Centre for Health & Population Research

RRC APPLICATION FORM

RESEARCH PROTOCOL NUMBER:

FOR OFFICE USE ONLY

RRC Approval:	☐ Yes /	☐ No	Date:
ERC Approval:	☐ Yes /	☐ No	Date:
AEEC Approval:	☐ Yes /	☐ No	Date:

Protocol Title: Impact of Migration on the Health of Bangladeshi Labour Migrants

Short title (in 50 characters including space): Health of Bangladeshi Labour Migrants

Theme: (Check all that apply)

☐ Nutrition
☐ Emerging and Re-emerging Infectious Diseases
☒ Population Dynamics
☐ Reproductive Health
☐ Vaccine Evaluation
☒ HIV/AIDS
☐ Environmental Health
☒ Health Services
☐ Child Health
☐ Clinical Case Management
☒ Social and Behavioural Sciences

Key words: Semi-skilled / unskilled migrant labourer, health, SF-36, Zung depression scale, sexual behaviour

Relevance of the Protocol:

Globally, migrant workers are vulnerable because migration is associated with uncertainty and stress. Among the various types of migrants, semi-skilled and unskilled labour migrants are usually the most vulnerable. Officially, every year around 200,000 or more Bangladeshis leave the country to work abroad. The recorded number of international, temporary labour migrants over the last 29 years totals 3.8 million (IOM, 2005). To the best of our knowledge, no published literature has addressed the health status of Bangladeshi labour migrants, although a large number of studies in the Bangladeshi context deal with the issues of either migration or health. Unfortunately, no studies bring these issues together. The present study is an attempt to begin to fill this gap.

The contribution of the migrant labourers to the economy of Bangladesh is beyond dispute. The Bangladesh economy is largely dependent on remittances that are sent by international migrant labourers (Bruyn & Kuddus, 2005). It is unfortunate that despite their contribution to the economy, there are no clear guidelines to protect these migrants' well-being and thus, health status.

It is expected that the present study will bring out some important pieces of information to share with organizations working with migrant labourers and government agencies with a stake in the study findings. Recently, the Ministry of Expatriates' expressed the need to provide a health insurance scheme for semi-skilled and unskilled migrant labourers. Unfortunately, no existing information is available on the basis of which a health insurance scheme can be provided for this group. As ICDDR, B has a long history of sharing information with GoB, the present study findings can be useful for GoB.

Centre's Priority (as per Strategic Plan, to be imported from the attached Excel Sheet):
Identify disparities in health and provide explanations for such disparities.

Programmes:

☐ Child Health Programme
☐ Nutrition Programme
☐ Programme on Infectious Diseases & Vaccine Science
☐ Poverty and Health Programme
☒ Health and Family Planning Systems Programme
☐ Population Programme
☐ Reproductive Health Programme
☒ HIV/AIDS Programme

Principal Investigator (Should be a Centre's staff) **Rumana A. Saifi, Ph.D** **Address (including e-mail address):** HSID, ICDDR,B rumanasaifi@icddrb.org	**DIVISION:** ☐ CSD ☐ LSD ☒ HSID ☐ PHSD

Co-Principal Investigator(s): Internal
Rasheda Khanam, Carel T. van Mels, Elizabeth Oliveras

Co-Principal Investigator(s): External:
(Please provide full official address including e-mail address and Gender)
N/A

Co-Investigator(s): Internal:
Charles P. Larson

Co-Investigator(s): External
(Please provide full official address including e-mail address and Gender)
N/A

Student Investigator(s): Internal (Centre's staff):
N/A

Student Investigator(s): External:
(Please provide full address of educational institution and Gender)
N/A

Collaborating Institute(s): Please Provide full address

Institution # 1

Country	Bangladesh
Contact person	Dr Amzad Ali Khan
Department (including Division, Centre, Unit)	
Institution (with official address)	International Organization for Migration (IOM) House no. 10/A, Road no. 50, Gulshan - 2, Dhaka - 1212
Directorate (in case of GoB i.e. DGHS)	N/A
Ministry (in case of GoB)	N/A

Institution # 2

Country	
Contact person	
Department (including Division, Centre, Unit)	
Institution (with official address)	
Directorate (in case of GoB i.e. DGHS)	
Ministry (in case of GoB)	

Institution # 3

Country	
Contact person	
Department (including Division, Centre, Unit)	
Institution (with official address)	
Directorate (in case of GoB i.e. DGHS)	
Ministry (in case of GoB)	

Note: If more than 3 collaborating institutions are involved in the research protocol, additional block(s) can be inserted to mention its/there particular(s).

Population: Inclusion of special groups (Check all that apply):

Gender
- ☒ Male
- ☐ Female

Age
- ☐ 0 – 4 years
- ☐ 5 – 9 years
- ☒ 10 – 19 years
- ☒ 20 – 64 years
- ☐ 65 +

- ☐ Pregnant Women
- ☐ Fetuses
- ☐ Prisoners
- ☐ Destitutes
- ☐ Service Providers
- ☐ Cognitively Impaired
- ☐ CSW
- ☐ Others (specify migrant labourers and potential migrant labourers)
- ☐ Animal

NOTE It is the policy of the Centre to include men, women, and children in all research projects involving human subjects unless a clear and compelling rationale and justification (e.g. gender specific or inappropriate with respect to the purpose of the research) is there. Justification should be provided in the `Sample Size' section of the protocol in case inclusiveness of study participants is not proposed in the study.

Project/study Site (Check all the apply):

- ☐ Dhaka Hospital
- ☐ Matlab Hospital
- ☐ Matlab DSS Area
- ☐ Matlab non-DSS Area
- ☐ Mirzapur
- ☐ Dhaka Community
- ☐ Chakaria
- ☐ Abhoynagar

- ☒ Mirsarai
- ☐ Patyia
- ☐ Other areas in Bangladesh
- ☐ Outside Bangladesh
  Name of Country:
- ☐ Multi Centre Trial

(Name other countries involved):

Type of Study (Check all that apply):

- ☐ Case Control Study
- ☐ Community-based Trial/Intervention
- ☐ Program Project (Umbrella)
- ☐ Secondary Data Analysis
- ☐ Clinical Trial (Hospital/Clinic)
- ☐ Family Follow-up Study
- ☒ Cross Sectional Survey
- ☐ Longitudinal Study (cohort or follow-up)
- ☐ Record Review
- ☐ Prophylactic Trial
- ☐ Surveillance/Monitoring
- ☐ Others:

NOTE: Does the study meet the definition of clinical studies/trials given by the International Committee of Medical Journal Editors (ICMJE)? Yes ☐ No ☒

Please note that the ICMJE defined clinical trial as "*Any research project that prospectively assigns human subjects to intervention and comparison groups to study the cause-and-effect relationship between a medical intervention and a health outcome*".

If YES, after approval of the ERC, the PI should complete and send the relevant form to provide required information about the research protocol to the Committee Coordination Secretariat for registration of the study into websites, preferably at the www.clinicaltrials.gov. It may please be noted that the PI would require to provide subsequent updates of the research protocol for updating protocol information in the website.

Targeted Population (Check all that apply):

- ☒ No ethnic selection (Bangladeshi)
- ☐ Bangalee
- ☐ Tribal group
- ☐ Expatriates
- ☐ Immigrants
- ☐ Refugee

Consent Process (Check all that apply):

- ☐ Written
- ☒ Oral
- ☐ None
- ☒ Bengali Language
- ☐ English Language

Proposed Sample Size:

Sub-group (Name of subgroup (e.g. Men, Women) and Number

Name	Number	Name	Number
(1) migrant labourer	200	(3)	
(2) potential migrant labourer	200	(4)	

Total sample size: 400

Determination of Risk: Does the Research Involve (Check all that apply)**:**

- ☐ Human exposure to radioactive agents?
- ☐ Fetal tissue or abortus?
- ☐ Investigational new device?
  (specify:)
- ☐ Existing data available from Co-investigator
- ☐ Human exposure to infectious agents?
- ☐ Investigational new drug
- ☐ Existing data available via public archives/sources
- ☐ Pathological or diagnostic clinical specimen only
- ☐ Observation of public behaviour
- ☐ New treatment regime

Yes	No	
☒	☐	Is the information recorded in such a manner that study participants can be identified from information provided directly or through identifiers linked to the study participants?
☒	☐	Does the research deal with sensitive aspects of the study participants' behaviour; sexual behaviour, alcohol use or illegal conduct such as drug use?

Could the information recorded about the individual if it became known outside of the research:

Yes	No	
☐	☒	Place the study participants at risk of criminal or civil liability?
☐	☒	Damage the study participants' financial standing, reputation or employability, social rejection, lead to stigma, divorce etc.?

Do you consider this research (Check one):

☐ Greater than minimal risk
☒ No more than minimal risk
☐ Only part of the diagnostic test

Minimal Risk is "a risk where the probability and magnitude of harm or discomfort anticipated in the proposed research are not greater in and of themselves than those ordinarily encountered in daily life or during the performance of routine physical, psychological examinations or tests. For example, risk of drawing a small amount of blood from a healthy individual for research purposes is no greater than the risk of doing so as a part of routine physical examination".

Yes/ No

☒ ☐ Is the proposal funded?

If yes, sponsor Name: (1) International Organization for Migration (IOM)

(2)

Yes/No

☐ ☐ Is the proposal being submitted for funding?

If yes, name of funding agency: (1)

(2)

Do any of the participating investigators and/or member(s) of their immediate families have an equity relationship (e.g. stockholder) with the sponsor of the project or manufacturer and/or owner of the test product or device to be studied or serve as a consultant to any of the above?

IF YES, a written statement of disclosure to be submitted to the Centre's Executive Director.

Dates of Proposed Period of Support

(Day, Month, Year - DD/MM/YY)

Beginning Date : 01/12/2006

End Date : 01/11/2007

Cost Required for the Budget Period ($)

Years	**Direct Cost**	**Indirect Cost**	**Total Cost**
Year-1	45,455	4,545	50000
Year-2			0
Year-3			0
Year-4			0
Year-5			0
Total	45,455	4,545	50000

Certification by the Principal Investigator

I certify that the statements herein are true, complete and accurate to the best of my knowledge. I am aware that any false, fictitious, or fraudulent statements or claims may subject me to criminal, civil, or administrative penalties. I agree to accept the responsibility for the scientific conduct of the project and to provide the required progress reports including updating protocol information in the SUCHONA (Form # 2) if a grant is awarded as a result of this application.

_____________ ______________

Signature of PI **Date**

Approval of the Project by the Division Director of the Applicant

The above-mentioned project has been discussed and reviewed at the Division level as well by the external reviewers. The protocol has been revised according to the reviewers' comments and is approved.

Name of the Division Director Signature Date of Approval

Table of Contents

RRC APPLICATION FORM 1
Project Summary 8
Description of the Research Project 11
  Hypothesis to be Tested: 11
  Specific Aims: 11
  Background of the Project including Preliminary Observations 12
  Research Design and Methods 16
  Sample Size Calculation and Outcome Variable(s) 17
  Facilities Available 23
  Data Safety Monitoring Plan (DSMP) 23
  Data Analysis 23
  Ethical Assurance for Protection of Human Rights 24
  Use of Animals 25
  Literature Cited 25
  Dissemination and Use of Findings 26
  Collaborative Arrangements 27
Biography of the Investigators 28
Biography of the Investigators 30
Biography of the Investigators ....
Detailed Budget ....
Budget Justifications 38
Other Support 42
  Appendix 1: Voluntary Consent Form 43
  Appendix 2: Comments of External Reviewers 45
  Appendix 3: Response to External Reviewer's Comments ....
  Appendix 4: Abstract Summary covering eight points specified by the ERC ....
Check-List 53

☐ Check here if appendix is included

Project Summary

Describe in concise terms, the hypothesis, objectives, and the relevant background of the project. Also describe concisely the experimental design and research methods for achieving the objectives. This description will serve as a succinct and precise and accurate description of the proposed research is required. This summary must be understandable and interpretable when removed from the main application. **(Please keep as brief as possible).**

Principal Investigator(s): Rumana A. Saifi, Ph.D

Research Protocol Title: Impact of Migration on the Health of Bangladeshi Labour Migrants

Total Budget US$: 50,000 Beginning Date : 01/12/2006 Ending Date: 01/11/2006

Background:

Worldwide, during the past twenty five years, the volume of migrant workers, both internal and international, has more than doubled, from 84 million in 1975 to 175 million in 2000 (IOM, 2004). With the increasing number of labour migrants around the world, International Organization for Migration (IOM), together with other International Agencies, advocated that health issues of migrant labourers should be a priority public health concern (2003). Although the health issues of labour migrants have been acknowledged as a public health concern (IOM, 2003), they have been rarely addressed with adequate attention and resources (Taran, 2002,cited in Gaur,2003:1).

Officially, every year around 200,000 or more Bangladeshis leave the country to work abroad. The recorded number of international, temporary labour migrants over the last 29 years totals 3.8 million (IOM, 2005). To the best of our knowledge, no published literature has addressed the health status of Bangladeshi labour migrants, although a large number of studies in the Bangladeshi context deal with the issues of either migration or health. Unfortunately, no studies bring these issues together. The present study is an attempt to begin to fill this gap.

Study Hypothesis

Bangladeshi semi-skilled and unskilled male migrant labourers who have migrated abroad for work are likely to experience health problems than they would have if they had not migrated.

1) The stated hypothesis is limited to semi-skilled or unskilled labour migrants. The subjects often are unaware of their rights and have a higher chance of exploitation by their employees in destination countries.

2) As the study will be conducted in the origin country and compared with age-matched men planning to migrate for similar work, information will only be collected from returned migrant labourers. Returned migrant labourers are those who have worked abroad at least 2 months and are now returning home.

Research Objectives:

1. Simply, the objective of the study is to assess the health status of labour migrants returning to Bangladesh and to identify potential determinants of their health status. As mentioned the focus of the current study is on Bangladeshi semi-skilled and unskilled labour migrants who have migrated abroad because of work migration. If health problems are identified among semi-skilled or unskilled labour migrants, the study intends to understand the exposures associated with these health problems. The study intends to identify different dimensions of physical, mental and social health of Bangladeshi labour migrants that are likely to be affected by migration. The health of Bangladeshi semi-skilled or unskilled migrant labourers will be compared with similarly skilled labourers who are intending to migrate. This later group will form a cohort from which to carry out future, more controlled studies.

2. The study aims to provide a multidimensional assessment of adult health for migrant and for potential migrant labourers. This assessment will include a standard tool for perceived health, ‘the SF-36’. In order to shed more light on mental health, a standard tool, the ‘Zung depression scale,’ will be used. For work–place

injury, a standardized tool provided by WHO will be used. In addition, a set of questions will address the working and social conditions of migrant labourers while abroad, including behaviors that may make them vulnerable to HIV.

3. Another important objective of the study is to build a cohort for future migration studies. To be precise, the present study will establish a baseline of labourers prior to migranting. Both migrant and potential migrant labourers can be followed in future studies.

4. The study aims to address information of potential relevance to policy-makers and other decision-makers.

Specific Research Questions:

In order to address the study objectives, the present study intends to answer four research questions. They are as follows:

1. What is the health status of semi-skilled and unskilled Bangladeshi migrant labourers returning from abroad?

2. What are the potential exposures (e.g., type of job, healthcare accessibility) that are associated with the health problems identified?

3. What access do migrant labourers have to health and social services in destination countries?

4. Does the health status of semi-skilled and unskilled migrant labourers returning from abroad differ from that of similarly skilled labourers who have not yet migrated, but plan to?

Data and Methods:

Research Design:

The research design is cross-sectional.

Study Area and Study Population:

The study will be conducted in Mirsarai, a rural site of Bangladesh. The study population consists of working age population (i.e., 15-59 years).

The sampling frame for Mirsarai will be the existing ICDDR, B Health Systems and Infectious Diseases' surveillance households. A list will be prepared from the existing database to identify return migrants. A question phrased as 'Do you plan to migrate as a labourer within the next one year' will be added in HSID's routine surveillance round to track potential migrants. Age and education will be the two key variables on which potential migrant labourers will be matched with returned migrant labourers. To be precise, potential migrants will first be classified into subgroups according to age and education. For every return migrant, a random sample of one potential migrant from the subgroup where it belonged (based on age and education) will be taken.

Sample size:
Two hundred migrant and potential migrant labourers will be included in the sample. A sample size of 200 migrant labourers and 200 potential migrant labourers will give the level of precision based on 95% confidence limit with power 80. The sample is calculated on the basis of the mean score of SF-36 (5 point scale with 36 queations). Based on previous studies standard deviation is assumed at 30 and mean detected difference is assumed 10.

Data collection:
Data will be collected through one-on-one interviews using structured, validated questionnaires and semi-structured questionnaires.

Analysis plan:

Univariate, bi-variate and multivariate analyses will be done to analyze the data. The multivariate analysis will explore the effect of migration on health outcome, both in conjunction with control variables (the gross effect) and separately from them (the net effect). Logistic regression and multiple regressions will be used for multivariate analyses because outcome variables are measured both in dichotomous and in continuous scale.

KEY PERSONNEL (List names of all investigators including PI and their respective specialties)

Name	Professional Discipline/ Specialty	Role in the Project
1. Dr Rumana A. Saifi	Assistant Scientist	Principal Investigator
2. Dr Rasheda Khanam	Assistant Scientist	Co-Principal Investigator
3. Dr Carel van Mels	Head, Surveillance and Data Resources Unit	Co-Principal Investigator
4. Dr Elizabeth Oliveras	Operations Research Scientist	Co-Principal Investigator
5. Dr Charles P. Larson	Director, HSID	Co-investigator
6.		
7.		
8.		
9.		

Description of the Research Project

Hypothesis to be Tested:

Concisely list in order, the hypothesis to be tested and the Specific Aims of the proposed study. Provide the scientific basis of the hypothesis, critically examining the observations leading to the formulation of the hypothesis.

Bangladeshi semi-skilled and unskilled male migrant labourers who have migrated abroad for work are likely to experience health problems than they would have if they had not migrated.

Clarifications:

1) The stated hypothesis is limited to semi-skilled or unskilled labour migrants. The subjects often are unaware of their rights and have a higher chance of exploitation by their employees in destination countries.

2) As the study will be conducted in the origin country and compared with age-matched men planning to migrate for similar work, information will only be collected from returned migrant labourers. Returned migrant labourers are those who have worked abroad at least 2 months and are now returning home.

Specific Aims:

Describe the specific aims of the proposed study. State the specific parameters, biological functions/ rates/ processes that will be assessed by specific methods.

Research Objectives:

1. Simply, the objective of the study is to assess the health status of labour migrants returning to Bangladesh and to identify potential determinants of their health status. As mentioned the focus of the current study is on Bangladeshi semi-skilled and unskilled labour migrants who have migrated abroad because of work migration. If health problems are identified among semi-skilled or unskilled labour migrants, the study intends to understand the exposures associated with these health problems. The study intends to identify different dimensions of physical, mental and social health of Bangladeshi labour migrants that are likely to be affected by migration. The health of Bangladeshi semi-skilled or unskilled migrant labourers will be compared with similarly skilled labourers who are intending to migrate. This later group will form a cohort from which to carry out future, more controlled studies.

2. The study aims to provide a multidimensional assessment of adult health for migrant and for potential migrant labourers. This assessment will include a standard tool for perceived health, 'the SF-36'. In order to shed more light on mental health, a standard tool, the 'Zung depression scale,' will be used. For work–place injury, a standardized tool provided by WHO will be used. In addition, a set of questions will address the working and social conditions of migrant labourers while abroad, including behaviors that may make them vulnerable to HIV.

3. Another important objective of the study is to build a cohort for future migration studies. To be precise, the present study will establish a baseline of labourers prior to migranting. Both migrant and potential migrant labourers can be followed in future studies.

4. The study aims to address information of potential relevance to policy-makers and other decision-makers.

Specific Research Questions:

In order to address the study objectives, the present study intends to answer four research questions. They are as follows:

1. What is the health status of semi-skilled and unskilled Bangladeshi migrant labourers returning from abroad?

2. What are the potential exposures (e.g., type of job, healthcare accessibility) that are associated with the health problems identified?

3. What access do migrant labourers have to health and social services in destination countries?

4. Does the health status of semi-skilled and unskilled migrant labourers returning from abroad differ from that of simila

Background of the Project including Preliminary Observations

Describe the relevant background of the proposed study. Discuss the previous related works on the subject by citing specific references. Describe logically how the present hypothesis is supported by the relevant background observations including any preliminary results that may be available. Critically analyze available knowledge in the field of the proposed study and discuss the questions and gaps in the knowledge that need to be fulfilled to achieve the proposed goals. Provide scientific validity of the hypothesis on the basis of background information. If there is no sufficient information on the subject, indicate the need to develop new knowledge. Also include the significance and rationale of the proposed work by specifically discussing how these accomplishments will bring benefit to human health in relation to biomedical, social, and environmental perspectives.

Background and Justification of the Study:

Worldwide, during the past twenty five years, the volume of migrant workers, both internal and international, has more than doubled, from 84 million in 1975 to 175 million in 2000 (IOM, 2004). With the increasing number of labour migrants around the world, International Organization for Migration (IOM), together with other International Agencies, advocated that health issues of migrant labourers should be a priority public health concern (2003). Although the health issues of labour migrants have been acknowledged as a public health concern (IOM, 2003), they have been rarely addressed with adequate attention and resources (Taran, 2002,cited in Gaur,2003:1).

Globally, migrant workers are vulnerable because migration is associated with uncertainty and stress. Among the various types of migrants, semi-skilled and unskilled labour migrants are usually the most vulnerable. Reasons for their vulnerability include:

1. The present mode of mass labour migration from developing countries is based on single-person migration, mainly for low skilled ‘3D’ (dirty, dangerous, disdained) jobs that are unattractive to local labour forces (Gaur, 2003). The labour laws of the destination countries often do not properly protect semi-skilled and unskilled migrant labourers (IOM, 2005). Sectors employing semi-skilled and unskilled migrant labourers are usually those where little or no regulatory activity upholds minimum safety, health and working conditions (Taran, 2003). Many semi-skilled and unskilled migrant labourers are paid less than the minimum wage and work beyond the legal maximum hours prescribed in the labour laws of the destination countries (IOM, 2005). In addition, migrant labourers generally have little or even no access to health care for political, administrative and cultural reasons (Gaur, 2003).

2. As the migrant labour market is often seen as short-term, destination countries do not make major investments in the welfare of semi-skilled and unskilled labour migrants (Gaur, 2003). Therefore, very few countries have policies to ensure health insurance, healthy housing, and protection from occupational hazards for semi-skilled and unskilled migrant labourers (Gaur, 2003).

3. Migrants leave behind their established social networks, which may relate to psychological distress. Loneliness and unfamiliarity with a new language and culture can lead to a decline in psychological well-

being. To overcome this distress, health risk behaviours (i.e., smoking, drinking, substance abuse) may begin or be made worse among migrants. Contract labour migration leads to family breakdown, and may make migrant labourers vulnerable to sexual risk behaviours (Kahn, 2003).

Officially, every year around 200,000 or more Bangladeshis leave the country to work abroad. The recorded number of international, temporary labour migrants over the last 29 years totals 3.8 million (IOM, 2005). To the best of our knowledge, no published literature has addressed the health status of Bangladeshi labour migrants, although a large number of studies in the Bangladeshi context deal with the issues of either migration or health. Unfortunately, no studies bring these issues together. The present study is an attempt to begin to fill this gap.

The contribution of the migrant labourers to the economy of Bangladesh is beyond dispute. The Bangladesh economy is largely dependent on remittances that are sent by international migrant labourers (Bruyn & Kuddus, 2005). It is unfortunate that despite their contribution to the economy, there are no clear guidelines to protect these migrants' well-being and thus, health status.

Literature Review

The literature review for this study has been divided into two parts: (1) conceptual and theoretical approaches on migration and health (2) findings from previous studies.

(1) Conceptual and theoretical approaches to migration and health

One classic conceptualization of migration - health relationship is provided by Hull (1979). Hull (1979) points out, theoretically, the causal link between migration and health can occur in either direction. Health's effects on migration seem most likely to occur through a selection process. In simple words, individuals who are more healthy are more likely to migrate to a new location.

Most researchers focus their attention on the other causal pathway, i.e., the effects of migration experience on health. Hull (1979) reviewed the empirical evidences and revealed the mechanism that shows many differences in health outcomes between migrants and non-migrants are due to changes in physical and social environment in which migrants find themselves in destination. These changes can have both positive and negative implications for health.

On the positive side, migration can result in increased income, better nutrition, ability to access health care and thus, better health status. During the last few decades, migration opened windows of opportunities for both men and women: it provided access to employment outside home and allowed women migrants to enjoy some independence (Guest, 2003). The job and income opportunities for migrants may have a positive relation with their health.

On the other hand, migration can also bring negative health consequences. As mentioned, health status of migrants may deteriorate if they fail to maintain their well-being at destination (Ariffin, 2003). Existing literature have suggested such situation to be applicable mainly for the semi-skilled and unskilled labour migrants who migrate from developing countries.

As mentioned, the objective of the present study is to understand the health problems (if any) of semi-skilled and unskilled migrant labourers. In order to address reverse causation, the present study proposes to include a variable describing health of migrant labourers before migration – this variable may be controlled in the analysis.

(2) Previous studies on migration and health

Actually, the relation between migration and health was first pronounced during 14th century, when plague epidemic occurred in Europe (Castro and Singer, 2003). It was found that increase in number of labour migrants was positively associated with the outbreak of plague. In order to prevent the epidemic, the first formal system of quarantine was established during this time.
One of the most crucial methodological issues experienced by earlier studies was the measurement of migrantion. Second, measurement of health.

Measurement of migration

Due to complexity and variety of typologies, there is no single definition of migration. Researchers usually use various definitions of migration depending on their research objectives (Clark, 1986). Therefore, individuals who are categorized as migrants in one study may be regarded as non-migrants in another study (Archavanitkul et al, 1993). A brief description of the various migration definitions used in various studies has been given in appendix-1. It should be noted, all migration definitions used by previous researchers involve three elements in common:

An area of origin, which the migrants leave
An area of destination, where the migrants move in
The period over which migration is measured

With this view, the present study identifies overseas migrant labourers as those who went abroad as semi-skilled or unskilled labourers for at least two months. As the study concentrates on overseas Bangladeshi migrant labourers, origin for those migrants is certainly Bangladesh, destination for those migrants is the Arab Middle East. According to Bureau of Manpower Employment and Training (BMET), Arab Middle East is the destination for most Bangladeshi migrant labourers, hence, the study intends to focus only on the migrant labourers who migrate to Arab Middle East.

Measurement of health

Earlier studies on migration and health measured health in various ways. Health in these studies was measured by overall health status, specific disease, mental illness, mortality and physical functioning.

Usually, overall health status of an individual is either measured by 'self ratings' (individuals themselves report about their health status) or by 'physician's ratings' (professionals report about individuals health status) (Ferraro, 1980). Self-ratings of health depend upon an individual's perception of illness whereas physician's ratings are influenced by a set of medical standards.

Community-based studies often use self-reports to estimate individual's health status and several researchers express their views in favour of such measures. When an individual rates his health as excellent or good the probability of concurrence by a physician is high as well (Maddox & Douglass, 1973). Supporting the method of self-reported illness, Fayer and Sprangers (2002) expressed that simple question on health i.e., asking the respondents to scale their overall health from excellent to very poor, is able to offer more useful information than physician's ratings.

However, there are certain drawbacks of measuring health through self-reports. Measurements as such may differ from doctor diagnosed reports. Individual's often fail to offer an accurate view about their health. Another point to note here is that different individuals may have different propensity to report illness, even given the similar physical conditions.

Health in the present study will be measured by self-reports. Key features in the proposed health assessment include standardized overall self-assessments of health; standardized measures of psychological well-being; and standardized measures of work place injury. As mentioned, a pre-existing instrument called 'SF-36', a pre-existing instrument called 'Zung depression scale', standardized workplace injury scale, together with a set of questions on living and healthcare accessibility will be used to measure health status (Details are given in the methodology section).

Previous study findings:

In recent years, the Arab Middle East has received 10 percent of the world's labour migrants (Dorai, 2000). According to an estimation by IOM (2003), there are about 14 million international migrants, mostly labour migrants, in the Arab Middle East. In this region, a major chunk of labour comes from Bangladesh, India, Pakistan, Sri Lanka and Philippines (Gaur, 2003). In general, the migrant labourers work in manufacturing factories, construction industries, petrol pumps, hotels etc. These migratory flows are temporary in nature involving little expectation of permanent settlement or citizenship rights (Jureidini, 2004). Studies conducted on migrant labourers in Middle East region, revealed poor health conditions of this particular group (Gaur, 2003; Jureidini, 2004).

Indian migrant labourers in Lebanon: A study conducted among the Indian semi-skilled and unskilled labourers in Lebanon revealed how working and unhygienic living conditions caused health problems among a sizable proportion of Indian migrant labourers (Gaur, 2003). Indian migrant labourers' wage (US$ 150-300) were less than the amount prescribed in the labour law of Lebanon. Although their earnings were higher than their earnings or income potential at home, "… with meager incomes, saddled with great pressure to remit as much possible to maintain the families at the origin and to repay the loans incurred in majority of the cases for financing emigration" the respondents were not able to maintain a healthy life (Gaur, 2003). The study also brought out that legislative provisions for medical insurance and other facilities were not implemented because of a tight labour market where many migrant labourers competed for limited jobs and were easily replaceable by other migrant labourers (Gaur, 2003).

Female migrant labourers in Jordan: Similarly, a study conducted in Jordan showed that more than 90 percent of the female migrant labourers earned less than a minimum wage of US$ 120 and were living at subsistence level (UNIFEM, 2000). Low income and poor living conditions of the migrant labourers had a negative influence on their health status (UNIFEM, 2000).

Filipina domestic workers in Singapore: On the contrary, a study conducted among the labour migrants in Singapore revealed better health status of the migrant labourers. Nearly, all Filipina domestic workers in Singapore reported that their overall health status improved in comparison to what it was before migration (Iyer, 2003). Iyer (2003) suggested that this was due to better living condition and access to nutrition at destination country. One of the serious limitation of Iyer's (2003) study was it missed the most high risk population: it excluded domestic workers who have run away from their employers and have taken shelter in Filipina Embassy and also, the workers who already left Singapore because of deteriorating physical health status. Another point to be noted here is, Philippines have strong policies for the overseas labour migrants, which many of the developing countries like Bangladesh, India, Pakistan lack.

The Bangladesh context:

Different micro-studies conducted in Bangladesh have shown that a substantial majority of the labour migrants are either illiterate or their educational background are limited to schooling from

one to ten years (Tasneem, 2005). Bangladeshi migrant labourers are mainly employed in semi-skilled and unskilled end of the overseas migrant labour market. In recent years, there has been a decline in wages and a deterioration in work conditions due to surplus labour in the overseas migrant labour market (Tasneem, 2005). There is little possibility for semi-skilled and unskilled labourers to benefit from health insurance and social protection measures as these measures are usually not covered in their contracts (Tasneem, 2005).

Health is an inevitable part of the welfare of the migrant labourers. As mentioned in earlier section, no studies have focused on the health issues of Bangladeshi labour migrants. Therefore, the present study is an attempt to understand the health status of Bangladeshi semi-skilled and unskilled labourers who migrate to Arab Middle East. As mentioned earlier, Arab Middle East is the destination for most Bangladeshi migrant labourers (Siddiqui, 2005). Table 1 shows proportion of total Bangladeshi migrant workers migrating to different destination countries.

Table 1: Percentage distribution of Bangladeshi migrant workers by country of destination (1976- Sept 2003)

Year	Saudi Arabia	Kuwait	U.A.E	Qatar	Iraq	Libyan Arab Jamahiriya	Bahrain	Oman	Malaysia	Korea	S'pore	Others	Total
1976	3.56	10.56	32.68	20.06	9.64	2.84	5.50	1.86	0.00	0.00	0.00	13.29	6087
1986	39.67	14.98	12.80	7.06	6.89	4.53	3.78	9.11	.77	0.00	0.04	.37	68658
1996	34.35	9.94	11.25	.05	.00	.93	1.78	4.11	31.47	1.30	2.51	2.32	211714
2000	64.94	0.27	15.28	0.64	0.00	0.45	2.08	2.36	7.74	.44	4.98	.80	222686
2001	72.63	2.83	8.60	.12	.00	.24	2.31	2.41	2.60	.83	5.09	2.34	188965
2002	72.47	7.00	11.29	.25	0.00	.70	2.38	1.74	.04	.01	3.05	1.06	225256
2003 Jan-sep	66.85	7.88	15.55	.04	.00	1.28	2.76	1.60	0.00	0.09	2.19	1.75	185523

Source: BMET, (2003)

Research Design and Methods

Describe in detail the methods and procedures that will be used to accomplish the objectives and specific aims of the project. Discuss the alternative methods that are available and justify the use of the method proposed in the study. Justify the scientific validity of the methodological approach (biomedical, social, or environmental) as an investigation tool to achieve the specific aims. Discuss the limitations and difficulties of the proposed procedures and sufficiently justify the use of them. Discuss the ethical issues related to biomedical and social research for employing special procedures, such as invasive procedures in sick children, use of isotopes or any other hazardous materials, or social questionnaires relating to individual privacy. Point out safety procedures to be observed for protection of individuals during any situations or materials that may be injurious to human health. The methodology section should be sufficiently descriptive to allow the reviewers to make valid and unambiguous assessment of the project.

Research Design:

The research design is cross-sectional.

Study Area and Study Population:

The study will be conducted in Mirsarai, a rural site of Bangladesh. The study population consists of working age population (i.e., 15-59 years).

The sampling frame for Mirsarai will be the existing ICDDR, B Health Systems and Infectious Diseases' surveillance households. A list will be prepared from the existing database to identify return migrants. A question phrased as 'Do you plan to migrate as a labourer within the next one year' will be added in HSID's routine surveillance round to track potential migrants. Age and education will be the two key variables on which potential migrant labourers will be matched with returned migrant labourers. To be precise, potential migrants will first be classified into subgroups according to age and education. For every return migrant, a random sample of one potential migrant from the subgroup where it belonged (based on age and education) will be taken.

Mirsarai can provide an interesting setting for this study as this area has been identified as one of the migration-prone areas of Bangladesh. As the study will be conducted at place of origin of the migrant labourers, information will be collected from the returned migrant labourers.

To give an overview of the study area it can be said that Mirsarai is situated on the industrial belt of the Dhaka-Chittagong highway in southeastern Bangladesh and is spread over 483 sq km. It is 90 km away from the largest seaport of the country, Chittagong, and 300 km from Dhaka, the largest urban area. It is larger than an average rural sub district of Bangladesh with a population of 356,220 (180,600 males and 175,620 females living in 69,160 households). The literacy rate (7+ years) is 52% and 47% of the population is below 18 years of age. The estimated number of currently married women of reproductive ages (CMWRAs) is 108,939 with 61,166 children less than 5 years of age. The husbands of about one quarter of CMWRAs reside in the Middle East or elsewhere in Bangladesh. This is known to be a relatively more conservative area in term of acceptance of high impact public health interventions (i.e., immunization and family planning services). The estimated contraceptive prevalence rate (CPR) is 49%. Approximately, 17 non-governmental organizations (NGOs) work in Mirsarai. Prominent NGOs including Grameen Bank, BRAC, and ASA along with the Bangladesh Ministry of Social Welfare (MoSW) and Ministry of Women's Affairs (MoWA) administer micro credit programmes. Approximately 65,000 women have been involved with micro credit programme. Aside from migrant labor, the major occupation of adult males is agriculture and small and large business. BRAC has setup a poultry industry. Annually, about 13% of 9,000 births are institutional and 1,750 deaths occur.

Sample Size Calculation and Outcome Variable(s)

Sample size:
Two hundred migrant and potential migrant labourers will be included in the sample. A sample size of 200 migrant labourers and 200 potential migrant labourers will give the level of precision based on 95% confidence limit with power 80. The sample is calculated on the basis of the mean score of SF-36 (5 point scale with 36 queations). Based on previous studies standard deviation is assumed at 30 and mean detected difference is assumed 10.

Data collection:
Data will be collected through one-on-one interviews using structured, validated questionnaires and semi-structured questionnaires.

Measurement of variables
Outcome variable:
Health status:

As mentioned, health status is the outcome variable for this study. Health status of migrant and potential migrant labourers will be measured by (1) SF-36 (2) 'Zung depression scale' (3) standardized tool on work place injury by WHO (4) questions on health behaviours that make individuals vulnerable to HIV and (5) a set of questions on healthcare accessibility and living conditions.

‘SF-36’: Overall, physical and psychological health will be assessed by using the tool ‘SF-36’. ‘SF-36’ includes assessments of physical functioning, role limitations due to physical health problems, bodily pain, social functioning, general mental health, role limitations due to emotional problems, vitality, energy, fatigue, and general health perceptions.

It can be mentioned here that ‘SF-36’ is highly regarded as a general health assessment tool (McDowell and Newell 1996) and has been widely used among the general population (used in 118 countries), but not among the migrant labourers (VanLandingham, 2003). However, ‘SF-36’ has been used among the migrants in Vietnam and Thailand (VanLandingham, 2003). During 1999, ‘SF-36’ was applied among the married male and female population in the Matlab sub-district of Bangladesh (Ahmed et al., 2002). It was proved to be a useful tool for self-assessment of health status and group comparison (Ahmed et al., 2002). To the best of knowledge, the present study will be using this tool for the first time among the migrant labourers in Bangladesh.

‘Zung depression scale’: In 1965, W. Zung developed a self-rating depression scale, popularly known as ‘Zung depression scale’. ‘Zung depression scale’ includes sleeping disorders, eating disorders, weight loss, irritation, crying spells, restlessness, tiredness etc and has been used in over 300 countries.

Standardized tool on work place injury by WHO: There are three main components in work place injury tool: (1) injury event factors (2) injury related disability (3) medical care and treatment of injury. Injury event factors include place of injury and nature of injury. Injury related disability includes physical disability. Medical care and treatment of injury include place of medical care, admission to hospital care and length of hospital stay.

Questions on health behaviours that make respondents vulnerable to HIV: A set of questions will be used to assess the health behaviours of the respondents.

Questions on healthcare accessibility and living conditions: A set of questions will be used to assess healthcare accessibility of the respondents.

Independent variable:

Migration status:

Migration status of an individual is the main predictor variable for the study. As mentioned, the study focuses on international returned migrant labourers. Returned international labour migrants will be defined as those who lived abroad for a minimum duration of two months and were employed in semi-skilled or unskilled jobs. A number of studies mentioned the first few months after migration as most crucial for health (Caldwell, 1969; Kahn et al., 2003; Gaur, 2003; Guest, 2003). Migrants are likely to face most hurdles during this time as they tend to adjust in a new environment. In order to capture this aspect, two months are taken as the minimum duration of stay. Potential non-migrants are those who did not work abroad as labour migrants.

Inclusion criteria for migrant laborers:

1. As mentioned, returned international labour migrants will be defined as those who lived abroad for a minimum duration of two months and were employed in semi-skilled or unskilled jobs.
2. Migrant labourers who have returned within the past 2 months will be eligible. This period may be extended, depending upon feasibility and numbers identified during pre-testing.

Exclusion criteria for migrant labourers:

1. Due to the relatively small number of female international migrant labourers, females will be excluded from the sample. The proportion of female overseas migrant labourers is very low throughout Bangladesh (< 1%), not just in Mirsarai (BMET, 2003). Table 2 shows the proportion of female migrant labourers to total labour flow from Bangladesh.

Table 2: Number and percentage of women migrants in comparison to total flow (1991-2003)

Year	Number of female migrants		Total (Male and Female)
	Number	% of Total	
1991	9308	0.98	953632
1996	1567	0.74	211714
1997	1762	0.76	231077
1998	939	0.35	267667
1999	366	0.14	268182
2000	454	0.20	222686
2001	659	0.35	188965
2002	1217	0.54	225256
2003 (Jan-Sept)	1240	0.67	185523

Source: BMET, (2003)

2. Internal migrant labourers will be excluded from the sample. According to the existing literature, internal migrants have their own migration-related health problems that are likely to differ from international migrants (VanLandingham, 2003).

3. Semi-skilled and unskilled migrant labourers who have returned home for more than two months will be excluded from the sample because this group will look more like non-migrants.

Inclusion criteria for potential migrant labourers:
1. Semi-skilled and unskilled labourers who are planning to migrate in the near future (within the next one year) will be included in the sample as comparison group.

Exclusion criteria for potential migrant labourers:
1. Female potential migrants will be excluded.
2. Potential migrants who have previous experience on internal migration will be excluded.

Other independent variables:

A set of socio-demographic factors, for example, age, education will be used as other independent variables. Health risk behaviors (smoking and alcohol drinking) will be taken into account.

Approach:

At the onset of the interview, a brief overview of the study objectives will be read in Bangla to all potential participants. They will be given considerable assurance about the confidentiality of the interview. It will be explained to the potential respondents that participation in the study is voluntary and that they are free to refuse to answer any question or they can even stop the interview at any time. Considering the sensitive issues, interviews will be conducted in a private place convenient to the participants.

Major Activities

The key activities will be development of the survey instruments and field testing; recruitment and training of interviewers; conducting field work in Mirsarai; checks on data quality, data entry and analysis; disseminating the results in different seminars and workshops, writing reports and preparing paper for publication in peer-reviewed journals.

Work Plan
Impact of Migration on the Health of Bangladeshi Labour Migrants
Time Period: December 2006-November 2007
(1 year from the day of implementation of this research)

ies	Dec'06	Jan'07	Feb'07	Mar'07	Apr'07	May'07	Jun'07	Jul'07	Aug'07	Sep'07	Oc
between CDDR,B he											
between CDDR,B he tools n the											
ent of											
of field											
g of the											
between CDDR,B he tools e-											

Work Plan(Continued)

ies	Dec'06	Jan'07	Feb'07	Mar'07	Apr'07	May'07	Jun'07	Jul'07	Aug'07	Sep'07	Oc
ng the											
ection, , cks											
y and											
between CDDR,B minary gs											
a											
ion of dings in minar											
between CDDR,B ion of ng											

Work Plan(Continued)

ies	Dec'06	Jan'07	Feb'07	Mar'07	Apr'07	May'07	Jun'07	Jul'07	Aug'07	Sep'07	Oc
writing											
tion of											
M and ation											
nation											

Facilities Available

Describe the availability of physical facilities at the place where the study will be carried out. For clinical and laboratory-based studies, indicate the provision of hospital and other types of patient's care facilities and adequate laboratory support. Point out the laboratory facilities and major equipment that will be required for the study. For field studies, describe the field area including its size, population, and means of communications.

This is a community-based study. The study will be conducted in Mirsarai - ICDDR,B surveillance site. The sample includes semi-skilled and unskilled migrant labourers and potential migrant labourers.

Data Safety Monitoring Plan (DSMP)

All clinical investigations (biomedical and behavioural intervention research protocols) should include the Data and Safety Monitoring Plan (DSMP) to provide the overall framework for the research protocol's data and safety monitoring. It is not necessary that the DSMP covers all possible aspects of each elements. When designing an appropriate DSMP, the following should be kept in mind.

a) All investigations require monitoring;
b) The benefits of the investigation should outweigh the risks;
c) The monitoring plan should commensurate with risk; and
d) Monitoring should be with the size and complexity of the investigation.

Safety monitoring is defined as any process during clinical trails that involves the review of accumulated outcome data for groups of patients to determine if any treatment procedure practised should be altered or not.

Data Analysis

Describe plans for data analysis. Indicate whether data will be analyzed by the investigators themselves or by other professionals. Specify what statistical software packages will be used and if the study is blinded, when the code will be opened. For clinical trials, indicate if interim data analysis will be required to monitor further progress of the study.

Method of Analyses:

Univariate, bi-variate and multivariate analyses will be done to analyze the data. The multivariate analysis will explore the effect of migration on health outcome, both in conjunction with control variables (the gross effect) and separately from them (the net effect). Logistic regression and multiple regressions will be used for multivariate analyses because outcome variables are measured both in dichotomous and in continuous scale.

For multivariate analyses, the study plans to use several multivariate models. Few examples are given below.

Model 1:

Dependent variable(s): Various dimensions of health status/health behaviours, healthcare accessibility

Key independent variable(s): Migration (Migrant labourer versus potential migrant labourer)

A set of control variables will be used.

In addition, interaction effects between migration status and marital status, and socioeconomic status on health outcomes will be assessed. Literatures indicating strong effects of socioeconomic status and marital status on health are vast, but to the best of knowledge, no work specifically explores the potential interactions between the effects of migrant status and these other factors on health outcomes.

Model 2:
Dependent variable(s): Various dimensions of health status/health behaviours, healthcare accessibility

Key independent variable(s): Migrants will be categorized according to their duration of stay at destination and comparison group will be the potential migrants

A set of control variables will be used.

Model 2 will be similar to model 1, except for the fact that migrants will be categorized according to their duration of stay.

Model 3:
Model 3 will measure various dimensions of health status among the migrant sub-sample.

Limitations of the study:

1. The study plans to collect information from the returned migrant labourers. Due to budget constraints, it is not possible to conduct interviews at destination countries and observe the situation of the migrant labourers in their destinations.

2. The sample is not representative for Bangladesh. It reveals the situation of one migration prone area of Bangladesh, where the Arab Middle East is the major destination for migrant labourers.

Expected Outcome:

It is expected that the present study will bring out some important pieces of information to share with organizations working with migrant labourers and government agencies with a stake in the study findings. In this regard, IOM can play a vital role to share the study findings in appropriate avenue. Recently, the Ministry of Expatriates' expressed the need to provide a health insurance scheme for semi-skilled and unskilled migrant labourers. Unfortunately, no existing information is available on the basis of which a health insurance scheme can be provided for this group. As both IOM and ICDDR, B have a long history of sharing information with GoB, the present study findings can be useful for GoB.

Ethical Assurance for Protection of Human Rights

Describe in the space provided the justifications for conducting this research in human subjects. If the study needs observations on sick individuals, provide sufficient reasons for using them. Indicate how subject's rights are protected and if there is any benefit or risk to each subject of the study.

There will be no involvement of invasive procedures in the study. However, as some of the questions are very sensitive questions, extra caution will be taken. For example, consent (see consent form, Appendix 1) will be obtained from each respondent for his participation in the study. Respondents will be informed that they are free to refuse the interview or discontinue at anytime without there being adverse consequences for them. Maintenance of the confidentiality of the data will be strictly followed. Restrictions on access to data forms will be enforced and names will not be included on the main data form. The respondents will be assured that the information provided by them will be used for study purpose only and would not be shared anywhere. Ethical approval for this study will be obtained from the ethical review committee at ICDDR,B prior to the implementation of the study.

Use of Animals

Describe in the space provided the type and species of animals that will be used in the study. Justify with reasons the use of particular animal species in the experiment and the compliance of the animal ethical guidelines for conducting the proposed procedures.

No animals will be used in the study.

Literature Cited

Identify all cited references to published literature in the text by number in parentheses. List all cited references sequentially as they appear in the text. For unpublished references, provide complete information in the text and do not include them in the list of Literature Cited. There is no page limit for this section, however exercise judgment in assessing the "standard" length.

Arifin, E.N., Ananta, A. & Punpuing, S. (2003, September). Health status differential by migration status in Kanchanaburi. Paper presented at the international workshop on Migration and Health in Asia, Bintan, Indonesia.

Biao, X. (2003, September). Migration and Health in China: An Institutional Analysis. Paper presented at the international workshop on Migration and Health in Asia, Bintan, Indonesia.

Bogue, D. (1969). Principles of Demography (pp 489). New York: John Wiley and Sons.

Bryun, T. & Kuddus, T. (2005). Dynamics of Remittance Utilization in Bangladesh. International Organization for Migration.

Gaur, S. & Saxena, P. (2003, September). Indian migrant labour in Lebanon: A struggle for survival. Paper presented at the international workshop on Migration and Health in Asia, Bintan, Indonesia.

Guest, P. (2003, June). Bridging the gap: Internal migration in Asia. Paper presented at the Conference on African Migration in Comparative Perspective, Johannesburg, South Africa.

Hull, Diane. 1979. Migration, adaptation, and illness: a review. Social Science & Medicine 3 A:25- 36.

International Organization on Labor (ILO). (2002). factsheet. [Online]. Available from: http://www.ILO.int. [Accessed 2005 May 2].

International Organization on Migration (IOM). (2001). factsheet. [Online]. Available from: http://www.IOM.int. [Accessed 2005 September 10].

Iyer A. A. (2003, September). Health issues and Filipina domestic workers in Singapore. Paper presented at the international workshop on Migration and Health in Asia, Bintan, Indonesia.

Lee, S. E. (1966). A theory of migration. Demography, 3(1), 47-57.

Shuval, J.T. (2001). Migration, health and stress. In W.C. Cockerham (Ed) The Blackwell Companion of Medical Sociology (pp. 126-143). Oxford: Blackwell.

Siddiqui, T. (2005). International Labor Migration from Bangladesh: A Decent Work Perspective. Working paper 66. International Labor Office, Geneva.

Singh, M. (2003, September). Do immigrants suffer from health inequalities? Experience of Asian migrants in Australia. Paper presented at the international workshop on Migration and Health in Asia, Bintan, Indonesia.

Skeldon, R. (1990). Population Mobility in Developing Countries : A Reinterpretation. London: Belhaven.

Thomilson, R. (1971). Thailand's Population (pp 211). Bangkok: Thai Watana Press.

Vanlandingham, M. (2003 , September). Impacts of Rural to Urban Migration on the Health of Young Adult Migrants in Ho Chi Minh City, Vietnam. Paper presented at the international workshop on Migration and Health in Asia, Bintan, Indonesia.

Ware, JE, and CD Sherbourne. 1992. The MOS 36-item Short-Form Health Survey (SF-36). Conceptual framework and item selection. Medical Care 30.

Dissemination and Use of Findings

Describe explicitly the plans for disseminating the accomplished results. Describe what type of publication is anticipated: working papers, internal (institutional) publication, international publications, international conferences and agencies, workshops etc. Mention if the project is linked to the Government of the People's Republic of Bangladesh through a training programme.

The results of the study will reveal the health status of the Bangladeshi semi-skilled and unskilled migrant labourers working in Arab Middle East. To the best of our knowledge, there is no study that focused on the health status of Bangladeshi semi-skilled and unskilled migrant labourers. Although the tools (for example, SF-36, Zung depression scale) for this study were applied among the general population around the world, they were not widely applied among the migrant labourers. In fact, the study will provide a multi-dimensional assessment of the health status of migrant labourers, including physical health, psychological

health, health risk behaviour, healthcare accessibility, workplace injury, working conditions and living conditions. Using potential migrant labourers as a comparison group will build a cohort for future migration studies. To be precise, the present study will establish a baseline of labourers prior to migranting. These potential migrant labourers can be followed in future studies.

Study results will be disseminated through a workshop and meetings. Study results will be submitted for publication in peer-reviewed international journals. In addition, research reports will be shared with policy makers and programme managers - Ministry of Expatriates and Bangladesh Bureau of Manpower Employment and Training in particular.

Collaborative Arrangements

Describe briefly if this study involves any scientific, administrative, fiscal, or programmatic arrangements with other national or international organizations or individuals. Indicate the nature and extent of collaboration and include a letter of agreement between the applicant or his/her organization and the collaborating organization.

The study will be a collaborative effort of IOM and ICDDR,B. Both the organizations will work together in order to address the objectives of this study. After successful completion of the study, ICDDR,B and IOM plan to bring out useful publications.

Both the organizations will have series of formal and informal meetings during the study period.

IOM, Geneva will be funding the project.

Biography of the Investigators

Give biographical data in the following table for key personnel including the Principal Investigator. Use a photocopy of this page for each investigator.

(Note: Biography of the external Investigators may, however, be submitted in the format as convenient to them)

1. Name : Rumana A. Saifi, Ph.D

2. Present Position: Assistant Scientist

3. Educational Background: Ph.D, MA, MSS

4. Training: Training on quantitative and qualitative research methodologies, longitudinal data analysis, healthcare financing and reform, clinical economics, health equity measurements, epidemiology, bio-statistics, costing and economic evaluation, monitoring & evaluation, communicating research to policy makers – from home and abroad.

5. Scholarships: WELLCOME TRUST (UK) AWARD, for pursuing doctoral degree studies in Demography at Mahidol University.

WELLCOME TRUST (UK) AWARD, for pursuing Masters degree in Population and Reproductive Health at Mahidol University.

PRESIDENT AWARD for excellent result in Higher Secondary School Certificate Examination.
(Stood 6th in Merit List)

PRESIDENT AWARD for excellent result in Secondary School Certificate Examination
(Stood 10th in Merit List)

5. Publications:

Types of publications	Numbers
1. original scientific papers in peer reviewed journals	3
2. papers in conference proceedings	6
3. working papers	4
4. Monograph	1

6. List of Publications (selected):

A. **Saifi, R.A.**; Podhisita, C., Guest, P.; Bryant; J. The Effect of Migration on Health. (2006) *Journal of Population and Social Studies.* Volume 15, No.1. pp. 81-108.

B. **Saifi, R.A.**; Podhisita, C., Guest, P.; Bryant; J. Moving Away from Home: Does Migration have any effect on Health Risk Behavior. Accepted in *Asian population Studies.*

C. Mercer, A.; Das, S. C.; **Saifi, R.A.** Effect of Temporary Out-migration of Husbands on Contraceptive Prevalence and Fertility in a Rural Area of Bangladesh. Upcoming in a Cross-country Research Monograph by INDEPTH network.

D. Sarkar, S.; Islam, Z.; **Saifi, R.A.** Operational Guidelines on the Management of Government Community Clinics by Community Groups: A Study on Stakeholders' Perspectives. (2002). ICDDR,B working paper 151.

E. Levin, A.; Amin, A.; **Saifi, R.A.** Cost-effectiveness of Family Planning and Maternal-Child Health Service Delivery strategies in Rural Bangladesh. (1999). *International Journal of Health Planning and Management.* Volume 14.

F. Levin, A.; Amin, A.; **Saifi, R.A.** Effect of the Introduction of Contraceptive Pricing on its Use. (1999). *ICDDR,B working paper 125.*

Biography of Key Investigator 2:

1. Name : Rasheda Khanam
2. Present position : Assistant Scientist
3. Educational background : MBBS, MPH

4. Publications

Type of Publications	Numbers
a) Original scientific papers in peer-review journals	1
b) Working papers	6

5. Selected Journal Publications

a. Mercer A, Khanam R, Gurley E, Azim T. Sexual risk behaviour of married men and women in Bangladesh who have lived apart due to the husband's work migration. (2006) (Accepted to journal of Sexually Transmitted Diseases)

Working Papers

a. 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.

b. 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.

c. 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.

Draft manuscript

a. Khanam R, Mercer A, Uddin J, Azim T. Knowledge and experience of sexually transmitted diseases among rural Bangladeshi men who have lived away from home for work.

Biography of Key Investigator 3:

Name	**Birth Date**
Carel T. van Mels	April 10, 1948

Education

Institution	**Degree**	**Year(s)**	**Field of Study**
Rijks-Universiteit	Doctoraal (≈ post-graduate degree)	1976	Demography / Groningen Regional planning
Rijks-Universiteit Groningen	Kandidaats (≈ Masters)	1970	Human geography
Rijks-Universiteit Groningen	Propedeuse (≈ Bachelors)	1968	Human geography

---

Professional Experience

2002-	Head, Surveillance and Data Resources Unit, Health Systems and Infectious Diseases Division, ICDDR,B – Centre for Health and Population Research, Dhaka, Bangladesh.
1999-2002	Demographic Researcher, Matlab Health and Demographic Surveillance Unit, Public Health Sciences Division, ICDDR,B – Centre for Health and Population Research, Dhaka, Bangladesh.
1991-1999	Lecturer in Demography, UNESCO - International Institute for Infrastructural, Hydraulic and Environmental Engineering, Delft, Netherlands.
1991-1999	Consultant in Population Studies and Statistical Data Processing for United Nations, World Bank, UNHCR, Netherlands' Ministry of Foreign Affairs, Netherlands Interdisciplinary Demographic Institute etc, with consultancies in Yemen (12), Sudan (4), Bosnia (2), Mali, the Gambia, Azerbaijan, Vietnam.
1987-1990	Project Manager of the Census Project and Senior Data Processing Adviser for UNDTCD in Mogadishu, Somalia.
1980-1987	Project Manager and Chief Technical Adviser on Population and Development for UNDTCD in Bujumbura, Burundi.
1978-1980	Associate Expert in Demography and Computer Data Processing for UNDTCD in Kabul, Afghanistan.
1977	Municipal Town Planning Researcher, Veendam, the Netherlands.

Selected Papers/ Publications

Streatfield, P K et al. *Plateauing of the Bangladesh Fertility Decline (in preparation)*.
Health Systems and Infectious Diseases Surveillance System. *Report 2002 – 2003*. Dhaka: ICDDR,B – Centre for Health and Population Research, Dhaka 2005.
Health Systems and Infectious Diseases Surveillance System. *Report 2000 – 2001*. Dhaka: ICDDR,B – Centre for Health and Population Research, Dhaka 2004.
Mels, C T van, and A Ashraf. *Causes of Death in Abhoynagar and Keshobpur.* Accra: INDEPTH (chapter in forthcoming monograph on causes of death in INDEPTH surveillance sites).
World Bank, Human Development Group, Middle East and North Africa Region. *Republic of Yemen Enhancing Policy Options A Population Sector Study*. Washington, 1997 (co-author).

Mels, C T van. *Relation entre la population et la situation économique et sanitaire au Burundi (Relation between the population and the economic and health situation in Burundi)*. Bujumbura, 1986.
République du Burundi, Ministère de l'Intérieur, Département de la Population, Centre d'Etudes Démographiques pour le Développement. *Population et Vème Plan: projections par provinces (Population and the fifth development plan: projections by province)*. Bujumbura: Série CEDED, no. 3, 1986.
République du Burundi, Ministère de l'Intérieur, Département de la Population, Centre d'Etudes Démographiques pour le Développement. *Population et Vème Plan: projections par régions naturelles (Population and the fifth development plan: projections by natural regions)*. Buyjumbura: Série CEDED, no. 4, 1986
République du Burundi, Ministère de l'Intérieur, Département de la Population, Centre d'Etudes Démographiques pour le Développement. *Aperçu sur l'équilibre entre population et développement au Burundi (The balance between population and development in Burundi)*. Bujumbura: 1986.
République du Burundi, Ministère de l'Intérieur, Département de la Population, Centre d'Etudes Démographiques pour le Développement. *La population provinciale des années 80: projections par sexe et groupe d'âges (The provincial population in the eighties: projections by sex and age groups).* Bujumbura : Série CEDED, no. 1, 1985.
République du Burundi, Ministère de l'Intérieur, Département de la Population, Centre d'Etudes Démographiques pour le Développement. *La population d'âge scolaire: projections 1985-1989 (The school age population: projections 1985-1989)*. Bujumbura: Série CEDED, no. 2, 1985.
Mels, C T van. *Pourquoi une politique de population au Burundi? (Why a population policy in Burundi?).* In: République du Burundi, Ministère de la Santé publique: Deuxième séminaire sur la santé maternelle et infantile et la planification familiale, rapport du séminaire. Ngozi, 1984.
Mels, C T van. *L'enquête post-censitaire (The post-enumeration survey)* and *Comment améliorer le système de collecte des données démographiques (How to improve the population data collection system).* In : République du Burundi, Ministère de l'Intérieur, Département de la Population, Centre d'Etudes Démographiques pour le Développement : Séminaire sur l'utilisation des données du Recensement Général de la Population. Bujumbura, 1984. (also editor of the whole publication).

Active Projects

Principal Investigator (ICDDR,B part) of the Effects of Crowding and Indoor Air Pollution on Acute Lower Respiratory Infections in Children less than five Years of Age Study

Head of the Technical Team at ICDDR,B supervising the installation, adaptation and implementation of a Centre-wide Management Information System..

Professional Activities

Reviewer: Journal of Health, Population and Nutrition

Biography of Key Investigator 4:

1 Name Elizabeth Oliveras
2 Present position Operations Research Scientist :
3 Educational background : Sc.D.
(last degree and diploma & training relevant to the present research proposal)

List of ongoing research protocols
(start and end dates; and percentage of time)

4.1 As Principal Investigator

Protocol Number	Starting date	End date	Percentage of time

4.2 As Co-Principal Investigator

Protocol Number	Starting date	End date	Percentage of time
2006-029	01-07-2006	30-09-2006	35

4.3 As Co-Investigator

Protocol Number	Starting date	Ending date	Percentage of time

5 Publications

Types of publications	Numbers
a) Original scientific papers in peer-review journals	2
b) Peer reviewed articles and book chapters	1
c) Papers in conference proceedings	2
d) Letters, editorials, annotations, and abstracts in peer-reviewed journals	
e) Working papers	8
f) Monographs	

6 Five recent publications including publications relevant to the present research protocol

1. **Oliveras, E.**, Larsen, U., and David, P. (2005). Client satisfaction with abortion care in three Russian cities. *Journal of Biosocial Science* 37(5): 585-601.
2. **Oliveras, E.,** Ahiadeke, C., and Hill, A.G. 2005. Induced Abortion and the Fertility Transition in Accra, Ghana. In Agyei-Mensah, S. , J.B. Casterline and D.K. Agyeman (Eds.) *Reproductive Change in Ghana: Recent Patterns and Future Prospects*. Accra: University of Ghana Press.
3. Kamphuis, M. and **Oliveras, E**. (2003). *The Integrated Health and Nutrition Survey in Northern, Upper East, and Upper West Regions of Ghana: A baseline survey for the Accelerated Child Survival and Development Project.* Accra, Ghana: UNICEF.
4. Bose, S., **Oliveras, E.**, and Edson, W. (2001). How Can Self-Assessment Improve the Quality of Healthcare? *Quality Assurance Issue Paper,* 2(4), 1-27.
5. **Oliveras, E**. (2001). *JHPIEGO's Work in Policy: A Comprehensive Review*. Technical Report: JHP-11. Baltimore, Maryland: JHPIEGO Corporation.

Biography of Key Investigator 5:

1. **Name:** Charles P Larson

2 . **Present Position:** Director, HSID

3. **Educational background:**
(last degree and diploma & training relevant to the present research proposal)

1967-1971	M.D., C.M.	McGill University, Montreal, Quebec
1971-1973	Residency in Pediatrics	Montreal Children's Hospital, Montreal, Quebec
1973-1974	Fellowship in Child Development	Yale Child Study Centre, New Haven, Connecticut
1974-1976	Robert Wood Johnson Clinical Scholar	McGill University, Montreal, Quebec
1986-1988	MSc Epidemiology & Biostatistics Residency in Community Medicine	McGill University, Montreal, Quebec

4.0 List of ongoing research protocols
(start and end dates; and percentage of time)

4.1. As Principal Investigator

Protocol Number	Starting date	End date	Percentage of time
2003-026	June, 2003	June, 2007	25%

4.2. As Co-Principal Investigator

Protocol Number	Starting date	End date	Percentage of time
2004-017	Sept., 2004	Sept., 2006	10
2006-009	June, 2006	June, 2007	10

4.3. As Co-Investigator

Protocol Number	Starting date	End date	Percentage of time
2004-010	April, 2004	Dec., 2006	5
2005-020	Jan., 2006	Sept., 2006	5

5. Publications

Types of publications	Numbers
a. Original scientific papers in peer-review journals	34
b. Peer reviewed articles and book chapters	4
c. Papers in conference proceedings	30
d. Letters, editorials, annotations, and abstracts in peer-reviewed journals	4
e. Working papers	3
f. Monographs	0

6. Five recent publications including publications relevant to the present research protocol

1) Larson CP, Saha UR, Islam R, Roy N. Childhood diarrhea management practices in Bangladesh: Private sector dominance and continued inequities in care. Int J Epidemiol 2006 Sep 21 (published in HSB Vol 3, No 1)
2) Nasrin D, Larson CP, Sultana S, Khan TU. Acceptability and adherence to zinc dispersible tablet treatment of acute childhood diarrhea. J Health Popul Nutr, 2005;23:215-21.
3) Larson, CP, Hoque M, Larson CP, Khan AM. Initiation of zinc treatment for acute childhood diarrhea and the risk for vomiting or regurgitation: a randomized, double-blind, placebo-controlled trial. J Health Popul Nutr,2005;23:311-8.
4) Mercer A, Uddin N, Huq NL, Haseen F, Khan MK, Larson CP. Validating neonatal mortality and the use of NGO reproductive health outreach services in rural Bangladesh. Studies in Family Planning 2006;37(2) (in press)
5) Mercer A, Haseen F, Huq NL, Uddin N, Khan MH, Larson CP. Risk factors for neonatal mortality in rural areas of Bangladesh served by a large NGO programme. Health Policy and Planning 2006;21 (in press)

Detailed Budget

Title of the Protocol: Impact of Migration on the Health of Bangladeshi Labour Migrants

Name of the P.I. : Rumana A. Saifi, Ph.D

Funding Source:

(figures in US$)

Total Direct Cost	**45,455**
Indirect costs	**4,545**
Total Program Cost	**50,000**

	Line Items	Year 1	Total
1. Payroll and benefits:			
	Local Staff	34,935	34,935
2. Travel and Transport:			
	Local Travel	4,592	4,592
3. General Operating Cost:			
	Supplies, Utilities, Maintenance & Others	3,520	3,520
6. Other Direct Costs:		2,408	2,408
	-		-
	Total Operating Cost	**45,455**	**45,455**
	Indirect Cost @10%	**4,545**	**4,545**
8. Sub-Contract:		-	-
	TOTAL PROGRAMME COSTS	**50,000**	**50,000**

1. Payroll and benefits:

A. International staff

Sl. #	Name	Designation	Pay level	# of posts	Year 1: % time commitment	Duration in months	Rate per month	Total
1	Carel Van Mels	Demographer	P4	1				-
2	Elizabeth Oliveras	OR Scientist	P3	1				
3	Charles Larson	Division Director	D1	1				
	Total - International staff						**Total Year 1**	**-**

B. Local staff

Sl. #	Name	Designation	Pay level	# of posts	Year 1: % time commitment	Duration in months	Rate per month	Total
2	Rumana A Saifi	Assistant Scientist	NOB	1	50%	12	968	5,808
3	Rasheda Khanam	Assistant Scientist	NOB	1	50%	12	1,082	6,492
4	Hazera Nazrul	Operations Researcher	NOA	1	50%	12	910	5,460
5	TBD	Sr. Budget Officer	NOA	1	10%	12	910	1,092
6	TBD	Field Research Officer	GS4	1	100%	6	226	1,356
7	TBD	Field Research Assistant	GS3	6	100%	3	449	8,082
8	TBD	Data Management Assistant	GS3	3	100%	3	185	1,665
9	Unnati Rani Saha	Data manager	NOA	1	50%	6	846	2,538
10	TBD	Secretarial support	GS5	1	20%	12	595	1,428
11	TBD (Daily basis)	Attendant		1	50%	12	169	1,014
	Total - Local staff						**Total Year 1**	**34,935**

2. Travel

Local Travel

	Year 1										
	NO level and above					GS level					
Travelling by :	# of trips	Fare	Total days	Per diem	Other costs	# of trips	Fare	Total days	Per diem	Other costs	Total
Air/road	8	130									1040
Bus/Public Trans.											0
Rented vehicle											0
Project/Centre's vehicle	12	230									2760
within project area	60	2	60	0							120
Railways											0
Waterways											0
Travel within the project area	672	1	48								672
Other mode, if any											
										Total : Year 1	4592

TOTAL LOCAL TRAVEL	4592

Office Supplies:	
Stationery (not exceeding $ 75 per monthly)	500
Total	
Other Supplies:	
Total	**500**
Rent, Utilities and Communication	
Office supplies	500
Rent	1,200
Communication (Postage, telephone, e-mail, fax etc.)	
a) e-mail (2 connection @$30 per month)	720
b) Telephone/Mobile(2 @ $30 per month x 12 months) + (2 @ $30 per month x 4 months)	900
c) Courier service, postage, fax, etc.	100
d) Accomodation for fieldworkers (12 weeks @ $50).	600
Cleaning and Security	200
Total	**2,520**
Repair and Maintenance	
Repair and maintenance of office, computer equipment, etc.	500
Total	**500**
Others costs, if any	
Others	-
Total	**-**
Grand Total	**3,520**

6. Other Direct Costs:

Sl. #	Particulars	Year 1
1	Dissemination Seminar (half day at the Centre for 50 participants @ $ 12 per participant)	400
2	Publication of working paper (<50 pages, 100 copies @$3 with standard printing)	300
3	Questionnaire printing (Qn1: 10 pages X 3500 @Tk1.40)	850
4	Training FRA, workshop/seminar and other Meeting expenses, (20 @ $ 5 per person for 20 persons/meeting)	700
5	Service charges and other contracts	
	Daily wager/Porter, etc.	58
6	Other services (library, audio-visual unit)	100
	Total	2,408

Budget Justifications

Please provide one page statement justifying the budgeted amount for each major item. Justify use of human resources, major equipment, and laboratory services.

Payroll and Benefits

International Staff:

Carel van Mels: As Co-PI he will provide support and guidance for all stages of the study: design, preparation of survey instruments, conduct of fieldwork, analysis of data, writing the report and dissemination. As the study will be conducted in Mirsarai (HSID surveillance site), Carel van Mels will be able to direct the team in proper direction.

Elizabeth Oliveras: As Co-PI she will provide support and guidance for all stages of the study: design, preparation of survey instruments, conduct of fieldwork, analysis of data, writing the report and dissemination.

Charles Larson: As Co-investigator he will provide technical input to the implementation of the project.

Local staff:

Dr Rumana A. Saifi: As Principal Investigator she will have overall responsibility for implementation of the project, including financial control and dissemination. With the above support, this will require 50% of her time for the whole project period.

Dr Rasheda Khanam: As Co-PI she will have responsibility for implementation of the project, including dissemination. This will require 50% of her time for the whole project period.

Operations Researcher (OR): He/she will have overall responsibility for coordination of fieldwork, organizing recruitment and training of interviewers, logistical arrangements for conduct of fieldwork, preparation of schedule for interviewing in consultation with field staff in the surveillance sites, supervision Field Research Officers, and data quality control checks.

Field Research Officer (SFRO): He/she will assist the Operations Researcher in all the above tasks and be responsible for supervision of interviewers.

In view of the time required for these above mentioned activities and visits to field sites, the OR and the FRO each will devote 100% time to this project for 12 and 6 months respectively.

Field Research Assistants (6) The 6 interviewers will be required for a period of 3 months, including training.

Data Management Assistants (3): The 3 data management assistants will be responsible for data entry, coding as well as quality checks.

Unnati Rani Saha: As a statistician she will be required for data analysis and will devote 50% of her time for 6 months. The statistician will also develop advanced statistical models.

Local Travel

The fieldwork team will normally consist of 6 interviewers and 2 supervisors, with periodic visits to the field by the PI and Co-PI. Centre vehicles will be required for transporting them to and from the field. The budget allows for 12 round trips and allow for weekend breaks. The budget includes use of one vehicle for local travel around the project area for a total of 60 days fieldwork. The budget provides eught return flight tickets.

Dissemination

A dissemination seminar will be held at the Centre for 50 participants. Costs include use of the auditorium and provision of refreshments. A total of 100 copies of (<50 pages) research reports will be printed and circulated.

Other Support

Describe sources, amount, duration, and grant number of all other research funding currently granted to PI or under consideration.

N/A

Appendices

Appendix 1: Voluntary Consent Form

International Centre for Diarrhoeal Disease Research, Bangladesh
Voluntary Consent Form

Title of the Research Protocol:	Impact of Migration on the Health of Bangladeshi Labour Migrants
Principal Investigator: Rumana A. Saifi, Ph.D	

(Before recruiting into the study, the study subject must be informed about the objectives, procedures, and potential benefits and risks involved in the study. Details of all procedures must be provided including their risks, utility, duration, frequencies, and severity. All questions of the subject must be answered to his/ her satisfaction, indicating that the participation is purely voluntary. For children, consents must be obtained from their parents or legal guardians. The subject must indicate his/ her acceptance of participation by signing or thumb printing on this form.)

Purpose of the research:. Officially, every year around 200,000 or more Bangladeshis leave the country to work abroad. The recorded number of international, temporary labour migrants over the last 29 years totals 3.8 million (IOM, 2005). To the best of our knowledge, no published literature has addressed the health status of Bangladeshi labour migrants, although a large number of studies in the Bangladeshi context deal with the issues of either migration or health. Unfortunately, no studies bring these issues together. The present study is an attempt to begin to fill this gap. The study intends to assess the health status of labour migrants returning to Bangladesh and to identify potential determinants of their health status.

Why selected: Since you (God Forbid) are an overseas migrant labourer, we would like to ask some questions about health and other related issues that make migrant labourer vulnerable. We would request you to help us by participating in this study. We will collect similar information from potential migrant labourer and compare with the migrant labourer.

What is expected from the patient/respondent: We want to obtain information related to physical & psychological health, information about workplace injury and knowledge and risk behaviours of getting HIV/AIDS and STIs through this survey. We will be using standard questionnaires. We will ask you some personal questions but will certainly respect your privacy. The discussion may require 30-40 minutes. We will definitely appreciate your honest answer. Your honest answers will help to design effective intervention.

Privacy, anonymity and confidentiality: We do hereby affirm that privacy, anonymity and confidentiality of the information provided by you will strictly be maintained. The data will be kept in secure and only scientists will have access to the information. We would like to assure you that anything you tell me would be used for study purpose only. You would be able to communicate freely with any investigator of this study at the address below.

Future use of information: Information provided by you will be of great use for the government and NGOs to design effective interventions for the migrant labourers of Bangladesh. However, we would like to assure that your name would not be linked with any information that we share with others.

Right not to participate and withdraw: Your participation in the study is voluntary and you are free to refuse to answer any question or can even stop the interview at any time. You will not be penalized in any way for doing so.

Compensation: We should let you know that you will not be paid for participation in the study. However, we will be contented to respond your any question or query regarding this study at the end of our talk.

If you agree to participate in the study please give your signature or thumb impression at the appropriate space provided below on this form. Can start our talk?

Agreed: ______ (put tick mark)

____

signature/thumb impression:

Not agreed: __________ (Put tick mark).

Thank you for your co-operation.

____

Signature of the PI or his/her representative[1] **Date**

Name, designation and contact phone numbers of the Investigator(s): **Rumana A..Saifi, Principal Investigator (PI), Rasheda Khanam (Co-PI) Telephone: PABX: 8860523-32 Ext.: 2545, 2516.**

[1] In case of representative of the PI, she/he shall put her/his full name and designation and then sign

Appendix 2: Comments of External Reviewer: (Dr Philip Guest, Country Director, Population Council)

EVALUATION FORM

Title: Impact of Migration on the Health of Bangladeshi Labour Migrants

Summary of Referee's Opinions: Rank Score

	High	Medium	Low
Quality of project	X		
Adequacy of project design		X	
Suitability of methodology	X		
Feasibility within time period	X		
Appropriateness of budget)	NA	NA	NA
Potential value of field of knowledge	X		

Note: NA – no information provide on the budget

CONCLUSIONS

I support the project proposal

a) without qualification	Yes
b) with qualification	
c) on technical grounds	
d) on level of financial support	

I do not support the project proposal

Name of Referee: Philip Guest, Ph.D

Signature:................... .Date: .20 October, 2006.

Position: Country Director

Institution: Population Council, Bangkok, Thailand

Detailed Comments: (Please use additional page if necessary.)

The proposal addresses an issue that is important for both theoretical and programmatic reasons. There are a number of theoretical approaches to the study of migration and health outcomes and the research design in this proposal attempts to obtain information that can differentiate between these approaches. Programmatically, the issue is important because is we can identify factors, both positive

and negative, that affect migration then programs designed to intervene in to protect the health of migrants can be strengthened.
The review of literature is adequate, although I would have liked to have seen a broader review of the different theoretical approaches to migration and health. However, most of the issues in the literature are addressed.

Please briefly provide your opinions of this proposal, giving special attention to the originality and feasibility of the project, its potential for providing new knowledge and the justification of financial support sought; include suggestions for modifications (scientific or financial) where you feel they are justified.

(Use additional pages if necessary)

Title: Impact of Migration on the Health of Bangladeshi Labour Migrants

Reviewer: Philip Guest.

Given the timeframe and the budget limitations the research design is adequate. A preferable design would be a comparison of migrants abroad compared to those who are about to leave. This would make the temporal relationship between the health indicators and migration experience much stronger. However, this would be a much more difficult research design involving a much higher budget and higher cost. For the current design the authors should be careful about the measurement of indicators. For example, most of the SF36 indicators relate to current condition and these can be affected by the migrants' reactions to returning to Bangladesh (in either a negative or positive fashion). The same problem will arise with the use of the Zung depression scale. In order to make valid comparisons between the migrants and non-migrants the time frame for when questions refer need careful attention – i.e. I assume that most exposure questions for migrants will relate to their experiences when abroad, which at a minimum will have occurred two months prior to the interview. The same period of exposure will need to be adopted for non-migrants.

The researchers need to have mechanisms in place to ensure that their sample of returned migrants are not selective of those who have returned early for health reasons, for who did not attempt to extend their contracts because of health reasons. There will probably be the need for screening questions in this regard.

There needs to be more specification of the exposure variables – these are most important if we want to examine the effects of migration and heath. Some of these relate to consumption behaviors (you have alcohol and tobacco but should be extended), some relate to use of heath services; some relate to social networks and health risk behaviors.

For me, the major strength of the design is the identification of a cohort of workers who are about to migrate. The baseline data that they collect will be very valuable if they can establish a longitudinal cohort study that examines the health of migrants before migration, during migration, and after migration. I would hope that they think about recruiting a comparable cohort who do not have plans to migrate – although this will some issues of selectivity since those who plan to migrate will be different in some ways to those who do not plan to migrate, it provides the strongest design for comparing the effects of migration on health. Given the data source that the

migrants will use for identifying potential migrants the researchers have the basis for developing a cohort for a longitudinal study of the effects of migration.

A further strength of project is the collaboration between a major research ICDDR, B, a major research institution, and IOM, leader in programming for international migrants. The combined strengths of both partners makes this a very attractive project.

Appendix 3: Response to External Reviewer's Comments

1. Response to the first comment:

A section on theories relating migration and health has been attached in appendix 5.

2. Response to the second comment:

We agree with the reviewer's comment – 'A preferable design would be a comparison of migrants abroad compared to those who are about to leave. This would make the temporal relationship between the health indicators and migration experience much stronger.' However, due to budget constraints, we are not visiting the migrant labourers at destination, i.e., the Arab Middle East. This is one of the limitations of this study (Please see study limitation part- pg24). However, we plan to interview the recent returned migrants (please see the methodology part) – this may help to overcome the problem.

3. Response to the third comment:

We plan to add a question on 'reasons for returning' to ensure that their sample of returned migrants are not selective of those who have returned early for health reasons.

Regarding the variables like healthcare accessibility, social network, working conditions – a range of variables have been added in the questionnaires (please see the questionnaires added at the end of this protocol).

4. Response to the fourth comment:

We understand the usefulness of adding another comparison group, i.e., individuals who are not planning to migrate and do not have any migration exposure. However, due to financial limitations, we plan to have only one comparison group, i.e., potential migrants for this study (please see page 18 and 19).

Appendix 2: Comments of External Reviewer

Dr Rita Afsar
Senior Researcher
Bangladesh Institute of Development Studies(BIDS)

Dear Dr. Stephen P. Luby,

After reviewing the research proposal on Impact of the Healh of Bangladeshi labour Migrants I do support the proposal with some qualifications on methodological and conceptual grounds.

There is no doubt about the need for such a study and the author has been able to focus it clearly in the proposal. However, I would like to draw your attention to the following issues:

(1) Page 13, figures on the number of international migrants should be updated and the same applies for all other figures used in the proposal.

(2) Definition the author used to identify migrants is too broad and may have some problems. First of all I would like to say that with minimum two months as the cut-off point the author may land up with a range of 2 months to 20 years or more and for each category the health implications may differ and one must take into cognizance of the differential impact. Moreover a minimum period of two months may not be enough for having health impact from migration. Hence, I would recommend to reconsider the operational part with a range of both minimum and maximum length of migration allowing a reasonable period for migration related health impact. Second, while I appreciate the idea of "would be migrant" as control group, I still think that ideally non-migrant should constitute the control group. However, if ICDDR,B had the database for the return migrants before their migration then that should be taken into consideration. Third, in addition to age and education I think poverty and/or income has strong influence on the health status of a person. Hence, the author may also consider income criterion as well.

(3) The author must also a bit more geographic and socio-economic information on Mirsarai to help the reader locate the place in the contextual perspective of regional structure in Bangladesh.

(4) Finally, while she reviewed a few studies of migrant workers abroad, she may do the same for the Bangladeshi migrant labour. BIDS did a study of Bangladeshi migrant labour in the UAE sponsored and funded by IOM and she may derive the basic idea about living and working conditions in the UAE from that study.

I hope these comments will be useful. For any further queries or clarifications, please do not hesitate to contact me.

Best

Rita

Appendix 3: Response to External Reviewer's Comments

(1) Response to the first comment:

We could not find more recent figures. We've personally contacted IOM, Dhaka Office, as well as Bureau of Manpower Employment and Training (BMET) for more recent figures. According to IOM and BMET, the figures used in the proposal are the most recent figures.

(2) Response to the second comment:

In HSID surveillance data the minimum duration of stay at destination for migrants are two months. In addition, there are studies mentioning that the initial months are most crucial for any migrant (please see literature review part and methodology section). So, we take two months as the minimum duration of stay – however, we plan to categorize the migrants according to their duration of stay at destination (please see the methodology section). We'll definitely take a maximum cut-off point as the reviewer has suggested.

We plan to take potential migrants as control group as the first reviewer has mentioned it as one of the major strength of this study. Due to financial limitations we are not taking another comparison group, i.e., the individuals who never plan to migrate.

Income will be taken into account. Please see the methodology section.

(3) Response to the third comment:

Geographic and socio-economic information on Mirsarai has been added. Please see the section on study area- pg 17.

(4) Response to the fourth comment:

It has been added. Please see the section on Bangladesh context-pg 15 and 16.

Appendix-5

Theories Related to Migration and Health

The earlier theories on migration were mainly formulated from macro perspectives. Recent theories speak more from micro, i.e., individual's point of view. Many of the early macro theories of migration portrayed how migration flowed from places of poor opportunity to places of better opportunity. This has also been mirrored in micro perspectives. Most of the migration theories, whether micro or macro, focuses on determinants of migration. This section makes an effort to extend those theories to explain effect of migration in terms of health.

Macro Theories of Migration

Ravenstein in his 'Gravity model' (1885), portrays migration between two places as being directly related to population sizes and inversely related to distance between them. If the population size of place of origin is large, migration from place of origin is likely to be high. On the other hand, if distance between place of origin and place of destination is long, migration is likely to be low. This hypothesis was proved by using data from 20 countries.

As mentioned, Ravenstein (1885), from macro perspective, emphasized on population pressure and resource imbalance at place of origin, which lead individuals to migrate. However, what happens if destinations face an increase in population size due to increasing influx of migrants? It may be the case that there will be a resource pressure at destination, which will have an impact on population health.

Lee, in 1966, put his efforts to explain four sets of factors engaged in migration decision making of individuals: 1) factors associated with area of origin 2) factors associated with area of destination 3) intervening factors and 4) personal factors. In every area of origin, there are some positive as well as some negative factors. The positive factors of origin holds individuals to the origin ("pull") whereas the negative factor pushes individuals out of the origin ("push"). Similarly, in every area of destination, there are some positive as well as negative factors. The positive factors in area of destination attract individuals to in-migrate. On the other hand, negative factors in the area of destination prevent individuals from in-migrating.

Following the theory, it would be reasonable to assume that environmental advantages associated with the area of destination can bring benefits to migrants' health. For example, if a migrant has a better housing at destination (e.g. better housing, healthy sanitation, access to safe-drinking water etc.), it is likely that migration will have a positive effect on health (Fuller, 1996).

The factors linked with area of origin and destination can also be depicted as 'place of utility', which refers to an individual's (or household's) overall level of satisfaction or dissatisfaction with respect to a given location (Brown and Moore, 1970). If the place of utility of the present residential site diverges sufficiently from individual's immediate needs, the person will consider seeking a new location. Thus, migration is viewed as a process of adjustment whereby one

residence or location is substituted for another in order to satisfy the needs and desire of each migrant. The related search for and evaluation of migration opportunities take place within the confines of migrant's cognitive or mental map (Fuller and Chapman, 1974; Brown et al. 1977; Gould and White, 1974). This is the picture of world in migrant's mind and it may differ considerably from the picture of real world (Fuller and Chapman, 1974; Brown et al. 1977; Gould and White, 1974).

Following Brown and Moore's model, it can be assumed that if the utility or satisfaction from the destination is high in reality, it will certainly have a positive effect on migrant's health.

Micro Theories of Migration

Human capital model (Sjaastad, 1972) views migration as a path of maximizing returns to human capital. This model is developed purely from micro perspectives. The theory visualizes an individual to migrate in the expectation of being better off. Considering migration as an investment, the model suggests that it is reasonable for a person to move even if he does not expect earnings to increase immediately (perhaps it takes time to look and train for a good job), as long as the person expects that in longer run he will be better off by moving. The model, therefore, assumes that the benefits of migration may accrue over a period of time – it is seen as a current venture with hope of future returns.

Human capital model implies that initially migrants may experience difficult situation in destination. It is likely that the initial negative factors at destination may have detrimental effect on their health. The reverse will happen, if migrants enjoy better socio-economic and environmental factors in destination (Bairoch, 1976; Todaro, 1985).

In the developing countries, urban areas are increasingly getting considered as place of destination. Basically, rural to urban migration occurs when expected future earnings in urban destinations are higher than rural origin (Todaro, 1985). Expected earnings depend upon costs of migration, differences in income levels over the planning horizon of the migrant (that is, the number of years over which future earnings are considered), and the probability of securing employment at destination. According to Todaro (1985), if a migrant migrates to urban area from rural area with anticipation of high income and better occupation in future, he may accept poor income at present.

As mentioned, Todaro's model emphasizes on rural-urban migration: certainly, a migrant moves to urban area with anticipation of high income and better occupation in future. For future benefits, migrants often accept poor income at present, which may be harmful for their health.

Of importance to this thesis would be the theory of assimilation developed by Bach (1981). 'Theory of assimilation' is one of the very few migration theories that discusses about effect of migration. In a general theory of assimilation, individuals moving from origin to destination carry with them a set of behaviors, values, status etc, which they acquire at the place of origin. Upon entry into the new environment of destination, these characteristics are subject to change as the individuals adapt to structural, cultural and psychological conditions of destination. In other words, assimilation is, "…..the process by which persons of diverse backgrounds slowly give up their original cultural identity and language and melt into another group, usually the core group of the host society" (Queralt, 1996:64). Following the theory of assimilation Ford (1990) stated that

after a period of contact with the native population, the characteristics of migrants should become similar to the characteristics of natives.

Bach (1981) in his theory of assimilation mentioned how migrants response to the conditions at destination. The theory further clarifies that gradually the characteristics of migrants get similar to that of natives. With this view, it is expected that migrant's health is likely to response to conditions at destination. For example, if an urban to rural migrant becomes assimilated their health state will be similar to that of natives.

Check-List

CHECK-LIST FOR SUBMISSION OF RESEARCH PROTOCOL
FOR CONSIDERATION OF RESEARCH REVIEW COMMITTEE (RRC)
[Please check (X) appropriate box]

1. Has the proposal been reviewed, discussed and cleared at the Division level?

   Yes X☐ No ☐

   If No, please clarify the reasons:

2. Has the proposal been peer-reviewed externally?

   Yes X☐ No ☐

   If the answer is 'No', please explain the reasons:

   If yes, have the external reviews' comments and their responses been attached

   Yes X☐ No ☐

3. Has the budget been cleared by Finance Department?

   Yes X☐ No ☐

   If the answer is 'No', reasons thereof be indicated:

4. Does the study involve any procedure employing hazardous materials, or equipments?

   Yes ☐ No X☐

   If 'Yes', fill the necessary form.

Signature of the Principal Investigator ________________ Date __________

SF-36 HEALTH SURVEY

Question 1: In general, would you say your health is:
(Circle one)

Excellent.. 1
Very good... 2
Good... 3
Fair 4
Poor 5

Question 2: Compared to one year ago, how would you rate your health in general now?
(Circle one)

Much better now than one year ago 1
Somewhat better now than one year ago... 2
About the same now as one year ago 3
Somewhat worse now than one year ago 4
Much worse now than one year ago.. 5

Question 3: The following items are about activities you might do during a typical day. Does your health now limit you in these activities? If so, how much?
(Circle one number on each line)

Activities	Yes, Limited A Lot	Yes, Limited A Little	No, Not Limited At All
a. Vigorous activities, such as running, lifting heavy objects, participating in strenuous sports	1	2	3
b. Moderate activities, such as moving a table, pushing something	1	2	3
c. Lifting or carrying groceries	1	2	3
d. Climbing several flights of stairs	1	2	3
e. Climbing one flight of stairs	1	2	3
f. Bending, kneeling, or stooping	1	2	3
g. Walking about two kilometers	1	2	3
h. Walking several blocks	1	2	3
i. Walking one block	1	2	3
j. Bathing or dressing yourself	1	2	3

Question 4: During the past 4 weeks, have you had any of the following problems with your work or other regular daily activities as a result of physical health?
(Circle one number on each line)

Problems as a result of physical health	Yes	No
a. Cut down on the amount of time you spent on work or other activities	1	2
b. Accomplished less than you would like	1	2
c. Were limited in the kind of work or other activities	1	2
d. Had difficulty performing the work or other activities (for example, it took extra effort)	1	2

Question 5: During the past 4 weeks, have you had any of the following problems with your work or other regular activities as a result of any emotional problems (such as feeling depressed or anxious)?
(Circle one number on each line)

Problems as a result of emotion	Yes	No
a. Cut down on the amount of time you spent on work or other activities	1	2
b. Accomplished less than you would like	1	2
c. Didn't do work or other activities as carefully as usual	1	2

Question 6: During the past 4 weeks, to what extent has your physical health or emotional problems interfered with your normal social activities with family, friends, neighbors, or groups?
(Circle one)

Not at all.. 1
Slightly.. 2
Moderately 3
Quite a bit.. 4
Extremely.. 5

Question 7: How much bodily pain have you had during the past 4 weeks?
(Circle one)

None... 1
Very mild 2
Mild.. 3
Moderate 4
Severe...5
Very severe 6

Question 8: During the past 4 weeks, how much did pain interfere with your normal work (including both work outside the home and housework)?
(Circle one)

Not at all.. 1
A little bit 2
Moderately 3
Quite a bit.. 4
Extremely.. 5

Question 9: These questions are about how you feel and how things have been with you during the past 4 weeks. For each question, please give the one answer that comes closest to the way you have been feeling. How much of the time during the past 4 weeks.

How you feel	All of the Time	Most of the Time	A Good Bit of the Time	Some of the Time	A Little of the Time	None of the Time
Full of pep	1	2	3	4	5	6
Very nervous	1	2	3	4	5	6
So down in the dumps that nothing could cheer you up	1	2	3	4	5	6
Calm and peaceful	1	2	3	4	5	6
A lot of energy	1	2	3	4	5	6
Downhearted and blue	1	2	3	4	5	6
Worn out	1	2	3	4	5	6
Happy	1	2	3	4	5	6
Tired	1	2	3	4	5	6

Question 10: During the past 4 weeks, how much of the time has your physical health or emotional problems interfered with your social activities (like visiting with friends, relatives, etc.)? (Circle one)

All of the time 1
Most of the time 2
Some of the time 3
A little of the time 4
None of the time... 5

Question 11: How TRUE or FALSE is each the following statements for you? (Circle one number on each line)

	Definitely True	Mostly True	Don't Know	Mostly False	Definitely False
a. I seem to get sick a little easier than other people	1	2	3	4	5
b. I am as healthy as anybody I know	1	2	3	4	5
c. I expect my health to get worse	1	2	3	4	5
d. My health is excellent	1	2	3	4	5

Zung Depression Scale

Please read each statement and decide how much of the time the statement describes how you have been feeling during the past several days:

Make check mark in appropriate column	**A little the time**	**Some of the time**	**Good part of the time**	**Most of the time**
1. I feel down-hearted and blue				
2. Morning is when I feel best				
3. I feel crying spells or feel like it				
4. I have trouble sleeping at night				
5. I eat as much as I used to				
6. I enjoy looking, talking to and being with other women/men				
7. I notice that I am losing weight				
8. I have trouble with constipation				
9. My heart beats faster than usual				
10. I get tired for no reason				
11. My mind is as clear as it used to be				
12. I find it easy to do the things I used to				
13. I am restless and can't keep still				
14. I feel hopeful about the future				
15. I am more irritable than usual				
16. I find it easy to make decisions				
17. I feel that I am useful and needed				
18. My life is pretty full				
19. I feel that others would be better off if I were dead				
20. I still enjoy the things I used to do				

Assessing Physical health while abroad:

1. How would you assess your health status while you were abroad? (Self-assessed health status on a 5-point scale).

   Very healthy----------------------------------1
   Healthy with some minor problems-------2
   Poor health----------------------------------3
   Sick---4
   Chronically sick------------------------------5

2. Did you suffer from any common illnesses while you were abroad?

   (for example, fever, cough, diseases like diarrhea and other intestinal and skin infections, and common respiratory diseases)

   Yes----------------1
   No-----------------2

3. How often did you suffer from such illness in abroad?

   Every month--------------------1
   Every two-three months-------2
   More than three months interval----3

4. Did you suffer from any long-term illness in abroad?

   (Medical conditions which had persisted at least six months or which the respondent expected to last for six months or more.) (If they had such an illness, please specify the illness).

   Yes (specify)-----------1
   No----------------------2

5. Did you develop them at your destination country or you had them before migrating?

   Develop at destination country------------1
   Had them before migrating-----------------2

6. During your stay abroad, have you been sick so as to affect your work?

   Yes----------------1
   No-----------------2

7. Did you do anything to help this condition?

Yes (specify)------------------------1
No----------------------------------2

8. Can you describe the events around your falling sick?

____
____
____

9. Did you visit any doctor abroad while you were sick?

Yes (specify)------------------------1
No----------------------------------2

11. If yes, how many times you had to visit a doctor?

------------------times

12. Who paid for the visit?

Own pocket-----------------------------------1
Employer-------------------------------------2
Friends---3
Relatives---------------------------------------4
Other sources (specify)------------------------

13. Did your employer abroad offer medical coverage or insurance for you?

Yes (specify)------------------------1
No----------------------------------2

14. Did you have to take medicines regularly when you were abroad?

Yes (specify)------------------------1
No----------------------------------2

15. Did you change your daily routine in response to a health condition?

Yes (specify)------------------------1
No----------------------------------2

16. Have you gained or lost weight after migrating abroad?

Gained--1
lost--2
Same before migrating overseas----------3

17. If you were sick or hurt, what did you usually do? Did the idea of seeing a doctor came immediately to your mind?

Yes (specify)------------------------1
No-----------------------------------2

18. In terms of physical health, did you feel your health got better, worse, or stayed the same after migrating abroad?

Better------------------------1
Worse-----------------------2
Same as before-------------3

Assessing Psychological health while abroad :

1. In a 5-point scale, how would you rate your psychological and emotional health (own perception)? (5-point scale)

Very happy-----------------------------------1
Happy---------------------------------------2
Average--------------------------------------3
Emotionally stressed-----------------------4
Emotionally very disturbed---------------5

2. Did any of your immediate family member stayed abroad with you?

yes (specify, who stayed)----------------1
no--2

3. Were you provided air ticket by your employer to visit your family in Bangladesh during your stay abroad?

Yes---------------------------------1
No----------------------------------2

4. Did you contact your family in Bangladesh frequently over phone?

Yes---------------------------------1
No----------------------------------2

5. Who were your support group in case of illness or any emergency abroad?

Bangladeshi migrant friends--------------1
Non-Bangladeshi migrant friends--------2
Other colleagues----------------------------3
Employer------------------------------------4
Others--

6. What made you feel happy, sad, worried when you were abroad?

____
____
____

7. In terms of emotional and psychological health, did you feel your health got better, worse, or stayed the same after migrating abroad?

Better------------------------1
Worse-----------------------2
Same as before-------------3

Workplace injury

1. Have you ever experienced or suffered from any type of injury while you were living abroad?

   Yes -------------- 1
   No -------------- 2

2. Was it a work place injury?

   Yes -------------- 1
   No -------------- 2

3. How did you experience this injury – please explain.

   ____
   ____
   ____

3. Please explain the type of injury.

____
____
____

4. Did you need any treatment for the injury?

   Yes -------------- 1
   No -------------- 2

5. If yes, where did you go for treatment?

   Public Hospital---------------1
   Private Hospital--------------2
   Health centre-----------------3
   Clinic--------------------------4
   Community health worker--5
   Untrained practitioner or drug store---6
   Traditional practitioner-----7
   Other (specify)_____________________

6. Who bore the treatment cost?

   Employee
   Self
   Other (specify)_________________

7. Did you stay in the hospital because of the injury?

Yes -------------- 1
No -------------- 2

8. Were you absent from work due to this injury?

Yes -------------- 1
No -------------- 2

9. If yes, how many working days you missed?

None--------------------------------1
Less than one week---------------2
From one week to a month------3
More than one month------------4
Other (specify)__________________

10. Was there any wage loss as you were absent from work?

Yes -------------- 1
No -------------- 2

11. Did the injury result in any physical disability?

Yes -------------- 1
No -------------- 2

12. If yes, please explain the nature of physical disability.

____
____
____

13. Did your physical disability affect your usual activities?

Yes -------------- 1
No -------------- 2

14. Please explain how your disability affected your usual activities.

____
____
____

Sexual Behavior

In this section I would 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.

No.	Questions	Response Categories	Skip to	Code
1.	How common it is for an unmarried migrant labourer who live abroad to have sexual intercourse? (Read first four responses)	More than 5 in 10……..…….1 Two-five in 10………..…….2 One in 10….………………...3 Does not happen ……………4 No response ………………. .5 Don't know ……….………. .9		
2.	Do you think a married migrant labourer who live abroad (without wife) may have sexual intercourse with other people?	Yes…………………………..1 No……………………………2		
3.	If yes, how common it happens? (Read first four responses)	More than 5 in 10……..…….1 Two-five in 10………..…….2 One in 10….………………...3 Does not happen ……………4 No response ………………. .5 Don't know ……….………. .9		
4.	Have you ever had penetrative sex with any woman (other than your wife-if married)?	Yes …………………………1 No …………………………..2 No response ………………... 3		
5.	Did you have penetrative sex with any woman (other than your wife-if married) before you went away to work?	Yes …………………………. 1 No ………………………….. 2 No response ………………... 3		
6.	Did you have penetrative sex with any woman (other than your wife-if married) while you were abroad?	Yes …………………………. 1 No ………………………….. 2 No response ………………... 3		
7.	How many times have you had penetrative sex with a woman (other than your wife-if married) in the last month?	________ times		
8.	How often did you use a condom when you had penetrative sex with a woman (other than your wife-if married)? (**READ OUT** the responses)	Every time... ………………...1 Sometimes……….. …………2 Never………………………...3 No response ………………. ..4		
9.	Did you use a condom the last time you had penetrative sex with a woman (other than your wife-if married)?	Yes …………………………….. 1 No ………………………….….. 2 No response ……………………77 Can't remember ….…………….99		
10.	Have you had penetrative sex with a female sex worker?	Yes ………………………. 1 No ……………………….. 2 No response ……………. 77		
11.	Have you had penetrative sex with a female sex worker before you went abroad for work?	Yes ………………………. 1 No ……………………….. 2 No response ……………... 3		
12.	Have you had penetrative sex with a female sex worker while you were abroad for work?	Yes ………………………. 1 No ………………………… 2 No response ……………. 3		
13.	Have you had penetrative sex with a female sex worker in the last month?	Yes …………………………. 1 No ………………………….. 2 No response ………………. 3		
14.	How many times have you had penetrative sex with a female sex worker in the last month?	________________Times		

No.	Questions	Response Categories	Skip to	Code
15.	How often did you use a condom when you had penetrative sex with a female sex worker? **(READ OUT** the responses)	Every time... ………………...1 Sometimes……….. …………2 Never………………………...3 No response ………………. 4		
16.	Did you use a condom the last time you had penetrative sex with a female sex worker?	Yes …………………………. 1 No ………………………….. 2 Can't remember…………....3 No response ………………. 4		
17.	Have you ever had anal sex with any male?	Yes …………………………. 1 No ………………………….. 2 No response ………………. 3		
18.	Have you had anal sex with any male before you went to abroad for work?	Yes …………………………. 1 No ………………………….. 2 No response ………………. 3		
19.	Have you had anal sex with any male while you were abroad for work?	Yes …………………………. 1 No ………………………….. 2 No response ………………. ..3		
20.	Have you had anal sex with any male in the last 12 months?	Yes …………………………. 1 No ………………………….. 2 No response ………………. 3		
21.	Have you had anal sex with any male in the last month?	Yes …………………………. 1 No ………………………….. 2 No response ………………. 3		
22.	How many times have you had anal sex with a male in the last month?	________________Times		
23.	How often did you use a condom when you had anal sex with a male? **(READ OUT** the responses)	Every time... …………………1 Sometimes……….. …………2 Never………………………...3 No response ………………. 7		
24.	Did you use a condom the last time you had anal sex with a male?	Yes …………………………. 1 No ………………………….. 2 Can't remember …………....3 No response ………………. 7		
25.	Have you had anal sex with a hijra?	Yes …………………………. 1 No ………………………….. 2 No response ………………. 3		
26.	Have you had anal sex with a hijra before you went to abroad for work?	Yes …………………………. 1 No ………………………….. 2 No response ………………. 3		
27.	Have you had anal sex with a hijra while you were abroad for work?	Yes …………………………. 1 No ………………………….. 2 No response ………………. 3		
28.	Have you had anal sex with a hijra in the last 12 month?	Yes …………………………. 1 No ………………………….. 2 No response ………………. 77		
29.	Have you had anal sex with a hijra in the last month?	Yes …………………………. 1 No ………………………….. 2 No response ………………. 3		
30.	(If Yes) How many times have you had anal sex with a hijra in the last month?	Times…………………………		
31.	How often did you use a condom when you had anal sex with a hijra? **(READ OUT** the responses)	Every time... …………………1 Sometimes……….. …………2 Never………………………...3 No response ………………. 4		
32.	Did you use a condom the last time you had anal sex with a hijra?	Yes …………………………. 1 No ………………………….. 2 Can't remember…………....3 No response ………………. 4		

No.	Questions	Response Categories	Skip to	Code
33.	Have you ever used a condom during sexual intercourse with your wife? (if married)	Yes …………………………. 1 No ………………………….. 2 Can't remember …………....3		
34.	Did you use a condom the last time you had sexual intercourse with your wife? (if married)	Yes …………………………. 1 No ………………………….. 2 Can't remember …………....3		
35.	**Sometimes people find pleasure in taking recreational drugs:** Have you taken any of the following drugs for pleasure? (**READ OUT** the responses) (Multiple answers allowed. Circle 1 when mentioned, circle 2 when not mentioned.)	Tobacco ……...…………1 2 Alcohol ..………………..1 2 Sleeping pills/tablet…… 1 2 Ganja/cannabis …………1 2 Phensidyl ……………….1 2 Injecting drugs……..……1 2 Heroin……………………1 2 Others (specify)		
36.	Have you taken any of injecting drugs before you went abroad for work?	Yes …………………………. 1 No ………………………….. 2 Can't remember …………....3		
37.	Have you had taken any of injecting drugs while you were abroad for work	Yes …………………………. 1 No ………………………….. 2 Can't remember …………....3		
38.	Did you inject drugs in the last 12 months?	Yes …………………………. 1 No ………………………….. 2 Can't remember …………....66		
39.	(If Yes) Did you inject drugs in the last one month?	Yes …………………………. 1 No ………………………….. 2 Can't remember …………....66		

Section Four: HIV/STI Knowledge and Risks Perceptions

In this section I will ask you questions about HIV and AIDS. I shall also ask you some questions to know your views about the risk of getting HIV associated with migration for work. This is not a test- any answer you provide will be helpful to us. If you have any questions about this topic, we can discuss it after the interview is completed.

No.	Questions	Response Categories	Skip to	Code
1.	Before today, had you ever heard of a disease called HIV or AIDS?	Yes ……………………………. 1 No ..……………………………. 2 No response….… …………… 3 Don't know ..………………….9		
2.	Where have you heard about this disease? (Multiple answers possible. **Do not read list.** Circle 1 when mentioned, circle 2 when not mentioned.)	Radio …..……………………1 2 Television …...………………1 2 Newspaper/Magazine ..….…..1 2 Pamphlet/Poster …..…………1 2 Health worker ….……………1 2 Mosque/Temple/Church …….1 2 Schools/Teachers ..………..…1 2 Community Meetings ……..…1 2 Friends……………………….1 2 Relatives…………………….1 2 Workplace …….……………1 2 Can't remember …….…………3 Don't know ..…….……………9 Other (specify)___________		
3.	Do you know any signs or symptoms of AIDS? (Multiple answers possible. **Do not read list.** Circle 1 when mentioned, circle 2 when not mentioned.)	Fatigue/tired ………………...1 2 Weight loss ………………….1 2 Diarrhea ……………………..1 2 Skin rash …………………….1 2 No symptoms ………………..1 2 Death ….……………………..1 2 Can't remember …….…………3 Don't know ….………………. 9 Other (specify)___________ 1		
4.	Do you know how this disease can be transmitted? (Multiple answers allowed. **Do not read list.** Circle 1 when mentioned, circle 2 when not mentioned.)	Sexual contact ..…..…………1 2 Sexual contact (homosexual) .1 2 Sexual contact- prostitutes ….1 2 Blood transfusions ….………1 2 Unclean razors/blades of infected person…………….1 2 Share utensils of infected person……………………….1 2 Use of cloths of infected Person……………………..1 2 Unclean needles/ injections …1 2 Injecting drugs…….. …..…….1 2 Use clothes of infected person………………1 2 Kissing ……...………………1 2 Mosquito bites……...……….1 2 Can't remember ..………………3 Don't know ..…….…………9 Other (specify)_____________		

No.	Questions	Response Categories	Skip to	Code
5.	How would you know if someone is infected with HIV? (Multiple answers allowed. **Do not read list.** Circle 1 when mentioned, circle 2 when not mentioned.)	They look sick …...………1 2 Cannot know……………….1 2 Blood test …………………..1 2 Other (specify)_________ 1 2 Don't know …..………………..9 Others …………………………		
6.	Do you know how you can protect yourself from this disease? (Multiple answers allowed. **Do not read list.** Circle 1 when mentioned, circle 2 when not mentioned.)	Abstain from sex …………….1 2 Use condoms ………………...1 2 Limit sex within marriage …...1 2 Limit sex with trusted partner .1 2 Avoid: Sex with sex worker……....1 2 Sex with persons who have many partners …………….1 2 Homosexual sex…….……....1 2 Sex with people who inject drugs ………1 2 Unsafe blood transfusions ...1 2 Unclean injections ………..….1 2 Share utensils of infected person……1 2 Use clothes of infected person………………1 2 Kissing ...…...……………….…1 2 Mosquito bites ………………1 2 Sharing razors/blades ………..1 2 Can't remember …...…………..3 Don't know …...………………9 Other (specify)_________		
7.	Have you ever talked to anyone about HIV or AIDS?	Yes... …..………………………. 1 No ...…...……………………….. 2 Don't know ......………………. 99 No response .....………………. 77		
8.	Who did you talk about HIV or AIDS? (Multiple answers allowed. **Do not read list.** Circle 1 when mentioned, circle 2 when not mentioned.)	Wife----------------------------------1 Health worker ……………….1 2 Friend/relative ………………1 2 Children ……………………..1 2 Can't remember ……………….3 Don't know …………………... 9 Other (specify)____________		
9.	What did you discuss with her/them? (Multiple answers allowed. **Do not read list.** Circle 1 when mentioned, circle 2 when not mentioned.)	Prevention of HIV/AIDS ……1 2 Transmission of HIV/AIDS …1 2 Treatment of HIV/AIDS ..…...1 2 Living apart ………………….1 2 Can't remember ……………….3 Other (specify)____________ 1 2		
10.	When did you discuss this with her/them? (Multiple answers possible. **Do not read list.** Circle 1 when mentioned, circle 2 when not mentioned.)	Before my departure ..……….1 2 On a visit home ……………...1 2 On last visit home …………...1 2 Can't remember ……………….3 Other (specify)____________ 1 2		

No.	Questions	Response Categories	Skip to	Code
11.	Did someone else or any organization discuss HIV/AIDS with you?	Yes …..………………………… 1 No …..………………………….. 2 Don't know …..………………. 3 No response …..………………. 4		
12.	What did they discuss with you? (Multiple answers allowed. **Do not read list.** Circle 1 when mentioned, circle 2 when not mentioned.)	Prevention of HIV/AIDS ……1 2 Transmission of HIV/AIDS …1 2 Treatment of HIV/AIDS ..…...1 2 Living apart ………………….1 2 Can't remember ………………3 Other (specify)____________		
13.	When did they discuss HIV/AIDS with you? (Multiple answers possible. **Do not read list.** Circle 1 when mentioned, circle 2 when not mentioned.)	Before my departure ……….1 2 On my visit at home …………1 2 On last visit home …………...1 2 Other (specify)____________ 1 2 Can't remember ………………66		
415	Do you think that you are at risk for HIV or AIDS because you were living away from home?	Yes …..………………………… 1 No response …..………………. 3 Don't know …..………………...9		
14.	(If Yes) Do you think that you are at high risk, some risk or little or no risk? (**READ OUT** the first three responses)	High risk…………………………1 Some risk……………………….. 2 Little or no risk………………….3 No response..………………. 4 Don't know …..………………...9		
15.	(If high/some risk) Why do you think that you are at risk for HIV or AIDS? (Multiple answers possible. **Do not read list.** Circle 1 when mentioned, circle 2 when not mentioned.)	Sex with sex worker ……...….1 2 Sex with an infected person …1 2 Sex with persons who have many partners ……………….1 2 Homosexual sex ……….…...1 2 Sex with people who inject drugs …..….1 2 Unsafe blood transfusions ..….1 2 Unclean injections ………...…1 2 Kissing ……………..……...…1 2 Mosquito bites ………………1 2 Sharing razors/blades ……..….1 2 Don't know …………………….3 No response ……………………. 4 Other (specify)____________ 1 2	→ skips to 419 if any answer is yes	
16.	(If little or no risk) Why do you think that you are not at risk for HIV or AIDS? (Note key points of response here.)			
17.	Do you know any other sexually transmitted diseases?	Yes …..………………………… 1 No …..………………………….. 2 No response …..………………. 3 Don't know …..………………...9	 → 421 → 421 → 421	

No.	Questions	Response Categories	Skip to	Code
18.	(If Yes) What are they? (Multiple answers possible. **Do not read list.** Circle 1 when mentioned, circle 2 when not mentioned.)	Syphilis………………………1 2 Gonorrhoea ………………..….1 2 Trichomoniasis ………….…..1 2 Candidiasis…………………..1 2 Genital ulcer/sores……………1 2 Vaginal discharge…………….1 2 Other (specify)_________ 1 2 Can't remember ………………3 Don't know ……………………9		
19.	Could you describe any symptoms of men diseases that can be transmitted by having sex? (Multiple answers possible. **Do not read list.** Circle 1 when mentioned, circle 2 when not mentioned.)	Urethral discharge…………….1 2 Smelly discharge……………..1 2 Genital ulcer/sores……………1 2 Lower abdominal pain……….1 2 Other (specify)_________ 1 2 Don't know……………………99 Can't remember ………………66		
20.	Currently, are you experiencing any of these symptoms?	Yes …..…………………………. 1 No …..………………………….. 2 No response …..………………. 3 Don't know …..………………...9		
21.	Have you sought treatment for these symptoms?	Yes …..…………………………. 1 No …..………………………….. 2 No response …..………………. 4 Don't know …..………………...9		
22.	In which country did you seek treatment?	Abroad……………………….1 2 Bangladesh…………………..1 2 No response …..……………… 4 Don't know …..……………….9		
23.	(If abroad) Where did you go for treatment? (Multiple answers possible. **Do not read list.** Circle 1 when mentioned, circle 2 when not mentioned.)	Hospital………………………1 2 Clinic…. ……………………..1 2 Qualified doctor…………...….1 2 Unqualified provider …..……..1 2 Shop/pharmacy ……….....……1 2 Other (specify)____________		
24.	(If Bangladesh) Where have you gone for treatment? (Multiple answers possible. **Do not read list.** Circle 1 when mentioned, circle 2 when not mentioned.)	UHC …………………………1 2 UHFWC ……………………..1 2 Community clinic ……….....….1 2 FWA ………………………..1 2 NGO clinic ………………… 1 2 Shop/pharmacy ……….....……1 2 Other (specify)____________		
25.	Do you know how you can protect yourself from getting these diseases? (Multiple answers possible. **Do not read list.** Circle 1 when mentioned, circle 2 when not mentioned.)	Nothing………………………1 2 No sex with sex worker…….. 1 2 Wash genitals with dettol or urine………………..1 2 Always use condom………….1 2 Sometimes use condom………1 2 Take medicine………………..1 2 No response……………………3 Don't know……………………9 Other (specify)______……….1 2		

Thank you for your time

Time interview completed: ______________________ am / pm Initials: ______________