)	≥ 5000 n (%)	
Age (Years)			
< 35	282 (63.7)	145 (56.6)	NS
≥ 35	161 (36.3)	111 (43.4)	
Education (Years)			
No education (0)	183 (41.3)	67 (26.2)	
Primary (1-5)	124 (28.0)	63 (24.6)	< 0.001
Secondary+ (≥ 6)	136 (30.7)	126 (49.2)	
Husbands' education (Years)			
No education (0)	172 (38.8)	43 (16.8)	
Primary (1-5)	114 (25.7)	39 (15.2)	< 0.001
Secondary+ (≥ 6	157 (35.4)	174 (68.0)	
Area of residence			
Abhoynagar	208 (46.9)	37 (14.5)	< 0.001
Mirsarai	235 (53.1)	219 (85.5)	

Respondents were not asked about their income or their husbands' income as most of the rural people in Bangladesh are not engaged in monthly or fortnightly salaried jobs. It is,

therefore, difficult for them to estimate and report monthly income and hence the respondents were asked about their monthly household expenditure, which was used as a proxy for income. Household expenditure has been validated and used as a proxy for income in research in many developing countries (181, 182). The information was collated from approximate monthly family expenditure on food, children's education, medical, clothing and toiletries and other miscellaneous expenditure (if any). These were the most basic needs identified during pre-testing of the questionnaire. The monthly household expenditure among the respondents ranged from Tk. 1000 (US$ 13) to Tk. 47000 (US$ 618[3]). The mean of monthly household expenditure was Tk. 5001.3 (US$ 66). The total expenditure was divided into two categories—less than Tk. 5000 (US$ 66) and above Tk. 5000 on the basis of average monthly household expenditure. Around 63 per cent of respondents reported their expenditure was below Tk. 5000 and about 37 per cent reported expenditure of Tk. 5000 or above.

An analysis of the association revealed that there was no association between monthly household expenditure and age categories of respondents (Table 4.2). However, education (both respondents' and their husbands') and area of residence were significantly ($p < 0.001$) different for the two categories of monthly household expenditure of respondents. With regard to education (both respondents' and their husbands'), higher education seemed to be related to higher expenditure. About half of the respondents who had education secondary and above, reported monthly household expenditure of Tk. 5000 or above, while among the respondents who reported lower monthly household expenditure (< Tk. 5000), the majority (41.3 per cent) had no

[3] For this analysis, the exchange rate of one US dollar was considered equivalent to around Tk. 75. The estimate was based on the exchange rate during the analysis period.

education. More than two-thirds of the respondents whose husbands had secondary education or above reported higher monthly household expenditure (Table 4.2). In relation to area of residence, the greater proportion (85.5 per cent) of respondents who reported higher monthly household expenditure (≥ Tk. 5000) lived in Mirsarai compared to only 14.5 per cent respondents who reported higher monthly household expenditure (≥ Tk. 5000) and lived in Abhoynagar (Table 4.2).

4.2.2 Marriage, number of children and family size

The survey obtained information relating to marital duration, number of living children and family size. The cross-sectional survey did not elicit a detailed reproductive history as is done in many other surveys. Therefore, information on variables such as age at marriage, total fertility (total number of pregnancies, pregnancy losses, etc.) and child death was not available for secondary analysis.

The mean marital duration, as reported by the respondents, was 14.3 years, median was 13 years (ranging from less than a year to 36 years) and SD ± 8.9 years, with the largest proportion (40.5 per cent) married for between less than a year to 10 years. About 35 per cent of the respondents had been married for 11-20 years and 19.2 per cent had been married for 21-30 years. Less than 5 per cent of the respondents reported that they had been married for 31 years and above (see Appendix C2). About one fifth of the respondents had been married for 5 years. There were a few newly married wives, three respondents had been married for less than a year and 22 respondents had been married for one year, while 30 respondents had been married for two years. Marital duration was categorized into three groups, <10, 10-19 and 20+ years. Similar categorization has been

made in another study (32). Marital duration of respondents was cross tabulated with age, education, number of living children, family size and area of residence of respondents and is presented in Table 4.3.

Table 4.3: Per cent distribution of respondents' marital duration by age, education, living children, family size and area of residence (N = 699)

Characteristics	Marital duration (Years)			Pearson chi^2 p value
	< 10 n (%)	10-19 n (%)	≥ 20 n (%)	
Age (Years)				
< 35	235 (96.7)	181 (74.2)	11 (5.2)	< 0.001
≥ 35	8 (3.3)	63 (25.8)	201 (94.8)	
Education (Years)				
No education (0)	43 (17.7)	87 (35.7)	120 (56.6)	
Primary (1-5)	60 (24.7)	66 (27.0)	61 (28.8)	< 0.001
Secondary+ (≥ 6	140 (57.6)	91 (37.3)	31 (14.6)	
Living children (No.)				
≤ 2	232 (95.5)	125 (51.2)	35 (16.5)	< 0.001
> 2	11 (4.5)	119 (48.8)	177 (83.5)	
Family size (No.)				
2-4	106 (43.6)	82 (33.6)	61 (28.8)	
5-7	88 (36.2)	124 (50.8)	108 (50.9)	< 0.01
≥ 8	49 (20.2)	38 (15.6)	43 (20.3)	
Area of residence				
Abhoynagar	89 (36.6)	98 (40.2)	58 (27.4)	
Mirsarai	154 (63.4)	146 (59.8)	154 (72.6)	< 0.05

The analysis revealed that there were significant differences between the three categories of marital duration in relation to age, education, number of living children, family size and area of residence. The sample had a greater proportion of younger respondents

($p < 0.001$) who had been married for less than 10 years. About 96.7 per cent of the respondents, aged below 35 years had been married for less than 10 years, while 94.8 per cent of the respondents aged 35 years and above had been married for 20 years or more.

With regard to education, significantly ($p<0.001$) higher proportion of the respondents who were married for less than 10 years had secondary education or above. On the other hand, more than half of the respondents (56.6 per cent) who had no education had been married for the longest duration ($\geq$ 20 years). Similarly, a greater proportion of respondents ($p < 0.001$) married for less than 10 years reported having fewer children. Moreover, about half of the respondents who had been married for 10-19 years and 20 years and above had a family size between 5 and 7. Among the respondents who had been married for less than 10 years, a larger proportion (43.6 per cent) had the lowest family size (between 2 and 4). However, the respondents who had been married for 20 years or more were slightly under-represented ($p < 0.05$) in the sample obtained from the Abhoynagar area (Table 4.3).

The respondents were asked about the number of living children. The mean number of living children was 2.6 and the SD ± was 1.5. About 52 per cent of respondents had one to two children and 32 per cent reported three to four children. Eleven per cent reported five and more children. Thirty one (4.4 per cent) respondents had no living children and 21.3 percent had a living child at the time of the interviews. About 30 per cent of the respondents had two children (see Appendix C2). Based on the average number of living children, the total number of living children was divided into two groups, ≤ 2 and > 2.

The mean family size of the respondents was 5.8, the median was 5 and SD was ±2.8 with the family size ranging from 2 to 28. The family size was larger in the survey compared to a national level survey[4] which documented an average family size of 4.5 members in rural areas and 4.4 members in urban areas in Bangladesh (183). "Family size" was defined as people living in the same house and sharing food from the same kitchen. About 42 per cent of respondents reported having 4-5 family members. Nine per cent reported that they had 10 members or more (see Appendix C2). The variable "family size" was later recoded into three categories, 2-4, 5-7 and > 8, and distribution mapped by age of the respondents. Similar categorization has been made in a study looking at HIV awareness among female migrant workers in Bangladesh (184).

Table 4.4 presents information about the family size of respondents based on the three family size categories by age, education, number of living children and area of residence. The analysis showed that there were significant differences between the three categories of family size in relation to the number of living children and area of residence. A higher proportion of respondents ($p < 0.001$) with the lowest family size (2-4) had fewer children. In relation to area of residence, a higher proportion ($p < 0.001$) of the respondents who reported family size of 8 or above came from the sample from Mirsarai. On the other hand, this group was under represented in the sample obtained from Abhoynagar where the smallest family size (2-4) had a much larger representation (48.2 per cent). There was no significant difference among the three categories of family size with respect to age ($p=0.21$) and education ($p=0.10$) of the respondents.

[4] A Household Income and Expenditure Survey (HIES) 2010 conducted by Bangladesh Bureau of Statistics. Preliminary report was published in June 2011.

Table 4.4: Per cent distribution of respondents' family size by age, education, living children and area of residence (N = 699)

Characteristics	Family size (No.)			Pearson chi^2 p value
	2-4 n (%)	5-7 n (%)	≥ 8 n (%)	
Age (Years)				
< 35	163 (65.5)	187 (58.4)	77 (59.2)	
≥ 35	86 (34.5)	133 (41.6)	53 (40.8)	NS
Education (Years)				
No education (0)	75 (30.1)	132 (41.2)	43 (33.1)	
Primary (1-5)	81 (32.5)	78 (24.4)	28 (21.5)	NS
Secondary+(≥ 6)	93 (37.4)	110 (34.4)	59 (45.4)	
Living children (No.)				
≤ 2	209 (83.9)	120 (37.5)	63 (48.5)	< 0.001
> 2	40 (16.1)	200 (62.5)	67 (51.5)	
Area of residence				
Abhoynagar	120 (48.2)	100 (31.3)	25 (19.2)	< 0.001
Mirsarai	129 (51.8)	220 (68.7)	105 (80.8)	

As mentioned in Chapter 3, all the respondents were identified from the ICDDR,B surveillance database located under Mirsarai, Chittagong Division, and under Abhoynagar, Khulna division. Around 65 per cent (454/699) of the respondents lived in Mirsarai Upazila (sub-district) and 35 per cent lived in Abhoynagar Upazila. Table 4.5 presents the analysis of selected socio-demographic characteristics by area of residence. The analysis was significantly different between the two areas in relation to age, husbands' education, monthly household expenditure, marital duration, number of living children and family size of respondents. A greater proportion of younger respondents

(below 35 years) lived in Abhoynagar, while a higher proportion ($p < 0.001$) of older respondents (35 years and above) lived in Mirsarai.

Table 4.5: Per cent distribution of respondents by selected socio-demographic, marital and reproductive characteristics by area of residence

Characteristics	Mirsarai n=454 (%)	Abhoynagar n= 245 (%)	Pearson chi^2 p value
Age (Years)			
< 35	255 (56.2)	172 (70.2)	< 0.001
≥ 35	199 (43.8)	73 (29.8)	
Education (Years)			
No education (0)	165 (36.3)	85 (34.7)	
Primary (1-5)	111 (24.5)	76 (31.0)	NS
Secondary+ (≥ 6)	178 (39.2)	84 (34.3)	
Husbands' education (Years)			
No education (0)	128 (28.2)	87 (35.5)	
Primary (1-5)	91 (20.0)	62 (25.3)	<0.05
Secondary+ (≥ 6)	235 (51.8)	96 (39.2)	
Monthly household expenditure			
< Tk. 5000	235 (51.8)	208 (84.9)	<0.001
≥ Tk. 5000	219 (48.2)	37 (15.1)	
Marital duration (years)			
<10	154 (33.9)	89 (36.3)	
10-19	146 (32.1)	98 (40.0)	< 0.05
≥ 20	154 (33.9)	58 (23.7)	
Living children (No.)			
≤ 2	221 (48.7)	171 (69.8)	
>2	233 (51.3)	74 (30.2)	<0.001
Family size (No.)			
2-4	129 (28.4)	120 (49.0)	
5-7	220 (48.5)	100 (40.8)	<0.001
≥ 8	105 (23.1)	25 (10.2)	

With regard to education, both, the respondents and their husbands either had education up to secondary level or above, or no education in both the areas. However, a significantly ($p < 0.05$) higher proportion of husbands from Mirsarai had an education level of secondary or above than was the case of husbands from Abhoynagar. Respondents who reported lower monthly household expenditure were more likely to live in Abhoynagar, while respondents reporting higher monthly household expenditure were more likely to live in Mirsarai. A significantly higher ($p < 0.001$) proportion (48.2 per cent) of respondents who reported monthly household expenditure of Tk. 5000 or above lived in Mirsarai while only 15 per cent of respondents in that expenditure bracket lived in Abhoynagar (Table 4.5).

The two areas of residence, Mirsarai and Abhoynagar, were significantly associated ($p < 0.05$) with respondents with longer marital duration. The respondents who lived in Mirsarai were married for a longer duration ($\geq$ 20 years) than the respondents from Abhoynagar. There is evidence of a major association ($p < 0.001$) between area of residence and number of living children. Women with fewer children (≤ 2) were more likely to live in Abhoynagar, while women with more children (>2) were more likely not to live in Abhoynagar. A significant ($p < 0.001$) association was also observed between area of residence and family size of respondents. A higher proportion of respondents with small family size (2-4) lived in Abhoynagar, while a higher proportion of respondents in Mirsarai had larger family sizes (5-7, ≥ 8). However, there was no significant difference between the two areas of residence with respect to their education (Table 4.5).

4.2.3: Age, education, occupation, household expenditure and residence of respondents by husbands' migration status

As described earlier, the quantitative component of the thesis focuses on key socio-demographic characteristics of migrants and includes respondents who were wives of migrants (within Bangladesh and overseas) and compares them with the profile of wives of non-migrants. Data were collected on three groups of married women (those who were living with non-migrant husbands (n=396); those whose husbands had returned from other places in Bangladesh (n=125) and those whose husbands had returned from overseas (n=178). The earlier part of this section provided an aggregate profile of all respondents by collating data across the three groups of women. This part describes the socio-demographic characteristics of respondents by their husbands' migration status.

Information on selected socio-demographic characteristics of the respondents according to the migration status of their husbands is provided in Table 4.6. The majority of the respondents belonged to the age group below 35 years irrespective of the husbands' migration status. Among the three groups of respondents, a significantly ($p < 0.05$) higher proportion of the respondents whose husbands had returned from overseas was older compared to the other two groups. Among the respondents whose husbands were non-migrants, 64.4 per cent were aged below 35 years, whereas, of the other two migration groups, 61.6 per cent and 53.4 per cent of respondents whose husbands had returned from elsewhere in Bangladesh and overseas, respectively, were aged below 35 years. Among the two migration groups, the respondents whose husbands had returned from elsewhere in Bangladesh were younger than the respondents whose husbands had returned from overseas (Table 4.6).

Table 4.6: Association of selected socio-demographic characteristics of respondents by husbands' migration status

Variables	Married women			Pearson chi^2 p value
	Husbands were non-migrants n= 396 (%)	Husbands returned from elsewhere in Bangladesh n= 125 (%)	Husbands returned from abroad n=178 (%)	
Age (Years)				
<35	255 (64.4)	77 (61.6)	95 (53.4)	P <0.05
≥35	141 (35.6)	48 (38.4)	83 (46.6)	
Education (Years)				
No education (0)	147 (37.1)	44 (35.2)	59 (33.1)	
Primary (1-5)	117 (29.6)	23 (18.4)	47 (26.4)	P <0.05
Secondary (≥ 6)	132 (33.3)	58 (46.4)	72 (40.5)	
Husbands' education (Years)				
No education (0)	151 (38.1)	28 (22.4)	36 (20.2)	
Primary (1-5)	85 (21.5)	29 (23.2)	39 (21.9)	P <0.001
Secondary (≥ 6)	160 (40.4)	68 (54.4)	103 (57.9)	
Monthly HH expenditure (Tk.)				
< 5000	280 (70.7)	79 (63.2)	84 (47.2)	P <0.001
≥5000	116 (29.3)	46 (36.8)	94 (52.8)	
Area of residence				
Abhoynagar	201 (50.8)	30 (24.0)	14 (7.9)	
Mirsarai	195 (49.2)	95 (76.0)	164 (92.1)	P <0.001

There were 699 respondents in the survey. Of these, 427 were aged below 35 years and the majority (59.7 per cent) of these were the wives of non-migrants, 22.2 per cent were wives whose husbands had returned from overseas, and 18 per cent were wives whose husbands had returned from elsewhere in Bangladesh. A similar pattern was observed in

the age category 35 years and above where the wives of the non-migrants remained highest (51.8 per cent) in proportion followed by the wives of the overseas migrants (30.5 per cent) and the wives whose husbands had returned from elsewhere in Bangladesh (17.6 per cent).

Table 4.6 reveals that respondents whose husbands had returned from elsewhere in Bangladesh and overseas were better educated compared to the respondents whose husbands were non-migrants. A higher proportion of the respondents ($p < 0.05$) whose husbands had returned from elsewhere in Bangladesh had education secondary and above compared to the other two groups. Among the respondents whose husbands were non-migrants, a higher proportion (37.1 per cent) had no education, while 22.4 per cent and 20.2 per cent of respondents whose husbands had returned from elsewhere in Bangladesh and overseas, respectively, reportedly had no education.

Similarly, with husbands' education, the respondents whose husbands had returned from overseas and elsewhere in Bangladesh were better educated compared to respondents whose husbands were non-migrants. A significantly higher proportion ($p < 0.001$) of respondents whose husbands had returned from overseas had education secondary and above compared to the other two groups. More than half (57.9 per cent) of the respondents whose husbands had returned from overseas had education primary and above. While 54.4 per cent of the respondents whose husbands had returned from elsewhere in Bangladesh and 40.4 per cent whose husbands were non-migrants reported that they had received secondary or above education (Table 4.6).

The household expenditure was examined by husbands' migration status. The respondents whose husbands had returned from elsewhere in Bangladesh and overseas reported higher monthly household expenditure compared to the respondents whose husbands were non-migrants. A higher proportion (70.7 per cent) of the respondents ($p < 0.001$) whose husbands were non-migrants reported lower monthly household expenditure of less than Tk. 5000 (US$ 66) compared to the other two groups. In relation to area of residence, the majority of the respondents whose husbands had returned from overseas ($p < 0.001$) lived in Mirsarai (Table 4.6).

4.2.4 Marriage, living children and family size by husbands' migration status

Table 4.7 provides information on duration of marriage, number of living children and family members of the respondents by their husbands' migration status. The analysis revealed that there were significant differences between migration and non-migration groups in terms of marital duration, number of living children and family size of respondents. A significantly higher proportion of respondents ($p < 0.01$) whose husbands had returned from elsewhere in Bangladesh had been married for a shorter duration (less than 10 years) compared to two other groups of respondents. Respondents whose husbands had returned from overseas were married for a longer duration ($\geq$ 20 years) compared to the other two groups.

Table 4.7: Association of marital duration, number of living children and family size of respondents by husbands' migration status

Variables	Married women			Pearson chi^2 p value
	Husbands were non-migrants n= 396 (%)	Husbands returned from elsewhere in Bangladesh n= 125 (%)	Husbands returned from overseas n=178 (%)	
Marital duration (Years)				
< 10	145 (36.6)	53 (42.4)	45 (25.3)	
10-19	142 (35.9)	35 (28.0)	67 (37.6)	P <0.01
≥ 20	109 (27.5)	37 (29.6)	66 (37.0)	
Living children (No.)				
≤ 2	231 (58.3)	78 (62.4)	83 (46.6)	P <0.01
>2	165 (41.7)	47 (37.6)	95 (53.4)	
Family size (No.)				
2-4	149 (37.6)	48 (38.4)	52 (29.2)	
5-7	188 (47.5)	52 (41.6)	80 (44.9)	P <0.05
≥ 8	59 (14.9)	25 (20.0)	46 (25.8)	

Similarly, a greater proportion of respondents (p <0.01) whose husbands had returned from elsewhere in Bangladesh had fewer living children than the other two groups. More than half (53.4 per cent) of the respondents whose husbands had returned from overseas had more living children (>2), whereas only 41.7 per cent of respondents whose husbands were non-migrants, and 37.6 per cent of respondents whose husbands had returned from elsewhere in Bangladesh had more than two children (Table 4.7).

With regard to family size, a higher proportion (p <0.05) of respondents whose husbands had returned from overseas had the higher family size (≥ 8) compared to the two other

groups. A higher proportion of the respondents whose husbands had returned from elsewhere in Bangladesh reported lower family size (2-4) than from the other two groups (Table 4.7).

4.2.5 Use of contraception

The survey questionnaire asked respondents whether they or their husbands had used any contraceptive method. Out of 655 respondents in the sample, 67.2 per cent (440) were found to be current users of at least one contraceptive method, which included both modern and traditional methods (see Appendix C8). Among the contraceptive users (440/699), a higher proportion (37.7 per cent) of the respondents had secondary education or above, followed by the respondents who had no education (33.6 per cent). The respondents having primary education were the lowest users (28.6 per cent) of contraceptives. A similar picture was observed with regard to husbands' education—highest users were the respondents whose husbands had secondary education or above followed by the respondents whose husbands had no education.

The most commonly used contraceptive methods were the modern ones, such as the contraceptive pill, condoms, Injectable contraception, IUD, Norplant, and female and male sterilization (see Appendix C8). A very small percentage of respondents, only 5.2 per cent, reported the use of traditional methods such as safe period, abstinence, et cetera.

Figure 4.2 shows the overall percentage of women who at time of interview were using specific methods of contraception. Among the respondents (427) who reported use of modern methods of contraception, the pill (46.1 per cent) was the most popular choice,

followed by IUD (31.4 per cent). About 9.1 per cent of the respondents reported the use of condoms. About seven per cent (31/427) of the women had reportedly been sterilized.

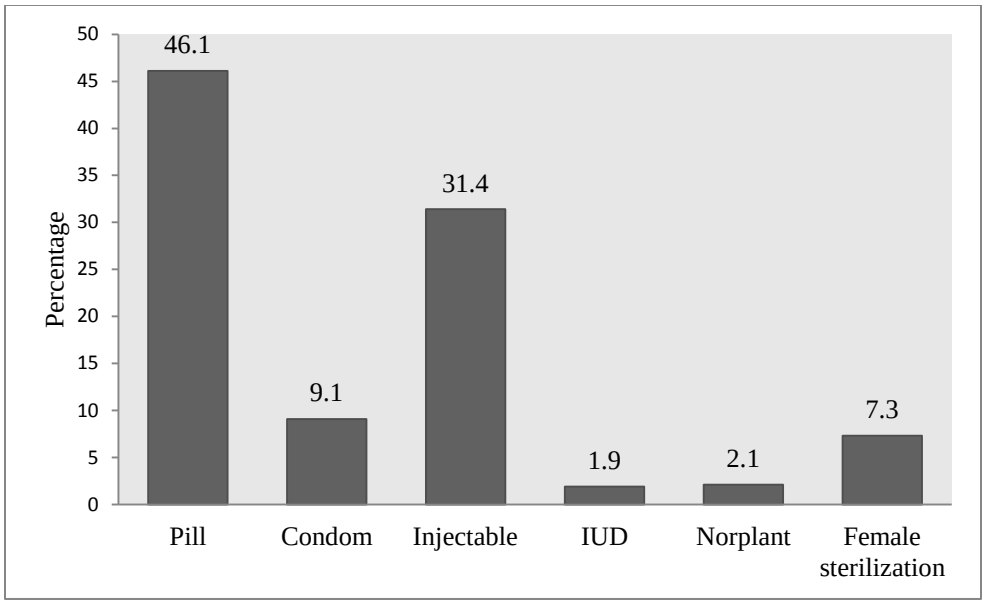


Figure 4.2: Per cent distribution of modern methods of contraception among current users (n= 427)

Table 4.8 presents the per cent distribution of respondents who were currently using a contraceptive method by selected socio-demographic characteristics. With regard to age, analysis was first attempted with the two age (< 35 years, ≥ 35) categories. However, it did not show any significant difference, whereas the initial age groups (15-24, 25-34, 35-44 and ≥ 45) showed significant difference with regard to current contraceptive users and non-users. The use of contraceptives was significantly higher ($p < 0.001$) among the respondents aged 25-34 and 35-44 years. Of the contraceptive users (n=440), the respondents aged 25-34 years reported the highest (39.1 per cent) use of contraceptives

followed by the respondents aged 35-44 years (30.7 per cent). Less than a quarter of the respondents belonging to the younger group (15-24 years) reported use of a method, while only 7.3 per cent of respondents in the oldest group (≥ 45 years) reported use of at least one contraceptive method.

Table 4.8: Per cent distribution of respondents by current use of a contraceptive method by age, education and area of residence (n=655)

Characteristics	Current use of contraception			
	Using a method n (%)	Using no method n (%)	Total n (%)	Pearson chi^2 p value
Age (in years)				
15-24	101 (62.7)	60 (37.3)	161(100)	
25-34	172 (74.8)	58 (25.2)	230 (100)	< 0.001
35-44	135 (68.5)	62 (31.5)	197 (100)	
45+	32 (47.8)	35 (52.2)	67 (100)	
Education (in years)				
No education (0)	148 (61.7)	92 (38.3)	240 (100)	
Primary education (1-5)	126 (72.8)	47 (27.2)	173 (100)	< 0.05
Secondary + (> 6)	166 (68.6)	76 (31.4)	242 (100)	
Area of residence				
Abhoynagar	167 (72.6)	63 (27.4)	230 (100)	< 0.05
Mirsarai	273 (64.2)	152 (35.8)	425 (100)	

Among the current contraceptive users, the highest proportion (37.7 per cent) was reported by the respondents who had secondary education and above, followed by the respondents who had no education (33.6 per cent). Some 28.6 per cent of respondents who had primary education reported using a contraceptive method. Contraceptive uses

were significantly higher ($p < 0.05$) among the women who had secondary education and above.

The respondents who lived in Abhoynagar reported higher ($p < 0.05$) contraceptive use than the respondents from Mirsarai. About 72.6 per cent of respondents who lived in Abhoynagar (167/230) reported contraceptive use, compared to the 64.2 per cent of respondents who lived in Mirsarai and used contraceptives. The Abhoynagar area seemed to be a high performing area with regard to the use of contraception (157). However, the cross sectional survey documented a higher contraceptive use both in Mirsarai (in Chittagong District) and Abhoynagar (in Jessore District) compared to the use reported in BBS 2008 survey for the Districts Chittagong (43.6 per cent) and Jessore (62.9 per cent) (185).

Contraceptive use among respondents by their husbands' migration status was also investigated. Among the respondents who reported use of contraceptives (440/699), 61.4 per cent were the wives of non-migrants. About 23 per cent of the wives of external migrants and 15.9 per cent of the wives of internal migrants were contraceptive users.

4.3 Section II: Sexual Risk Behaviours

This section on sexual risk behaviours deals with the issues related to extra-marital sex and use of condoms. It began with respondents' general perception about extra-marital sex followed by their own experience of extra-marital sex. While exploring the general perception, the respondents were given three hypothetical scenarios to respond to. The scenarios were: a married man or woman has sex outside their marriage when they live

together; a married man or woman has sex when his/her spouse is away; and a married man or woman has sex when he/she is away from his/her spouse. For each of these scenarios, a respondent with a positive response was further questioned about her opinion on how common extra-marital sex was. The response was measured on a 10-point scale.

With regard to a respondent's own experience of extra-marital sex, each was investigated on the following three aspects, 'ever experienced extra-marital sex', 'extra-marital sex in the last 12 months' and 'extra-marital sex in the last month.' On all occasions, the respondents were asked about their relationship with their sex partners. All respondents were asked about the use of condoms in marital sex, and those who reported extra-marital sex were asked if they ever used condoms during extra-marital sex or had in the last sexual act.

Sexual risk behaviours of the respondents in terms of perception about extra-marital sex, respondents' own sexual experience outside marriage, and condom use were examined among the three different groups defined according to the respondents' husbands' migration status. These groups were: (1) respondents whose husbands were non-migrants, (2) respondents whose husbands had returned from elsewhere in Bangladesh and (3) respondents whose husbands had returned from overseas.

4.3.1 Perception about extra-marital sex

Almost all the respondents (99.9 per cent) perceived that a man had extra-marital sex when he lived away from his wife. However, 96 per cent of the women also had the perception that a woman might have extra-marital sex when she lived away from her husband. More than 85 per cent of the women believed that a man might have extra-marital sex even when they lived with their wife. In relation to women's extra-marital sex, 73 per cent of respondents believed that a woman might have extra-marital sex even when she lived with her husband (see Appendix C3).

In all three hypothetical scenarios, little difference was observed about perception of extra-marital sex in men among the three different groups of respondents. About 87 per cent of respondents whose husbands were non-migrants perceived that a married man might have extra-marital sex when he lived with his wife, compared to 85 per cent for respondents whose husbands returned from overseas, and 83 per cent for migrants elsewhere in Bangladesh (see Appendix C4). In the two other hypothetical scenarios, when 'a man is away' or his 'wife is away', about 100 per cent of the respondents across all three groups perceived that a married man might have extra-marital sex when he or his wife lived away from each other (see Appendix C4).

Similarly, with regard to perception about extra-marital sex by women, in the scenario where a married woman lived with her husband, 76.8 per cent respondents whose husbands had returned from elsewhere in Bangladesh stated that a woman would have extra-marital sex. This perception was less common among the respondents whose husbands were non-migrants (74 per cent) and those whose husbands had returned from

overseas (69 per cent). About 98 per cent of respondents whose husbands had returned from elsewhere in Bangladesh perceived that when a woman lived away from her spouse, he would have extra-marital sex. This perception was among 97 per cent of the respondents whose husbands were non-migrants and 94 percent among those whose husbands had returned from overseas. In the other hypothetical scenario, when the husband lives away from his wife, 98 per cent respondents whose husbands had returned from elsewhere in Bangladesh perceived that extra-marital sex takes place in this situation. This perception was slightly less among the respondents whose husbands were non-migrants (97 per cent) and among the respondents whose husbands had returned from overseas (94 per cent) (see Appendix C5).

Table 4.9 shows the perception about commonness of extra-marital sex by men for the three hypothetical scenarios, according to the migration status of the respondents. The important findings were as follows: more than three quarters of the respondents (76-79 per cent) of the three groups perceived that more than one in ten men would have engaged in extra-marital sex when they lived away from their wives. Similarly, around three quarter of the respondents (74-79 per cent) of the three groups believed that more than one in ten men might have sex outside their marriage when their wives lived away. The respondents whose husbands were non-migrants perceived the highest proportion of extra-marital sex, compared to the two other migration groups in the two above hypothetical scenarios.

Table 4.9: Perception about commonness of extra-marital sex among men reported by respondents' by husbands' migration status

Married men can have extra-marital sex, when	Husbands were non-migrants (%)	Husbands returned from elsewhere in Bangladesh (%)	Husbands returned from overseas (%)
Didn't live away	n= 344	n= 104	n= 151
One in ten	224 (65.1)	65 (62.5)	94 (62.3)
>one in ten	120 (34.9)	39 (37.5)	57 (37.7)
(Men) lived away	n= 395	n= 124	n=176
One in ten	82 (20.8)	28 (22.6)	43 (24.4)
>one in ten	313 (79.2)	96 (77.4)	133 (75.6)
Wife lived away	n= 395	n= 123	n= 176
One in ten	88 (22.2)	29 (23.6)	45 (25.6)
>one in ten	308 (77.9)	94 (76.4)	131 (74.4)

Table 4.10 shows perception about commonness of extra-marital sex by women for the three hypothetical scenarios, according to the migration status of the respondents. About 57 per cent of respondents of the three groups perceived that more than one in ten women might have extra-marital sex when they lived away from their spouses. Around half of the respondents (49-55 per cent) of the three groups believed that more than one in ten women would have extra-marital sex when their husband lived away. A Pearson chi square test was conducted on each perception based on hypothetical scenarios with the different migration statuses of respondents. However, no significant association was evident among the different groups.

Table 4.10: Perception about commonness of extra-marital sex among women reported by respondents by husbands' migration status

Married women can have extra-marital sex, when	Husbands were non-migrants (%)	Husbands returned from elsewhere in Bangladesh (%)	Husbands returned from overseas (%)
Didn't live away	n= 293	n= 95	n= 123
One in ten	246 (84.0)	78 (82.1)	104 (84.6)
>one in ten	47 (16.0)	17 (17.9)	19 (15.4)
Husband lived away	n= 384	n=123	n=168
One in ten	166 (43.2)	53 (43.0)	72 (42.9)
>one in ten	218 (56.8)	70 (56.9)	96 (57.1)
(Women) lived away	n= 384	n= 122	n= 168
One in ten	181 (47.1)	55 (45.0)	85 (50.6)
>one in ten	203 (52.9)	67 (54.9)	83 (49.4)

4.3.2 Respondents' own sexual behaviours

All the respondents were asked about their own sexual experience outside marriage. Only 25 out of 699 respondents (3.6 per cent) reported that they had extra-marital sex (see Appendix C9). Of the women who reported extra-marital sex, twelve reported that they had sexual contact with other men in the previous twelve months, and of them three had reported sexual contact in the previous month. Of the twelve women who reported extra-marital sex in the previous twelve months, eight had sex with someone in their neighbourhood. All the three respondents who had had extra-marital sex in the previous month, had sex with neighbours. Four women reported that they had sex with their friends, husband's friends, cousins or brothers-in-law.

As extra-marital sex was reported by only 3.6 per cent women, it was difficult to find a clear pattern for observed differences across a range of study variables. However, younger respondents (aged below 35 years), who had no education, had monthly household expenditure of less than Tk. 5000 and who lived at Abhoynagar reported a higher occurrence of extra-marital sex than the other groups (see Appendix C6). The association of respondents' own sexual experiences by husbands' migration status were also explored. However, the association did not show any significant relationship because of the small number of responses (see Appendix C7).

4.3.3 Use of condoms in marital and extra-marital sex

Overall, the reported use of condoms in marital and extra-marital sex was low. About a quarter of the respondents (173/699) reported that they had ever used condoms in marital sex. Of the 173, 41 (23.7 per cent) reported condom use in their last marital sexual activity. Out of 25 respondents who reported extra-marital sex, 17 reported that their partners had never used condoms during sex with them. Eight respondents mentioned that their partners had ever used condoms and three reported that their partner had used a condom in their last extra-marital sexual encounter (see Appendix C9).

Table 4.11 shows the association between ever use of condoms and selected socio-demographic characteristics (age, education, husbands' education, monthly household expenditure and area of residence) of the respondents. Reporting of condom use was higher among the respondents aged below 35 years ($p < 0.05$).

Table 4.11: Association between condom use (ever) and selected socio-demographic characteristics among respondents (n=699)

Socio-demographic characteristics	Sample n (%)	Condom use (%)	Pearson chi^2 p value
Age (Years)			
< 35	427 (61.1)	27.9	<0.05
≥ 35	272 (38.9)	19.9	
Education (Years)			
No education (0)	250 (35.8)	11.2	
Primary (1-5)	187 (26.7)	24.1	<0.001
Secondary+ (≥ 6)	262 (37.5)	38.2	
Husbands' education (Years)			
No education (0)	215 (30.8)	13.0	
Primary (1-5)	153 (21.9)	18.3	<0.001
Secondary+ (≥ 6)	331 (47.4)	35.4	
Monthly household expenditure			
< Tk. 5000	443 (63.4)	20.5	
≥ Tk. 5000	256 (36.6)	32.0	<0.05
Area of residence			
Abhoynagar	245 (35.1)	30.2	
Mirsarai	454 (64.9)	21.8	<0.05

As evident from the responses, education has played a role in the use of condoms. The respondents with the education secondary and above (38.2 per cent) reported higher percentage of condom use, followed by those who had primary education (24.1 per cent) and then those who had no education (11.2 per cent). Similarly, 35.4 per cent of respondents whose husbands had secondary education or above reported condom use,

followed by those whose husbands had primary education (18.3 per cent) compared to 13 per cent of respondents whose husbands had no education. The differences were highly significant ($p < 0.001$).

Condom use was significantly ($P < 0.05$) higher among women (32 per cent) who reported higher monthly household expenditure of Tk. 5000 and above compared to the women who had expenditure of less than Tk. 5000. The reporting of condom use was significantly higher ($p<0.01$) in women from Abhoynagar compared to those from Mirsarai (Table 4.11).

During the last sexual act, higher condom use was reported among the groups with migration status than from the non-migration group. Some 32 per cent of respondents whose husbands had returned from overseas and 30 per cent of respondents whose husbands had returned from elsewhere in Bangladesh reported condom use, compared to only 18 per cent of respondents whose husbands were non-migrants (see Appendix C11). As reported earlier, very few respondents had reported extra-marital sex and not all used condoms in their extra-marital sexual encounter. Condoms were not used in most extra-marital sex (Appendix C 9).

Table 4.12 shows the distribution of respondents who had ever used condoms by their husbands' migration status. Around one quarter of women of different groups reported that their partner had ever used condoms, while three quarters of women reported that their partners did not use condoms. Of those who reported ever having used condoms, the percentage of respondents whose husbands had returned from elsewhere in Bangladesh was slightly higher (26.4 vs 25 and 23 per cent) than in the two other groups (see Table

4.12). There was no association observed between the category of "ever used condom" and the migration status of women. The next section covers awareness on STIs and HIV/AIDS.

Table 4.12: Per cent distribution of respondents by 'ever used condom' by husbands' migration status (N=699)

Respondents groups	Ever used condom		Total
	Yes n (%)	No n (%)	
Husbands were non-migrants	99 (25.0)	297 (75.0)	396
Husbands returned from elsewhere in Bangladesh	33 (26.4)	92 (73.6)	125
Husbands returned from overseas	41 (23.0)	137 (77.0)	178

4.3.4 Awareness of STIs

The respondents were asked several questions to assess their awareness on sexually transmissible infections (STIs). Awareness of STIs was measured by questions such as whether the respondents had 'heard about STIs' , could 'name the STIs', 'tell signs and symptoms of STIs', report about 'experience of STI symptoms', and whether they 'sought treatment' for the symptoms and could name 'places of treatment' (Table 4.13).

Table 4.13: Per cent distribution of awareness about STIs among respondents

Characteristics	No	%
Heard about STIs	N=699	
Yes	534	76.4
No	165	23.6
Named STIs*	n= 534	
Syphilis	11	2.0
Gonorrhoea	12	2.3
Genital ulcer (*Jounange gha*)	66	12.4
Vaginal/White discharge (*sada srab*)	419	78.5
Itching/burning genitalia	251	47.0
Experienced STI symptoms[5]	N=699	
Yes	319	45.6
No	380	54.4
Sought treatment	n= 319	
Yes	237	74.3
No	82	25.7
Places sought treatment*	n= 237	
Government health facility	40	16.9
Shop	9	3.8
Village doctor (unqualified)	21	13.7
Private doctor	53	34.6
Traditional healer	37	24.2
Homeopath	37	24.2

*Multiple responses

The respondents were asked whether they knew about the diseases that could be transmitted through sexual contact. More than three quarters (76.4 per cent) of them claimed that they knew about the diseases that could be transmitted through sexual

[5] This is a check question (internal consistency) and asked to all 699 respondents, even those who have not heard about STIs. The intention was to identify any error related to the interview or if respondents missed to report at the first question on STI measurement.

contact. In the cross-sectional survey, when asked to name a disease that they thought could be transmitted sexually, the majority of respondents (78.5 per cent) mentioned vaginal discharge, locally known as *shada srab* (white discharge). The names of other sexually transmissible infections reported by the respondents are listed in Table 4.13. Syphilis and gonorrhoea were mentioned by only two per cent of the women.

Each respondent was asked whether they had ever experienced any STI symptoms. About 46 per cent of respondents reported that they had experienced symptoms. Of those who reported experience of STI symptoms, about three-quarters (74.3 per cent) sought treatment. It appeared that respondents take the experience of STI symptoms quite seriously. The majority of the respondents sought treatment for STI symptoms from qualified providers. For example, about 35 per cent of respondents reported that they had visited private doctors and 16.9 per cent of them had gone to government health facilities or clinics which were usually run by qualified health providers, while one quarter (24.2 per cent) of the respondents sought help from traditional healers, and 13.7 per cent consulted village doctors. Both the traditional healers and the village doctors are the non-qualified providers as are the drug sellers who sell medicine from shops or pharmacies. About one quarter of them sought treatment from homeopath providers and 3.8 per cent purchased medicine directly from shops (Table 4.13).

Table 4.14 presents reported knowledge about STIs among respondents of different migration status. Among the three groups, respondents whose husbands had returned from elsewhere in Bangladesh had the highest proportion (80.8 per cent) of respondents who had heard about STIs compared to the other two groups.

Table 4.14: Knowledge about STIs, reported by respondents, by husbands' migration status

Variables	Married women		
	Husbands were non-migrants (%)	Husbands had returned from elsewhere in Bangladesh (%)	Husbands had returned from abroad (%)
Heard about diseases transmitted through sex	(n=396)	(n=125)	(n=178)
Yes	77.5	80.8	70.8
No	22.5	19.2	29.2
Names of diseases transmitted through sex	(n=307)	(n=101)	(n=126)
Syphilis	2.0	5.0	0.0
Gonorrhoea	2.3	4.0	.8
Vaginal discharge*	83.4	74.3	69.8
Ulcer	7.2	11.9	25.4
Symptoms experienced	(n=396)	(n=125)	(n=178)
Yes	44.9	44.0	48.3
No	55.1	56.0	51.7
Sought treatment	(n=178)	(n=55)	(n=86)
Yes	74.2	74.5	74.4
No	25.8	25.5	25.6

*Pearson chi^2 test significant at the level of $p<0.05$

With regard to the names of STIs, the majority of the respondents across migration status named vaginal discharge, locally known as '*shada srab'*. Of these, a significantly ($p <0.05$) higher proportion (83 per cent) was reported by the wives of non-migrants compared to the two other groups (Table 4.14). Regarding signs and symptoms of the diseases that are transmitted through sex, most of the respondents stated white discharge

(*Shada srab*) as an important sign of STIs. White discharge (*Shada srab)* was one of the commonly reported names or signs or symptoms mentioned by the Bangladeshi rural women when they were asked about STIs. This has also been documented in other studies (117, 186). Fewer than half of the respondents, irrespective of their migration status, reported that they had ever experienced white discharge, and about three quarters of these had sought treatment.

4.3.5 Awareness about HIV/AIDS

The awareness of HIV/AIDS was assessed against responses to the questions which included 'ever heard of HIV/AIDS', 'source of information', 'knowledge of transmission and prevention of HIV/AIDS', 'knowledge of signs and symptoms of HIV/AIDS', and 'discussion about HIV' and 'perceived risk of contracting HIV' (Table 4.15). Finally, the awareness of HIV/AIDS was examined among respondents by their husbands' migration status (Table 4.16).

Majority of the respondents (60- 67 per cent) of different migration status stated that they had heard about HIV/AIDS (Table 4.15). Of them, though not significant, the respondents whose husbands were overseas migrants were in higher proportion compared to the two other groups. Those who heard about HIV/AIDS reported television as the major source of information, followed by radio. The respondents were asked whether they had discussed HIV/AIDS with others or with their husbands. Very few respondents discussed HIV/AIDS with other people; 10 per cent of the respondents had discussed it with friends or relatives, and 16.6 per cent with their husbands. In most of the cases, the discussion was limited to disease transmission. For example, of the 62 out of 69

respondents who had discussed HIV/AIDS transmission with their husbands, 25 of them also discussed HIV/AIDS prevention and eight talked about treatment of HIV/AIDS (Appendix C12). The respondents were asked about their perception of whether they were at risk of HIV/AIDS. Most (94-98 per cent) of them did not perceive themselves to be at risk. Only two to five per cent respondents of three groups reported that they were at risk of contracting HIV/AIDS (Table 4.15).

Table 4.15: Awareness about HIV/AIDS among respondents

Variables	Husbands were non-migrants (%)	Husbands returned from elsewhere in Bangladesh (%)	Husbands returned from overseas (%)
Heard about HIV/AIDS (n= 699)			
Yes	60.1	60.8	66.9
No	39.9	39.2	33.1
Discussed HIV with someone (n= 433)			
Yes	9.7	11.8	10.9
No	90.3	88.2	89.1
Discussed with husband (n= 433)			
Yes	18.0	13.2	17.7
No	82.0	86.8	82.3
Risk perception (n= 433)			
Yes	2.9	5.3	1.7
No	97.1	94.7	98.3

Similarly, a very few respondents perceived that their husbands were at risk of acquiring HIV/AIDS infection (Appendix C 12). All those who perceived risk reported that they or their husbands were at some risk of HIV/AIDS. With regard to knowledge about HIV/AIDS, about 60 per cent reported that HIV/AIDS could be transmitted sexually and

45.2 per cent reported that condom use could prevent HIV/AIDS transmission. The sexual mode of transmission included sexual contact with sex workers, homosexual contact and sex with someone other than their spouse.

The respondents were asked whether they knew any signs or symptoms of AIDS. Out of 699 women, 433 (61.9%) reported that they had heard about HIV/AIDS. Of those who had heard about HIV/AIDS, only 241 (56 per cent) reported that they knew the signs and symptoms of AIDS. However, the majority (70.5 per cent) of the respondents who claimed to have knowledge of signs and symptoms mentioned death as a sign of HIV. Since death is neither a sign nor a symptom, the response indicates a wrong perception about the disease. More than half (58.5 per cent) of these women reported weight loss and about a quarter (22.4 per cent) mentioned fatigue or weakness as signs and symptoms. Ten per cent of women reported skin rashes and a small proportion mentioned that HIV does not have any symptoms.

Table 4.16 presents data on awareness of HIV/AIDS among respondents according to their husbands' migration status. A higher proportion of respondents whose husbands had returned from overseas (67 per cent) had heard about HIV/AIDS compared to the two other groups (Table 4.16). The pattern representing where respondents obtained information differed by migration status. For example, a higher proportion of the respondents with migration status (81 per cent) reported television as a major source of information compared to 76 per cent of the respondents whose husbands were non-migrants.

Table 4.16: Awareness about HIV/AIDS, reported by respondents by husbands' migration status

Variables	Married women		
	Husbands were non-migrants (%)	**Husbands returned from elsewhere in Bangladesh (%)**	**Husbands returned from abroad (%)**
Heard about HIV/AIDS	(n=396)	(n=125)	(n=178)
Yes	60.1	60.8	66.9
No	39.9	39.2	33.1
Sources of information*	(n=238)	(n=76)	(n-119)
TV	76.1	81.6	80.7
Radio	17.6	21.1	25.2
Modes of transmission*			
Sexual intercourse	63.1	55.2	56.7
Blood transfusion (BT)	19.4	20.8	18.0
Used needles/syringe	19.7	24.8	18.5
Injecting drugs	2.0	0.8	3.9
Did not know any mode of transmission	8.3	4.8	12.9
Modes of prevention*			
Use condom	21.5	24.8	28.1
Sex with spouse only	31.1	41.6	32.0
No sex with a sex worker	22.5	23.2	27.0
Avoid unsafe BT	19.9	20.8	20.2
Avoid used needle	21.0	23.2	19.7
Did not know any prevention	9.3	5.6	12.4

*Multiple responses

More than half of the respondents of different migration groups reported that HIV could be transmitted sexually. However, a lower proportion of the wives whose husbands had

returned from elsewhere in Bangladesh (55 per cent) and whose husbands had returned from overseas (57 per cent) reported sexual transmission compared to the wives of the non-migrants (63 per cent). The other modes of transmission reported by respondents are listed in Table 4.16. A higher proportion (13 per cent) of the respondents whose husbands had returned from overseas could not report any mode of transmission compared to the other two groups.

Regarding prevention of HIV/AIDS, more than one third of the respondents mentioned limiting sex only with spouse as a way to prevent HIV/AIDS infection. Awareness of some modes of prevention of HIV/AIDS infection increased with migration status. For example, a higher proportion of respondents whose husbands had returned from overseas mentioned condoms (28 per cent) and no sex with a sex worker (27 per cent) as a way of preventing HIV/AIDS infection compared to the two other groups. In contrast, a higher proportion of the respondents whose husbands had returned from elsewhere in Bangladesh mentioned sex with spouse only (41.6 per cent) and avoiding needle use (23.2 per cent) as ways of preventing HIV/AIDS infection compared to the other two groups. The respondents whose husbands had returned from overseas had the highest number (12 per cent) among the three groups not being able to report any mode of prevention.

4.4 Section III: Assessment of 'HIV/AIDS Risk' among Respondents

A response variable named 'HIV/AIDS risk' was generated to examine risk for HIV/AIDS infection among the respondents. A woman who reported extra-marital sex or had experienced STIs or had never heard of HIV/AIDS was considered at risk of HIV/AIDS. The objective was to investigate the association between selected socio-demographic, marital and reproductive characteristics and HIV/AIDS risk among respondents. The selected characteristics included age, respondents' education, husbands' education, monthly household expenditure, areas of residence, marital duration, living children, family size, and migration status. The hypothesis of analysing HIV risk was whether the wives whose husbands had returned from overseas and elsewhere in Bangladesh were more likely to be at risk of HIV infection than the wives whose husbands were non-migrants.

As previously mentioned in Chapter 3, the socio-demographic, marital and reproductive characteristics that were found significant in bivariate analysis were included in the model. In addition, the two variables, such as migration status and monthly household expenditure, were considered in the model even if they showed non-significant association with HIV risk in bivariate analysis. The idea was to look at any significant association after controlling for other variables. Table 4.17 shows odds ratios for selected socio-demographic characteristics including migration status of respondents that were investigated for their associations with HIV risk in bivariate and multivariate analyses. The characteristics that showed associations with HIV risks were age, education, husbands' education, and areas of residence.

Table 4.17: Association between selected socio-demographic characteristics and HIV risk among respondents

Socio-demographic Characteristics	Sample n= 699 n (%)	HIV risk (%)	Unadjusted OR (95% CI)	Adjusted OR (95% CI)
Age (Years)				
< 35	427 (61.1)	62.5	1.0	1.0
≥ 35	272 (38.9)	76.8	2.0 (1.4,2.8)	1.5 (1.1,2.2)
Respondents' education				
Some education	449 (64.2)	61.5	1.0	1.0
No education	250 (35.8)	80.0	2.1 (1.5,3.1)	2.1 (1.4,3.1)
Husbands' education				
Some education	484 (69.2)	63.4	1.0	1.0
No education	215 (30.8)	78.6	2.5(1.7,3.6)	1.7 (1.1,2.5)
Marital duration (Years)				
< 10	243 (34.8)	61.7	1.0	1.0
10-19	244 (34.9)	67.6	1.3 (0.9,1.9)	1.0 (0.6,1.5)
≥ 20	212 (30.3)	75.9	2.0 (1.3,2.9)	0.8 (0.4,1.8)
Living children				
≤ 2	392 (56.1)	62.2	1.0	1.0
> 2	307 (43.9)	75.6	1.9 (1.3,2.6)	1.1 (0.7,1.8)
Family size				
2-4	249 (35.6)	62.2	1.0	1.0
5-7	320 (45.8)	71.2	1.5 (1.1,2.1)	1.4 (1.0,2.0)
≥8	130 (18.6)	71.5	1.5 (1.0,2.4)	1.4 (0.9,2.3)
Migration status				
Non-migrants	396 (56.6)	67.6	1.0	1.0
Internal migrants	125 (17.9)	70.4	1.1 (0.7,1.8)	1.1 (0.7,1.8)
Overseas migrants	178 (25.5)	67.4	1.0 (0.7,1.4)	0.9 (0.6,1.4)
Area of residence				
Abhoynagar	245 (35.1)	62.4	1.0	1.0
Mirsarai	454 (64.9)	71.1	1.5 (1.1,2.1)	1.5 (1.1,2.2)

The results of the bivariate analyses indicate that the respondents belonging to the older age group (35 years and above) were twice as likely to be at risk of HIV/AIDS compared to those who were aged below 35 years. The association remained significant (OR 1.5, 95% CI 1.1, 2.2) in the multivariable analyses. The bivariate analyses also indicated that respondents who had no education were twice as likely to be at risk of HIV/AIDS compared to the group who had some education. This association also remained significant after the adjustment for the other selected socio-demographic, marital and reproductive characteristics (OR 2.1, 95% CI 1.4, 3.1). Similarly, with regard to husbands' education, women whose husbands had no education were 2.5 times more likely to be at risk of HIV/AIDS compared to those whose husbands had some education. The association remained weaker but significant (OR 1.7, 95% CI 1.1, 2.5) in the model after controlling for other variables.

Respondents who lived in the Mirsarai area were 1.5 times more at risk than respondents from the Abhoynagar area. Both these characteristics remained significantly associated with HIV/AIDS risk in multivariable analyses (OR 1.5, 95% CI 1.1, 2.2). However, this association between area of residence and HIV/AIDS risk became weaker when adjusted for other characteristics.

Significant associations were found between HIV/AIDS risk and living children (OR 1.9, 95% CI 1.3, 2.6) in bivariate analysis. An association was also found between marital duration of ≥ 20 years and HIV/AIDS risk (OR 1.9, 95% CI 1.3, 2.9). The respondents who reported family size of 5-7 were 1.5 times more at risk of HIV/AIDS than the respondents who had 2-4 and ≥ 8 family members. However, none of these

characteristics remained significantly associated when they were adjusted for other characteristics in multivariate analyses. HIV/AIDS risk showed no association with monthly household expenditure and the respondents' characteristics with regards to their husbands' migration status.

4.5 Summary

Chapter 4 provides profiles of the respondents, wives of the migrant and non-migrant workers living in Mirsarai and Abhoynagar, Bangladesh, using descriptive statistics. Descriptive analysis included both univariate and bivariate analyses of socio-demographic characteristics of respondents.

The major findings related to socio-demographic characteristics underpinning differences in migration status. Univariate analysis indicated that the respondents were mostly younger, and this age group remained the largest proportion within the sample and has influenced some socio-demographic characteristics and HIV risk of respondents. Higher education among respondents did not seem to be related to higher monthly household expenditure, while education of the respondents' husbands was positively related to monthly household expenditure. This indicates the reality of a rural patriarchal community where men are involved in wage-related work, while the women are usually involved in unpaid activities, and, therefore, education of women does not make much of a difference.

The current research also documented that most women were housewives, meaning that they were engaged in unpaid activities. However, higher education was positively related with contraceptive use of respondents.

Another important finding was the area of residence. The respondents who lived in Mirsarai were older (35 years and above), better educated (secondary or above), had higher monthly household expenditure (Tk. ≥ 5000), had been married for longer duration (≥ 20 years), had a higher number of children (>2) and larger family sizes (5-7 and ≥8) compared to the respondents who lived in Abhoynagar.

The other important finding of the survey was the larger family size compared to the national survey. This may have some implications. This might have occurred because of the higher sample number (454/699) drawn from Mirsarai, which was renowned as a low performing area in terms of contraception and immunization coverage compared to Abhoynagar (157). Also, Mirsarai has the largest number of overseas migrants on whom the members of the family (that is, those living in the same household). It is possible that the dependence of extended families on migrant workers' incomes results in larger family sizes.

Bivariate analysis documented that the respondents were younger across migration status. However, the respondents whose husbands had returned from elsewhere in Bangladesh were younger compared to the respondents whose husbands had returned from overseas and were better educated than the non-migrant group. They had been married for a shorter duration, had fewer children and smaller family sizes than the two other groups of women. These characteristics may put them at risk as they are younger

and less occupied with household activities and better education increases their mobility and acceptability to others in their husbands' absence.

The respondents whose husbands had returned from overseas were older, more educated, had higher monthly household expenditure, lived in Mirsarai, had been married for longer duration, had more living children and larger family size compared to the other two groups.

Chapter 4 also provided a description of sexual risk behaviours and awareness of HIV/AIDS and STIs. Sexual risk behaviours were assessed by examining perception about extra-marital sex, own experience of extra-marital sex, and condom use in marital and extra-marital sex of the respondents. Overall, a high perception about the occurrence of men's and women's extra-marital sex when spouses are apart exists among the respondents irrespective of migration status.

However, very few women reported engagement in a sexual relationship outside of their marriage, although respondents whose husbands had returned from elsewhere in Bangladesh reported a higher level of engagement in extra-marital sex compared to the other two groups. A higher proportion of the respondents whose husbands had returned from elsewhere in Bangladesh perceived the presence of extra-marital sex in all the three hypothetical scenarios compared to the other two groups.

The high perception about extra-marital sex both among men and women in society is a concern as it indicates that extra-marital sex is not uncommon even in a conservative

society like Bangladesh. Moreover, the risk is more as the sexual act happens secretly, opportunistically and in most cases in an unsafe manner.

The low uptake of condoms by the respondents, especially those with no education and low incomes, is of particular concern. Furthermore, lack of discussion about, and awareness of HIV/AIDS and STIs, particularly in the area of knowledge about HIV/AIDS transmission, prevention, sources of information, and risk perception among respondents were of great concern. This lack of awareness was higher among the respondents whose husbands had returned from overseas.

Likewise, respondents had an inadequate knowledge about the types of sexual diseases that people can acquire. The vulnerability might be higher among the respondents and their husbands who had been living apart from each other and there might be a possibility of them engaging in risky sexual behaviours because of lack of awareness. Information dissemination on HIV/AIDS through television and radio might not be sufficient as these two major media disseminate messages in a conventional way not appropriate for these rurally located women with limited education.

In particular, Chapter 4 highlighted HIV/AIDS risk among respondents, the wives of the migrant and non-migrant workers. The analysis rejected the hypothesis that the wives of the migrant workers were at most risk compared to the wives of the non-migrant workers. Rather, the multivariable analysis revealed a relatively higher risk of HIV infection among the wives who were older (35 years and above), had no education (both themselves and their husbands) and lived in the Mirsarai area than among the wives who

were younger (below 35 years), had some education (both themselves and their husbands) and lived in Abhoynagar.

Finally, the Mirsarai area needs immediate attention as many migrants are already elsewhere in Bangladesh or overseas and many more potential migrants are about to leave. Furthermore, this was the area where contraceptive use and condom use (ever) was reportedly lower than in Abhoynagar, findings which are supported by surveillance report (157). The low level of contraceptive or condom use may be related to husbands' absence since many men go elsewhere in Bangladesh or overseas from the Mirsarai area.

However, this particular study conducted among women whose husbands had already returned from elsewhere in Bangladesh or overseas, still shows a low level of contraceptive use. Further attention is needed in order to reduce the risk among the respondent communities. The next chapter present the findings from the field notes and reveal the insights gained in the analysis.

Chapter 5: Understanding the Context behind Extra-Marital Sex

5.1 Introduction

This chapter describes field notes capturing the comments of the respondents whose husbands had returned from elsewhere in Bangladesh and overseas, and the respondents whose husbands were non-migrants and who reported extra-marital sex in the quantitative component of the present research project. The objective of the field notes was to obtain an impression about the socio-cultural context underpinning the extra-marital sexual relationships of the respondents.

As discussed in Chapter 3 that the field notes were analysed thematically and various sub-themes around the main theme 'women's vulnerability' was emerged and discussed in this chapter.

5.2 Opportunistic sex

The present analysis defined opportunistic sex as a sexual act which a married woman experiences impulsively and/or through a mutual understanding with her partner as a result of her loneliness due to temporary separation from her husband, or her husband's reluctance or negligence when both husband and wife were not separated. The lack of regular sex due to the absence of a husband, in some instances for years, created a situation in which a spouse may develop an extra-marital sexual relationship. Often, in their husband's absence, such a relationship develops with one of the younger brothers of the husband, who lives in the same house. A respondent whose husband had returned from elsewhere in Bangladesh (respondent 11) reported that she liked her younger

brother-in-law and had a sexual relationship with him for quite a long time as he cared more for her than her husband did.

Generally after marriage, the wives live with their husbands' families even when the husbands are away. It is hard for a woman, particularly for a newly married woman, to adjust to living with the members of her new family. The situation becomes worse if the family faces economic hardship. As a new member to the family, she can hardly express her needs or share her sufferings in the husband's absence. Often in a situation like this, a younger brother-in-law comes forward to help his sister-in-law, a new entrant to the family. The same respondent (respondent 11) described her feelings for and relationship with her brother-in-law:

> My brother-in-law likes me very much since my marriage. He has been naughty with me, which gradually crossed the limit. We gradually got involved in sexual relations.

Sympathy from one and gratitude from the other often pave the way for a relationship. Many of the respondents reported various reasons that contribute to coming close to another man in the husband's absence. Unhappiness in conjugal life, reported by some respondents, led to a sexual relationship outside marriage. They explained unhappiness from various angles. A respondent of a non-migrant worker (respondent 4) observed that her husband had lost interest in her since their marriage because of her husband's disinterest, and lack of care and love, the wife gradually became attracted to and developed a sexual relationship with her brother-in-law, who cared for her very much. Some respondents claimed that their husbands were impotent or physically weak and that

they were not happy in their married life. At least four out of fifteen respondents reported unhappiness because of their husbands' impotence. The sexual impotence of a respondent's husband brings her close to another man and she engages in sex with him. A respondent of a non-migrant (respondent 2) related her experience:

> My husband has a sexual problem and we are unhappy in our married life. A friend of my husband comes to our house, often with expensive gifts. He proposed to marry me. Once I thought of leaving my husband and eloping with his friend. We gradually developed a sexual relationship.

The biological need of sex among women cannot be ignored. At least two respondents mentioned their high libido, which prompted them to have a relationship with other men besides their husbands. As transpired from interviews, sometimes, a sexual act takes place unexpectedly, even without a prior relationship and in situations where women have little control over the timing of having sex. Sometimes, it is an opportunistic happenstance without any prior preparation and people indulge in it if there is a positive disposition. A respondent whose husband had returned from elsewhere in Bangladesh (respondent 12) had this to say:

> Once I had had sex with my brother-in-law all of a sudden. After that we never had sex again. We knew each other and had a good relationship.

The chemistry of sexual urge and opportunity sometimes overrides other factors. Vulnerability is higher when extra-marital sex occurs spontaneously as there is prior preparation for safe sex. Although love marriage is much more acceptable now-a-days,

arranged marriage is still a common practice, particularly in rural Bangladesh. Usually parents or guardians from both sides (male and female) make a decision about their son's or daughter's marriage. When making this decision parents or guardians sometimes ignore the voice of their son or daughter, particularly their daughter. Sometimes, parents do not want to listen to the girl if she has any love relationship and compel her to marry a man of their choice. Often the girl yields to the pressure to honour her parents' decision. In the case of a pre-marital sexual relationship with her boyfriend, the chances are that she might continue the same relationship with him if opportunities are available. Two respondents, whose husbands were non-migrants, reported a pre-marital sexual relationship, which continued even after marriage. A wife of a non-migrant worker (respondent 3) had this experience:

> My parents arranged marriage against my will. I was in love with my cousin before my marriage. I loved him very deeply and still I love him. I could not forget him after marriage and used to meet and have sex with him whenever he visited me. We had sex before my marriage too.

It appears from the above discussion that married women experience opportunistic sex because of many reasons, which makes them vulnerable physically and mentally, and increases the risk of acquiring sexually transmitted infections.

5.3 Sexual exploitation

The term sexual exploitation included sexual abuse or forced sex and poverty-related sex, where a woman may be a victim of the circumstances. Sexual abuse is a commonly reported phenomenon. In a patriarchal culture like in Bangladesh, the husband is a

guardian and is considered a protective force for a married woman. When a woman lives without her husband, she can become a target of sexual advances. Sometimes, married women find no alternative but to yield to sexual advances against their desire. Often they keep the act of sex hidden from others, even if they are abused, for fear of stigma and punishment. Women are more susceptible to stigma and punishment than men.

However, it is the men who instigate sex initially. Sometimes they force women into a sexual relationship. If it does not work, they try other ways. While away from her husband, a woman feels lonely and she is in need of many things. In most cases, she depends on the younger brother of her husband or other male members of the family. A respondent whose husband had returned from overseas (respondent 14) discussed a similar situation in the following way:

> My younger brother-in-law approached me several times and forced me to have sex with him. I refused him. Then he started to behave nicely with me. He would take care of me, buy the things I needed, stand by me at the time of loneliness. Finally, I consented to sex with him.

Many young girls and women work as housemaids and earn some money by which they try to maintain their family. While working as a housemaid, a woman often gets abused or is forced to have sex with a male member of the family. Another respondent whose husband had returned from overseas (respondent 15) reported sex in exchange for money with a male member of the family where she worked as a housemaid.

This group from the study population belongs to a low socio-economic stratum in society as 63 per cent of the respondents (Chapter 4) reported their monthly household

expenditure as below Tk. 5000 (US$ 66), and poverty plays a significant role. Most of the migrant workers, unemployed in their home country, go overseas to improve the financial situation of the family. Similarly, internal migrant workers go to city areas for employment purposes. They go overseas or elsewhere in Bangladesh leaving their wives at home, making them financially dependent on the other family members.

An internal migrant worker usually visits home at regular intervals and brings money when he comes home. However, this is often not sufficient for the family's household expenses for the period until the next visit. On the other hand, an external migrant worker also sends money occasionally—that too is not enough for the whole family. Therefore, the wives face difficulty in maintaining their family and become financially dependent on other family members or relatives or neighbours. The majority of the participants mentioned financial dependency as another factor that compels married women to have sex with other men, sometimes against their will. Five respondents out of 15, including both the wives of the migrants and non-migrants, reported financial dependency on other men. According to the respondents, the financial help came from men, in the form of money or materials. A respondent whose husband had returned from elsewhere in Bangladesh (respondent 2) expressed her feelings toward her husband's friend who presented her some expensive gifts in the following way:

> My husband's friend comes home occasionally since our marriage. He gave me expensive gifts on many occasions. Once he asked me to leave my husband and go with him, as my husband's financial condition was not good. I got involved with him gradually. Once I seriously thought of going with him and leaving my husband.

Offering materials instead of money to young girls or women is much more effective in winning their hearts and building a relationship. Consensual sex in exchange for materials like a *saree, blouse* (dress) is not uncommon in society, and reflects women's acquiescence based on material need and their economic dependence on men. Some women become overly burdened in the absence of their husbands or due to husbands' negligence to provide for the family. Sometimes they become helpless and engage in sex in exchange for money for survival. A respondent whose husband had returned from elsewhere in Bangladesh (respondent 13) expressed her experience as follows:

> My husband has another wife and lives with her currently. My husband and I have a daughter but he does not bear our expenses. I live with my parent's family and we have a big family. My parents are also unable to support us. I started working as a day labourer, taking care of road-side trees. My neighbours took advantage of my economic hardship and approached me for sex in exchange for money. Gradually, I became involved in this and started to have some earning in this way.

5.4 Summary

The field notes provide respondents' views of their own sexual behaviours vis-à-vis the sexual behaviours of others as discussed in the qualitative chapter. Interestingly, the explanations for their own and others' sexual experiences are strikingly similar, which again confirms the issue of "women's vulnerability."

Lack of education amongst wives of the migrant and non-migrant workers, as evident in Chapter 4 and consequent economic hardship, make them dependent on the other male family members, relatives, neighbours or co-workers. The physical absence of their husbands and their inability or reluctance to adequately provide for their families,

compels the wives to compromise with many things, including extra-marital sex, for the sake of the family.

Poverty plays an important role. In a society like Bangladesh, the husband is the breadwinner in the family. However, in the case of the husband's absence or his reluctance to support the family, responsibility shifts to the wife to run the family they are burdened with. It is difficult for them to get a good job with their educational background. As a result, the majority of them work as day labourers or housemaids. In jobs like these, the realities are harsh, and, not being endowed with any power, unless strong-willed, many of them surrender to various pressures and yield to the sexual demands of their male superiors. Of course, there are other factors too, apart from sexual opportunities or exploitation. Some engage in sexual relationships outside their marriage of their own choice and some may have pre-marital sexual relationships, which they continue even after marriage.

The following chapter provides description of participants' views and their understanding about vulnerabilities as gleaned from the qualitative interviews. The chapter examines the context, in relation to economic, social and sexual vulnerabilities of the migrant population, that leads to HIV vulnerability.

Chapter 6: Understanding the Vulnerabilities of the Migrant Population

6.1 Introduction

This chapter presents the findings from the in-depth interviews. The qualitative findings generated a number of themes drawn from the interviews with the participants in relation to sexual risk behaviours in the context of living away from their wives. This was linked with their knowledge about HIV/AIDS and STIs, safe and unsafe sex, and perceived risk of contracting HIV. As previously discussed in Chapter 1, the first objective of this research was to describe the factors that influenced sexual risk behaviours of the migrant population particularly of those living away from their wives. The second objective was to understand and explain the socio-cultural context which influenced the beliefs and behaviours of the study population. The third objective was to elaborate the women's vulnerability, particularly the vulnerability of the wives of the migrant workers, when their husbands were away. The study also attempted to explore the views of non-migrant and internal migrant participants to gain a better comprehension of the social-cultural predisposition about sexual issues and the role of religion in the context of rural Bangladesh.

The analysis of the in-depth semi-structured interviews was conducted in keeping with the study framework presented in Chapter 2. The data generated four main themes from the in-depth interviews, economic vulnerability, social vulnerability, sexual vulnerability and HIV vulnerability (see Figure 6.1), that help explain the lived experience of internal and overseas migration.

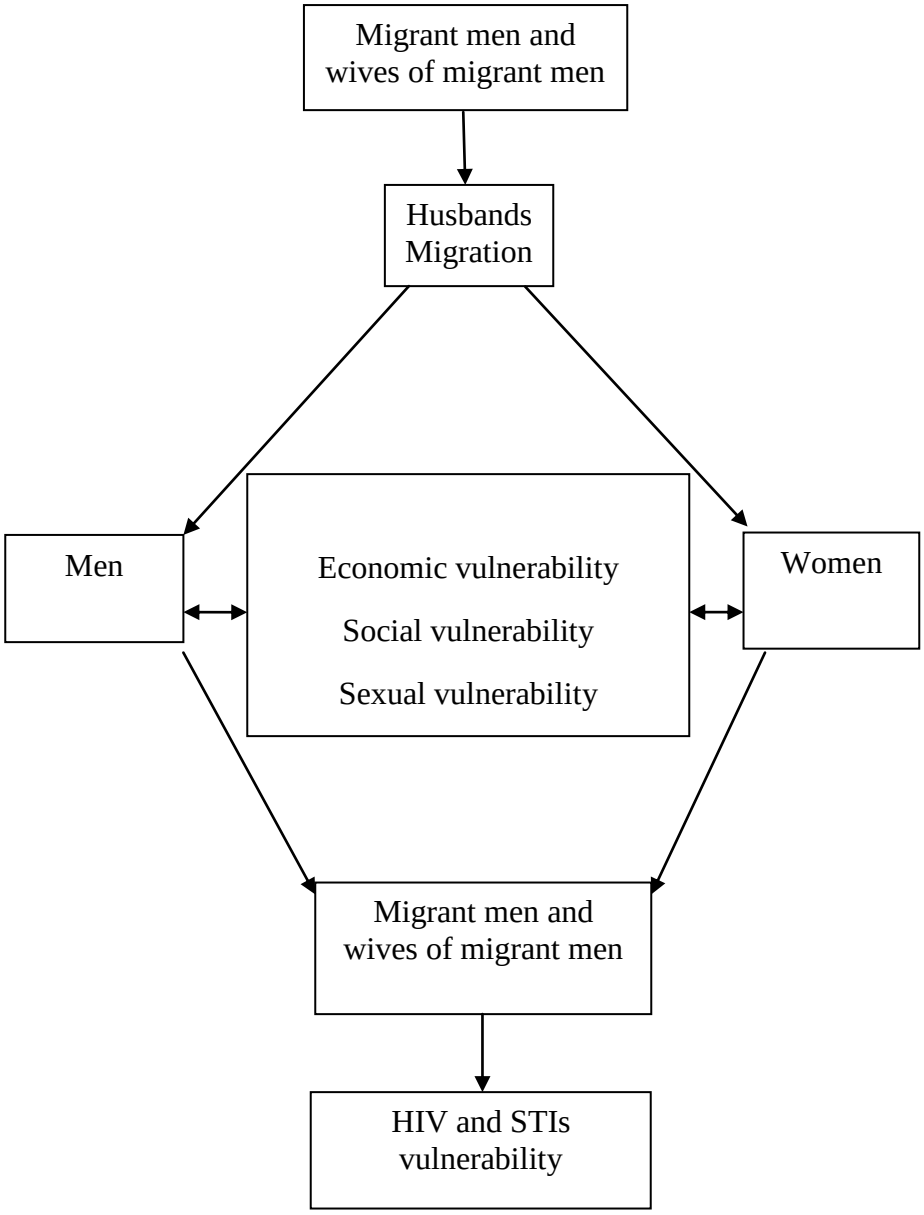


Figure 6.1: Representation of major themes

From the discussion with all participants, a concept of women's vulnerability emerged that encompassed the experience of the women while their husbands had been away on work-related migration. Since the women's vulnerability overlaps with other vulnerabilities, and is linked to their sexual vulnerability given the socio-economic and religious context, it has been discussed under sexual vulnerability rather than as a separate theme. The social, sexual and HIV vulnerabilities also appeared in the discussion of non-migrant workers and the wives of the non-migrant workers. The chapter begins with a description of the theme of economic vulnerability.

6.2 Economic Vulnerability and Marginalization

In the present research, economic vulnerability was defined as the financial hardship that a migrant worker or a wife of a migrant worker faced and experienced, and the uncertainty and dependence on others that followed, sometimes resulting in various forms of exploitation. A migrant worker may face economic hardship due to irregular or low income, or uncertainty with jobs, while the wife of a migrant worker may be economically dependent on other men in the family should she not get regular financial support from her husband during his absence.

Economic hardship is a common phenomenon among migrants both in the home country and in the destination country. Low- or semi-skilled potential migrant workers view migration as a possible way of overcoming their financial problems. It was evident from the in-depth interviews that the poor and low- or semi-skilled migrant workers go overseas or to cities to earn money and improve the financial situation of their families. While doing this, they face various risks. The potential migrants' first face the problem of

lack of monetary support and the families are generally unable to bear the cost involved in migration. The future migrants try to gather money from all possible sources; sometimes they sell off all their property or borrow money at high interest rates from the rich people of the area. A dowry is also seen as a source of cash and in-kind resource, with some young men having hastily arranged marriages. However, not all prospective migrants are able to go overseas. Fraudulent operators deceive some and their travel plans do not materialize. Others are able to travel, but find themselves in a difficult situation once they reach the destination. As time passes, their frustration from living in an unfamiliar environment and from language difficulties grows. This is further compounded by work-related problems. Some may reach the destination country with the wrong visa or work permit, thus earning very little or nothing, and living a miserable and difficult life as, despite heavy investment, they cannot send money home. Out of embarrassment, some of them limit or cease contact with their families. A returned migrant participant called this as "mujburi" (utter helplessness). Reporting on the frustration of these workers, he said:

> Most migrant workers go through a miserable situation abroad. They go abroad to earn money and to repay the loans taken back home for the overseas employment and for travel. The majority of the migrant workers are very poor and they would not have gone abroad had they not been poor. In many cases, the whole family back at home depends on the income of the migrant worker. When they are unable to send money home, they become utterly frustrated, sometimes with no sign of recovery from the problem they face. (Karim, 34 years, a male returned migrant)

The above quote highlights the difficulties of many low-or semi-skilled migrant workers. For many of them, the economic insecurity continues and even gets worse as most

migrants do menial jobs which are often both insecure and low paying. Most of the migrant participants mentioned how laborious their work was in their respective workplaces with little time for relaxation, even though they had very little to do during leisure hours particularly in the Gulf region. A participant having work experience both in rural and city areas expressed disappointment with his job in rural areas in the following way:

> I felt very bad and lonely when I worked in the desert at a goat and camel farm. It was laborious work. There was no air conditioning, no electricity and the weather was very hot. Accommodation and food were not good and inadequate. I stayed there in a tent for eight years and ate canned food. There was no fresh food. (Rahim, 37 years, a male returned migrant)

Many of the low- or semi-skilled migrant workers were engaged in employment that local people did not want to do. These menial laborious jobs, often in remote areas, coupled with fear of losing the job, increased the sense of marginalization of low-skilled immigrant workers. A participant reported that those who work in the Gulf countries as unskilled labour migrants engaged in domestic work or cleaning activities suffer the most. He stated:

> The jobs of maidservant and driver are not good. Many unskilled women are going abroad and working as maidservants. They are often abused verbally and harassed compared to other groups of workers. Suppose the employer wants to go to the bar at 12 o'clock at night, the driver is obliged to go with him as he knows that refusal may result in losing the job. (Karim, 34 years, a male returned migrant)

Economic improvement was a motivating factor for migrant men in undertaking work in another country. However, the above findings highlighted migrant workers' sufferings and uncertainties in the destination country exacerbated by the unfamiliar environment and language. The low- or semi-skilled migrant workers usually get menial jobs. For example, they work as labourers in vegetable gardens or on animal farms, or as domestic or construction workers. These laborious jobs hardly bring them satisfaction. Besides, irregular payment was a common issue. In addition, working long hours without holidays, and verbal abuse or punishment from the employers for the slightest mistake caused considerable frustration among the workers. Living away from families, they had to endure all these and did not have much choice with regard to the jobs they were offered.

There were also some positive experiences reported by migrant workers. They believed that going abroad for work had improved the economic situation of the family. Most returned migrant participants and the wives of the returned migrants left school either at primary or secondary level due to poverty. However, their children are now going to school and family members often visit private doctors for any health-related problem instead of going to a free public hospital because they can now afford the expenses. A participant, the wife of a returned migrant expressed the following:

> My husband was unemployed here. My daughter is going to school. We need money to maintain the family to bear the medical expenses for us. (Saleha, 27 years, a wife of a returned migrant)

Another positive outcome for migrants was their increased ability to contribute to other financial obligations. They could provide monetary support for organizing marriages of their unmarried brothers and sisters and for themselves. Three out of four returnees went overseas at a young age and got married using their earnings overseas. Such unmarried migrant workers are highly regarded as eligible bachelors in rural society. Quite often, it does not matter what kind of work they do; working in a foreign country itself is a testimony of their eligibility and earnings potential far above the average for their social cohort in the society. Another financial and social reward is the ability to build a good house. Most houses in rural Bangladesh are constructed with semi-permanent or inadequate building materials; for example, some are made of bamboo materials. These kinds of houses are temporary and they need regular maintenance and repairing. Some are made of tin sheets. A brick and cement house is considered an important indicator of the owner's economic status. The comment of a returned migrant worker is worth quoting in this regard:

> I went abroad to earn money with the hope of making a new house, buying some properties and a car, and establishing a business in the home country upon return. (Rahim, 37 years, a male returned migrant)

While the economic importance of migration overrides all other issues in the face of poverty, other issues, particularly social issues, are also important as they have an adverse impact on the migrants and their families. Some of these issues lead to considerable social vulnerability which, in turn, increases sexual vulnerabilities. The next section describes these issues in considerable depth.

6.3 Social Vulnerability: The Role of Social Detachment, Separation, Loneliness and Coping

Social vulnerability encompasses multiple issues emanating from subjugation, exploitation, marginalization, stigmatization, religious and cultural sanctions, and above all, powerlessness—all leading to one or other kind of uncertainty with regard to the social life of a person. Such vulnerability also has an individual dimension resulting from loneliness, temporary separation and social detachment from one's family and community.

Migration creates temporary separation between the migrants and the family members. The migrant workers experience a sense of social detachment from their families and own communities especially those who go overseas. This is also noticeable among the migrants who move from rural areas without any practical experience of ever going to the big cities of their own country. All the migrant participants expressed their feeling of loneliness overseas while away from their wives and families. Living in a new and unfamiliar environment without family certainly was not a pleasant experience for many. One migrant participant who has returned from overseas described his experience of being overseas as being akin to being in a prison:

> Staying overseas is like being in a "jail without the wall around". Unlike the confinement in a real prison, movements in a foreign country may be free but the workers are unable to meet their parents, wife, children and other near and dear ones. (Rahim, 37 years, a male returned migrant)

The four returned migrant workers interviewed for the study reported that they were very depressed living apart from their wives, parents, and other family members. They felt that living overseas is like adjusting and sacrificing life for the benefit of the family. One migrant participant considered migrant workers to be very unfortunate in that they had to live overseas without their wives. He thought he was deprived of many things for 15 long years when he lived overseas without family. He said, "People may survive for 60 or 70 years and I have spent my golden 15 years there without family." The sense of loss builds up among migrant workers while they are away from their near and dear ones increasing their emotional vulnerability. Another migrant participant reported:

> I felt very bad when I went overseas for the first time. I thought about my parents. Later on, I felt terrible when I got married and went overseas again leaving my wife at home. I spent all the day remembering her chitchats with me. It's really sad to live without a newly married wife. (Karim, 34 years, a male returned migrant)

Deprivation of family contact made migration difficult for individuals and increased their emotional vulnerability. It also created an enormous feeling of loneliness and emptiness among their wives who remain in the home country. Generally, more young unmarried or newly married men migrate than those in the older age groups, and leave their newly married wives behind. A wife of a returned migrant worker expressed the difficulty coping without her husband in the following way:

> I was upset when my husband went abroad just after 22 days of our marriage, leaving me with his family. I was new and did not know any of his family before my marriage. I did not want him to go but his family had taken the decision. My family helped him by providing some money and he went overseas. I was missing my

> husband, feeling very lonely and sad. (Mina, 24 years, wife of a returned migrant)

The wives who remain experience not only emotional vulnerability, but also a feeling of powerlessness at not being part of the crucial decisions in the family. However, accepting the reality of a husband's absence is not uncommon. The wife of a migrant worker explained that she missed her husband, but accepted his absence considering the betterment of the family, as the whole family was fully dependent on his income.

> I was not feeling bad living apart from my husband. Ours is a poor country and hunger is a pervasive phenomenon. My husband was unemployed here and spending his father's money. How could he feed us or run the family without money? He went abroad to earn money and we needed money for our children's education. Money is important in life. (Saleha, 27 years, wife of a returned migrant)

For some wives, the advantages and peace of mind that the migrants' income provides, leads to their acceptance of their husbands' absence. Migrants, too, find ways to adjust to living overseas. A returned migrant observed that after two or three years overseas, some migrants become habituated with the life in the host country and enjoy their life there. Some believed that by nature migrant workers were risk takers, some enjoying life away from home and seldom communicating with their families or visiting their home country. A migrant participant described this as follows:

> Not that everybody feels bad about living abroad. There are some workers who do not contact their families at home. They are earning money and spending it on sex workers, going to nightclubs and drinking alcohol, etc. It's not that they engage in love or affairs but just having fun and passing time. (Rahim, 37 years, a male returned migrant)

It is apparent from the above discussion that migrant workers and their wives experience loneliness and emotional difficulties, adding to their sense of vulnerability. Several factors influence extra-marital sex for married men and women while they live away from each other. Frustration from economic marginalization, loneliness and stress because of temporary separation from regular sex partners, extreme freedom, peer pressure and the sexual opportunities—all these socio-economic factors contribute to sexual vulnerability of the migrant population. These factors not only affect the migrant workers while away from home, but also their wives who remain.

6.4 Sexual Vulnerability

The sexual vulnerabilities include extra-marital sex, sex with sex workers and unsafe sex. Migration creates opportunities for both male migrant workers overseas and their wives in the home country to meet other people and influence their sexual behaviour. All returned migrant participants expressed that freedom, peer pressure, availability of sex workers and hotels, as the main reasons for getting involved in extra-marital sex while living overseas.

6.4.1 Opportunities at destination countries

While away from the family in a foreign country, some migrant workers, particularly young migrants, are tempted to enjoy the freedom in excess, something they cannot find in their home country for fear of vigilance from their family and friends. All the four returned migrant participants stated that freedom was a considerable factor in having extra-marital sex overseas. A returned migrant participant reported that ‘migrant workers

can hire sex workers for 3-4 days for a high price and bring them into the quarters where the migrants live, which is impossible in the home country'. However, migrant workers who work at a house or in a garden or in a desert area do not enjoy such liberty or freedoms. Their movements are restricted and controlled by their employers. Reporting about freedom a returned migrant said:

> Migrants enjoy freedom overseas. There are no family members to advise where to go and where not to go. Migrants are not asked about their late arrival at home or spending the whole night elsewhere. (Rahim, 37 years old, a returned migrant)

Peer pressure is another factor that influences sexual vulnerability of migrants considerably and it affects people of all ages. A returned migrant participant commented that 'having a friend, who visits sex workers or goes to nightclubs, will influence his decision to go there as well'. Visiting sex workers did not seem to be a secret act among peers and friends. Those who are going to nightclubs or visiting sex workers encouraged others to do the same. Another returned migrant participant reported his presence twice in hotels where he indulged in alcohol, but when probed denied having sex with sex workers. The participant called this "*songodosh*" meaning "bad company". He explained that the influence of friends could change someone's conviction and persuade him to indulge in the charms of nightclubs or encounters with sex workers. He provided an example, "friends tell you the stories of their adventures in nightclubs and with sex workers and one day you might feel like having the experience firsthand". Another migrant participant said:

> I knew a man who was a driver. One day he asked me if I needed anything, any girl, and I could tell him frankly. He also added that he knew a Filipino girl and if I wanted I could meet her. (Karim, 34 years, a male returned migrant)

All returned participants reported that sex workers from various countries are available and one can have sex with a sex worker from any country in exchange for money. Some factors are interlinked with each other. For example, initially, friends or roommates help someone to visit sex workers. Once the links are established, they do it on their own having the freedom and the anonymity in a foreign country. A migrant participant's views are as follows:

> There are many nightclubs and thousands of sex workers in Dubai city. There is no restriction to go there and have sex with sex workers. One can find beautiful sex workers of various countries, only you need money to go there. (Saber, 35 years, a male returned migrant)

Many male migrants go overseas at a young age. Often migrants visit nightclubs and sex workers out of curiosity. As one migrant participant described, they wanted to explore and know more about women. Thus they got involved in sex out of interest and became habituated with it. A migrant participant labelled it as a 'hobby for some people'. Another migrant participant related the view of one of his friends as follows:

> I know a migrant worker who has a wife and three children at home. He used to visit sex workers and enjoy his life abroad. When asked, he explained that our life is very short and what are we getting in this short period of time? We are passing most of our precious times without family. (Karim, 34 years, a male returned migrant)

It is hard for some migrant workers to maintain abstinence while working overseas for many years in the absence of wives. Some participants, especially the two wives of the returned migrants, observed that in a liberal or free society, there are more opportunities for mixing freely and engaging in sexual relationships, whereas this is not the case in a conservative society like Bangladesh. A returned migrant participant related that they would see sex workers with open dresses on the streets of the main cities of the destination countries, and this often created curiosity among the migrants. A wife of a returned migrant reported about such openness and compared the situation in the following way:

> You may find scantily dressed women in overseas countries who attract men more easily. They shake hands with men, kiss them openly—not a common practice in Bangladesh. (Mina, 24 years, wife of a returned migrant)

6.4.2 Opportunities in the home country

Though not similar, opportunities also exist in the home country, which creates sexual vulnerability particularly for the wives of migrant workers. Everybody talked about sex as an individual physical need of varying degrees. Living with an extended family or living in the same or adjacent villages created opportunities where cousins and other relatives meet freely and often engage in sex. Some participants discussed the role of modern technologies, like use of mobile phones and watching porn films, which help and encourage men and women to become intimate and initiate sex. One participant reported that living in a joint family, relationships often begin with gossiping or exchanging

stories, and this may lead to a sexual relationship. She elaborated on this in the following sentences:

> In our society, we live in a joint family where there are opportunities to meet other people, for example, the younger brother of the husband, brother of a sister-in-law, husband's friend and distant relatives. Casually talking or gossiping with them is socially acceptable. This can eventually lead to a serious relationship and may even end up in a sexual relationship if the urge is there. (Mina, 24 years, wife of a returned migrant)

Besides household roles, women now go to schools and colleges where they meet men outside home and men also visit them at home. These days, meeting and talking to distant relatives or neighbours is acceptable. The wife of a migrant is in a better position than other wives regarding the freedom she enjoys in the absence of her husband. The wife of a non-migrant participant explained this as follows:

> Girls or women are going from one place to another for work purposes, which is easier for married women than the unmarried ones. Sometimes, they meet other men, and perhaps have sex, we do not know. Wives of migrant workers have better opportunities than non-migrant wives, because they are free and they have the money. (Rahela, 30 years, wife of a non-migrant)

Most of the participants mentioned that poverty and economic hardship plays a major role in extra-marital sex in women. Other participants reported that wives become socially and economically vulnerable when their husbands are away. This also makes them sexually vulnerable. Most participants discussed poverty as a reason–how women

face difficulties and sometimes become victims of the situation. The majority of the participants discussed the need that encourages disadvantaged or deprived girls or women to have extra-marital sex in exchange for money or other material gains. A non-migrant wife participant explained this in the following sentences:

> Poverty is another reason. Sometimes, we see that there are six/seven children in the family and parents are unable to maintain or arrange marriages for their grown-up daughters. In a situation like this, often girls find their own way to live and survive by making a relationship with men (Khadiza, 32 years, wife of a non-migrant).

Often disadvantaged parents, burdened with a large family, marry their daughters to rich older men who may already have a wife. Sometime, the girl, out of desperation, finds her own way out of this problematic and unhappy marital situation by developing a sexual relationship with another person. When probed about where such sexual liaisons took place, some participants talked about using physical places, for example availability of empty houses since many people move to cities for better employment opportunities leaving the rural houses vacant. Men and women usually look for a secret place to meet. One participant said:

> Extra-marital sex usually occurs in a quiet place. In a village, you will see many vacant houses. People go to calm and quiet areas or bushes for sex. This is a hilly area and it is not difficult to find a secret, safe place for sex. (Mina, 24 years, wife of a returned migrant)

All migrant participants reported that, while living overseas, extra-marital sex usually happens with sex workers. Besides having sex with sex workers, sex with housemaids or servants is also not uncommon. A migrant participant had this to say:

> There are many servants or housemaids working in Arab houses. Sometimes sex happens between male and female servants or male driver and female servant. The Arabs go to bed early and there is always an opportunity to meet at night. The Arabs usually do not allow them to talk during daytime or during working hours. (Karim, 34 years, a male returned migrant)

While in rural Bangladesh, all participants stated that in the village extra-marital sex generally takes place among relatives, neighbours and friends of brothers or sisters. Some reported that sexual relationships also develop among colleagues at the work place where male and female colleagues work together. They say they are going to the work place, but it is not impossible that they might be going somewhere else. A returned migrant participant reported relationships among friends and relatives, which starts with liking each other and leads to a sexual relationship.

> Relationships among friends and relatives are common here. But sex does not take place on the very first day. For example, one of my friends comes to my home with me and I have a sister. My friend sees my sister and begins to like her. Next day when he comes, he brings some gifts or food for the family and tries to impress my sister and the family. This way the relationship gradually develops. (Saber, 35 years a male returned migrant)

When participants were asked specifically about their own sexual experience, all participants denied ever having extra-marital sex even though some of the participants have been living apart from each other for a long time because of the men's work-related

migration. When probed, all participants provided some social or economic reasons for not taking up available opportunities for extra-marital sex. For example, a returned migrant participant reported that it was impossible to engage in extra-marital sex in the presence of family or friends who work at the same place or city. As mentioned earlier, temporary migration by semi- or low-skilled workers is very attractive to rural Bangladeshi people. A migrant worker usually takes other relatives and helps neighbours to go to the same place. The migrant workers who have many relatives abroad may have fewer opportunities for sexual engagement. A migrant participant described this in the following terms:

> There are many opportunities abroad but not for me. My own son and my brother-in-law are there. If I do anything wrong, it won't go unnoticed and will be instantly reported home. (Akter, 46 years, a male returned migrant)

Sexual abstinence amongst some migrants thus becomes a necessity because of the presence of close relatives. Some participants emphasized low income as an important factor that inhibits migrant men from having sex with women particularly with sex workers. A migrant participant indicated that low income was a major reason for abstinence. He said:

> It was not easy for us to go to nightclubs and have sex with sex workers because this would cost a fortune. If you go to sex workers, it cost about 200 dirham including transportation cost. If I spend about one-third of my monthly income in one night then how can I survive the rest of the days? Moreover, I have to send money to my family back home regularly. (Saber, 35 years, a male returned migrant)

This denial of sexual relationships outside their marriage indicates a strong socio-cultural inhibition among participants in keeping with the usual conservative norms of Bangladeshi society. Some participants explained that if one could abstain from sex before marriage, one could also maintain abstinence even after marriage while living apart from one's spouse. All returned migrant participants provided explanations supporting their claims of sexual abstinence while they were away from their wives. However, a male migrant participant admitted his desire to talk to women while overseas but, reportedly, never had sex with anyone other than his wife. Thus it is important to examine the socio-cultural norms and values that may act as protective factors for not having extra-marital sex, or which motivate the denial or reticence about talking openly about having an extra-marital sexual relationship.

6.4.3 Societal views and role of religion

Bangladesh is perceived to be a monogamous society. However, all the participants indicated the existence of extra-marital sex both among men and women. Pre-marital and extra-marital sex is considered an illegal act, a great sin that is socially unacceptable and religiously forbidden. Society builds upon religious beliefs and cultural customs that have been practised for many years. A non-migrant participant expressed his views that parents should arrange marriage for their children of marriageable age so that they avoid premarital sex. A migrant participant described his views in the following way:

> There are some religious bindings about what you can do and what you cannot do. We live in a civilized society and we are the best creatures of God. We cannot do what other animals do. Living in a civilized society under a given religious code of conduct, people should not be engaged in sex promiscuously like animals. (Rahim, 37 years, returned migrant)

There was more or less a consensus among all participants that social and religious views are quite strong and there is a conservative attitude about extra-marital sex. For example, a migrant participant said 'Our society never accepted extra-marital sex in the past nor does it accept now.' The two wives of migrant workers iterated the same opinion in this regard. One of them expressed that 'our society only accepts sex between husband and wife. Pre- and extra-marital sex is unacceptable and considered illegal in the society'. A non-migrant participant opined that according to religious teachings, a man should not go abroad and stays there year after year leaving his wife behind in the home country. He explained further:

> Some religious leaders say that if a husband and a wife are separated or they do not share the bed for 41 days then they are no longer married or under "kolema". So in that sense a man should not go abroad just to earn money. He should stay here with his wife. (Masud, 35 years, a male non-migrant)

Conservative views about religious approbation were reflected in the opinions of the participants. Society appears to be so conventional that some believe that if they do anything wrong like having illegal sex, their families will suffer for this act. A migrant participant explained how a deep-seated religious inhibition restrained him from doing anything illegal or bad while overseas. The wife of a returned migrant worker observed that extra-marital sex creates a bad example in society, sometimes influencing others too. She had this to say:

> If I have sex with another man then someday people will know about it and my husband will also eventually know. He will leave me and I shall not gain anything from this relationship. On the other hand, this example will encourage others in adultery. (Saleha, 27 years, wife of a returned migrant)

There was gender variation in responses to pre- or extra-marital sexual relationships, which emerged from the discussion with most of the participants. Some participants observed that in a patriarchal environment, not only men accused women, women also criticized women, and tried to find fault with other women. A wife participant reported that migrants' families are usually well off in the village causing jealousy in others. Sometimes wives of non-migrants verbally abuse wives of the migrant workers and spread rumours about them and their husbands. She explained that women in general face criticism and condemnation for communicating with other men, but people do not criticize men when they talk to other women. Society also blames women for men's gullibility. Society believes that women should be more conservative to maintain sexual discipline in society. A wife of a non-migrant discussed wives of non-migrants in the following way:

> Extra-marital sex is more common among wives of the migrants than the wives of non-migrants. Many migrants' families are moving to city areas from villages for better education of children. Some of these wives engage in relationships with other men. No-one knows about that. (Rahela, 30 years, wife of a non-migrant)

An element of power is often at play when a man tries to win over a woman. Though extra-marital sex occurs between a man and a woman, the man sometimes condemns the woman for having sex with him. There are numerous instances of only women being blamed and chastised for having extramarital sex, even if they are forced into the act and abused. A wife of a returned migrant worker described her perception in the following sentences:

> Sometimes man accuses woman and labels a woman to be of bad character. The man's view is that a man can approach a woman to have sex with him but if the woman were of good moral character, then she would not give in. It is a woman's responsibility to maintain her chastity. (Mina, 24 years, wife of a returned migrant)

Uneven distribution of power along gender line has much to do with determining who can say what and who is to be believed. Besides, given the social bias against women and the burden of maintaining chastity being only imposed upon women, in an act of socially prohibited sex, be it consensual or forced, women are blamed and stigmatized, often irreparably. Men find ways to entrap women of their choice. Vulnerabilities of women in this uneven distribution of power are inevitable. Quite often men take advantage of these vulnerabilities to extract sexual favours. A migrant participant highlighted men's power and women's vulnerability in our society in the following sentences:

> Men are bad by nature, their eyes are bad. They always stare intently at other women despite having beautiful wives. First they try to talk or approach women. Later, they look for a way to come close to women. If opportunity arises, they even entrap women into making a relationship. I can tell you that men's intention is always to have sex with women. (Saber, 35 years, a male returned migrant)

Sometimes a man does not admit the relationship with a woman. This is more common where love or affection is absent and only a physical relationship exists. A non-migrant male participant said that sometimes a man lies to a woman by assuring her that he would marry her soon and persuade her into having sex. As a result, the woman may get pregnant only to be refused by the man later when it comes to marrying her. Extra-marital sex usually occurs secretly and sometimes it occurs all of a sudden without any

protection, resulting in pregnancy. In the conservative society of Bangladesh this can bring enormous suffering to a woman. A woman participant stated:

> Women are vulnerable as they can get pregnant after having sex, which is visible from outside. On the other hand, a man can deny having sex with a woman to shrug off his responsibilities. He remains untouched. (Mina, 24 years, wife of a returned migrant)

If a woman becomes pregnant in such circumstances, it can be assumed that the act of sex was unsafe and it might have put the woman in risk of STIs. As previously discussed, extra-marital sex or adultery is an illegal act in Bangladesh and all participants agreed that punishment should occur for both men and women if it happens through joint consent. However, there are instances where women have been the victims of sexual abuse and still they have been punished. A wife participant interpreted this in terms of unequal power between men and women. She used the following allegory:

> A candle gets burned in front of fire. Here, fire is a symbol for men and candle signifies women. Women are powerless, who succumb to the power of men. (Saleha, 27 years, wife of a returned migrant)

It is evident from the discussion above that there is a general perception that society gives all the power to men and makes women powerless in all respects. This determines in many ways the nature of the relationship between a man and a woman, a woman's ability to fend off undesired extra-marital sex, and her ability to deal with post-sex eventualities. This is also evident in the following response from a male participant:

> In my opinion women are to be blamed more for sexual relationships outside marriage. They attract men. If women can control themselves, then relationships will not develop. (Rahim, 37 years, a male returned migrant)

The female participants were asked about their experience (if any) of sexual offers or sexual advances from men other than their husbands. It was clear from the interviews that many women who were interviewed were targeted for sexual advances or even abuse. Sometimes, they are forced to have pre-marital or extra-marital sex. Their vulnerability to HIV and STIs is greater when women are forced into sex against their will. Obviously they cannot take any precautions. A migrant participant emphasized the vulnerability of a woman who became the victim of forced sex:

> In our country forced sex is common. A man may have sex with a woman forcefully, video-recording the act of sex secretly in order to blackmail her. If the woman declines to have sex second time, the man threatens to make the video public. In her helplessness, the woman may continue the relationship. (Karim, 34 years, a male returned migrant)

This highlights the helplessness of women who become victims of blackmailing by men or sometimes by a group of people. Another migrant participant reported that social taboo against extra-marital sex is gradually waning and sometimes people grudgingly accept such behaviour. He said:

> I think society should look at the circumstances before jumping into a judgment against anyone engaged in extra-marital sex. In many cases, the circumstances can be corrected, consequently changing the behaviour of the people. (Akter, 46 years, a male returned migrant)

Some participants recounted some stories they knew that indicate gradual changes in the social perception about sex. Though not obvious, people are now more accepting of rather than condemning such behaviour. A non-migrant wife participant told a story of how the family of a migrant's wife helped her come out of a sexual relationship she developed while her husband was overseas. She said:

> I know a woman who had sexual relationship with another man. She has grown-up children. They used to see and came to know about their mother's illegal relationship. The children informed the father about this relationship. Her husband and children advised her to leave that man and helped her get out of that relationship. So that is also happening in our society. (Rahela, 30 years, wife of a non-migrant)

However, the dualism between norms they outwardly adhere to and practices they may engage in, as evident from the interviews, reveals considerable vulnerability of the study population. It was important to note the differing perceptions among participants about extra-marital sex. Some participants appeared quite sympathetic about sexual involvement outside marriage. A wife of a returned migrant expressed her opinion in the following way:

> Society should be empathetic about wives of migrant workers. Sex is a physical need and migrants' wives may need to engage in sexual relationships in the absence of their husbands in order to meet that need. Society should accept this reality. (Mina, 24 years, wife of a returned migrant)

In summary, the theme of sexual vulnerability highlights contextual factors which contribute to migrant workers and their wives engaging in extra-marital sex, particularly when they are living apart from each other. Some factors like loneliness, peer pressure, freedom and anonymity play a role in the occurrence of sex among migrant workers abroad. The vulnerability increases because of the opportunistic nature of extra-marital sex influenced by strong socio-cultural norms and the dualism in belief and practice that result from this. It is evident from all twelve interviews that husbands' migration makes wives socially vulnerable, and economically dependent on other male members of the family or relatives, which increases their sexual vulnerability and exposes them to sexual exploitation and abuse. Vulnerability to STIs and HIV is also linked with socio-economic and sexual vulnerability because these low- or semi-skilled migrant workers come from disadvantaged socio-economic strata of society and lack awareness about their vulnerability to HIV/AIDS infection.

6.5 HIV Vulnerability

6.5.1 Awareness about HIV/AIDS

Overall, the participants' knowledge about HIV/AIDS was minimal. Most participants had heard about HIV from television advertisements, but the majority were unable to give details of what they had heard. Most participants reported on the ways in which HIV can be transmitted through sexual encounters and half of them spontaneously mentioned that condoms could be used as a preventive measure, while the other half had to be prompted to mention this. Very few of them talked about transmission through contaminated blood

transfusion or use of used contaminated needles and syringes. One participant knew about mother to child transmission. The majority of the participants stated they had heard about HIV/AIDS but never discussed it with others. The wife of a returned migrant participant blamed health workers for not having discussions on HIV/AIDS. In her words:

> Health workers are not talking about HIV. They visit homes and ask women about how many children they have and distribute pills to avoid more children. That is the only thing they are doing. (Mina, 24 years, wife of a returned migrant)

There were confusions or misconceptions around transmission of HIV/AIDS. A migrant participant who had returned from abroad considered HIV a disease like 'jaundice', which has no treatment. The wife of an internal migrant considered HIV a 'man's disease', which affects male migrant workers mostly. A migrant and a non-migrant participant reported that they were unsure if they could contract the infection by sitting beside an HIV positive person. A non-migrant participant had this to say:

> HIV is a poisonous reaction to having sex. The disease is created after sex and transmitted through sex. It can be transmitted if we live with or sit close to an HIV-infected person. (Masud, 35 years, a male non-migrant)

With regard to perceived risk of contracting HIV, most participants appeared to be unaware of the risks. The majority of the participants did not consider themselves at risk as they had never had sex with anyone other than their respective wives. They considered

themselves and their partners free from any risky behaviours or illegal sex. A migrant participant said:

> I do not think that I am at risk of HIV as I never have illegal sex with other women. HIV will not come automatically. You have to be in contact with someone having HIV. I trust my wife and I believe that she does not have any relations with another man. (Rahim, 37 years, a male returned migrant)

6.5.2 Risky sexual behaviours and condom use

All participants were asked the meaning of risky sexual behaviours. The majority of the participants linked risky sexual behaviour with pregnancy. Most participants reported that meeting "bad" people and having illegal sex with someone other than one's husband or wife is called risky sexual behaviour. The participants mentioned pregnancy as a result of risky sex. Some described extra-marital sex or unsafe sex as a risky behaviour. A migrant participant stated that "sex without condom is called risky sex". Some participants mentioned sex with sex workers as risky. They explained that unprotected sex with sex workers carries the risk of getting STIs as they have sex with many people. While explaining the risky sexual behaviours, the wife of a returned migrant articulated her views in the following way:

> Condoms prevent transmission of infectious diseases and any sex without a condom is a risky sexual behaviour. Besides, there is a chance to acquire infection with many diseases like AIDS and hepatitis B if a condom is not used. (Mina, 24 years, wife of a returned migrant)

On the other hand, some participants consider sex to be safe if it occurs at a young age and with relatives, irrespective of marital status. The perception is if you limit your act of sex with one partner then it is safe. However, some perceive that there is still risk though not as high as in the case of sex with sex workers. They perceived that sex between married men and women carries risk if both are having unsafe sex with their respective husband or wife.

While the majority of the participants considered condoms a contraceptive method that prevents pregnancy, some participants stated that condom use during extramarital sex would make it safe and could prevent sexual transmission of infectious diseases. Some participants know or understand the expression safe sex or "nirapod jownomilon". A non-migrant participant expressed his views in the following way. He said:

> Condom cannot reduce 100% risk if one is having sex with sex workers. It may reduce 80% risk as there is a chance that condom may break and if it does then there is a possibility of transmission of infection and a chance of pregnancy as well. (Masud, 35 years, a male returned migrant)

Regarding condom use, all participants reported that condom use reduces sexual pleasure. Some participants believed that condom use lessens trust between husband and wife. Besides less sexual pleasure, some participants thought that accessibility may be a problem particularly for young unmarried men, and some may not know how to use a condom. They explained that ignorance about condom use might be because of lack of advice and information by the health workers and other providers. Some mentioned that a condom rupturing might lead to pregnancy. A wife participant, who works as a

community health worker and counsels women of child bearing age for contraceptive use and other health related issues, had these views about others' perception about the limited use of condoms:

> Some perceive a condom as a partition which separates husband and wife from each other during sex, which is like having sex from a distance. Some believe that condom use reduces trust. If they are not having illegal sex, why should they stay separate from each other during sex? (Mina, 24 years, wife of a returned migrant)

The process of condom negotiation during marital and extramarital sex did not come out in the study. However, when asked about condom negotiations, some participants reported that the negotiations varied in marital and extramarital sex. Some participants mentioned that husbands usually decide about the use of condoms in marital sex. The wife of a migrant participant explained that if the wife asks the husband to use a condom, it signifies distrust in their relationship. Some participants observed that only the sex workers decide about condom use when men have sex with them. As one of the migrant participants said:

> In marital sex, the husband usually decides about condom use mostly in view of the family's wellbeing. For example, I use condoms as my wife gets sick if she takes pills. On the other hand, sex workers carry condoms and they take the decision. (Rahim, 37 years, a male returned migrant)

The discussion above highlights the participants' lack of awareness about HIV. They have very little knowledge with regard to transmission and prevention of HIV. The participants perceive that they have a low risk of acquiring HIV. This may be because the participants were not involved in risky sexual behaviours. The majority of the

participants mentioned only pregnancy as the result of risky sexual behaviours. In a situation of unequal power relations, as is the case in Bangladeshi society, men usually take the decision about condom use. The absence of women's negotiating power with regard to condom use, combined with their limited knowledge about safe and unsafe sex, creates vulnerability to HIV and other STIs.

6.6 Summary

This chapter described the context in which socio-cultural and economic factors play an important role in constructing the beliefs and values in relation to sexual risk behaviours. The denial of sexual acts with others or practising risky sexual behaviours by the study participants demonstrated the stigma associated with sensitive issue like sexual behaviour.

On the other hand, the participants discussed quite openly instances of risky sexual behaviour by other people they knew. This certainly depicts the existence of risky behaviours in society—an important risk factor for transmission of HIV and STIs. By exploring how individuals engage in risky sexual behaviours when they live away from their wives, the chapter has interlinked four main areas of vulnerability—economic, social, and sexual vulnerabilities which in turn increase the vulnerability to HIV.

Migration is a socio-economic process which helps low- or semi-skilled migrant workers changes their lives by improving their financial situation. They become detached from their own communities, separated from their families and, if married, from their wives.

With temporary separation, some migrant men become frustrated with their job because of a low salary or irregular payments. Their problems compound when the migrants face demands for money from the family members back home, as the family is often dependent on their income. Frustration builds up further when migrants are detached socially, emotionally and sexually from their regular sex partners. Sometimes, their wives, if newly married, are also at a stage of initial adjustment in a new environment of living with the in-laws family. All these create economic and social vulnerability for both migrant men and their families, particularly the wives who remain at home.

Extra-marital sex is a multifaceted issue and is linked with various interrelated factors. For example, some participants observed that extra-marital sex was associated with frustration which developed from economic and social marginalization and increased sexual vulnerability. The association between migration and extra-marital sex also brings into focus women's marginalization as it is mostly the woman who is blamed whether for opportunistic sex, sexual abuse or forced sex in the husband's absence. As with many other social issues, the study found there was often a gender and power imbalance.

The perception about the wives of migrant workers as "bad women" in society highlights social prejudice, which affects their own self-respect. The rurally located poor and under-educated women are dependent on other family members, relatives and neighbours in their husbands' absence, which compels them to compromise on many things, including extra-marital sex, for the sake of the family.

The religious and social sanctions and deviance from them go side-by-side, creating an inherent contradiction between belief and practice. Any relationship, which is not socially sanctioned, goes clandestine. Any sexual relationship that is clandestine in the given environment of a rural society in Bangladesh is also largely opportunistic. Any discussion of the possibility of contracting HIV or STIs in such a relationship is often tantamount to distrust, and therefore a taboo. This certainly increases the risk and vulnerability to STIs and HIV.

With regard to knowledge of HIV/AIDS, limited knowledge makes both men and women vulnerable. HIV is still considered a stigma. Not even health workers discuss the subject of HIV/AIDS. Women are at risk of contracting infections, including HIV/AIDS, as they lack negotiating power and are often forced to engage in risky sex. The lack of understanding of risky sexual behaviours and limited use of condoms in marital and extra-marital sex as evident from this chapter and Chapter 4 emphasized the vulnerability that exists for both men and women. From the discussion of the participants, the qualitative component of the research project highlighted the fact that the migrant men, and women in general, are more vulnerable. As many migrant men are the ones who are exposed to various risks, and thus economically, socially and sexually vulnerable, their risk of contracting HIV while they live away from their wives increases.

While this research emphasizes the vulnerability of women in general as they are abused or forced into unsafe marital or extra-marital sex, the power imbalance, given the socio-cultural context and the limited knowledge of HIV/AIDS and low risk perception, make them even more vulnerable.

While discussing the sexual risk behaviours of the migrant workers and the wives of the migrant workers, various relevant issues came up. As mentioned earlier, no respondent ever reported or discussed their own sexual experiences outside marriage. Therefore, the information presented here is based on the participants' perspective on the sexual or emotional experiences of others that they came to know about.

The following chapter reflects on the findings from both the quantitative and qualitative components of the study and explains the findings based on other studies and some relevant theoretical perspectives. The chapter also adds the researcher's reflection on the given issues.

Chapter 7: Discussion and Implications

7.1 Introduction

The findings presented in the previous chapters highlight the complexity of sexual risk behaviours in relation to perceptions about extra-marital sex and experience of own sexual contacts outside marriage, and the socio-economic, cultural and religious context that may play a role in this regard. The purpose of this chapter is to explain some of the important quantitative and qualitative results. The findings were critically examined in keeping with the project framework in Chapter 2. The framework was conceptualized on the basis of relevant existing literature on migration and HIV/AIDS, and insights particularly associated with risks and vulnerabilities emanating from a socio-cultural context.

It is vital to understand the factors that influence men's and women's vulnerability to HIV/AIDS as well as understand the socio-cultural context in which risky sexual behaviours occur. As noted previously in Chapter 2, globally, the association between migration and HIV/AIDS is well documented. However, the socio-cultural factors remain poorly understood, especially in Bangladesh. The present research project adopted a mixed method design. The present research aimed to better understand and explain risky sexual behaviours of the study population, the wives of the migrants and non-migrants, in the given socio-cultural context that make them vulnerable to HIV infection. Additionally, the present research explored how the given socio-cultural contexts shaped the risky sexual behaviours of the migrant workers and their wives that might increase their vulnerability to HIV.

The discussion is built upon seven sections beginning with understanding the association between migration and HIV/AIDS in Section I. This is followed by a discussion on the factors leading to sexual vulnerability in Section II. Section III presents discussion related to women's vulnerability in a larger socio-cultural context including the vulnerability of the wives of the migrant workers. Sections IV and V discuss the limitations and strength of the present research, and Section VI presents some thoughts about future research, policies and programmes. Finally, Section VII presents the conclusion of the thesis.

7.2 Section I: Understanding the Association between Migration and HIV/AIDS

As discussed in Chapter 2, globally, the mobility and migration of people (both internal and international) is on the rise (10, 11, 36, 43, 44, 48). This phenomenon has considerable significance for countries like Bangladesh where people now move out of the countryside to live in overseas cities in their quest for better livelihood (33, 44, 57, 187, 188). Such migration affects people in various ways; one of these is a change in their sexual behaviour, and the consequent vulnerability to HIV/AIDS. Although HIV prevalence is low (< 1 per cent) in Bangladesh, the number of HIV positive cases among returned migrant workers is on the rise. Some studies have already documented higher number of HIV infection among migrant workers and their families (34, 35, 67).

Globally, the relationship between migration and HIV is well documented (18, 21, 29, 90, 135, 138, 189). Lurie et al. (2003) concluded that being a migrant man is a risk factor for HIV, but being a partner or wife of a migrant is not a significant risk factor for HIV, and transmission among rurally located partners occurs more from other men than migrant partners (18). Thus, not only the migrant men are at risk, but their wives living in the

rural areas are also at risk. Lurie's argument also highlights the fact that the wives/partners of the migrants who are left behind engage in risky sexual behaviours with other men which make them vulnerable to HIV/AIDS. Some studies have already documented that HIV/AIDS infections among the migrant population in Bangladesh are rising; thus, it is important that the sexual risk behaviours of the migrant population in the given socio-cultural context in Bangladesh be examined. However, it has to be considered that the study cited above was conducted in South Africa where HIV prevalence is higher among the general population compared to the low HIV prevalence in Bangladesh.

A cross-sectional analysis of a nationally representative sample of male migrants in India concluded that migration is a significant predictor of HIV infection rates after controlling for other confounders such as multiple sexual partners and residence in HIV-prevalent areas (138). Other studies have argued that migration is one of the social factors related with HIV and it is the social condition or environment that makes migrant workers vulnerable to HIV (19, 21, 99).

Studies conducted in Bangladesh and other countries have concluded that the wives of the migrants become infected with HIV by their husbands through unprotected sex (18, 26, 30, 34, 35, 114, 135, 137, 138). It appears from the literature that there are multiple factors that need to be considered when determining the relationship between migration and HIV. These factors include socio-demographic characteristics, isolation from migrants' own community, separation from wives and families, multiple sexual partners, residence in high HIV prevalence regions and the socio-cultural influence.

Devender (2010) discussed three factors that influence the association between migration and HIV. The first factor he noted was that there might be differences of HIV prevalence in the destination countries, the second was the involvement of risk behaviours in the destination countries, and the last factor was the frequency of movement between countries of origin and destination countries (113). For example, the risk might be higher for the migrants who go to Africa than for those who go to countries in the Middle East. Similarly, in some countries, the cultural norms, practices and values vis-à-vis sexual activities are much more liberal than in other countries creating more opportunities for sexual activities, and this also influences risk behaviours. Lastly, frequent movement to the destination country enhances the possibility of spreading infection.

For the Bangladeshi migrant workers, the risk may be higher for those who go to India or Myanmar. This is because of the high HIV prevalence in some parts of both those countries that share a border with Bangladesh, and these countries may be a source of HIV for Bangladesh (72, 76). HIV prevalence is also rising in the Middle-Eastern countries where many low- or semi-skilled Bangladeshis go for temporary work (1). The risk is higher among this group (low- or semi-skilled) as they go overseas leaving the family back in their home country.

HIV infection among migrant workers in Bangladesh is rising. Some studies have already documented higher sexual risk behaviours among migrants, but studies of the wives of non-migrants who are left behind are scarce. The quantitative component of the present research was part of the research conducted among the migrant population in Bangladesh (see Appendix A). Given the concern about rising HIV infection among migrant

population, it is important that studies be undertaken that investigate the sexual risk behaviours among the wives of the migrant workers who are left behind and also explain the risk behaviours as they relate to the socio-cultural context in Bangladesh.

The present research project consisting of quantitative and qualitative components focuses on a group of the migrant population, the low- or semi-skilled migrant workers and their wives who are left behind in the home country. The project also includes internal migrants (moving to other places within Bangladesh) and non-migrants to compare the responses among these groups. The following section presents the argument about the factors that influence sexual risk behaviours of the study population and make them vulnerable to HIV/AIDS. The interpretation of the findings both from quantitative and qualitative components has been made in the light of existing information from literature and theoretical explanations.

7.3 Section II: Factors Leading to Sexual Risk Behaviours and HIV/AIDS risk

In the quantitative component, sexual risk behaviours were examined by assessing respondents' perceptions about extra-marital sex, their own experience of extra-marital sex, their condom use in marital and extramarital sex and their awareness about STIs and HIV/AIDS. As mentioned in Chapter 3, the respondents included in the quantitative component (survey) were the wives of the migrant and non-migrant workers, while the qualitative component comprised both male and female participants, migrants, non-migrants and the wives of the migrant and non-migrant workers.

The literature suggests that migrant workers, both male and female, irrespective of their urban or rural settings, engage in riskier sexual behaviour conducive to HIV infection compared to non-migrants (18, 22, 23, 29, 32, 33, 94, 95, 99, 103, 110, 138). Other studies have documented that pre-marital and extra-marital sex are common in Bangladesh society (115-117), whilst others have also reported risky sexual behaviours among the wives left behind at home (18, 32, 118).

The cross-sectional survey conducted in Bangladesh, from which this data set was obtained for secondary analysis (appendix) for the present study, reported risky sexual behaviours among migrant workers and their wives left at home (32). Though not huge, current secondary analysis of the survey data also documented extra-marital sex among the wives of the migrant and non-migrant workers. However, none of the participants in the qualitative component reported extra-marital sex. These results are supported by work undertaken in rural areas of Bangladesh (117). A number of factors may influence reporting or non reporting of extra-marital sex.

The most common reason might be the presence of strong social, cultural and religious inhibitions against disclosing the respondents' own experience of extra-marital relationships. The stigma and social sanctions about extra-marital sex might influence the disclosure of such information and are a strong deterrent against being candid about this aspect of sexual behaviour. Such under reporting about own their extra-marital sexual experience by women and the presence of a strong perception about the prevalence of extra-marital sex in society, among friends and neighbours, are also common in other parts of the globe (18, 115-117, 160, 190, 191).

Another reason for under reporting and non reporting of extra-marital sex could be the temporal factor. Hawke's study was conducted in 1995, and the present study was conducted in 2004. This difference in time might provide an explanation in terms of changes in society, increasing openness or liberalization as a result of modernization of society (192). Women have started talking about their extra-marital relationships, albeit in confidence, which was difficult even a few years ago.

The present study highlighted a big gap between the perception about others' extra-marital sexual relations and their own experience of extra-marital sex reported by married women. This gap highlights the constraints of reporting such personal and sensitive information in a conservative society. The findings of reporting others' sexual behaviours instead of their own were not surprising. Such underreporting about respondents' own sexual behaviour has been anticipated and reported in other studies globally and in Bangladesh as well. It might be easier to talk about others' sexual behaviours than one's own experience considering the stigma of being labelled as a "bad woman" in the society. A study among college students about the perception of prevalence of risky sexual behaviours among college students showed over-estimation of risky sexual behaviours among other college students. The author explained that this over reporting about others' behaviours might set a forged standard, allowing the respondents to rationalize their own sexual behaviours (e.g., everyone's doing it, so why can't I?) (193). Face-to-face interviews could be another obstacle that might have influenced underreporting about own behaviours but describing a sensitive social phenomenon through examples of others, which is believed to be true. Besides, a moral sanction might also be at work that "others are delinquent, I am not."

7.3.1 Socio-demographic characteristics vis-à-vis risky sexual behaviours and HIV/AIDS risk

The socio-demographic characteristics of the respondents revealed that the respondents, mostly consisting of the younger age group below 35 years, either had no education or secondary education and above. However, there was no relationship between respondents with higher education and their monthly household expenditure. This indicates the reality of a rural patriarchal community where men are involved in wage-related work, while the women are usually involved in unpaid activities (194), and, therefore, education of women does not make much of a difference. The current research also documented that most women were housewives, meaning that they were engaged in unpaid activities. Additionally, involvement in unpaid activities makes women financially dependent on husbands or other men in the family in husbands' absence. As documented in the field notes and reported in the qualitative interviews, such dependency on other men in the form of monetary or material help often turns into extra-marital sexual relationships.

The area, Mirsarai came out as an important area from the analysis of the survey data. The respondents living in Mirsarai were older (35 years and above), educated (secondary and above), had higher monthly household expenditure (Tk. ≥ 5000), were married for a longer duration (≥ 20 years), had a higher number of children (>2) and had larger family sizes (5-7 and ≥8) compared to the respondents living in Abhoynagar. Comparing survey data from this study with data from a national survey (183) shows that the average family size in Mirsarai is larger than the national average. Mirsarai is more conservative than Abhoynagar and is well-known as a low performing area in terms of contraception and immunization coverage (157). This also supports the higher number of living children

and larger family size in Mirsarai found in the current research. The present research also documented lower use of contraceptives and condoms among the respondents of Mirsarai compared to the respondents from Abhoynagar. The findings are important as low uptake of condom use highlighted the lack of awareness of HIV/AIDS, and hence safe sex. Since a considerable number of men go overseas from Mirsarai (32) leaving their wives at home, the risk might be higher both among migrant men and their wives left behind at home if they lack awareness of HIV/AIDS and issues related to sexual risk behaviours.

The findings of the current research suggest that a woman aged more than 35 years, with no education, who had an illiterate husband and a family size of more than five was more at risk of contracting HIV than a woman less than 35 years old, having some education and a family size of less than five. These findings suggest that education of women and their husbands positively contributes to reducing the HIV risk among the wives of migrant and non-migrant workers. Low literacy level was a strong risk factor for HIV transmission among the participants of a retrospective study of HIV infection among migrants and housewives in Nepal (135). Less education of both the women and their husbands might translate into less awareness about HIV and STIs. Thus limited access to information on HIV and STIs, coupled with no education, keeps these rural women less aware about HIV and STIs (195). The findings suggests that the risk for HIV infection was associated with various socio-demographic characteristics (age, education, husband's education and family size) irrespective of the migration status of the respondents.

7.3.2 Socio-economic factors vis-à-vis risky sexual behaviours and HIV/AIDS risk

Thematic analysis of the qualitative interviews revealed several themes, for example, economic vulnerability, social vulnerability, sexual vulnerability and HIV vulnerability, which were interlinked. Finally, women's vulnerability emerged as a major concept where both the wives of migrants and non-migrants appeared vulnerable–similar findings to those of the quantitative component and the field notes.

According to some participants, the pre-migration processes that the semi-or low-skilled migrant workers had to go through were not pleasant. Often they borrowed money from rich people, sold off land or managed to get money from in-laws' families as dowry. For example, a wife of a returned migrant confirmed that her family helped her husband financially while he was overseas. The participant did not mention categorically if the monetary support given from her family was a dowry or a response to a demand from her husband's family, which is a common practice in Bangladesh (196-198).

Other migrant participants reported that they managed the overseas travel expenses either by borrowing money from others at a high interest rate or sold their property. Overall, the potential migrants and their families invested heavily on migration, which put tremendous pressure on the migrants to repay the loan. The whole process of migration therefore begins with a huge burden for families back home who are starved of resources (134, 188). Some migrant participants observed that this helpless situation, exacerbated by meager overseas earnings made it impossible to repay the loans, often resulting in their discontinuing communication with their families back home. This also leads to frustration and then to stray activities to release their pangs of anxieties (199).

As evident from the qualitative interviews, the male returned migrant participants went overseas in an effort to escape poverty and to have a better life, and also because of the lack of employment opportunities in the home country (39, 40, 46, 55, 134, 200). However, the harsh realities of their situation soon sour the migrants' dreams. These migrants mostly engage in menial jobs like day labour, housekeeping, cleaning, and construction work that the people in the destination countries do not want to do (134). Moreover, irregular, low or no payment is also a common issue that makes male migrants feel helpless and makes it difficult for them to provide support back at home, resulting in the frustration mentioned by some participants. They live on the margin of the host societies because of high levels of economic hardship, job insecurity and low wages (113, 134).

Additionally, migrant workers become victims of verbal and physical abuse by their employers, particularly those who work as day labourers or domestic help, as has been reported in the present research. The discrimination or abuse of socio-economically disadvantaged and marginalized people makes them psychologically vulnerable (201). As some participants commented, this also leads to risky sexual behaviours.

While explaining the reasons behind women's extra-marital sex, some men and women cite economic reasons. According to a study conducted in Nepal, about half of the participants reported that their husbands did not send money, while in another country, around one-quarter reported receiving money from their husbands only once in a year (134). Respondents in the present study have reported a similar situation. A returned migrant participant told of a migrant's family that had been surviving through begging

from door to door because of lack of communication and monetary support from the migrant. The field notes from the quantitative component provided the opportunity to get a deeper insight into the economic reasons behind the women's sexual behaviour outside of their marriage. Respondents reported that one of the reasons they engaged in extra-marital sex was that they were financially dependent on other men in their husband's absence. This dependency came in different ways; in the form of direct monetary support or as indirect material support during times of hardship (202).

The analysis of the field notes also highlighted the social construction and the power imbalance that exists in society that often make women surrender to men's sexual desires. These findings were found to be consistent with the findings from the qualitative component of the current study. These gendered aspects make women sexually, socially and financially dependent. Quite often, men took advantage of a husband's absence or indifference to familial responsibilities, created a pretext of helping a dependent woman, and engaged in a sexual relationship with her. Some respondents reported that they engaged in sex with other men voluntarily because of their own sexual desire, or often women affected by poverty admired rich and powerful men of the area leading to a sexual relationship. Some participants in the qualitative interviews commented that, in many cases, richer men made efforts to reach out and allure the beautiful women of the village and engaged in sexual relationships (118).

Similarly, some participants from the qualitative interviews supported a woman's willingness toward a man's sexual advances in order to receive financial or material help or gifts like dresses and cosmetics from men whom they had sex with, and such

consensual sex has been explained in other studies (123, 202). The situation is similar in rural northern Tanzania where it is a common phenomenon for women to have non-marital sexual relationship in exchange for materials or financial assistance. The only difference is in moral sanctions perhaps dictated by social values. In a Tanzanian study, women who engage in non-marital sexual relations in exchange for money or gifts do not consider it immoral (202).

In a study conducted in South Africa, Lurie and others (2003) stated that the wife of a migrant worker becomes more vulnerable in her husband's absence, as a woman may engage in an additional relationship for social, sexual, financial and emotional support (22). A respondent who had had extra-marital sex explained that the wife of a migrant worker usually lives with her in-laws' family, a new environment for a newly married wife. In the husband's absence, she may struggle to adapt to the new living environment. During that time she needs emotional and social support from the other family members and often such support comes from a brother-in-law or a male member of the family instead of the female members of her husband's family. Sometimes, this care and support turn into a sexual relationship.

7.3.3 Socio-cultural factors vis-à-vis risky sexual behaviours and HIV/AIDS risk

As noted in Chapter 2, several studies conducted in countries other than Bangladesh have argued that socio-economic and cultural factors influence sexual behaviours (20, 23, 30, 93, 101, 102, 134). While there are critiques of most of the research endeavours trying to establish linkages between migration and HIV, the dynamics of the economic and social processes associated with migration have largely been ignored (100).

The social structure of relations, which are affected by migration, is an important element in the framework of the current research presented in Chapter 2. A migrant worker faces disruption to the structure of relations, and also to the control he would have otherwise faced from this structure of the relationship as soon as he steps into a destination country. Some studies have discussed the convergence of multiple socio-economic factors, particularly, separation, lenient social control, social isolation and economic hardship that contribute to risk behaviours while living away from families and a home community. Migrant workers become socially isolated away from their own communities, families and friends (93, 102).

In the qualitative interviews, all the migrant participants reported that they felt very depressed living away from their own communities, friends and families. A migrant participant expressed his feelings in the following way, "Staying overseas is like being in a jail without the wall around". Unlike the confinement in a real prison, movements in a foreign country may be free, but the workers are unable to meet their parents, wife, children and other near and dear ones. Migration disrupts this stability and weakens the bond between migrants and the left behind families. Some may indulge in sexual relationships due to frail social and familial attachment (203). Some authors have argued that limited social control and higher sexual need increases the chances of sexual involvement in the destination countries (30, 99). According to Vold & Bernard (1986), consistent sexual behaviours depend on the stability of connections and relationships between men and women (204). As reported by some participants in this research, extra-marital sex was associated with frustration, developed from economic and social

marginalization, leading to extra-marital sex as a way to escape anxieties and release sexual frustrations (23, 101).

As discussed in Chapter 2, leaving regular sexual partners and families has a major role in promoting the risky sexual behaviours of migrant workers (33, 134). These finding are supported in the qualitative component of the present research. The review of the literature revealed loneliness as a common human phenomenon associated with risky sexual behaviours (101, 201, 205). Although the current study did not investigate loneliness among participants, the returned male migrant participants and their wives unanimously expressed feelings of loneliness while they were separated. Diaz et al. (2004) emphasized in their study among Latino gay men in the United States of America (USA) that socio-economic discrimination heightened isolation and reduced self-esteem, and reported that participants used ejaculation is a way of coping with loneliness (201). Stack (1994) in a study on the geographic mobility and pre-marital sexual behaviour suggested that the act of sex may combat migration-induced loneliness (203). Similarly, Munoz-Laboy et al. (2009) concluded that a higher level of loneliness was associated with risky sexual behaviours that in turn increased the HIV risk among male Mexican migrant workers in the USA (205). The wives of migrant workers became close to other men in their husbands' absence leading to new relationships that in turn led to sexual relationships (205).

All the migrant participants of the qualitative component of this study discussed the role of peer pressure in encouraging participation in sexual activity outside marriage. Friends were usually found to help migrants to go to night clubs or to meet sex workers, and the

migrants often sought sexual partners to relieve their loneliness and anxieties about home. These findings are supported by the study conducted among returned migrants from India in Nepal (103).

As reported by the participants, anonymity, freedom from social surveillance, lack of family responsibility, peer pressure and availability of sex workers may encourage migrant workers to engage in sex with sex workers (103, 113, 199, 206). As demonstrated in the current study, participants observed that the migrant workers in a foreign country are on their own and are not accountable to anyone as to what they do or where they go during their leisure time. Unlike their life with their families in the home country, nobody asks questions if they do not return home at night. Some returned migrants stated that there are areas, particularly in cities of some destination countries, where the sex workers wait on the streets at night and try to entice their potential customers. Besides, there is free access to many nightclubs in some cities. The migrant workers gradually succumb to opportunistic sex. This permissive environment encourages many men to venture out and explore the forbidden, such as going to nightclubs and drinking alcohol, as has been reported by all returned migrant participants. For example, a returned migrant participant admitted drinking alcohol and, on two occasions, visiting nightclubs, activities which might not be possible in the home country. This permissive environment contrasts with strict social control, expectations about codified and normative behaviours in the home country and lack of privacy in rural areas make it difficult for men and women to engage in socially prohibited sexual relationships (20).

It is indeed puzzling to see that despite the presence of many risk factors that could induce extra-marital sex, none of the respondents reported any experience of their own in extra-marital sex under the present study. The explanation for this discrepancy has to be sought from the nature of the society, the societal view about extra-marital sex and adherence of the respondents to the perceived social values in this regard. While they are cognizant of the presence of the factors like loneliness, separation, distress as factors inducing to sex, they are reluctant to admit that the same factors might have been at work in their own situations, resulting in non-reporting of extra-marital sex although they do not deny that this could be a case for others. The reality statement has to be understood from the hypothetical situation they describe about others. Further research would be important on the gaps between perception and own sexual risk behaviours for better understanding of the risk factors i.e. separation, loneliness, distress reported by the participant.

7.3.4 Socio-religious context vis-à-vis risky sexual behaviours and HIV/AIDS risk

Despite the belief, emanating from socio-cultural and religious sanctions, that sex should only be a marital affair, men and women do engage in extra-marital sexual relations. The factors and opportunities vary from situation to situation. It is known that the most prevalent social and religious values do not permit extra-marital sex (27, 207). The perception is that cultural norms and behaviours in the light of religion (Islam) are expected to protect the society from HIV (115). However, according to participants in the current study they may be punished for participating in sinful acts. The religious inhibitions and myths and beliefs associated with them are taken quite seriously in

conservative societies (123). Still, the argument is, conservatism conflicts with the belief of existence of risky sexual behaviours (116).

In Bangladesh, as in many other Asian countries, very strict codes against pre-marital and extra-marital sex are applied to women, but pre- or extra-marital sex among men, though not approved of, is viewed with some degree of tolerance (116, 208). As evident from discussion with the participants of the present research, even in a reportedly conservative rural society in Bangladesh, extra-marital sex does take place either among willing clandestine partners or, for some women, under circumstances of victimization. As noted in the quantitative survey field notes, the agonies arising out of the long absences of respondents' husbands and the opportunities for sexual relationships sometimes conspired to lead the wives of migrant workers into extra-marital affairs. For many of them, it is a constant battle between social and cultural values, their own scruples and perhaps an irresistible physical urge. What wins at the end is a function of many factors that can only be understood through a comprehensive analysis of the larger context.

In Bangladesh, the conservative socio-cultural values that are in place, often practised in the name of religion, usually favour men over women, although the social sanctions against pre- and extra-marital sex are very strong both for men and women (208). The participants from the qualitative component of the present research concurred that deep-rooted cultural and religious rules often prohibit women from getting justice. It is often the women, rather than the men, who are blamed for extra-marital sex when this activity becomes public. A female participant, the wife of a returned migrant worker, provided an example that men also blame women for having extra-marital sex with them. While

explaining the men's perspectives, she said that the common perception is that it is the responsibility of a woman to maintain her chastity. She further explained that it is natural for a man to get attracted to a woman, but the responsibility to stay away from them should remain with a woman. This indicates the social construction underneath the power imbalance and acceptance of male infidelity as given, and women's faithfulness to their husbands as a social and religious obligation. The male participants observed that women's infidelity is a common reason for men to leave their wives, while this is a less common reason for wives to leave their husbands; a similar finding was reported in another study (123). Obviously, there are many trends with regard to belief and practices, with perceived morality as an overarching factor, which reveal an inherent paradox prevalent in the Bangladesh society.

In the qualitative interviews, all participants stated that extra-marital sex is socially unacceptable and religiously forbidden. This explains why the participants claimed that they and their wives had not been involved in extra-marital sex, while some participants were emphatic in their claim that many others indulge in such activities. This paradox epitomizes the prevalent tension between reality and belief in this society. Hawkes and Azim (2000), while discussing HIV-AIDS in Bangladesh, highlighted changing social norms resulting from urbanization and globalization making some people vulnerable. They discussed how increasing urbanization and globalization is gradually affecting conservative social norms and cultural taboos, softening the grip of conservativeness. This is also affecting people's sexual behaviours (192).

It was evident from the field notes of the quantitative component that some women succumbed to their physical needs. It was also interesting that while some participants label extra-marital sexual contacts as outright transgressions of social and religious norms, there were others who tried to justify such acts on the ground of inevitable necessity. Sometimes the same participants expressed agreement with social values and sympathy for the ones engaged in extra-marital sex. Clearly, this was emblematic of a larger social spectrum of acceptance and non-acceptance of sexual behaviour, and perhaps an on-going transition in society in the face of large scale emigration out of economic necessity.

7.3.5 Awareness about HIV/AIDS and STIs vis-à-vis risky sexual behaviours and HIV/AIDS risk

Overall, the qualitative component of the present research documented limited awareness of HIV/AIDS and STIs among the respondents, a finding also reached in other studies conducted in Bangladesh (33, 124, 184). A pilot study on HIV/AIDS awareness of outgoing female migrant workers from Bangladesh reported that about 13 per cent of these workers had not heard about HIV. In the present research it was 38 per cent. However, in some cases the outgoing female migrant workers go through some orientation programs making them aware of HIV/AIDS, which was not the case with the respondents of the present study who migrated within Bangladesh.

There might be several reasons behind the limited awareness of HIV/AIDS. Firstly, for the majority of the respondents, television and radio are the primary sources of information on HIV/AIDs, a finding consistent with other studies (126, 195). These media, in a conservative society like Bangladesh, still appear to be constrained in their

approach to presenting the information openly, whether it is on HIV/AIDS or on issues related to sexual acts. They disseminate information on HIV/AIDS in a way and in language within the bounds of social conservatism that does not encourage adequate subject-specific knowledge for rural people. These messages are more geared toward catalysing interpersonal communication. Secondly, interpersonal communication on such sensitive issues is almost nonexistent because of the stigma attached to issues like HIV/AIDS. Discussions on HIV/AIDS are particularly difficult in the conservative rural societies. Thirdly, discussion with women on HIV/AIDS or STIs is even more difficult as it is linked with the act of sex. All these conspire to create a gap in communication which is reflected in the lack of awareness of HIV/AIDS and STIs. This needs to be addressed in the future. The lack of awareness about HIV/AIDS may increase vulnerability among the wives of the overseas returnees. The risk increases further as most of the respondents reportedly had unsafe sex with their husbands.

Limited or no discussion about HIV/AIDS or STIs between spouses or between health care providers and patients, and only limited discussion among friends has been a common problem (127). In the present study, discussions on HIV/AIDS are largely limited to friendship circles. This finding is supported by another study conducted in Bangladesh on community readiness for HIV/AIDS preventive intervention (121). The study showed that the community is at an early stage of readiness, as people are shy and embarrassed to talk about sex openly. Some participants commented that condoms should not be made available to unmarried males. Some held a strong opinion that those who engage in extra-marital sex should be punished in public (121). Limited discussion among spouses about HIV/AIDS, may be related to the prevalent cultural practices that

discourage discussion on HIV/AIDS between husband and wife (111). The socio-cultural aversion to discussion of HIV/AIDS or anything related to sexual issues deters the propagation of the knowledge that is so vital for the population.

In Chapter 2, high rates of STIs were documented among risk groups in Bangladesh (116, 117, 160). Additionally, a lack of knowledge about STIs among participants has been highlighted in a number of studies and reports in Bangladesh (7, 9, 209, 210). There could be two possible explanations for this. Firstly, STIs are still not common among the general population in Bangladesh, including the migrants, hence the subject is perceived as unimportant. Secondly, the stigma associated with STIs, or sex in general, makes it difficult to discuss these subjects.

With regard to STIs, the current research project asked respondents whether they experienced any symptoms of a disease that could be transmitted through sexual contact. It did not include any serological test to diagnose STIs among women, although several studies confirmed the prevalence of high rates of STIs among married women and people who are at most risk, particularly, the sex workers (160, 190, 191). A strong feeling of shame and embarrassment also stands in the way of seeking treatment for STI symptoms, particularly for women (192). As evident from this research project, some female respondents preferred traditional healers (unqualified) and village doctors (unqualified) for treatment of symptoms, and a proportion of female respondents did not seek any treatment. This differs from the findings of Singh and Khan (2006) who reported that none of the women went to traditional healers (211). This was a qualitative study based on four interviews and one group discussion. However, the study was conducted in an

urban area in contrast with the present research that was conducted in a rural area where traditional healers are one of the main providers. Hawkes and Azim (2000) discuss the reasons why people do not seek care from qualified providers and suggest various reasons including fear of stigmatization, lack of privacy and confidentiality, and the high costs associated with treatment of the illness. They propose that these barriers to treatment of STIs increase an individual's vulnerability to HIV infection (192).

In the qualitative interviews, it was found that the participants had limited knowledge and understanding of risky sexual behaviours. They mixed up the perception of risky sexual behaviours with the issue of pregnancy rather than acquiring HIV or STI infection. Similarly, ambiguity existed in the perception of the importance of safe sex. In a document published by the World Health Organization, Brown et al. (2001) cited some studies where participants showed lower risk perception despite higher risky sexual behaviours (212).

The quantitative component revealed that most of the respondents reporting extra-marital sex had practised unsafe sex as has also been reported earlier (32). All the migrant participants in the qualitative interviews agreed that the social and economic uncertainty suffered by the temporary low- or semi-skilled migrant workers overseas, especially when they are socially discriminated against and psychologically stressed, may prod them into unsafe sexual practices (201). This finding is supported by several other studies conducted in other countries which emphasized that inadequate awareness of HIV, limited discussion about sexual activity and poor condom use make wives vulnerable to HIV (32, 127).

Reports of low condom use by migrant and non-migrant participants, as discussed in Chapter 6, are consistent with findings from a number of studies conducted in Bangladesh (33, 117). Condom use has also been reported to be low among the migrant worker studies conducted in other countries as well (97, 103, 110, 119).

In the survey, lower condom use was reported in older, less educated respondents who lived mostly in Mirsarai. In the same study (157), condom use was also documented as low in Mirsarai compared to Abhoynagar, indicating less awareness among the people of that area. The area of Mirsarai is considered a low-performing area in terms of contraceptive use and child vaccination coverage compared to Abhoynagar.

The low level of condom use indicates a lack of awareness about HIV/AIDS and STIs among participants together with a low risk perception and a lack of knowledge about safe sex (213). The present research also confirms the general perception that condoms are a contraceptive method and that their use reduces sexual pleasure (214). While discussing condom use during sex, a participant in the qualitative interviews described wearing a condom as similar to ‘eating rice with a spoon’, where one cannot get the real pleasure. A Tajik male migrant compared it to wearing a mask to smell the fragrance of a flower (111). These analogies reflected the view that condoms interfere with the essence of "naturalness" or "wildness" of sexual acts (215).

Overall, the perceived risk for HIV infection was found to be very low both in the quantitative and qualitative components of this research project. This arises from the belief of most of the participants—both male and female—that their spouses were faithful, did not engage in sex with other partners and there was therefore no reason to

fear contracting HIV from them. The present research documented a high level of trust in the marital relationships where breach of trust is considered a sign of lack of love (127, 216). This contrasts with the finding from a study where participants feared acquiring HIV because of their husbands' infidelity (123).

In any relationship, level of trust and negotiation for condom use is closely related. The current research did not explore the negotiation of condom use particularly. However, in reply to the questions as to who negotiates condom use in marital and extra-marital sex, most participants agreed that it is usually a man who decides. It is not considered socially appropriate for a woman to ask her husband or a regular sex partner to use a condom during sex as this could be interpreted as evidence of distrust in the relationship (26, 216). The husband or the regular sex partner might think that she does not trust him, or that she is having another relationship. On both counts, she might be apprehensive about asking her husband or her regular sex partner to use a condom. On the other hand, Poudel et al. (2004) reported that some migrant men hesitated to use condoms with their local partners upon their return as their partners might think that condoms should not be used with a person one trusts (103). Trust is considered an important barrier for not asking or using condoms and this applies to both men and women (132). While trust is one factor, fear is another that stands in the way of any free discussion about condom use or HIV among spouses. In some societies, women do not talk about condoms or HIV for fear of violence or even abandonment by their husbands. Some women also mentioned that if their husbands found out that they knew about HIV/AIDS, it could be taken as a sign of infidelity (127).

A male returned migrant participant observed that it is usually men who decide condom use in marital sex and in extra-marital sex, if sex workers are involved, it is they who decide about condom use. His explanation was that it was a man's responsibility to care about his wife. He further explained that sometimes pills do not suit women and condoms can be used as an alternative contraceptive method and husbands usually take the decision about that. Regarding decisions taken by sex workers, he explained that men do not always carry condoms, but sex workers do. Those who do, generally have a preference, sometimes strong enough, for the use of condoms. These findings are supported by a study conducted among South-Asian migrant women in Canada. The authors explained that the power in a relationship is an important determinant of the ability to ask a partner to use a condom (217).

The response to an insistence to use a condom would vary depending on the man's own disposition about condom use, the circumstances under which the act of sex takes place, and the distribution of power among the two negotiating persons, which would again be a function of a number of factors, for example, the amount of money involved, the desperation from both sides and the class and age of the negotiating parties. Should they not agree, the negotiation could be quite complex introducing a number of other factors, most notably power in its various manifestations (217, 218). Power in a relationship is manifested in control or dominance and results in decision making (219, 220). Failure to assert power by either of the parties could lead to less participation in the decision making regarding the use of condoms (218).

In a destination country, it is quite likely that a migrant worker, not endowed with much power or money, and perhaps desperate to have sex, would not be the decision maker, which affirms the observations made by the returned migrant workers. Roy and others (2010) also confirmed the views of the male participants that it is usually the sex workers who initiate the bargaining for condom use (33).

The method of negotiation can be dependent on a number of factors—social, economic, circumstantial and those related to a complex interplay between knowledge and pleasure as perceived by the participants in the act of sex (214). As discussed earlier, many participants understood risky sexual behaviour or unsafe sex only in terms of unwanted pregnancy, not in terms of health risks. If that is the case, clearly the urge for negotiation would be much less, particularly if they were somehow sure that pregnancy would not result. The fact that they understood condom use only in terms of contraception could also put them at risk.

7.4 Section III: Women's Vulnerability to HIV/AIDS

A major concept of women's vulnerability emerged from the qualitative interviews and was found to be interlinked with economic, social, sexual and HIV vulnerabilities. Additionally, findings from the quantitative component revealed HIV/AIDS risk among the wives irrespective of their husbands' migration status. This section discusses women's vulnerability from two viewpoints—the perspective of the wives of the migrant workers, as this was the focus of the research, and women's vulnerability in general–a subject that came out of the research. The discussion underpins the social construction of the power imbalance that exists in society. Although the conceptual framework did not

incorporate any power element, relevant literature on power and oppression is discussed as this was found to be important.

7.4.1 Vulnerability among wives of migrant workers

The wives of migrant workers bear a higher risk of getting infected with HIV by their returned husbands compared to the risk faced by wives of non-migrants (34, 35, 70, 107, 216). However, the situation is different between Bangladesh and the countries with a high prevalence of HIV, for example, African countries where migrant men also get infected from their rurally located partners (22). Migrant workers usually have unsafe sex in the destination countries with sex workers, and sex workers are considered to be at risk of having STIs and HIV, while sexual contacts outside marriage among non-migrants with neighbours, friends or colleagues are considered less risky. Similarly, the wives of the migrant workers who are left behind may engage in extra-marital sex with neighbours, friends or relatives, which is considered less risky in terms of HIV or STI infection due to low HIV prevalence in Bangladesh. Therefore, the risk of migrant workers being infected by their wives is lower in Bangladesh.

In the present research, the respondents who reported extra-marital sex mostly had sex with neighbours, friends or relatives who belong to closed sexual networks, where the risk is less. Therefore, the risk the wives of the migrant workers face is largely because of their husbands' risk behaviours. Additionally, the migrant workers mostly have unsafe sex with their wives upon return. Caution needs to be taken when considering such an explanation as it is based on participants' perceptions about others' sexual behaviours, not on any direct factual evidence.

7.4.2 Vulnerability among women in general

The present research highlighted the vulnerability of women in general irrespective of their husbands' migration status. Much of their vulnerability comes from poverty, economic dependency on men and the given power relations where women are subordinated both within their family and the wider society. Being disempowered, they rarely get involved in any decision making process (221). Resources, for example, money and education, are considered the sources of power which can empower women (219), but unfortunately these rural women in Bangladesh lack these resources as they live in a predominantly conservative Muslim society with socio-cultural traditions and practices which largely favour males (208). These traditions and practices also translate into unequal marital relationships limiting the opportunities for women to assert their views. For example, a wife of a returned migrant participant mentioned that she was not consulted about her husband's travel overseas. The decision was taken by her husband's family members, though financially supported by her family. The distribution/role of power as it relates to women's position in society highlights the disparity between men and women in society and makes the women more disadvantaged.

The field notes revealed that some respondents were involved in extra-marital sex in exchange for money. To them, sex does not count as a physical or biological need, but as a necessity to ensure food for their children and the families in the absence of their husbands or due to their husbands' indifference to family responsibilities. Commercial sexual encounters are not easy to achieve especially in the rural areas where kinship ties are strong and everyone knows everyone. Therefore, commercial sex has to be

clandestine, and opportunistic. Since it happens as a bare necessity, desperation often makes it impossible to take any precautions against infection. An urge for survival imperils survival. On the other hand, Gibney et al. (1999) concluded that in a poor country like Bangladesh, people may not consider HIV to be a serious problem when there are many other communicable diseases to be immediately concerned about. Besides, there are socio-cultural barriers to discussing issues related to sex, HIV and STIs, due to their association with risky sexual behaviours (115).

From the literature review on migration as it relates to risks of HIV infection, it was evident that one of the gaps in research was an in-depth consideration of some of the socio-economic factors that increase the vulnerability of the migrant workers and their wives left behind at home. This study identified that poverty, economic and social dependency on men, sexual abuse, exploitation, and, above all, hostile cultural norms make women powerless. In the act of sex, marital or extra-marital, women are seldom endowed with power to bargain for or negotiate safe sex. All these factors make the women sexually vulnerable and put them at risk of HIV infection.

7.5 Section IV: Limitations of the Research

As discussed in Chapter 3, there are a number of limitations in the quantitative and the qualitative components of the present research. The quantitative component has several limitations. Firstly, the cross-sectional survey design limits the possibilities of making causal inferences, not a suitable design to identify the complexities of HIV risk among respondents (222). Nevertheless, there is some evidence of significant relationship between socio-demographic characteristics and HIV risk, which has important

implications for the control of HIV vulnerability among the wives of the migrants and non-migrants workers.

Secondly, the sample size of the two migration groups, wives whose husbands had returned from elsewhere in Bangladesh (n=125), and respondents whose husbands had returned from overseas (n=178), was small compared to the group comprising the wives whose husbands were non-migrants (n=396). This limits the power of statistical tests. Considering the sensitive nature of the study which includes information about sexual issues and topics related to HIV/AIDS and STIs, the findings suggest under-reporting of sexual behaviours very much in keeping with other studies that indicate similar under-reporting (115-117), and this limits statistical analysis. Research on sensitive issues, like those in this study, may demand different data collection techniques other than face to face interviews to address under-reporting (222).

Analysis of the secondary data set also has limitations as was discussed in Chapter 3. The major concern about analysis of secondary data is about the methodology of the study, around data availability and the validity of the data (223). However, the data set used for secondary analysis of the present research was collected by a group of researchers of ICDDR,B, which is renowned worldwide for research work. Moreover, the survey was reviewed by the research review committee and the ethical review committee where the research work was judged for its scientific and ethical merits (See Appendix A).

While discussing about the definition of HIV risk, acknowledging the limitation of the data set is important to note. Low responses to the two main outcome variables, for example, reported extra-marital sex and condom use in extra-marital sex affected further

analysis in the present study. Considering data limitation, the variables that included in the 'HIV risk model' were the best available data in the dataset for the present study.

As discussed in the methodology chapter, there might have been some biases while defining the HIV risk. Measuring sexual behaviour still remains a challenge (158) like any other behaviour because of the limitation of self-reporting. However, attempt has been made to reduce biases by ensuring quality check during fieldwork and protecting the privacy during interview. The measurement of STI symptoms is a big concern as this was dependent on the respondents' reporting, assumption and knowledge about the disease. Measurement of STIs still remains a challenge in a rural area where clinical or laboratory diagnosis is limited.

There were a number of limitations in the qualitative component. Participants were identified purposively using purposive, convenience and snowball sampling techniques. Additionally, participants interviewed for this study were limited to one area. A comparison with other areas would increase the comprehensiveness of the present research. Interviewing the men who had returned from elsewhere in Bangladesh was proposed, but the idea had to be dropped after repeated attempts failed to reach them.

With regard to reporting of extra-marital sex, none of the participants in the qualitative study reported their own engagement in sex outside their marriage. Even the four returned migrant workers did not report this, although they talked about others' extra-marital relations. One reason could be the use of a female researcher to conduct all the interviews with male respondents. However, even the female respondents, when interviewed by a female interviewer, were not forthcoming in describing their sexual behaviour, which is

understood to be a social taboo for both men and women. This is corroborated by a number of studies, both in Bangladesh and in other countries as discussed earlier.

In Bangladesh, many males who engage in same-sex activities are not identified as 'homosexual' or 'gay' and many of them are married. All of the returned migrant participants were asked to discuss about their own experience of sex with other men or if they knew about men who were involved in male to male sex, particularly when they lived overseas. This appeared to be a very constrained discussion as only one out of four participants reported that he heard about this but neither he nor any of his friends were involved in such sexual act. The rest of three participants did not show any interest in discussing this issue. This might be also because of the fact that they were hesitant to disclose anything like this to a female interviewer. This could be a limitation of the present research. Future research should address this issue more carefully to understand the risk of HIV infection through male to male sex.

7.6 Section V: Strengths of the Research

The research project employed mixed methods and tried to capture the sexual risk behaviours and HIV risk among respondents through the quantitative component, a cross-sectional survey, which was conducted during October – December 2004. The qualitative data helped explain some of the complexities that may shape the risky sexual behaviours of migrant workers and the wives of the migrant workers, particularly when they live away from each other. The focus on socio-economic, cultural and religious beliefs and norms will add to the body of knowledge about HIV/AIDS vulnerability among migrant population in Bangladesh.

The other strength of the present research was the development of a model to examine "HIV risk" among the wives of migrant and non-migrant workers. As discussed in Chapters 3 and 4, the response variable "HIV risk" was developed using a number of variables. For example, a woman was considered at risk of HIV who reported 'extra-marital sex' or 'experienced STI symptoms' or 'never heard of HIV/AIDS'. Multivariable logistic regression analysis between selected socio-demographic characteristics including migration status of respondents showed relationships between some selected socio-demographic characteristics (age, education, husband's education, and family size) and HIV risk of respondents. However, the analysis did not show any association between migration characteristics and HIV risk in particular.

7.7 Section VI: Recommendations on Future Research, Programs and Policy Implications

While Bangladesh faces many public health problems and the country has taken many interventions to deal with these problems, the initiative to control HIV, as early as before the first case of HIV was identified in the country, is certainly laudable. The National AIDS/STD Programme (NASP) is one of the wings of the Directorate General of Health Services (DGHS) under the Ministry of Health & Family Welfare (MOHFW) responsible for overseeing and coordinating prevention and control of HIV/AIDS in the country.

A series of national plans has guided the response to HIV/AIDS with support from many donor agencies, for example, the World Bank, USAID and the Global Fund. The major intervention programmes were overlapping, such as, HIV/AIDS Prevention Project

(HAPP) 2004-2007, HIV/AIDS Targeted Intervention (HATI) 2008-2009 and Bangladesh AIDS Programme (BAP) 2005-2009. However, these programmes were mostly targeted to the groups who were mostly at risk, therefore, migrant population were left unattended by the large scale programmes on HIV/AIDS.

The third national strategic plan (2011-2015) included international migrant workers as having a higher level of vulnerability to HIV along with the groups mostly at risk. The planned activities for the international migrant workers included the following: a) HIV life skills education integrated into existing services for pre-departure preparation as well as provision of information materials including free CDs. b) HIV education interventions through community based organisations in locations where high numbers of international migrants are concentrated. c) Targeted interventions for departing and returning migrant with specific provisions for VCT to returning workers.

It was also proposed that further research would be conducted regarding informal international migrant workers. Based on this research, interventions will be developed. These are the planned activities for the period of 2011-2015 and a mid-term report is due in 2013. Besides, some NGOs have done some intervention programmes for migrant workers and also for the wives of the migrant workers in a small scale in rural Bangladesh as learnt from interpersonal discussion with NGO officials. Clearly, reportable activities to reduce the vulnerability of the migrant population are still very scarce.

The finding from the present study could improve the body of knowledge in the area of HIV vulnerability among migrant population in Bangladesh. There is a need to develop

and implement effective responses to HIV/AIDS for migrant population, which would empower them to protect against infection and also to provide care and support to those who are already infected. Awareness of the diseases would not be enough to address their vulnerability. The complexity of the risk factors experienced by the migrant workers, which have come out of the present study, demands a strong, holistic and integrated approach with the highest political support from the government.

The thesis has examined different aspects of socio-economic, cultural and religious perspectives in relation to sexual risk behaviours, specifically extra-marital sex among migrant and non-migrant men, and the wives of the migrant and non-migrant workers. It also examined HIV/AIDS vulnerability among the participants, and identified a number of issues that need to be addressed in the future.

The first important area of investigation could be to conduct a mixed method study among migrants and their wives for a deeper understanding of HIV risk behaviours and the social contexts at the place of origin of the migrants and their destination countries. So far, research has been conducted among migrant workers upon their return to the home country. Future mixed method research among migrant workers could be undertaken in the destination countries to get a better account of their real life experiences. Similarly, wives of the migrant workers could be interviewed while their husbands are away. It is important that research be conducted on the migrant workers while they are living overseas. This will help researchers better understand their loneliness, frustration, social isolation, the stress of migrant life, and the sexual risk behaviours they engage in the destination countries. These behaviours will be accentuated

while they are experiencing the hardships of migrant life, more so than when they return to their families and country of origin. On their return, the risk behaviours will be understandably reduced or in some cases even non-existent. Similarly, research on the wives of the migrant workers could also be conducted during the absence of their husbands in order to get real life accounts of their experiences. Future research should include the following two components together with the assessment of sexual risk behaviours i) a component measuring loneliness using standard tools to better understand the loneliness related to sexual risk behaviours, and ii) another component to measure depression or stress among migrants when they live overseas away from family. This may help to understand and explain the sexual risk behaviours in a broader perspective.

As mentioned earlier in the literature review chapter, there has been only limited research on the migrant population in Bangladesh. Particularly, there is no research, so far, around developing an HIV risk model that could inform the association between HIV/AIDS risks and the migrant population. Therefore, future research should explore the various risk behaviours that have been validated through other studies globally. A large scale study of this kind with an adequate sample size would provide a better understanding about the risk of HIV/AIDS among this population group. In addition, the future research should explore the issues of gender power, gender norms, and violence in relation to the risk of HIV/AIDS infection.

The present research reports that some migrant workers might have sex with sex workers in the destination countries. It is important that the potential migrants be well equipped with HIV/AIDS and STIs knowledge before their travel. The potential migrants should be

given information about HIV/AIDS and STIs along with other information about life overseas and should be given enough opportunity to prepare themselves for that life before they leave the country. Therefore, the policy suggestion would be that the government should expand its pre-departure programme for migrant workers. Currently, BMET is running this pre-departure training, which is only of half an hour duration and insufficient to cover all travel and country related issues. Pre-departure programme or briefing run by the government should be revised and redefined in a way that better equips the potential migrant workers with knowledge of HIV/AIDS. In order to achieve this, the programme should include adequate information on HIV/AIDS and STIs, in addition to information on safe migration, and work and country-related issues. This pre-departure training should be extended for a longer period and organized at community level involving NGOs since the HIV prevention programs undertaken by the government have mostly been implemented by NGOs.

Overall, the research shows that there is limited awareness about HIV/AIDS and STIs with regard to transmission and prevention, risk perception, and safe and unsafe sex among the wives of migrant and non-migrant workers in the survey, and also among the male participants in the qualitative interviews, although most of them had heard about HIV/AIDS and STIs. This indicates problems in the dissemination of information. Most of the respondents mentioned TV and radio as major sources of information about HIV. However, although these two major mass media disseminated information, the expected interpersonal discussion it was designed to promote did not eventuate, perhaps due to the conservative nature of society. In addition, the findings of the present study clearly show

that interpersonal communication on HIV/AIDS was very limited largely because of the perceived sensitivity of the issues. The policy suggestion would be to devise a national communication strategy using more effective, explicit and clear information about HIV/AIDS presented in a culturally acceptable way. Before dissemination, research should be conducted to identify culturally acceptable messages in the area of safer sex, particularly on condom uses. Concurrently, there should be mechanisms to encourage interpersonal communication in rural communities to make effective use of these messages. That can be done by involving local elites, religious leaders, field workers and other social clubs. Improving awareness of HIV/AIDS among the migrant population could also help to increase access to treatment for HIV/AIDS.

Safe sex practices would be another important area for research as the present research project identified major gaps in knowledge and practices in this area consistent with the findings of other studies (76). Addressing the problem of unprotected sex is far more complex than it appears on the surface. For example, traditional health education, in this regard, might attempt to perfect the messages on the use of condoms during extra-marital sex, but this would hardly influence the practices and reduce risks. Sexual practices among the migrant groups are shaped by a complex process, entailing many social, cultural and psycho-social issues. Unless they are addressed in a holistic way, a truncated intervention only to increase the use of condoms is doomed to fail and the risk of HIV infection cannot be contained. Promotion of condom use during extra-marital sex poses a considerable challenge in a conservative social context like that of Bangladesh where any discussion about extra-marital sex is taboo and forbidden socio-religiously. Adequate

research should precede any intervention designed to reduce HIV risk in the population vis-à-vis these less-discussed socio-cultural issues.

The study findings stressed that the wives of the migrant workers were vulnerable in many ways particularly when their husbands were away. The fact that most of them are unemployed and dependent on others for financial support is a function of, among other things, low level of education. Despite the fact that Bangladesh has done very well in expanding opportunities for girls' education, high rates of drop-outs both at primary and secondary levels have been a major deterrent to acquiring employable education for girls. This problem is particularly extensive among the economically disadvantaged and rural girls. Poverty targeted educational opportunities for girls and strict enforcement of minimum marriageable age for girls in the rural areas might help improve the situation.

Poverty is another area that has emerged prominently from the study findings. Low education, unemployment and poverty –all contribute to women's vulnerability. Since independence, the government has been trying to reduce poverty and significant achievements have been made in this regard. Still, nearly 40 percent of the people live below the poverty line. Among the poor, women are the poorest as most of them have no earnings. Spouses of the migrant workers are no exception to this. Awareness and communication alone cannot change the situation. These wives perhaps can be brought under different income generating activities which will provide not only financial support to them, but will also empower them to have a say in the family's decision making process. Many NGOs have designed income generating activities for rural women. Similar activities can be undertaken for the spouses of the migrant workers. A

programme among the wives of the migrant workers can be initiated similar to a programme carried out by SHISUK (Shikkha Shastha Unnayan Karzakram), a local NGO, in some rural areas in Bangladesh. Awareness raising activities can be added to such programmes.

The other important finding that emerged from this study is that the area Mirsarai is a low performing in terms of level of education, contraceptive use rate and condom use rate compared to the other area, Abhoynagar. Besides, the average family size in Mirsarai was reported to be higher than the national average of family size. The government should pay particular attention to this area and to include the upazila as a priority area for implementation of all related government programme interventions.

Existing efforts addressing the issues of HIV/AIDS mainly focus on risk-taking behaviours but they largely fail to recognize the context in which they occur. In order to address HIV/AIDS vulnerability among migrant population, emphasis should be given on preparing the migrants with adequate knowledge about HIV/AIDS and STIs, and making the destination environment migrant-friendly. Furthermore, measures should be taken to free society from prejudices against the wives of the migrants who are often stigmatized and discriminated against. Emphasis should also be placed on improving access to information on and education about HIV/AIDS and STIs for those living in rural areas and the potential migrants.

7.8 Section VII: Conclusions and way forward

Migration of low- and semi-skilled labour to the Middle East countries is a livelihood strategy for many people in Bangladesh. Each year, over 300,000 people travel overseas to live in a new environment leaving their family behind. With limited awareness about HIV and AIDS, there is a risk that they may become infected during their stay abroad and return to Bangladesh to transmit the virus to others, especially their wives who could in turn transmit infection to their babies. Available research findings emphasize that migration has been a major source of new infection in the country. Given this, understanding and comparing the sexual behaviours of the wives of migrant and non-migrant workers and the socio-cultural explanations of these behaviours are important and might shape the understanding of the vulnerability of the migrant population to HIV/AIDS infection. This section summarizes briefly the key findings that have emerged both from quantitative and qualitative components of the present research.

The present research did not find a high level of risky sexual behaviours among the wives of migrants and non-migrants workers in terms of having extra-marital sex, although there might be an underreporting of such behaviours given the conservative socio-cultural and religious context. This, however, comes in sharp contrast to their perception of a high level of extra-marital sexual behaviours among others (men and women). Among the three groups, women whose husbands were internal migrants reported a higher proportion of extra-marital sex compared to the two other groups. Moreover, women in this group were better educated than the wives of non-migrants, younger and had fewer children than those from the two other groups. On the other hand, women whose husbands were overseas

migrants showed lower awareness about HIV/AIDS and STIs compared to the two other groups. Thus, the wives of the migrant workers in both groups showed higher risk behaviours, which might make them vulnerable to HIV infection.

The HIV risk model of the present research revealed that a woman aged 35 years or above who had no education, had an illiterate husband and lived in a bigger family was at risk of HIV/AIDS irrespective of their migration status. This model will contribute to the current body of knowledge on HIV/AIDS. However, more research and modelling among migrant men and women can elucidate the interplay between migration and HIV/AIDS in Bangladesh.

Both the quantitative and qualitative components of this research demonstrate that the population under the study in Bangladesh has inadequate knowledge about HIV/AIDS and STIs, and a poor understanding about risky sexual behaviours. The research project documented that condoms are still largely considered a contraceptive method and are mostly used for this purpose. It also recognized that condom use can signify distrust in marital relationships, and there is a perception that condoms reduce sexual pleasure. The challenge will be to address these issues in a way that is culturally acceptable. HIV transmission is very much related to sexual contact, and in societies like Bangladesh open discussion about sex is still not a normal practice. Such topics are still only discussed among friends.

The qualitative interviews have shown the relationships that exist between socio-economic, cultural and religious factors, and risky sexual behaviours among the participants, particularly among the migrant workers and the wives of the migrant

workers. Several factors emerged from the discussion with participants from the present research project. For example, loneliness, frustration from economic hardship, struggling to adjust to living overseas, peer pressure, availability of sex workers, and extreme freedom, all contribute to the migrants' risky behaviours. The pressure is enormous as they live away from their own community, family and friends and far from the mainstream of the host society. They are also engaged in menial jobs unpopular among the local people. In brief, they live on the margin—emotionally, economically and socially. These factors came out quite strongly under different themes of social, sexual and economic vulnerability in the qualitative component of the research. These factors—combined with a low level of awareness about HIV/AIDS and STIs, lack of access to information about HIV/AIDS and STIs in the host country, the language barrier and the prevalence of opportunistic sex—make the migrant workers vulnerable to HIV infection.

The socio-economic and cultural factors that influence sexual risk behaviours of the participants appear to be important and demand further exploration in a larger sample. It is interesting to note that in their hypothetical discussion about others' behaviours, the participants identified the above risk factors, and this is something that has also been reported on in other studies. In order to overcome the constraints resulting from non-reporting or underreporting of firsthand experience in sexual behaviours from the research participants themselves, further studies are needed.

The qualitative interviews revealed that the wives of the migrant workers, who are left behind, also suffer from loneliness in their husbands' absence. They often become socially and economically dependent on other men in the family. This dependency often

renders them powerless. They often get abused and exploited sexually and are powerless to stop this. They also lack knowledge of HIV/AIDS and STIs. Their social vulnerability increases greatly when they are looked down upon with suspicion and labelled as "bad women", not an uncommon stigma for women living without their husbands. Clearly, there is discrimination along gender lines in this regard. When a man lives without his wife he is rarely stigmatized. In fact, in many cases, his sexual escapades, if known, are not only condoned but regarded as inevitable manly prowess.

The survey documented higher mean family size among the respondents compared to a national survey. This has some implications. For example, the area of residence might have a role to play as a higher proportion of respondents were taken from Mirsarai, where contraceptive use was reported to be low, and where a higher number of living children were reported by the respondents. However, further exploration is extremely important to investigate these differentials. Additionally, the Mirsarai area needs particular attention as this study documented lower contraceptive use, lower condom use, higher number of living children, and larger family size among the respondents from Mirsarai compared to those from Abhoynagar. The concern is that Mirsarai is an area from which many men migrate (30) leaving their wives and families back in the home country. The risk is higher, both among the migrant workers and their wives, as both engage in extra-marital sex when they live away from each other.

In the qualitative component of the research, one of the important findings was the general adherence of society to the long-standing socio-cultural and religious values. Clearly, there are tensions between the values society wants to uphold and the realities on

the ground that demand leeway from socially sanctioned behavioural codes. This dualism epitomizes both social transition and gradual acceptance and more lenient attitude towards sexual behaviours much in line with modernization.

This research exposes a dual standard in Bangladesh society whereby the "powerlessness" and "helplessness" of women provides an understanding of the vulnerabilities that women face in that society. The objective of the current research was limited to presenting relevant information on powerlessness related to the vulnerability of women. However, further research in this area is needed and will be extremely important in understanding the sexual vulnerability and exploitation of women, which increases their risk of contracting HIV/AIDS.

References

1. UNAIDS. UNAIDS report on the global AIDS epidemic2010.

2. MOHFW, NASP. 2008 UNGASS Country Progress Report, Bangladesh. Dhaka: Ministry of Health and Family Welfare (MOHFW), National AIDS/STD Programme (NASP)2008.

3. World Health Organization (WHO). HIV/AIDS in the South-East Asia Region: Progress report 20102010.

4. Solomon S, Chakraborty A, Yepthomi RDS. A Review of the HIV Epidemic in India. AIDS Educ Prev. 2004;16:155.

5. Gazi R, Mercer A, Wansom T, Humayun K, Saha NC, Azim T. An assessment of vulnerability to HIV infection of boatmen in Teknaf, Bangladesh. ConfHealth. 2008;2(5).

6. UNDP. Sustainability and Equity: A Better Future for All2011.

7. World Bank, UNAIDS. 20 years of HIV in Bangladesh:Experiences and Way Forward. Dhaka: ICDDR,B2009.

8. World Health Organization (WHO), UNAIDS, UNICEF. Epidemiological Fact Sheet on HIV and AIDS, Core data on epidemiology and response, Bangladesh, 2008 Update. Geneva2008.

9. Ministry of Health and Family Welfare (MOHFW). HIV in Bangladesh: Is time running out? Dhaka: Natinal AIDS/STD Programme, Directorate General of Health Services2003.

10. IOM. World migration report 2010. The future of migration: building capacities for change2010.

11. Abrar CR. Study on labour migration from SAARC countries: Reality and dynamics. Dhaka: University of Dhaka2005.

12. Hussain Z, Naeem F. Remittances in Bangladesh: Determinants and 2010 Outlook 2009.

13. World Bank. Migration and Remittances Fact Book 20112011.

14. Bruyn T, Kuddus T. Dynamics of Remittance Utilization in Bangladesh: International Organization for Migration2005.

15. Bruyn TD. Dynamics of Remittance Utilization in Bangladesh. The Hague: Organised by the Bangladesh Support Group (BASUG)2006.

16. Abu-Raddad LJ, Hilmid N, Mumtaza G, Benkiranee M, Akalad FA, Riednerf G, Tawilg O, Wilsonh D. Epidemiology of HIV infection in the Middle East and North Africa. AIDS. 2010, 24(2).

17. Sufian S. HIV/AIDS in the Middle East and North Africa. http://www.merip.org/mer/mer233/hivaids-middle-east-north- africa#.UKRDqtRiwXs.email. Accessed on 21.11.12

18. Lurie MN, Williams BG, Zuma K, Mkaya-Mwamburi D, Garnett GP, Sturm AW, et al. The impact of migration on HIV-1 transmission in South Africa: A study of migrant and nonmigrant men and their partners. Sex Transm Dis. 2003;30(2):149-56.

19. Decosas J, Adrien A. Migration and HIV. AIDS. 1997;11:S77-S84.

20. Decosas J, Kane F, Anarfi J, Sodji K, Wagner H. Migration and AIDS. Lancet. 1995;346:826-8.

21. Lurie MN. The epidemiology of migration and AIDS in South Africa. Oxford: Centre on migration, Policy and Society. University of Oxford2004.

22. Lurie MN, Williams BG, Zuma K, Mkaya-Mwamburi D, Garnett GP, Sweat MD, et al. Who infects whom? HIV-1 concordance and discordance among migrant and non-migrant couples in South Africa. AIDS. 2003;17(15):2245-52.

23. Brockerhoff M, Biddlecom AE. Migration, sexual behaviour and the risk of HIV in Kenya. Int Migr Rev. 1999;33(4):833-56.

24. Soskolne V, Shtarkshall RA. Migration and HIV prevention programmes: linking structural factors, culture, and individual behaviour--an Israeli experience. Soc Sci Med. 2002 Oct;55(8):1297-307.

25. Vaidya NK, Wu J. HIV epidemic in Far-Western Nepal: effect of seasonal labor migration to India. BMC Public Health. 2011;11(310).

26. Steinbrook R. HIV in India — A Complex Epidemic. N Engl J Med. 2007;356(11):1089-93.

27. Yousaf M, Zia S, Babar M, Ashfaq U. The Epidemic of HIV/AIDS in Developing Countries; the Current Scenario in Pakistan. Virol J. 2011;8(401).

28. Anderson AF, Qingsi Z, Hua X, Jianfeng B. China's floating population and the potential for HIV transmission: a social-behavioural perspective. AIDS Care. 2003;15:177-85.

29. Poudel KC, Okumura J, Sherchand JB, Jimba M, Murakami I, Wakai S. Mumbai disease in far western Nepal: HIV infection and syphilis among male migrant-returnees and non-migrants. Trop Med Int Health. 2003 Oct;8(10):933-9.

30. Qin Q-R, Ji G-P, Xu J, Jiang Q-C, Hong H, Chu X-Y, et al. Risk of Sexual HIV Transmission Among Wives Left Behind and Wives of Nonmigrant Men in Rural Areas of China. J Assoc Nurses AIDS Care. 2009;20(4):308-15.

31. Family Health International (FHI). HIV/STD prevalence and risk factors among migrant and non-migrant males of Acham district in Far-Western Nepal. Kathmandu: Family Health International2002.

32. Mercer A, Khanam R, Gurley E, Azim T. Sexual risk behavior of married men and women in Bangladesh associated with husbands' work migration and living apart. Sex Transm Dis. 2007;34:265-73.

33. Roy T, Anderson C, Evans C, Rahman MS. Sexual risk behaviour of rural-to-urban migrant taxi drivers in Dhaka, Bangladesh: a cross-sectional behavioural survey. Public Health. 2010 Nov;124(11):648-58.

34. Matin N, Shahrin L, Pervez MM, Banu S, Ahmed D, Khatun M, et al. Clinical Profile of HIV/AIDS-infected Patients Admitted to a New Specialist Unit in Dhaka, Bangladesh-A Low-prevalence Country for HIV. The J Health Popul Nutr. 2011;29(1):14-9.

35. Zaidi A, Zahiruddin M, Parvez M, Sarker MS, Khan R, Azim T. Profile of HIV positive clients attending a VCT unit in Bangladesh (abstract). 15th International AIDS conference Bangkok, Thailand2004.

36. Appave G, Cholewinski R, Solomon MK. Conclusion: World migration 2008: Migration Policy, Research and Communication, IOM, Geneva2008.

37. United Nations. The International Convention on Migrant Workers and its Committee. Fact Sheet No. 24 (Rev.1). New York and Geneva: Office of the United Nations, High Commissioner for Human Rights2005.

38. IOM. International migration law-glossary on migration. Geneva: International Organization for Migration2004.

39. Haque MS. Migration Trends and Patterns in South Asia and Management Approaches and Initiatives. Asia-Pacific Popul J. 2005;20(3).

40. Siddiqui T. International labour migration from Bangladesh: A decent work perspective. Geneva: Policy Integration Department. National Policy Group. International Labour Office2005.

41. Martin P, Zurcher G. Managing Migration:The Global Challange. Popul Bull. 2008;63(1).

42. UNDP. HIV/AIDS and mobility in South Asia. Bangkok, Thailand: UNDP Asia-Pacific Regional Centre2010.

43. Hugo G. Migration in the Asia-Pacific region. Policy Analysis and Research Programme of the Global Commission on International Migration2005.

44. Samuels F, Wagle S. Population mobility and HIV and AIDS: review of Laws, policies and treaties between Bangladesh, Nepal and India: Overseas Development Institute, UK2011.

45. Bauer A, Hasan R, Magsombol R, Wan G. The World Bank's New Poverty Data:Implications for the Asian Development Bank: ADB Sustainable Development. Working Paper Series2008.

46. Skeldon R. Managing Migration for Development: Is Circular Migration the Answer? The Whitehead Journal of Diplomacy and International Relations. 2010;11(1):21-33.

47. IOM. World migration 2008: managing labour mobility in the evolving global economy. Geneva: International Orgnization for Migration2009.

48. United Nations. Trends in International Migrant Stock: The 2008 Revision. NewYork: United Nations Department of Economic and Social Affairs (UN DESA)2009.

49. United Nations Development Programme (UNDP). Human development report. New York2005.

50. United Nations. World Economic Situation and Prospects 2011. Global outlook. New York2010.

51. Statistical pocket book. Statistical pocket book, Bangladesh2007.

52. World development indicators online, 2010 [database on the Internet]. World Bank. 2010 [cited 26/06/2011]. Available from: http://data.worldbank.org/indicator.

53. World Bank. World development indicators. http://data.worldbank.org/country/bangladesh. Accessed on 19.11.12

54. Afsar R. Internal migration and the development nexus: the case of Bangladesh. Regional Conference on Migration, Development and Pro-Poor Policy Choices in Asia; Dhaka, Bangladesh2003.

55. Siddiqui T. Migration as a livelihood strategy of the poor: the Bangladesh case. Migration, Development and Pro-Poor Policy Choices in Asia; 22-24 June 2003; Dhaka, Bangladesh2003.

56. CARAM Asia. State of health of migrants 2007. Mandatory testing Kuala Lumpur2007.

57. BMET. Country wise overseas employment from 1976 to 2010. Dhaka: Bureau of Manpower, Employment and Training (BMET)2010.

58. Mohapatra S, Ratha D, Silwal A. Migration and Development Brief 16. Outlook for Remittance Flows 2011-13: Remittance flows recover to pre-crisis levels. Washington D.C: World Bank2011.

59. World Health Organization (WHO). About HIV/AIDS. 2009 [08/09/09]; Available from: http://www.who.int/topics/hiv_aids/en/).

60. Murray CJL, Lopez AD. Alternative projections of mortality and disability by cause 1990-2020: Global Burden of Disease Study. The Lancet. 1997;349(9064):1498-504.

61. UNAIDS. AIDS outlook 2009. World AIDS day report: Joint United Nations Programme on HIV/AIDS2008.

62. UNAIDS, UNHCR, UNICEF, WFP, UNDP, UNFPA, et al. Report on the global AIDS epidemic (executive summary). Geneva2008.

63. United Nations. Uniting for universal access: towards zero new HIV infections, zero discrimination and zero AIDS-related deaths: United Nations General Assembly. Report of the Secretary-General. Sixty-fifth session2011.

64. Chen X-S, Yin Y-P, Tucker JD, Gao X, Cheng F, Wang T-F, et al. Detection of Acute and Established HIV Infections in Sexually Transmitted Disease Clinics in Guangxi, China: Implications for Screening and Prevention of HIV Infection. J Infect Dis. 2007 December 1, 2007;196(11):1654-61.

65. Piot P. Introduction. Br Med Bull. 2001;Sect. 3-5.

66. UNAIDS, World Health Organization. AIDS epidemic update: Joint United Nations Programme on HIV/AIDS and World Health Organization2009.

67. Azim T, Khan SI, Haseen F, Huq NL, Henning L, Pervez MM, et al. HIV and AIDS in Bangladesh. J Health Popul Nutr. 2008;26(3):311-24.

68. Islam MM, Conigrave KM. HIV and sexual risk behaviors among recognized high-risk groups in Bangladesh: need for a comprehensive prevention program. Int J Infect Dis. 2008 Jul;12(4):363-70.

69. USAID. HIV/AIDS health profile Bangladesh2010.

70. Mahmood SAI. Confronting HIV and AIDS in Bangladesh. JAIDS HIV Res. 2011;3(4):88-9.

71. Chan PA, Khan OA. Risk factors for HIV infection in Males who have Sex with Males (MSM) in Bangladesh. BMC Public Health. 2007;7(153).

72. Islam MMN, Takaku H, Ohkusa Y, Sugawara T, Okabe N. HIV/AIDS Acquisition and Transmission in Bangladesh: Turning to the Concentrated Epidemic. Jpn I Infect Dis. 2009;62:111-9.

73. Khosla N. HIV/AIDS Interventions in Bangladesh: What Can Application of a Social Exclusion Framework Tell Us? J Health Popul Nutr. 2009;27(4):587-97.

74. World Bank. HIV/AIDS in Bangladesh2009.

75. Ruxrungtham K, Brown T. HIV/AIDS in Asia. The Lancet. 2004;364(9428):69-82.

76. Islam M, Mitra AK, Vermund SH. HIV/AIDS in Bangladesh: A national surveillance. Int J STD AIDS. 1999;10(7):471-4.

77. Harris J, Todaro MP. Migration, unemployment, and development: A two sector analysis. Am Econ Rev. 1970;60(1):126-42.

78. Todaro MP. A model of labor migration and urban unemployment in less developed countries. Am Econ Rev. 1969;59(1):138-48.

79. Borjas GJ. Economic Theory and International Migration. Int Migr Rev. 1989;23(3):457-85.

80. Massey DS, Arango J, Hugo G, Kouaouci A, Pellegrino A, Taylor JE. Theories of International Migration: A Review and Appraisal. Popul Dev Rev. 1993;19(3):431-66.

81. Stark O, Bloom DE. The New Economics of Labour Migration. Am Econ Rev. 1985;75(2):173-8.

82. Massey DS. Social Structure, Household Strategies, and the Cumulative Causation of Migration. Population Index. 1990;56(1):3-26.

83. Maticka-Tyndale E. Social Construction of HIV Transmission and Prevention among Heterosexual Young Adults. Soc Probl. 1992;39(3):238-52.

84. Rhodes T. Risk theory in epidemic times: sex, drugs and the social organisation of 'risk behaviour'. Sociol Health Illn. 1997;19(2):208-27.

85. Rhodes T, Cusick L. Love and intimacy in relationship risk management: HIV positive people and their sexual partners. Sociol Health Illn. 2000;22(1):1-26.

86. Haour-Knipe M, Grondin D. Mobile Populations: Sexual health of mobile and migrant populations: International Organization for Migration2005.

87. Yater JF. Risk-taking behaviour. West Sussex, England: Wiley1992.

88. Moore AR, Oppong J. Sexual risk behavior among people living with HIV/AIDS in Togo. Soc Sci Med. 2007;64(5):1057-66.

89. Gras MJ, Weide JF, Langendam MW, Coutinho RA, Van den Hoek A. HIV prevalence, sexual risk behaviour and sexual mixing patterns among migrants in Amsterdam, The Netherlands. AIDS. 1999 Oct 1;13(14):1953-62.

90. Shah S, Khan O, Kristensen S, Vermund S. HIV-infected workers deported from the Gulf States: impact on Southern Pakistan. Int J STD AIDS. 1999;10(12):812-4.

91. Nikolopoulos G, Arvantis M, Masgala A, Paraskeva D. Migration and HIV epidemic in Greece. Euro J Public Health. 2005;15(3):296-9.

92. Coleman K, Debby V, Mark U, Raphael I, Gabriel M, Gerard JB, et al. Mobility and HIV in Tanzanian couples: both mobile persons and their partners showed increased risk. AIDS. 2006;20(4):601-8.

93. Yang X. Temporary migration and HIV risk behaviours in China. EnvironPlann. 2006;38:1527-43.

94. Li X, Zhang L, Stanton B, Fang X, Xiong Q, Lin D. HIV/AIDS-related sexual risk behaviors among rural residents in China: potential role of rural-to-urban migration. AIDS Educ Prev. 2007 Oct;19(5):396-407.

95. Nepal B. Population mobility and spread of HIV across the Indo-Nepal border. J Health Popul Nutr. 2007 Sep;25(3):267-77.

96. Pison G, Guenno BL, Lagarde E, Enel C, Seck C. Seasonal migration: a risk factor for HIV infection in rural Senegal. J AIDS. 1993;6:196-200.

97. Deb A, Deb M, Saha M, Chakraborty S, Bhattacharya S, Detels R. HIV Transmission Potential Among Local and Migrant Factory Workers in Kolkata, India. AIDS Behavior. 2009;13(5):928-38.

98. Skeldon R. Population mobility and HIV vulnerability in South East Asia: an assessment and analysis. Chiang Rai, Thailand: UNDP South East Asia HIV and development project2000.

99. Wolffers I, Fernandez I, Verghis S, Vink M. Sexual behaviour and vulnerability of migrant workers for HIV infection. Cult Health Sex. 2002;4(4):459-73.

100. Deane KD, Parkhurst JO, Johnston D. Linking migration, mobility and HIV. Trop Med Int Health. 2010;15(12):1458-63.

101. Jochelson K, Mothibeli M, Leger JP. Human immunodeficiency virus and migrant labor in South Africa. Int J Health Serv. 1991;21(1):157-73.

102. Yang X. Temporary migration and the spread of STDs/HIV in China: Is there a link? Int Migr Rev. 2004;38 (1):212-35.

103. Poudel KC, Jimba M, Okumura J, Joshi AB, Wakai S. Migrants' risky sexual behaviours in India and at home in far western Nepal. Trop Med Int Health. 2004 Aug;9(8):897-903.

104. UNAIDS, WHO. AIDS epidemic update. Geneva2003.

105. Akhtar S, Hameed GM. Spectral Analysis of HIV Seropositivity among Migrant Workers Entering Kuwait. BMC Infect Dis. 2008;8(37).

106. Grusky O, Liu H, Johnston M. HIV/AIDS in China: 1990-2001. AIDS Behav. 2002;6(4):381-93.

107. Coffee M, Lurie MN, Garnett GP. Modelling the impact of migration on the HIV epidemic in South Africa. AIDS. 2007;21(3):343-50.

108. Yang X, Xia G. Gender, migration, risky sex, and HIV infection in China. Stud Fam Plann. 2006 Dec;37(4):241-50.

109. Wang B, Li X, Stanton B, Fang X, Lin D, Mao R. HIV-related risk behaviors and history of sexually transmitted diseases among male migrants who patronize commercial sex in China. Sex Transm Dis. 2007 Jan;34(1):1-8.

110. Saggurti N, Verma RK, Jain A, RamaRao S, Kumar KA, Subbiah A, et al. HIV risk behaviours among contracted and non-contracted male migrant workers in India: potential role of labour contractors and contractual systems in HIV prevention. AIDS. 2008;22:127-36.

111. Weine S, Bahromov M, Mirzoev A. Unprotected Tajik Male Migrant Workers in Moscow at Risk for HIV/AIDS. J Immi Minor Health. 2008;10(5):461-8.

112. Saggurti N, Schensul SL, Verma RK. Migration, mobility and sexual risk behavior in Mumbai, India: mobile men with non-residential wife show increased risk. AIDS Behav. 2009 Oct;13(5):921-7.

113. Singh D. Migration, Social Capital and HIV/AIDS: A study of Rajasthani migrants in Mumbai and Ahmedabad: University of Manitoba; 2010.

114. Singh A. HIV prevalence in suspects attending Sir Sunder Lal Hospital. Asian Pac J Trop Biomed. 2011:69-73.

115. Gibney L, Choudhury P, Khawaja Z, Sarker M, Vermund SH. Behavioural risk factors for HIV/AIDS in a low-HIV prevalence Muslim nation: Bangladesh. Int J STD AIDS. 1999;10(3):186-94.

116. Caldwell B, Pieris I, Khuda Be, Caldwell J, Caldwell P. Sexual regimes and sexual networking: the risk of an HIV/AIDS epidemic in Bangladesh. Soc Sci Med. 1999;48(8):1103-16.

117. Hawkes S, Morison L, Chakraborty J, Gausia K, Ahmed F, Islam SS, et al. Reproductive tract infections: prevalence and risk factors in rural Bangladesh. Bull World Health Organ. 2002;80(3):180-8.

118. Halli SS, Blanchard J, Satihal DG, Moses S. Migration and HIV transmission in rural South India: An ethnographic study. Cultu Health Sex. 2007;9(1):85-94.

119. Mishra S, Swain B, Veerraju B. Sexual Risk Behaviour among Migrant Tribal Living in Urban Slums of an Eastern Indian City: Implications on the Spread of HIV. Coll Antropol. 2008;32(1):1-4.

120. Poudel KC, Nakahara S, Poudel-Tandukar K, Okumura J, Jimba M. Unsafe sexual behaviours among HIV-positive men in Kathmandu Valley, Nepal. AIDS Behav. 2008.

121. Aboud F, Huq NL, Larson CP, Ottisova L. An assessment of community readiness for HIV/AIDS preventive interventions in rural Bangladesh. Soc Sci Med. 2010;70(3):360-7.

122. Gibney L, Choudhury P, Khawaja Z, Sarker M, Islam N, Vermund S. HIV/AIDS in Bangladesh: an assessment of biomedical risk factors for transmission. Int J STD AIDS. 1999;10:338-46.

123. McGrath JW, Rwabukwali CB, Schumann DA, Marks JP, Nakayiwa S, Namande B, et al. Anthropology and AIDS: The cultural context of sexual risk behaviour among urban Banganda women in Kampala, Uganda. Soc Sci Med. 1993;36(4):429-39.

124. Rahman M, Shimu T, Fukui T, Shimbo T, Yamamoto W. Knowledge, attitude, beliefs and practices about HIV/AIDS among the overseas job seekers in Bangladesh. Public Health. 1999;113:35-8.

125. Mercer A, Ashraf A, Huq NL, Haseen F, Uddin AHN, Reza M. Use of Family Planning Services in the Transition to a Static Clinic System in Bangladesh: 1998-2002. Int Fam Plann Persp. 2005;31(3):115-23.

126. Khanam R, Mercer A, Uddin J, Gurley E, Kabir H, Shaha N, et al. Vulnerability to HIV/AIDS of migration-affected families. Working Paper no.162: ICDDR,B 2007.

127. Golobof A, Weine S, Bahromov M, Luo J. The roles of labor migrants' wives in HIV/AIDS risk and prevention in Tajikistan. AIDS Care. 2011 Jan;23(1):91-7.

128. DiClemente RJ, Brown LK, Beausoleil MSNI, Lodico MAM. Comparison of AIDS knowledge and HIV-related sexual risk behaviors among adolescents in low and high AIDS prevalence communities. J Adolesc Health. 1993;14(3):231-6.

129. Lalou R, Piche V, Waitzenegger F. Migration, HIV/AIDS knowledge, perception of risk and condom use in the Senegal River Valley. Int Stud Popu. 2007;6:171-94.

130. Khan SI, Hudson-Rodd N, Saggers S, Bhuiyan MI, Bhuiya A. Safer sex or pleasurable sex? Rethinking condom use in the AIDS era. Sex Health. 2004;1(4):217-25.

131. Yang H, Li X, Stanton B, Chen X, Liu H. HIV-related risk factors associated with commercial sex among female migrants in China. Health Care Women Int. 2005;26(2):134-48.

132. Blanc AK, Wolff B. Gender and decision-making over condom use in two districts in Uganda. Afr J Reprod Health. 2001;5(3):15-8

133. Pulerwitz J, Izazola-Licea JA, Gortmaker SL. Extrarelational sex among Mexican men and their partners' risk of HIV and other sexually transmitted diseases. Am J Public Health. 2001;91(10):1650-2.

134. Smith-Estelle A, Gruskin S. Vulnerability to HIV/STIs among rural women from migrant communities in Nepal: a health and human rights framework. Reprod Health Matters. 2003 Nov;11(22):142-51.

135. Paudel BN, Khanal A, Paudel P, Sharma S, Singh GB. Retrospective Study of HIV Infection among Migrants and House Wives in ART Centre Dhangadhi of Far Western Nepal. PMJN. 2008;8(1).

136. Paudel BN, Sharma S, Singh GB, Dhungana GP, Paudel P. Socio-Demographic Profile of HIV Patients at Seti Zonal Hospital. J Nepal Health Res Counc. 2008;6(13):107-10.

137. Mukhopadhyay S, Talukdar A, Ghosh S. An observational study of the pattern of HIV infection in a specified rural area of India with special reference to migratory laborers. Epidemiol Soci Sci. 2010;9(2):74-7.

138. Saggurti N, Nair S, Malviya A, Decker M, Silverman J, Raj A. Male Migration/Mobility and HIV Among Married Couples: Cross-Sectional Analysis of Nationally Representative Data from India. AIDS and Behavior. 2011:1-10.

139. Huque AS, Akhter MY. The Ubiquity of Islam: Religion and Society in Bangladesh. Paci Aff. 1987;60(2):200-25.

140. Arland T, Camburn D. Religious Participation and Adolescent Sexual Behavior and Attitudes. J Marriage Fam. 1989;51(3):641-53.

141. Sherkat DE, Ellison CG. Recent Developments and Current Controversies in the Sociology of Religion. Annual Review of Sociology. 1999;25(ArticleType: research-article / Full publication date: 1999 / Copyright © 1999 Annual Reviews):363-94.

142. Simmons R, Baqee L, Koenig MA, Phillips JF. Beyond Supply: The Importance of Female Family Planning Workers in Rural Bangladesh. Stud Fam Plann. 1988;19(1):29-38.

143. Tashakkori A, Creswell JW. Mixed Methodology Across Disciplines. J Mix Method Res. 2008;2(1):3-6.

144. Bryman A. Barriers to Integrating Quantitative and Qualitative Research. J Mix Method Res. 2007;1(1):8-22.

145. Shepard MP, Orsi AJ, Mahon MM, Carroll RM. Mixed-Methods Research with Vulnerable Families. Journal of Mixed Methods Research. 2002;8(4):334-52.

146. Sale JEM, Lohfeld LH, Brazil K. Revisiting the Quantitative-Qualitative Debate: Implications for Mixed-Methods Research. Qual Quant. 2002;36(1):43-53.

147. Tashakkori A, Creswell JW. The New Era of Mixed Methods. J Mix Method Res. 2007;1(1):3-7.

148. Tashakkori A, Teddlie C. Putting the Human Back in "Human Research Methodology": The Researcher in Mixed Methods Research. J Mix Method Res. 2010;4(4):271-7.

149. Morgan DL. Practical Strategies for Combining Qualitative and Quantitative Methods: Applications to Health Research. Qual Health Res. 1998;8(3):362-76.

150. Cathain AO, Murphy E, Nicholl J. Why, and how, mixed methods research is undertaken in health services research in England: a mixed methods study. BMC Health Serv Res. 2007;7(85).

151. Johnson RB, Onwuegbuzie AJ. Mixed Methods Research: A Research Paradigm Whose Time Has Come. Educ Res. 2004;33(7):14-26.

152. Creswell JW, Clark VL. Designing and Conducting Mixed Methods Research. 2nd edition ed. Los Angeles London New Delhi Singapore Washington DC: SAGE; 2011.

153. Tashakkori A, Teddlie C. The Past and Future of Mixed Methods Research: From Data Triangulation to Mixed Model Designs. Handbook of mixed methods in social and behavioural research. Thousand Oaks, CA: Sage; 2003b.

154. Sandelowski M. Combining qualitative and quantitative sampling, data collection, and analysis techniques in mixed-method studies. Res Nurs Health. 2000;23:246-55.

155. Poundstone KE, Strathdee SA, Celentano DD. The Social Epidemiology of Human Immunodeficiency Virus/Acquired Immunodeficiency Syndrome. Epidemiol Rev. 2004;26(1):22-35.

156. Hasan S. Upazila Development Planning in Bangladesh: Problems of Resource Mobilization. Asian Sur. 1992;32(9):802-14.

157. HSID. Abhoynagar and Mirsarai Health and Demographic Surveillance Report 2004-2005. Dhaka: Health Systems and Infectious Diseases Division, ICDDR,B2006.

158. Slaymaker E. A critique of international indicators of sexual risk behaviour. Sex Transm Infect.2004; 80(Suppl II):13–21.

159. Weiss HA, Hakes S. An overview of the global epidemiology of HIV/AIDS. Lepr Rev. 2001; 72: 92-98.

160. Bogaerts J, Ahmed J, Akhter N, Begum N, Rahman M, Nahar N, et al. Sexually transmitted infections among married women in Dhaka, Bangladesh: unexpected high prevalence of herpes simplex type 2 infection. Sex Transm Infect. 2001;77:114-9.

161. Zurayk H, Khattab H, Younis N, Kamal O, El-Helw M. Comparing Women's Reports with Medical Diagnoses of Reproductive Morbidity Conditions in Rural Egypt. Stud Fam Plann. 1995;26(1):14-21.

162. Bogaerts J, Ahmed J, Akhter N, Begum N, Ranst VM, Verhaegen J. Sexually transmitted infections in a basic healthcare clinic in Dhaka, Bangladesh: syndromic management for cervicitis is not justified. Sex Transm Infect. 1999;75:437–438.

163. Elias C, Low N, Hawkes S. Definitions of clinically diagnosed gynaecological morbidity resulting from reproductive tract infection. In: S. Jejeebhoy, M. Koenig, and C. Elias, eds. Research approaches to the study of reproductive tract infections and other gynaecological disorders. Cambridge: Cambridge University Press, 2003.

164. Patel V, Weiss HA, Mabey D, West B, D'Souza S, Patil V, et al. The burden and determinants of reproductive tract infections in India: a population based study of women in Goa, India. Sex Transm Infect. 2006;82(3):243-9.

165. Tosh AK, Van Der Pol B, Fortenberry JD, Williams JA, Katz BP, et al. Mycoplasma genitalium among adolescent women and their partners. J Adolesc Health.2007; 40: 412–417.

166. Pepin J, Labbe AC, Khonde N, Deslandes S, Alary M, Dzokoto A, Asamoah-Adu, C, Meda H. Mycoplasma genitalium: an organism commonly associated with cervicitis among West African sex workers. Sex Transm Infect. 2005; 81:67-72.

167. McGowin CL, Anderson-Smits C. Mycoplasma genitalium: An Emerging Cause of Sexually Transmitted Disease in Women. PLoS Pathog. 2011;7(5)

168. Taha TE, Hoover DR, Dallabetta GA, et al. Bacterial vaginosis and disturbances of vaginal flora: association with increased acquisition of HIV.AIDS. 1998;12:13: 699-706.

169. Katz MH. Multivariable Analysis. A Practical Guide for Clinicians. Second ed. Cambridge, UK: Cambridge University Press; 2006.

170. Gordis L. Epidemiology. Second ed. Philadelphia, London, New York, St. Louis, Sydney, Toronto: W.B. Saunders Company. A Harcourt Health Sciences Company; 2000.

171. Taylor SJ, Bogdan R. Introduction to Qualitative Research Methods. New York Chichester Weinheim Brisbane Singapore Toronto: John Wiley & Sons, Inc.; 1998.

172. Minichiello V, Aroni R, Hays T. In-depth Interviewing. Principles, Techniques, Analysis. Third ed. Sydney: Pearson Education Australia; 2008.

173. Llewellyn G, Sullivan G, Minichiello V. Sampling in qualitative research, In: Minichiello, V., Sullivan, G., Greenwood, K., Axford, R. (eds). Handbook of Research Methods for Nursing and Health Science. 2004:210-41.

174. Neuman WL. Basics of Social Research: Qualitative and Quantitative Approaches. 2nd ed: Boston : Pearson/Allyn and Bacon; 2007.

175. Guest G, Bunce A, Johnson L. How many interviews are enough? An experiment with data saturation and variability. Field Methods. 2006;18(1):59–82.

176. Stewart CJ, Cash JWB. Interviewing: Principles and Practices. Eleventh ed. McGraw-Hill, Boston2005.

177. Miles MB, Huberman AM. Qualitative Data Analysis. Thousand Oaks London New Delhi: SAGE Publications; 1994.

178. Koch T. Establishing rigour in qualitative research: the decision trail. J Adv Nurs. 1994;19:976-86.

179. Lincoln YS, Guba EG. Naturalistic Inquiry. Beverly Hills London New Delhi: Sage Publications; 1985.

180. Guba EG, Lincoln YS. Fourth Generation Evaluation. Newbury Park, California: Sage Publications; 1989.

181. Morris SS, Carletto C, Hoddinott J, Christiaensen LJM. Validity of rapid estimates of household wealth and income for health surveys in rural Africa. J Epidemiol Community Health. 2000;54:381–7.

182. Ahmed R, Hossain M. Developmental impact of rural infrastructure in Bangladesh: International Food Policy Research Institute, Bangladesh Institute of Development Studies1990.

183. BBS. Preliminary Report on Household Income & Expenditure Survey-2010. Dhaka: Statistics Division. Ministry of Planning2011.

184. Islam M, Conigrave K, Miah M, Kalam K. HIV Awareness of Outgoing Female Migrant Workers of Bangladesh: A Pilot Study. J Immi MinHealth. 2010;12(6):940-6.

185. Contraceptive prevalance rate by division and zila [database on the Internet]. Bangladesh Bureau of Statistics. 2008. Available from: http://www.bbs.gov.bd/RptSVRSContraC1.aspx?page=%2fPageReportLists.aspx%3fPARENTKEY%3d107.

186. Ross JL, Laston SL, Pelto PJ, Muna L. Exploring explanatory models of women's reproductive health in rural Bangladesh. Cult Health Sex. 2002;4(2):173-90.

187. UNDP. Human Development Report 2009-Overcoming barriers: Human mobility and development. New York: UNDP2009.

188. Rashid-Abdul, Aziz-Abdul. Bangladeshi Migrant Workers in Malaysia's Construction Sector. Asia-Pacific Popul J. 2001;16(1).

189. Simonet D. The AIDS Epidemic and Migrants in South Asia and South-East Asia Int Mig. 2004;42(5).

190. Qutub M, Akhter J. Epidemiology of genital herpes (HSV-2) among brothel based female sex workers in Bangladesh. Eur J Epidemiol. 2003;18:903-5.

191. Gibney L, Macaluso M, Kirk K, Hassan M, Schwebke J, Vermund SH, et al. Prevalence of infectious diseases in Bangladeshiwomen living adjacent to a truck stand: HIV/STD/hepatitis/genital tract infections. Sex Transm Inf. 2001;77:344-50.

192. Hawkes S, Azim T. Health care systems in transition III. Bangladesh, part II. Bangladesh's response to HIV-AIDS. J Public Health Med. 2000;22(1):10-3.

193. Seal DW, Agostinelli G. College students' perceptions of the prevalence of risky sexual behaviour. AIDS Care. 1996; 8(4): 453-466.

194. Chowdhury SK. Impact of infrastructures on paid work opportunities and unpaid work burdens on rural women in Bangladesh. J Int Dev. 2010;22(7):997-1017.

195. Khan MA. Knowledge on AIDS among female adolescents in Bangladesh: evidence from the Bangladesh demographic and health survey data. J Health Popul Nut. 2002;20(2):130-7.

196. Naved RT, Persson LÅ. Factors Associated with Spousal Physical Violence Against Women in Bangladesh. Stud Fam Plann. 2005;36(4):289-300.

197. Hadi A. Early Marriage, Bride Price and the Practice of Dowry in Bangladesh Villages. Dhaka: Watch Report No 35. BRAC1998.

198. Hadi A. International migration and the change of women's position among the left-behind in rural Bangladesh. Int J Popul Geogr. 2001;7(1):53-61.

199. Wardlow H. Men's Extramarital Sexuality in Rural Papua New Guinea. Am J Public Health. 2007;97(6):1006-14.

200. UNDP. Facilitating Safe Mobility: Towards a Regional Strategy. An Analysis of the HIV Vulnerability of Migrant Workers In and From South Asia2001.

201. Díaz RM, Ayala G, Bein E. Sexual Risk as an Outcome of Social Oppression: Data From a Probability Sample of Latino Gay Men in Three U.S. Cities. Cultu Diver Eth Mino Psycho. 2004;10(3):255-67.

202. Wamoyi J, Wight D, Plummer M, Mshana G, Ross D. Transactional sex amongst young people in rural northern Tanzania: an ethnography of young women's motivations and negotiation. Reproductive Health. 2010;7(2).

203. Stack S. The effect of geographic mobility on premarital sex. J Marriage Fam. 1994;56(1):204-8.

204. Vold G, Bernard T. Theoretical Criminology. New York: Oxford University Press; 1986.

205. Munoz-Laboy M, Hirsch JS, Quispe-Lazaro A. Loneliness as a sexual risk factor for male Mexican migrant workers. Am J Public Health. 2009 May;99(5):802-10.

206. Campbell C. Migrancy, masculine identities and AIDS: The psychosocial context of HIV transmission on the South African gold mines. Soc Sci Med. 1997;45(2):273-81.

207. Faisel A, Cleland J. Migrant men: a priority for HIV control in Pakistan? Sex Transm Infect. 2006 Aug;82(4):307-10.

208. Rashid SF. Providing sex education to adolescents in rural Bangladesh: Experience from BRAC. Gender Dev. 2000;8(2):28-37.

209. Govt. of Bangladesh. Behavioural Surveillance Survey 2006-07. Dhaka: National AIDS/STD Program, Directorate General of Health Services, Ministry of Health and Family Welfare2009.

210. Govt. of Bangladesh. National HIV Serological Surveillance, 7th Round Technical Report, 2006 Bangladesh. Dhaka: National AIDS/STD Program, Directorate General of Health Services, Ministry of Health and Family Welfare2007.

211. Singh M, Khan RJ. A cultural explanatory model for white discharge amongst women in Kakboo village, Bangladesh. BRAC Uni J. 2006;111(1):17-26.

212. Brown A, Jejeebhoy S, Shah I, Yount K. Sexual Relations among Young People in Developing Countries: Evidence from WHO Case Studies. Geneva, Switzerland: World Health Organization2001.

213. Caldwell B, Pieris I. Continued high-risk behaviour among Bangladeshi males. Resistances to Behavioural Change to Reduce HIV/AIDS Infection. 1999:183-96.

214. Khan SI, Hudson-Rodd N, Saggers S, Bhuiya A. Social construction of condom non-use: Implications for condom promotion interventions in Bangladesh2004.

215. Flood M. Lust, trust and latex: Why young heterosexual men do not use condoms. Cultu Health Sex. 2003;5(4):353-69.

216. Hirsch JS, Higgins J, Bentley ME, Nathanson CA. The social constructions of sexuality: marital infidelity and sexually transmitted disease-HIV risk in a Mexican migrant community. Am J Public Health. 2002 Aug;92(8):1227-37.

217. Gagnon AJ, Merry L, Bocking J, Rosenberg E, Oxman-Martinez J. South Asian migrant women and HIV/STIs: Knowledge, attitudes and practices and the role of sexual power. Health Place. 2010;16(1):10-5.

218. Woolf S, Maisto S. Gender Differences in Condom Use Behavior? The Role of Power and Partner-Type. Sex Roles. 2008;58(9):689-701.

219. Harvey SM, Bird ST. What makes women feel powerful? An exploratory study of relationship power and sexual decision-making with African-American at risk for HIV/STDs. Women's Health. 2004;39:1-18.

220. Pulerwitz J, Amaro H, Jong WD, Gortmaker SL, Rudd R. Relationship power, condom use and HIV risk among women in the USA. AIDS Care. 2002 2002/12/01;14(6):789-800.

221. UNICEF. Women and girls in Bangladesh. 2010; Available from: http://www.unicef.org/bangladesh/Women_and_girls_in_Bangladesh.pdf. Accessed on 29/01/12.

222. Taylor AW, Williams C, Grande ED, Herriot M. Measuring social capital in a known disadvantaged urban community. Health policy implications. Australia and New Zealand Health Policy. 2006;3(2).

223. Kiecolt KJ, Nathan LE. Secondary Analysis of Survey Data. California, USA: SAGE; 1985.

Appendices

Appendix A: Secondary Data Analysis

Approval from ICDDR,B for secondary data analysis

Cross sectional survey and my role

List of publications

Appendix A1: Approval from ICDDR,B for secondary data analysis

icddr,b
KNOWLEDGE FOR
GLOBAL LIFESAVING SOLUTIONS

To Whom It May Concern

This is to certify that ICDDR,B research protocol # 2004-016 titled "**Vulnerability of HIV/AIDS of migration affected families**": Principal Investigator - Dr. Rasheda Khanam of the Health Systems and Infectious diseases Division of ICDDR,B, had been approved by The Research Review Committee and Ethical Review Committee on 25th June 2004 and 11th August 2004 respectively. The protocol was conducted by Dr. Khanam under the auspices of the ICDDR,B from 17th August 2004 to 16th August 2005 with the financial support from USAID. As far as the ICDDR,B IRB is concerned, Dr. Khanam is free to conduct advance analyses of the data set for her PhD program at any time.

We wish her every success in pursuing her higher study.

[redacted]

Prof. AKM Nurul Anwar
BBS, M.Phil, Ph.D., FCPS
Chairman
Ethical Review Committee
25th February 2009

International Centre for Diarrhoeal Disease Research, Banglades
68, Shaheed Tajuddin Ahmed Sarani, Mohakhali, Dhaka 1212, Banglades
Mail : ICDDR,B, GPO Box 128, Dhaka 1000, Bangladesh
Fax : 880-2-8823116, 8812530, 9885657, 8811686, 8812529, 8826050, 881156
Phone : 880-2-8860523-32, Web : http://www.icddrb.org

Appendix A2: Cross-sectional survey and Candidate's role in the survey

I was the principal investigator of the cross-sectional survey 'vulnerability to HIV/AIDS of migration affected families' which was carried out between 2004 and 2005 from where the dataset of the quantitative component of the research project was taken. I designed the study together with my colleagues at ICDDR,B and received approval from the research review committee (RRC) and ethical review committee (ERC) of ICDDR,B (for approval, see the appendix). I designed the study tools with the advice from the research team for the different male and female migrant and non-migrant categories based on the standard questionnaires used for different groups in national HIV surveillance. I undertook the recruitment of male and female interviewers for the study and organized three-week training for them so that they could conduct the interviews as needed for the study. A manual was also developed for the training and various issues related to HIV/AIDS, RTIs and STIs were covered in the training. Training also included the issues of collecting sensitive information and how to deal with the sensitive issues, for example, discussion of sexual contacts or information on HIV/AIDS or STIs.

The data were collected between October and December 2004. A field coordinator and four field supervisors stayed at the field and monitored the fieldwork. I supervised the whole fieldwork including the field coordinator's and the supervisors' work. A statistician cleaned the data and we engaged a number of data operators for data entry. Preliminary data analysis was done by me a working paper has been published to disseminate information at local level (123). Besides, a series of presentation was conducted to disseminate information at the scientific communities and other stakeholders. A publication using the data other than that are used for the current research has been published in a journal in 2007 (30).

Appendix A3: List of Publications

a) Peer reviewed journal

Mercer A, **Khanam R**, Gurley E, Azim T. Sexual risk behaviour of married men and women in Bangladesh associated with husbands' work-migration and living apart. Journal of Sex Transm Dis. 2007 May; 34(5): 265-73

Johnston LG, **Khanam R**, Reza M, Khan SI, Banu S, Alam MS, Rahman M, Azim T. The effectiveness of respondent driven sampling for recruiting males who have sex with males in Dhaka, Bangladesh. AIDS Behav 2007 Aug 22. DOI 10.1007/s10461-007-9300-1.

b) Working Papers

Khanam R, Mercer A, Uddin J, Gurley E, Kabir H, Saha NC, Azim T. Vulnerability to HIV/AIDS of migration-affected families (2007). ICDDR,B Working Paper No. 162.

Islam Z, Osinski P, Hossain SAS, **Khanam R**, Anowar S, Saha NC, Howlader SR. (2006). Costs of the Community-based Protocolized Management of Severely Malnourished Children at Selected NGO- run Urban Clinics. ICDDR,B Working Paper No. 161.

Khanam R, Hossain SAS, Sarker S, Musa S.A.J., Routh S. (2002). Meeting Additional Health and Family-planning Needs of Clients by Addressing Missed Opportunities: An Urban Experience. ICDDR,B Working Paper No. 152.

Alam S.M N, **Khanam R**, Hossain SAS. (2000). Healthcare-Seeking Behaviour and BCC Needs for Urban Population: A Qualitative Study. ICDDR,B Working Paper No. 142.

Amin S, Tunon C, Arifeen SEL, Baqui AH, **Khanam R**, Manaf S. (1997). Implementation of the essential services package (ESP) in urban clinics through standardized service delivery protocols: preliminary findings from an intervention in Dhaka": MCH-FP Extension Project (Urban), International Centre for Diarrhoeal Disease Research, Bangladesh. (ICDDR, B working paper, 97; MCH-FP Extension Project (Urban) working paper, 35).

c) Others:

Khanam R. Systematic Screening as a Tool for Increasing Efficient Utilization of Urban Essential Services in Bangladesh (2002). MPH Thesis, Amsterdam, Netherlands.

Hossain SAS, Sarker S, **Khanam R**, Islam Z, Saha NC, Routh S. (2002). Operations Research on ESP delivery in Urban Areas: Opeartionalizing an Urban ESP Clinic - Findings and Implications. Special publication No. 115.

Bengali Translation of Advocacy Report on HIV/AIDS. HIV IN Bangladesh: Is Time Running Out? (June, 2003). National AIDS/STD Programme, Director General of Health Services, Ministry of Health and Family Welfare, Bangladesh.

The Essential Services Package (ESP). Protocols for primary health care (1997). ICDDR,B Special Publication NO. 67

Appendix B: Research approval of the qualitative component

Approval from University of New England and ICDDR,B

Consent form for the participants

Information sheet for the participants (in English and Bangla)

Interview Guidelines

Appendix B1: Approval from the University of New England

UNE
THE UNIVERSITY
OF NEW ENGLAND

Research Development & Integrity
Research Services
Armidale, NSW 2351, Australia
Telephone: 02 6773 3449
Facsimile: 02 6773 3543
http://www.une.edu.au/research-services\ethics
E-mail: jo-ann.sozou@une.edu.au

HUMAN RESEARCH ETHICS COMMITTEE

MEMORANDUM TO: Prof V Minichiello, A/Prof R Hussain, Dr K Fisher & Dr R Khanam
School of Health

This is to advise you that the Human Research Ethics Committee has approved the following:

PROJECT TITLE:	Socio-cultural Dynamics among Migrant Population: Explanation for the Risk of HIV/AIDS Transmission in Bangladesh
APPROVAL No.:	HE09/165
COMMENCEMENT DATE:	20/11/2009
APPROVAL VALID TO:	20/11/2010
COMMENTS:	Nil. Conditions met in full.

The Human Research Ethics Committee may grant approval for up to a maximum of three years.
For approval periods greater than 12 months, researchers are required to submit an application for renewal at each twelve-month period. All researchers are required to submit a Final Report at the completion of their project. The Progress/Final Report Form is available at the following web address: http://www.une.edu.au/research-services/researchdevelopmentintegrity/ethics/human-ethics/hrecforms.php

The *NHMRC National Statement on Ethical Conduct in Research Involving Humans* requires that researchers must report immediately to the Human Research Ethics Committee anything that might affect ethical acceptance of the protocol. This includes adverse reactions of participants, proposed changes in the protocol, and any other unforeseen events that might affect the continued ethical acceptability of the project.

In issuing this approval number, it is required that all data and consent forms are stored in a secure location for a minimum period of five years. These documents may be required for compliance audit processes during that time. If the location at which data and documentation are retained is changed within that five year period, the Research Ethics Officer should be advised of the new location.

[redacted]

Jo-Ann Sozou
Secretary

26/10/2009

Appendix B2: Approval from ICDDR,B

icddr,b
KNOWLEDGE FOR
GLOBAL LIFESAVING SOLUTIONS

Memorandum

31 December 2009

To: Dr. Rasheda Khanam
Principal Investigator of research protocol # PR-09084
Health Systems and Infectious Diseases Division (HSID)

From: Professor AKM Nurul Anwar
Chairman
Ethical Review Committee (ERC) [redacted]

Sub: Approval of research protocol # PR-09084

Thank you for your memos dated 13 December 2009, requesting for expedited review and approval of your research protocol # PR-09084 entitled "**Social-cultural dynamics among migrant population: explanation for the risk of HIV/AIDS transmission in Bangladesh**" and subsequent memo dated 29 December 2009 addressing the issues rasied by the reviewer to the satisfaction of the Committee. Accordingly, the Committee approved the research protocol. I have pleasure to inform you that your above protocol is approved through expedited review mechanism. You will be required to observe the following terms and conditions in implementing the research protocol:

1. As Principal Investigator, the ultimate responsibility for scientific and ethical conduct including the protection of the rights and welfare of study participants vest upon you. You shall also be responsible for ensuring competence, integrity and ethical conduct of other investigators and staff directly involved in this research protocol.

2. You shall conduct the study in accordance with the ERC-approved protocol and shall fully comply with any subsequent determinations by the ERC.

3. You shall obtain prior approval from the Research Review Committee and the ERC for any modification in the approved research protocol and/or approved consent form(s), except in case of emergency to safeguard/eliminate apparent immediate hazards to study participants. Such changes must immediately be reported to the ERC Chairman.

4. You shall recruit/enroll participants for this study strictly adhering to the criteria mentioned in the research protocol.

International Centre for Diarrhoeal Disease Research, Bangladesh
68, Shaheed Tajuddin Ahmed Sarani, Mohakhali, Dhaka 1212, Bangladesh
Mail : ICDDR,B, GPO Box 128, Dhaka 1000, Bangladesh
Fax : 880-2-8823116, 8812530, 9885657, 8811686, 8812529, 8826050, 8811568
Phone : 880-2-8860523-32, Web : http://www.icddrb.org

5. You shall obtain legally effective informed consent (i.e. consent should be free from coercion or undue influence) from the selected study participants or their legally responsible representative, as approved in the protocol, using the approved consent form prior to their enrollment in this study. Before obtaining consent, all prospective study participants must be adequately informed about the purpose(s) of the study, its methods and procedures, and also what would be done if they agree and also if they do not agree to participate in the study. They must be informed that their participation in the study is voluntary and that they can withdraw their participation any time without any prejudice. Signed consent forms should be preserved for a period of at least five years following official termination of the study.

6. You shall promptly report the occurrence of any Adverse Event or Serious Adverse Event or unanticipated problems of potential risk to study participants or others to the ERC in writing within 24 hours of such occurrences.

7. Any significant new findings, developing during the course of this study that might affect the risks and benefits and thus influence either participation in the study or continuation of participation should be reported in writing to the participants and the ERC.

8. Data and/or samples should be collected and interviews should be conducted, as specified in the ERC-approved protocol, and confidentiality must be maintained. Data/samples must be protected by reasonable security, safeguarding against risks such as their loss or unauthorized access, destructions, used by others, and modification or disclosure of data. Data/samples should not be disclosed, made available to or use for purposes other than those specified in the protocol, and shall be preserved for a period, as specified under Centre's policies/practices.

9. You shall promptly and fully comply with the decision of the ERC to suspend or withdraw its approval for the research protocol.

10. You shall report progress of research to the ERC for continuing review of the implementation of the research protocol as stipulated in the ERC Guidelines. Relevant excerpt of ERC Guidelines and '*Annual/Completion Report for Research Protocol involving Human Subjects*' are attached for your information and guidance.

I wish you success in running the above mentioned study.

Copy: - Acting Director, HSID
- Coordination Manager, RA Grants

icddr,b
KNOWLEDGE FOR
GLOBAL LIFESAVING SOLUTIONS

Memorandum

13 December 2009

To: Dr. Rasheda Khanam
Principal Investigators of research protocol # PR-09084
Health Systems and Infectious Disease Division (HSID)

From: Dr. Abbas Bhuiya
Acting Chairperson
Research Review Committee [redacted]

Sub: Approval of research protocol # PR09084

Thank you for your memo dated 13 December 2009 requesting for approval of your research protocol # PR09084 titled **"Socio-cultural dynamics among migrant population: explanation for the risk of HIV/AIDS transmission in Bangladesh"** waiving the normal RRC review process since the protocol was reviewed and approved by the Human Research Ethics Committee of the University of New England, Australia. I have the plelasure to approved the protocol and you are advised to proceed the implementation of the research protocol subject to the approval of the Ethical Review Committee (ERC).

Terms of approval

1. The research protocol is approved as submitted for 12-month period from the date of starting the activities of the protocol. You should, therefore, notify the IRB Secretariat of the start date of the protocol.

2. This approval is only valid whilst you hold a position at ICDDR,B; and in the event of your departure from the Centre, a new Principal Investigator will be designated for the research protocol.

3. This approval shall remain valid for starting the protocol for a period up to 2 years from the date of the approval of the ERC, after two years, you shall have to seek approval (revalidation) of the RRC/ERC before starting the protocol. The RRC/ERC approval shall automatically deemed to be revoked after three years if the protocol is not started.

4. You should notify the RRC and the ERC immediately of any serious or unexpected adverse effects on participants or unforeseen events that might affect continued acceptability of the protocol.

International Centre for Diarrhoeal Disease Research, Bangladesh
68, Shaheed Tajuddin Ahmed Sarani, Mohakhali, Dhaka 1212, Bangladesh
Mail : ICDDR,B, GPO Box 128, Dhaka 1000, Bangladesh
Fax : 880-2-8823116, 8812530, 9885657, 8811686, 8812529, 8826050, 8811568
Phone : 880-2-8860523-32, Web : http://www.icddrb.org

5. Any changes to the research protocol require the submission (in prescribed form) and approval of an amendment/addendum. Substantial variations may require a new protocol.

6. Continued approval of this protocol is dependent on your periodically updating the Centre's database for the protocol to show the progress; and a final report/completion report should be submitted at the conclusion of the protocol.

7. You shall submit a report for time extension of the protocol (in prescribed form) if you are unable to complete the protocol activities within the time mentioned in the protocol.

8. The RRC should be notified if the protocol is discontinued before the expected date of completion. The report form is available at the IRB Secretariat and on the Centre's intranet.

9. You are responsible for systematic storage and retention of the original data pertaining to the research protocol; and the ownership of data after certain period shall be determined as per Centre's rules and regulations.

I wish you all the success in conducting the research protocol.

Thank you.

Copy: - Acting Director, HSID
- Coordination Manager, RA

Appendix B3: Consent Form for Participants

Research Project: Socio-cultural Dynamics among Migrant Population: Explanation for the Risk of HIV/AIDS Transmission in Bangladesh

I, ……., have read the information contained in the Information Sheet for Participants and any questions I have asked have been answered to my satisfaction. Yes/No

I agree to participate in this activity, realising that I may withdraw at any time. Yes/No

I agree that research data gathered for the study may be published using a pseudonym Yes/No

I agree to the interview being audiotape recorded and transcribed. Yes/No

…….. …….

Participant Date

…….. …….

Researcher Date

Appendix B4: Information sheet for participants

School of Health

Armidale, NSW 2351 Australia

Head of School: Professor Steven J Campbell
Telephone: 02 6773 3656
Facsimile: 02 6773 3666
Email: hoshealth@une.edu.au

INFORMATION SHEET for PARTICIPANTS

Research Project: Socio-cultural Dynamics among Migrant Population: Explanation for the Risk of HIV/AIDS Transmission in Bangladesh

I wish to invite you to participate in the research on the above topic. The details of the study follow and I hope you will consider being involved. I am conducting this research for my PhD programme at the University of New England. My name is Rasheda Khanam and my supervisors are Professor Victor Minichiello, Associate Professor Rafat Hussain, and Dr. Karin Fisher of University of New England. They can be contacted by email at vminichi@une.edu.au, or by phone 02 6773 3862 (or +61 2 6773 3862 overseas), rhussain@une.edu.au, or by phone at 02 6773 3678 (or +61 2 6773 3678 overseas), and Karin.Fisher@hnehealth.nsw.gov.au or by phone at 02 6767 7955 (or +61 2 6767 7955 overseas).

Aim of the Study: The aim of the proposed study is to better understand the risks associated with sexual behaviours that make semi- or low-skilled male migrant workers and their wives who are left behind in the home country making them vulnerable to HIV/AIDS. The study intends to explore the extent of the risk factors, perception about sex and sexuality and the psychosocial and cultural dynamics (power and bargain) that amplify or impede the risk behaviours of the migrant population in Bangladesh.

Time Requirements: The face-to-face interview may last approximately 90 minutes that will be audio taped.

Interviews: There will be a series of open-ended questions that will allow you to express your views about your experience with sexual relations. These interviews will be audio taped. Following the interview, a transcript will be prepared and if you would like to see the transcript, a copy will be provided to you as well.

Your participation is completely voluntary. You may withdraw from the project at any time and there will be no disadvantage if you decide not to participate or withdraw at any time.

Though the discussion will cover some sensitive issues like sex and sexuality, own sexual behavior but the interview will be conducted with strict confidentiality using non-judgmental approach. Besides, the data collected will be used in an anonymous form. Participants cannot be identified by anyone else.

The audiotapes will be kept in a locked filing cabinet at the researcher's office. The transcription will be kept in the same manner for five years following thesis submission and then destroyed.
Participation: Based on your participation in this research, if you feel that you need a free counselling service, you can contact the organization at the following address for free counselling. Also, if you so desire, you can get tested for HIV as well from here."

Marie Stopes Clinic
House no: 1501/1502
O R Nizam road
Golpaharer moor
Mehedibag,
Chittagong.
Phone: 01713040941

Research Process:
It is anticipated that the research will be completed by the end of 2010. The results may also be presented at conferences or published in journal without any information that could ever identify the participants.

The Human Research Ethics Committee of the University of New England has approved this project (Approval No…. Valid until..).

Should you have any complaints concerning the manner in which this research is conducted, please contact the Research Ethics Officers at the following address:

Research Services
University of New England
Armidale, NSW 2351
Telephone: (02) 6773 3449
Facsimile (02) 6773 3543
Email: ethics@une.edu.au

Thank you for considering this request and I look forward to further contact with you.

Regards.

Rasheda Khanam
PhD Candidate
School of Health

Contact details:

In Australia
University of New England
Armidale, NSW 2351
Telephone: (02) 6773 3010
Facsimile (02) 6773 3611
Email: rkhanam@une.edu.au

In Bangladesh
173/4, West Agargaon
Dhaka 1207. Telephone: 9133650 (home), 01716477665 (mobile).

Appendix B5: Information sheet for participants (Bangla)

School of Health
Armidale, NSW 2351 Australia
Head of School: Professor Steven J Campbell
Telephone: 02 6773 3656
Facsimile: 02 6773 3666
Email: hoshealth@une.edu.au

অংশগ্রহণকারীদের জন্য তথ্যপত্র

গবেষণার বিষয়ঃ অভিবাসী জনগোষ্ঠীর সামাজিক-সাংসকৃতিক গতি-প্রকৃতি:

বাংলাদেশে এইচ আই ভি/এইডস সংক্রমণের ঝঁুকি বিশলষণ

উপরোক্ত বিষয়ে আমার গবেষণায় অংশগ্রহণের জন্য আপনাকে আমন্ত্রণ জানাচ্ছি। গবেষণার বিষয়ের বিশদ বিবরণ নীচে দেয়া হলো। আশা করছি আপনি এতে অংশগ্রহণ করতে রাজি হবেন। আমি অস্ট্রেলিয়ার নিউ ইংল্যান্ড বিশ্ববিদ্যালয়ে পিএইচ.ডি ডিগ্রীর জন্য এই গবেষণাটি করছি। আমি রাশেদা খানম এবং আমার তত্বাবধায়কগণ হলেন নিউ ইংল্যান্ড বিশ্ববিদ্যালয়ের শিক্ষক প্রফেসর ভিকটর মিনিকিলো, এসোসিয়েট প্রফেসর রাফাতা হুসাইন, এবং ড. কারিন ফিশার। প্রফেসর ভিকটর মিনিকিলোর ই-মেইল ঠিকানা vminichi@une.edu.au এবং টেলিফোন নম্বর ০১২ ৬১ ২ ৬৭৭৩ ৩৮৬২। এসোসিয়েট প্রফেসর রাফাতা হুসাইন এর ই-মেইল ঠিকানা rhussain@une.edu.au এবং টেলিফোন নম্বর ০১২ ৬১ ২ ৬৭৭৩ ৩৬৭৮ এবং ড. কারিন ফিশার এর ই-মেইল ঠিকানা Karin.Fisher@hnehealth.nsw.gov.au এবং টেলিফোন নম্বর ০১২ ৬১ ২ ৬৭৬৭ ৭৯৫৫।

গবেষণার উদ্দেশ্যঃ এই গবেষণার উদ্দেশ্য হলো আধা ও নিমন দক্ষ পুরুষ অভিবাসী শ্রমিক এবং তাদের স্ত্রী যারা দেশে আছেন তাদের ঝঁুকিপূন যৌন আচরণ বিশলষণ করে তারা কতোটা এইচ আই ভি/এইডস এর ঝঁুকিতে আছে তা খুঁজে বের করা। এই গবেষণায় ঝঁুকির বিষয়গুলো, যৌনতা এবং যৌন আচরণ এর ধারনা এবং মনসতাত্তিক এবং সাংসকৃতিক বিষয়ে (ক্ষমতা ও সমঝোতা)আরো বিশদভাবে বিশলষণ করা হবে।

সময়ঃ এই মুখোমুখি আলোচনা আনুমানিক ৯০ মিনিট সময় লাগবে। সমস্ত আলোচনা রেকর্ড ও লিপিবদ্ধ করা হবে।

সাক্ষাতকার: সাক্ষাতকারে যৌনতা এবং যৌন আচরণ এর বিষয়ে আপনার মতামত এবং অভিজ্ঞতার উপর অনেক উন্মুক্ত প্রশ্ন থাকবে। এই আলোচনা রেকর্ড ও লিপিবদ্ধ করা হবে যা পরে বিসতারিত লেখা হবে এবং আপনি চাইলে আপনাকে কপি দেয়া হবে।

এতে অংশগ্রহণ সম্পূর্ণভাবে ঐচ্ছিক। এই প্রকল্প থেকে আপনি স্বেচ্ছায় যেকোন সময় নিজেকে গুটিয়ে নিতে পারেন। অংশগ্রহণ না করা বা গুটিয়ে নেয়াতে কোন সমস্যা হবেনা।

যদিও আমাদের আলোচনায় কিছু সপশকাতর বিষয় যেমন যৌনতা এবং যৌন আচরণ, নিজের যৌন আচরণ এই বিষয়গুলো আসবে কিনত্ু আমি আপনাকে আসসত করতে চাই যে, সাক্ষাতকার পূন গোপনীয়তার সাথে নেয়া হবে। যে তথ্য সংগ্রহ করা হবে তাতে কারো নাম ব্যবহার করা হবে না। অংশগ্রহণকারীদের কোনো অবসথায় চেনা যাবে না।

অডিওটেপ ও লিপিবদ্ধকৃত আলোচনা গবেষকের দপ্তরে গবেষণার অভিসন্দর্ভ জমা দেয়ার পর পাঁচ বছর পর্যন্ত তালাবদ্ধ অবস্থায় সংরক্ষিত থাকবে এবং তারপর অবলোপ করা হবে।

গবেষণায় অংশগ্রহণ: যেহেতু আপনি এই গবেষণায় অংশগ্রহণ করছেন, আপনি যদি মনে করেন তাহলে আপনি নিচে উলেলখিত ঠিকানা থেকে ফ্রি কাউনেসলিং সেবা নিতে পারেন। আপনি চাইলে এইচ আইভি এর জন্য ফ্রি টেষট করাতে পারেন। ঠিকানা হলো:

মেরীসটোপস কিলনিক
বাড়ি নং: ১৫০১/১৫০২, ও আর নিজাম রোড
গোলপাহাড়ের মোড়, মেহেদীবাগ
চিটাগাং
ফোন: ০১৭১৩০৪০৯৪১

গবেষণা প্রক্রিয়াঃ আশা করা হচেছ যে, ২০১০ সালের শেষ নাগাদ এই গবেষণা শেষ হবে। এর ফলাফল বিভিন্ন সম্মেলনে উপস্থাপন করা হবে ও বিভিন্ন জার্নালে প্রকাশ করা হবে তথ্যসূত্রসমূহ উহ্য রেখে। অংশগ্রহণকারী থেকে প্রাপ্ত কোন তথ্যের সরাসরি উদ্ধৃতি দেয়া হবে না।

এই প্রকল্প নিউ ইংল্যান্ড বিশ্ববিদ্যালয়ের হিউম্যান রিসার্চ এথিক্স কমিটি কর্তৃক অনুমোদিত হয়েছে (অনুমোদন নম্বর.... বৈধ.....তারিখ পর্যন্ত)।

যেভাবে এই গবেষণা করা হচ্ছে তা নিয়ে আপনার কোন অভিযোগ থাকলে দয়া করে রিসার্চ এথিক্স অফিসারকে নিম্নলিখিত ঠিকানায় যোগাযোগ করুনঃ

Research services
University of New England
Armidale, NSW 2351
Telephone: 012 61 2 6773 3449
Fax: 00 61 2 6773 3543
Email: ethics@une.edu.au

আমার অনুরোধ বিবেচনা করার জন্য আপনাকে অসংখ্য ধন্যবাদ। আবার আপনাকে যোগাযোগ করার অপেক্ষায় রইলাম।

বিনীত

রাশেদা খানম
পি এইচ ডি কেনডিডেট
সকুল অব হেলথ

আমার সাথে যোগাযোগের ঠিকানা:

অষেট্রলিয়া:

University of New England
Armidale, NSW 2351
Telephone: 012 61 2 6773 3010
Facsimile: (02) 67733611
Email: rkhanam@une.edu.au

বাংলাদেশে:
১৭৩/৪, পশিচম আঁগার গাও
ঢাকা ১২০৭
টেলিফোন: ৯১৩৩৬৫০ (বাসা), ০১৭১৬৪৭৭৬৬৫ (মোবাইল)

Appendix B6: Qualitative guidelines for the Participants

Socio-cultural Dynamics among Migrant Population: Explanation for the Risk of HIV/AIDS Transmission in Bangladesh

University of New England

Guideline for In-depth Interviews with Men Who have Returned from Abroad or Elsewhere in Bangladesh

(Probes will be used to delve deeper into answers provided by the participants to the opening questions contained under the topic below)

Background information:

(Now I will ask you some questions about yourself)

1. Age, education, marital status (duration of marriage, age of respondent at the time of marriage, number of marriage the respondent has had, number of wife/wives the respondent has at present), number of children, current occupation, occupation while overseas (or elsewhere in Bangladesh), income and/or expenditure, family size, history of contraception etc.

Information about migration:

(Now I will ask some questions related to migration)

2. What does it mean to be a migrant worker? How does migration affect relationship?
3. Could you please provide details about your visit to other places/countries outside home place/country for work so far?
4. How did you spend your leisure times or weekends?

Views on sex and sexuality/psycho-social issues:

(I would now like to ask your opinion about sexual behavior in your community. I will also ask you about your own sexual behavior. Although these are very personal questions we would like you to be honest. Just to remind you–everything you tell us is confidential and your name will not used in any way. You can of course refuse to answer questions if you do not want to answer.)

5. What is your view about sex outside marriage? How common is this in Bangladesh? In your opinion, what is society's view about extra-marital sex?
6. How common is this among men and women (married and unmarried)? Is there any gender difference?
7. What sexual opportunities are there at home/abroad? What are the expected roles of men and women when they are apart/together?
8. How about your friends/roommates/colleagues who had lived with you abroad/or elsewhere in Bangladesh being involved in sexual relationship with other people? Would you please elaborate what you know? (**Write verbatim**).
9. Could you kindly explain what its like to live apart from your wife (explore psycho-social issues)? What other factors you can think that influence risky sexual behaviours?
10. Now tell me about your first experience of sex? Your sexual experience with women other than your wife while you were abroad/ home. (W**rite verbatim**).
11. How often do you use condom during marital and extra-marital sex? Why do/don't you use condom?
12. What and how do you know about safe sex and its importance? How is safe sex negotiated?

Cultural issues:

(Now I will ask you some questions about cultural norms related to sex and sexuality)

13. What do you know about cultural norms and values related to sex and sexuality? What differences you observed/experienced related to free mixing/sexual relationship with other males and females while abroad/home?
14. What other cultural factors you seemed/think might have an impact on risky sexual behaviours?

Structural issues:

(I would like you to ask some question on knowledge HIV/AIDS and the service needs relevant to HIV/AIDS and STIs, which are necessary for the migrant population.)

15. What do you know about HIV/AIDS? How does HIV transmit from one person to other and how HIV transmission can be prevented? How did you come to know about HIV/AIDS? Where?
16. How were you getting information on HIV/AIDS or STIs or accessing health services when you were abroad/home? Please provide details about your service needs at different stages of migration.
17. What do you know about voluntary counseling and testing (VCT) services? Please provide details.
18. From your experience or listening from others, at which stage(s) of migration, you felt vulnerable or helpless or you think a migrant worker is vulnerable, which needs attention? Why do you think so?

Socio-cultural Dynamics among Migrant Population: Explanation for the Risk of HIV/AIDS Transmission in Bangladesh

University of New England

Guideline for In-depth Interviews with Men Who have lived with their Wives

(Probes will be used to delve deeper into answers provided by the participants to the opening questions contained under the topic below)

Background information:

(Now I will ask you some questions about yourself)

1. Age, education, marital status (duration of marriage, age of respondent at the time of marriage, number of marriage the respondent has had, number of wife/wives the respondent has at present,) number of children, occupation, history about contraception, family size, income and/or expenditure etc.

Views on sex and sexuality/psycho-social issues:

(I would now like to ask your opinion about sexual behavior in your community. I will also ask you about your own sexual behavior. Although these are very personal questions we would like you to be honest. Just to remind you–everything you tell us is confidential and your name will not used in any way. You can of course refuse to answer questions if you do not want to answer.)

2. What is your view about sex outside marriage? How common is this in Bangladesh? In your opinion, what is society's view about extra-marital sex?

3. How common is this among men and women (married and unmarried)? Is there any gender difference?

4. What sexual opportunities are there at home/abroad? What are the expected roles of men and women when they are apart/together?

5. Could you kindly explain what its like to live apart from your wife (explore psycho-social issues)? What other factors you can think of influencing behaviours?

6. Now tell me about your first experience of sex? Your sexual experience with women other than your wife.

7. How often do you use condom during marital and extra-marital sex? Why do/don't you use condom?

8. What and how do you know about safe sex and its importance? How is safe sex negotiated?

Cultural issues:

(Now I will ask you some questions about cultural norms related to sex and sexuality)

9. What do you know about cultural norms and values related to sex and sexuality? Do they increase or reduce the risk behaviours, explain?

10. What other cultural factors you seemed/think might have an impact on risky sexual behaviours?

Structural issues:

(I would like you to ask some question on knowledge HIV/AIDS and the service needs relevant to HIV/AIDS and STIs, which are necessary for the migrant population.)

11. What do you know about HIV/AIDS? How HIV is transmitted from one person to others and how HIV transmission can be prevented? How did you come to know about HIV/AIDS? Where?

12. Please provide details about your service needs related to HIV and STIs and tell us how these services could be made available to you?

13. What do you know about voluntary counseling and testing (VCT) services? Please provide details.

Socio-cultural Dynamics among Migrant Population: Explanation for the Risk of HIV/AIDS Transmission in Bangladesh

University of New England

Guideline for In-depth Interviews with the Spouses of Men Who have Returned from Abroad or Elsewhere in Bangladesh

(Probes will be used to delve deeper into answers provided by the participants to the opening questions contained under the topic below)

Background information:

(Now I will ask you some questions about yourself)

1. Age, education, marital status (duration of marriage, age of respondent at the time of marriage, number of marriage the respondent has had), number of children, occupation, husband's current occupation and occupation while overseas (or elsewhere in Bangladesh), income and/or expenditure, family size, history of contraception etc.

Information about husband's works while living apart:

(Now I will ask some questions related to migration of your husband)

2. What does it mean to be a migrant's wife? How does migration affect relationship?
3. Could you please provide details about your husband's visit to other places/countries outside home place/country for work so far?

Views on sex and sexuality/psycho-social issues:

(I would now like to ask your opinion about sexual behavior in your community. I will also ask you about your own sexual behavior. Although these are very personal questions we would like you to be honest. Just to remind you–everything you tell us is confidential and your name will not used in any way. You can of course refuse to answer questions if you do not want to answer.)

4. What is your view about sex outside marriage? How common is this in Bangladesh? In your opinion, what is society's view about extra-marital sex?
5. How common is this among men and women (married and unmarried)? Is there any gender difference?
6. What sexual opportunities are there at home/abroad? What are the expected roles of men and women when they are apart/together?

7. Could you kindly explain what its like to live apart from your husband (explore psycho-social issues)? What other factors you can think that influence risky sexual behaviours?
8. Now tell me about your first experience of sex? Your sexual experience other than your husband while he was in abroad/home. (**Write verbatim**).
9. Please describe any experience of receiving any offer of sexual relationship from anyone other than your husband while your husband was abroad/home.
10. If you know of any case of forced sex among women around you or if you ever experienced similar situation in your life, please elaborate.
11. How often your husband/partner use condom during marital and extra-marital sex? Why do/don't your husband/partner use condom?
12. What and how do you know about safe sex and its importance? How is safe sex negotiated?

Cultural issues:

(Now I will ask you some questions about cultural norms related to sex and sexuality)

13. What do you know about cultural norms and values related to sex and sexuality? Do they increase or reduce the risk behaviours, explain?
14. What other cultural factors you seemed/think might have an impact on risky sexual behaviours?

Structural issues:

(I would like you to ask some question on knowledge HIV/AIDS and the service needs relevant to HIV/AIDS and STIs, which are necessary for the migrant population.)

15. What do you know about HIV/AIDS? How does HIV transmit from one person to other and how HIV transmission can be prevented? How did you come to know about HIV/AIDS? Where?
16. Please provide details about your service needs related to HIV and STIs and tell us how these services could be made available to you?
17. What do you know about voluntary counseling and testing (VCT) services? Please provide details.

Socio-cultural Dynamics among Migrant Population: Explanation for the Risk of HIV/AIDS Transmission in Bangladesh

University of New England

Guideline for In-depth Interviews with the Spouses Who have Lived with their Husbands

(Probes will be used to delve deeper into answers provided by the participants to the opening questions contained under the topic below)

Background information:

(Now I will ask you some questions about yourself)

1. Age, education, marital status (duration of marriage, age of respondent at the time of marriage, number of marriage the respondent has had), number of children, occupation, husband's occupation, income and/or expenditure, family size, history of contraception etc.

Views on sex and sexuality/psycho-social issues:

(I would now like to ask your opinion about sexual behavior in your community. I will also ask you about your own sexual behavior. Although these are very personal questions we would like you to be honest. Just to remind you–everything you tell us is confidential and your name will not used in any way. You can of course refuse to answer questions if you do not want to answer.)

2. What is your view about sex outside marriage? How common is this in Bangladesh? In your opinion, what is society's view about extra-marital sex?
3. How common is this among men and women? Is there any gender difference?
4. What sexual opportunities are there at home/abroad? What are the expected roles of men and women when they are apart/together?
5. What are the factors influence risky sexual behaviours?
6. Now tell me about your first experience of sex? Your sexual experience other than your husband (**Write verbatim**).
7. Please describe any experience of receiving any offer of sexual relationship from anyone other than your husband.
8. If you know of any case of forced sex among women around you or if you ever experienced similar situation in your life, please elaborate.

9. How often your husband/partner use condom during marital and extra-marital sex? Why do/don't your husband/partner use condom?
10. What and how do you know about safe sex and its importance? How is safe sex negotiated?

Cultural issues:

(Now I will ask you some questions about cultural norms related to sex and sexuality)

11. What do you know about cultural norms and values related to sex and sexuality? Do they increase or reduce the risk behaviours, explain?

Structural issues:

(I would like you to ask some question on knowledge HIV/AIDS and the service needs relevant to HIV/AIDS and STIs, which are necessary for the migrant population.)

12. What do you know about HIV/AIDS? How does HIV transmit from one person to other and how HIV transmission can be prevented? How did you come to know about HIV/AIDS? Where?
13. Please provide details about your service needs related to HIV and STIs and tell us how these services could be made available to you?
14. What do you know about voluntary counseling and testing (VCT) services? Please provide details.

Appendix C: Additional Results for Chapter 4

Appendix C1: Percent distribution of selected socio-demographic characteristics of respondents (n=699)

Characteristics	n	%
Age (Years)		
<= 19	49	7.0
20-24	133	19.0
25-29	124	17.7
30-34	121	17.3
35-39	99	14.1
40-44	104	14.9
45+	69	9.9
Respondent's education (Years)		
No education (0)	250	35.8
Primary (1-5)	187	26.8
Secondary (6-10)	230	32.9
Higher Secondary (11-12)	29	4.1
Bachelor/Masters (13-16)	3	0.4
Husband's education (Years)		
No education (0)	215	30.8
Primary (1-5)	153	21.9
Secondary (6-10)	260	37.2
Higher Secondary (11-12)	44	6.3
Bachelor/Masters (13-16)	27	3.9

Appendix C2: Percent distribution of duration of marriage, living children and family size among respondents (n=699)

Characteristics	n	%
Marital duration (Years)		
0- 10	283	40.5
11-20	249	35.6
21-30	134	19.2
≥ 31	33	4.7
Living children (No.)		
0	31	4.4
1-2	361	51.6
3-4	223	31.9
5-6	73	10.4
≥ 7	11	1.6
Family size (No.)		
2-3	101	14.4
4-5	295	42.2
6-7	173	24.7
8-9	69	9.9
≥ 10	61	8.7

Appendix C3: Per cent distribution of perception about extra-marital sex among men and women reported by respondents (N= 699)

When	Married men can have extra-marital sex n (%)	Married women can have extra-marital sex n (%)
Lived with wives/husbands		
Yes	599 (85.7)	512 (73.2)
No	100 (14.3)	187 (26.8)
Lived away from wives/husbands		
Yes	695 (99.4)	675 (96.6)
No	4 (0.6)	24 (3.4)
Wives/husbands lived away		
Yes	695 (99.4)	674 (96.4)
No	4 (0.6)	25 (3.6)

Appendix C4: Perception of extra-marital sex among men, reported by respondent's, by husband's migration status

	Married women		
A married man can have extra-marital sex. When he	**Husbands were non-migrants n=396 (%)**	**Husbands returned from elsewhere in Bangladesh n=125 (%)**	**Husbands returned from overseas n=178 (%)**
Lived with wives			
Yes	344 (87.0)	104 (83.0)	151 (85.0)
No	52 (13.0)	21 (17.0)	27 (15.0)
Lived away from wives			
Yes	395 (99.7)	124 (99.2)	176 (98.9)
No	1 (0.3)	1 (0.8%)	2 (0.1)
Wives lived away from husbands			
Yes	396 (100.0)	123 (98.4)	176 (98.9)
No	0	2 (1.6)	2 (1.1)

Appendix C5: Perception of extra-marital sex among women, reported by respondent's, by husband's migration status

A married woman can have extra-marital sex. When she	Married women		
	Husbands were non-migrants n=396 (%)	Husbands returned from elsewhere in Bangladesh n=125 (%)	Husbands returned from overseas n=178 (%)
Lived with husband			
Yes	293 (74.0)	96 (76.8)	123 (69.1)
No	103 (26.0)	29 (23.2)	55 (40.9)
Lived away from husband			
Yes	384 (97.0)	123 (98.4)	168 (94.4)
No	12 (3.0)	2 (1.6)	10 (5.6)
Husband lived away			
Yes	384 (97.0)	122 (97.6)	168 (94.4)
No	12 (3.0)	3 (2.4)	10 (5.6)

Appendix C6: Association between selected socio-demographic characteristics and those who reported extra-marital sex among respondents (n=25)

	Extra-marital sex Yes (n %)	Pearson Chi^2 p value
Age (Years)		
<35	19 (76.0)	
≥ 35	6 (24.0)	< 0.119
Education (Years)		
No education (0)	10 (40.0)	
Primary (1-5)	7 (28.0)	< 0.838
Secondary + (≥ 6**)**	8 (32.0)	
Monthly household expenditure (Tk.)		
<5000	18 (72.0)	< 0.362
≥ 5000	7 (28.0)	
Area of residence		
Abhoynagar	9 (36.0)	
Mirsarai	16(64.0)	< 0.919

Appendix C7: Per cent distribution of extra-marital sex, reported by respondent's, by husband's migration status

Extra-marital sex	Married women		
	Husbands were non-migrants n=396 (%)	Husbands returned from elsewhere in Bangladesh n=125 (%)	Husbands returned from overseas n=178 (%)
Since marriage	12 (3.0)	8 (6.4)	5 (2.8)
While husband was away	NA	7 (5.6)	5 (2.8)
In the last 12 months	7 (1.8)	4 (3.2)	1 (0.6)
In last month	2 (0.5)	1 (0.8)	0

Appendix C8: Percent distribution of contraceptive use among respondents

Characteristics	**n**	**%**
Contraceptive use	*n=440*	
Yes	440	67.2
No	215	32.8
Methods	*n=440*	
Traditional method	23	5.2
	n=427	
Pill	197	46.1
Condom	39	9.1
Injectable	134	31.4
IUD	8	1.9
Norplant	9	2.1
Female sterilization	31	7.3
Male sterilization	3	0.7

Appendix C9: Per cent distribution of reported sex outside marriage and condom among respondents

Characteristics	n	%
Extra-marital sex	n=699	
Yes	25	3.6
No	674	96.4
Condom use in marital sex		
Yes	173	24.7
No	526	75.3
Condom use in last marital sex		
Yes	41	5.9
No	658	94.1
Condom use in extra-marital sex	n=25	
Yes	8	32.0
No	17	68.0
Condom use in last extra-marital sex	n=25	
Yes	3	12.0
No	22	88.0

Appendix C10: Per cent distribution of ever condom use reported by respondent's by husband's migration status (n=699)

Respondents	Ever condom use			
	Yes	**No**	**Total**	**Number**
Husbands were non-migrants				
Yes	25.0	75.0	100	396
No	24.4	75.6	100	303
Husbands had returned from elsewhere in Bangladesh				
Yes	26.4	73.6	100	125
No	24.4	75.6	100	574
Husbands had Returned from overseas				
Yes	23.0	77.0	100	178
No	25.3	74.7	100	521

Appendix C11: Condom use in last marital and extra-marital sex, reported by respondent's by husband's migration status

	Married women		
Condom use	**Husbands were non-migrants**	**Husbands returned from elsewhere in Bangladesh**	**Husbands returned from overseas**
Marital sex	n=99 (%)	n=33(%)	n=41(%)
Yes	18.2	30.0	32.0
No	81.2	70.0	68.0
Extra-marital sex	n= 12	n= 8	n= 5
Yes	8.0	12.5	20.0
No	92.0	87.5	80.0
Pattern in extra-marital sex			
Every time	1 (8.0)	1 (12.5)	0
Sometimes	3 (25.0)	1 (12.5)	2 (40.0)
Never	8 (67.0)	6 (75.0)	3 (60.0)

Appendix C12: Reporting of discussion about HIV/AIDS with husbands and husband's risk of contracting HIV/AIDS

	Respondents	
	Number	**%**
Transmission about HIV/AIDS	n=69	
Yes	62	89.9
No	7	10.1
Prevention about HIV/AIDS		
Yes	25	36.2
No	44	63.8
Treatment of HIV/AIDS		
Yes	8	11.6
No	61	88.4
Husband's risk of contracting HIV/AIDS	n=433	
Yes	20	4.6
No	217	50.1
No response	6	1.4
Do not know	190	43.9