



INTERNATIONAL CENTRE FOR DIARRHOEAL DISEASE RESEARCH, BANGLADESH

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## MEMORANDUM

29 July 2001

To : Dr. Abbas Bhuiya, Ph.D.  
Head, Social & Behavioral Sciences Program  
Public Health Sciences Division

From : Professor Mahmudur Rahman  
Chairman, Ethical Review Committee (ERC)

*Juman*

Sub : Protocol # 2001-013

Thank you for your memo of 23<sup>rd</sup> July 2001 attaching the modified version of your protocol # 2001-013 entitled "Monitoring the disparity in health status and access to and utilization of healthcare services: Bangladesh Health Equity Gauge - Phase I". The protocol is hereby approved upon your addressing the issues raised by the ERC in its meeting held on 13<sup>th</sup> June 2001.

Thank you and wish you success in running the above study.

cc: Acting Associate Director  
Public Health Sciences Division

PHSD  
2001



INTEROFFICE MEMORANDUM  
ICDDR,B

**TO:** PROFESSOR MAHMUDUR RAHMAN  
CHAIRMAN, ETHICAL REVIEW COMMITTEE

**FROM:** Abbas Bhuiya, Ph.D.  
PI, Monitoring the disparity in health status and access to and utilization of health care services: Bangladesh Health Equity Gauge Phase - I"

**SUBJECT:** ERC OBSERVATIONS/PROTOCOL NO. 2001-013

**DATE:** 7/23/01

This is in response to your letter dated 17 June 2001 containing observations made by the ERC on the above proposal. I am pleased to inform you that we now have included a description of data collection methods in page 8 of the proposal addressing issues raised in item (a) of your letter. We also now have included a questionnaire (Bangla and English) in the proposal.

We hope that you find these modifications acceptable.

Thanking you.

*Abbas Bhuiya*

*I read the questionnaire and find it OK.  
So far as ethical principles are concerned,  
some corrections are inserted into the manuscript (Bengali form)  
H. Beg  
25.7.01*

# APPROVED COPY

Attachment I

Date: 24.05.2001

(FACE SHEET)

ETHICAL REVIEW COMMITTEE, ICDDR,B.

Principal Investigator: Abbas Bhuiya

Trainee Investigator (if any): \_\_\_\_\_

Application No. 2001-013

Supporting Agency (if Non-ICDDR,B) The Rockefeller Foundation

Title of Study: Monitoring the disparity in health status and access to and utilization of health care services: Bangladesh Health Equity Gauge - phase I

Project Status:  New Study

Continuation with change

No change (do not fill out rest of the form)

Circle the appropriate answer to each of the following (If Not Applicable write NA)

1. Source of Population:

- (a) Ill subjects  Yes  No  
(b) Non-ill subjects  Yes  No  
(c) Minor or persons under guardianship  Yes  No

5. Will Signed Consent Form be Required:

- (a) From subjects Yes  No  
(b) From parents or guardian Yes  No  
(if subjects are minor)

2. Does the Study Involve:

- (a) Physical risk to the subjects Yes  No  
(b) Social risk Yes  No  
(c) Psychological risks to subjects Yes  No  
(d) Discomfort to subjects Yes  No  
(e) Invasion of privacy Yes  No  
(f) Disclosure of information damaging to subject or others Yes  No

6. Will precautions be taken to protect anonymity of subjects  Yes  No

3. Does the Study Involve:

- (a) Use of records (hospital, medical, death or other) Yes  No  
(b) Use of fetal tissue or abortus Yes  No  
(c) Use of organs or body fluids Yes  No

7. Check documents being submitted herewith to Committee:

- Umbrella proposal - Initially submit an with overview (all other requirements will be submitted with individual studies  
 Protocol (Required)  
 Abstract Summary (Required)  
 Statement given or read to subjects on nature of study, risks, types of questions to be asked, and right to refuse to participate or withdraw (Required)  
 Informed consent form for subjects  
 Informed consent form for parent or guardian  
 Procedure for maintaining confidentiality  
 Questionnaire or interview schedule\*

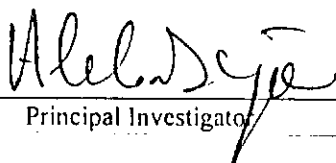
4. Are Subjects Clearly Informed About:

- (a) Nature and purposes of the study  Yes  No  
(b) Procedures to be followed including alternatives used  Yes  No  
(c) Physical risk  Yes  No  
(d) Sensitive questions  Yes  No  
(e) Benefits to be derived  Yes  No  
(f) Right to refuse to participate or to withdraw from study  Yes  No  
(g) Confidential handling of data  Yes  No  
(h) Compensation &/or treatment where there are risks or privacy is involved in any particular procedure  Yes  No

\* If the final instrument is not completed prior to review, the following information should be included in the abstract summary

1. A description of the areas to be covered in the questionnaire or interview which could be considered either sensitive or which would constitute an invasion of privacy
2. Example of the type of specific questions to be asked in the sensitive areas
3. An indication as to when the questionnaire will be presented to the Committee for review

We agree to obtain approval of the Ethical Review Committee for any changes involving the rights and welfare of subjects before making such change.

  
Principal Investigator

Trainee

# **Monitoring the disparity in health status and access to and utilization of health care services: Bangladesh Health Equity Gauge – Phase I**

**Protocol No.: 2001-013**

## **PROJECT SUMMARY**

This study sets out with the objectives of assessing the disparities in access and utilization of modern healthcare services and health status, measured by nutritional status (anthropometric measurements) and morbidity among the population living in rural, urban (slum and non-slum), and Hill Tract areas by gender and socioeconomic condition of individuals and households.

Data will be gathered from secondary sources and through surveys covering samples from rural, urban (slum, non-slum), and Hill tract areas by administering a questionnaire. Analysis of data will be carried out to highlight the disparities if any, in utilization of health services and health status of the population by gender, SES, and geographical areas.

Household information will be collected from the head of household. Data items will include indicators of household economic status, sickness behaviour, and acceptance of immunization. For children data will be collected from mother/caregivers. Anthropometric measurements will involve weighing and measuring height. These involve no risk to individuals. All information given by the respondents will be handled with utmost confidentiality. Data will be coded and names will not be entered into computers. No individual can be identified from the study findings or from the computerised data files.

Informed verbal consent from the adults and from the mothers/caregivers in case of children will be taken before starting the interview. The respondents will be informed of the study objectives and the nature of data to be collected beforehand. It will be entirely voluntary for an individual to participate in the study and an individual will have the right to discontinue participation at any time. The total time required for collection of data is estimated to be 40 minutes. Individuals will not be paid for participating in this study.

91

ICDDR,B: Centre for Health & Population Research  
FORM

RRC APPLICATION

RESEARCH PROTOCOL

#2001-013

FOR OFFICE USE ONLY

Protocol No: \_\_\_\_\_ Date received: \_\_\_\_\_

RRC Approval: Yes/ No Date: \_\_\_\_\_

ERC Approval: Yes/No Date: \_\_\_\_\_

Project Title: Monitoring the disparity in health status and access to and utilization of healthcare services: Bangladesh Health Equity Gauge – Phase I

Theme and key words: Health, Health Equity, Monitoring, Healthcare Utilization, Gender, Socioeconomic Status

Principal Investigator: Abbas Bhuiya

Division: PHSD

Phone: ICDDR,B/2237

Address: ICDDR,B; GPO Box 128, Dhaka 1000, Bangladesh

Email: abbas@icddr.org

Co-Principal Investigator(s):

- 1. Mushtaque Chowdhury, Research and Evaluation Division, BRAC, Mohnkhali, Dhaka 1212
- 2. Simeen Mahmud, BIDS, Agargaon, Dhaka 1207
- 3. Riti Ibrahim Ahsan, Bangladesh Bureau of Statistics, Agargaon, Dhaka 1207

Co-Investigator(s):

Disha Ali, ICDDR,B  
ASM Masud Ahmed, BRAC

Student Investigator/Intern:

Collaborating Institute(s): BRAC, Bangladesh Institute for Development Studies, Bangladesh Bureau of Statistics

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

- |   |   |
|---|---|
| Gender  | <input type="checkbox"/> Pregnant Women         |
| <input checked="" type="checkbox"/> Male          | <input type="checkbox"/> Fetuses                |
| <input checked="" type="checkbox"/> Females       | <input type="checkbox"/> Prisoners              |
| Age   | <input type="checkbox"/> Destitutes             |
| <input checked="" type="checkbox"/> 0 – 5 years   | <input type="checkbox"/> Service providers      |
| <input checked="" type="checkbox"/> 5 – 9 years   | <input type="checkbox"/> Cognitively Impaired   |
| <input checked="" type="checkbox"/> 10 – 19 years | <input type="checkbox"/> CSW                    |
| <input checked="" type="checkbox"/> 20 +          | <input type="checkbox"/> Others (specify _____) |
| <input checked="" type="checkbox"/> > 65          |   |

Project / study Site (Check all the apply):

- |  |  |
|--|--|
| <input type="checkbox"/> Dhaka Hospital      | <input type="checkbox"/> Mirsarai                        |
| <input type="checkbox"/> Matlab Hospital     | <input type="checkbox"/> Patyia                          |
| <input type="checkbox"/> Matlab DSS area     | <input type="checkbox"/> Other areas in Bangladesh _____ |
| <input type="checkbox"/> Matlab non-DSS area | <input type="checkbox"/> Outside Bangladesh              |
| <input type="checkbox"/> Mirzapur            | name of country: _____                                   |
| <input type="checkbox"/> Dhaka Community     | <input type="checkbox"/> Multi centre trial              |
| <input type="checkbox"/> Chakaria            | (Name other countries involved)                          |
| <input type="checkbox"/> Abhoynagar          |  |
- All over Bangladesh*

Type of Study (Check all that apply):

- |   |   |
|---|---|
| <input type="checkbox"/> Case Control study                   | <input checked="" type="checkbox"/> Cross sectional survey        |
| <input type="checkbox"/> Community based trial / intervention | <input type="checkbox"/> Longitudinal Study (cohort or follow-up) |
| <input type="checkbox"/> Program Project (Umbrella)           | <input type="checkbox"/> Record Review                            |
| <input type="checkbox"/> Secondary Data Analysis              | <input type="checkbox"/> Prophylactic trial                       |
| <input type="checkbox"/> Clinical Trial (Hospital/Clinic)     | <input type="checkbox"/> Surveillance / monitoring                |
| <input type="checkbox"/> Family follow-up study               | <input type="checkbox"/> Others                                   |

**Targeted Population (Check all that apply):**

- |   |                                      |
|---|--------------------------------------|
| <input checked="" type="checkbox"/> No ethnic selection (Bangladeshi) | <input type="checkbox"/> Expatriates |
| <input type="checkbox"/> Bangalee                                     | <input type="checkbox"/> Immigrants  |
| <input checked="" type="checkbox"/> Tribal groups                     | <input type="checkbox"/> Refugee     |

**Consent Process (Check all that apply):**

- |  |  |
|--|--|
| <input type="checkbox"/> Written         | <input checked="" type="checkbox"/> Bengali language |
| <input checked="" type="checkbox"/> Oral | <input type="checkbox"/> English language            |
| <input type="checkbox"/> None            |  |

**Proposed Sample size:**

Total sample size: 7,000

Sub-group _____ <input type="checkbox"/>	_____ <input type="checkbox"/>
_____ <input type="checkbox"/>	_____ <input type="checkbox"/>

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

- |   |   |
|---|---|
| <input type="checkbox"/> Human exposure to radioactive agents?          | <input type="checkbox"/> Human exposure to infectious agents?               |
| <input type="checkbox"/> Fetal tissue or abortus?                       | <input type="checkbox"/> Investigational new drug                           |
| <input type="checkbox"/> Investigational new device?<br>(specify _____) | <input type="checkbox"/> Existing data available via public archives/source |
| <input type="checkbox"/> Existing data available from Co-investigator   | <input type="checkbox"/> Pathological or diagnostic clinical specimen only  |
|   | <input type="checkbox"/> Observation of public behavior                     |
|   | <input type="checkbox"/> New treatment regime                               |

**Yes/No**

- Is the information recorded in such a manner that subjects can be identified from information provided directly or through identifiers linked to the subjects?
- Does the research deal with sensitive aspects of the subject's behavior; sexual behavior, alcohol use or illegal conduct such as drug use?
- Could the information recorded about the individual if it became known outside of the research:
- a. place the subject at risk of criminal or civil liability?
- b. damage the subject's financial standing, reputation or employability; social rejection, lead to stigma, divorce etc.

**Do you consider this research (Check one):**

- |  |   |
|--|---|
| <input type="checkbox"/> greater than minimal risk | <input type="checkbox"/> no more than minimal risk        |
| <input checked="" type="checkbox"/> no risk        | <input type="checkbox"/> 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, the 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: The Rockefeller Foundation

Is the proposal being submitted for funding ?

If yes, name of funding agency: \_\_\_\_\_

Do any of the participating investigators and/or 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, submit a written statement of disclosure to the Director.*

**Dates of Proposed Period of Support**

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

Beginning date: 1 January 2001

End date: 31 December 2002.

**Cost Required for the Budget Period (\$)**

a. 1st Year    2nd Year    3rd Year    Other years

121,875        77,125        --        --

Direct Cost : 159,200    Total Cost : 199,000

**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 reviewer's comments and is approved.

Professor Lars Ake Persson  
Name of the Division Director

  
Signature

7/5 2001  
Date of Approval

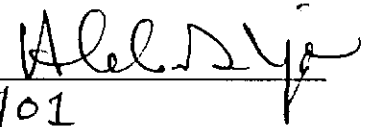
**Certification by the Principal Investigator**

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 responsibility for the scientific conduct of the project and to provide the required progress reports if a grant is awarded as a result of this application.

Signature of PI

Date:

Name of Contact Person (if applicable)



6/5/01

**Monitoring the disparity in health status and access to and utilization of health services: Bangladesh Health Equity Gauge – Phase I**

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Check here if appendix is included



## Monitoring the disparity in health status and access to and utilization of health care services: Bangladesh Health Equity Gauge – Phase I

**PROJECT SUMMARY:** Describe in concise terms, the hypothesis, objectives, and the relevant background of the project. 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. (TYPE TEXT WITHIN THE SPACE PROVIDED).

This study sets out with the objectives of assessing the disparities in access and utilization of modern healthcare services and health status, measured by nutritional status and morbidity among the population living in rural, urban (slum and non-slum), and Hill Tract areas by gender and socioeconomic condition of individuals and households.

Data will be gathered from secondary sources and through surveys covering samples from rural, urban (slum, non-slum), and Hill tract areas by administering a questionnaire. Analysis of data will be carried out to highlight the disparities if any, in utilization of health services and health status of the population by gender, SES, and geographical areas.

Dissemination of the findings will be made among the policy makers, researchers, NGO leaders, mass media personnel, donors, and activist groups to generate correcting actions.

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

Name	Professional Discipline/ Specialty	Role in the Project
1. Abbas Bhuiya, Ph.D.	Social Science/Demography/Statistics	Principal Investigator (ICDDR,B)
2. Mushtaque Chowdhury, Ph.D.	Health Sciences/Development	Co-Principal Investigator (BRAC)
3. Simeen Mahmud, MSc, MA	Economics/Gender	Co-Principal Investigator (BIDS)
4. Riti Ibrahim Ahsan, MSc, MA	Health Policy	Co-Principal Investigator (BBS)
5. Disha Ali, MBBS,MA	Health Economist	Co-Investigator (ICDDR,B)
6. ASM Masud Ahmed, MBBS	Public Health	Co-Investigator (BRAC)

## DESCRIPTION OF THE RESEARCH PROJECT

### Hypothesis to be tested:

---

Concisely list in order, in the space provided, 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.

---

#### Geographical variation

1. People living in rural area, Chittagong Hill Tracks and urban slums

- have inferior nutritional status
- suffer from more illnesses
- do not have good access to health services
- have lower utilization of immunization and modern healthcare services

than people living in non-slum urban areas;

#### Socioeconomic variation

2. People from socio-economically disadvantaged households

- have inferior nutritional status
- suffer from more illnesses
- have lower utilization of immunization and modern healthcare services

than people from socio-economically better off households in all geographical locations;

#### Gender variation

Females

- have inferior nutritional status
- suffer from more illnesses
- have lower utilization of immunization and modern healthcare services

than males irrespective of the socioeconomic condition of the households in all geographical locations.

### Specific Aims:

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

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1. To compare the nutritional status, illness episode, presence of health services, acceptance of immunization services, and utilization of modern healthcare facilities by the population living in rural area, Hill Tracks, urban-slums with those living in non-slum urban areas;
2. To compare the nutritional status, illness episode, acceptance of immunization services, and utilization of modern healthcare facilities among the people from high, medium, and low SES households;
3. To compare the nutritional status, illness episode, acceptance of immunization services, and utilization of modern healthcare facilities between male and female.

## Background of the Project including Preliminary Observations

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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. (DO NOT EXCEED 5 PAGES, USE CONTINUATION SHEETS).

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### Background

Over the last two decades, Bangladesh has witnessed a large decline in mortality despite economic backwardness and inadequate health services. During the period from 1981-1996, the crude death rate dropped from approximately 15 to 9 per 1,000 population. In the same period the child mortality rate also dropped from approximately 20 to 7 per 1,000 population (Bangladesh Bureau of Statistics 1990, 1996). Bangladesh ranks among the poorest and most densely populated countries in the developing world, with less than 45 percent of its population having access to primary health care services beyond childhood immunization and family planning (United Nations Development Program 1997). Malnutrition rates are among the highest in the world, with more than one-third of infants born annually classified as being of low birth weight (<2.5 kg). Approximately two-thirds of children under six years of age are underweight or stunted, and over 17 percent are moderately to severely wasted (Bangladesh Bureau of Statistics 1997). With its growing population and rural to urban migration, the size of the population living in urban slums has been growing rapidly. It is apprehended that a large proportion of the Bangladesh population will live in urban slums in the next 30 years.

Although a large majority of the population in the country is subject to abject poverty, studies conducted in the Seventies and Eighties documented the existence of socioeconomic differentials in mortality (D'Souza and Bhuiya 1982). It is also one of the few countries in the world in which gender differentials in life expectancy and child survival contradict expected patterns that reflect women's biological advantage (D'Souza and Chen 1980; Bhuiya, Zimicki, and D'Souza 1986; Koenig and D'Souza 1986; Bhuiya, Wojtyniak, and Karim 1989; Sen 1990; Ministry of Health and Family Welfare 1998). Many national and small-area-based surveys have documented large male-bias in child survival following the first five months of life, when the influence of social factors such as male preference in intra-household food distribution and sickness care become apparent (Chen, Huq, and D'Souza 1981; Bhuiya et al. 1987). Indeed, gender bias in favor of males is so ingrained in the social consciousness that even female education, the often cited panacea for improved child health and survival, appears to have no perceptible effect (Chaudhury et al. 2000; Bhuiya and Streatfield 1991).

The situation seems to be getting better in terms of reducing gender and socioeconomic gaps in mortality in Bangladesh. A recent examination of Data from Matlab indicated that the gain in mortality reduction for children during the last twenty years was much greater for females and in children from the poorest households (Bhuiya et al., 2001). In terms of the impact of woman-focused poverty alleviation programmes, a beneficial effect on the health and mortality of the programme participants was also observed implying a reduction in rich-poor gap (Chowdhury and Bhuiya, 2001).

While the decline in mortality is impressive, it is not known whether the decline has been equal for all groups in the population nationally. Specifically, are differentials between socioeconomic and gender groups closing? What is the situation in the urban slums or in difficult to reach areas usually inhabited by ethnic minorities compared to the rest of the country. Similar questions can also be asked about the

morbidity, nutritional status, utilization and accessibility of the healthcare services. Also important to know is the resource allocation and expenditure on health services by the public and private sector equity sensitive. Based on the answers of the above questions on a continual basis policy makers and programme personnel can devise appropriate strategies to avoid inequity in health status of the population.

With the above background the present proposal to monitor health outcomes, illness episode, and accessibility and utilization of healthcare in terms of geographical area, household SES, and gender is being made.

#### **Current status of monitoring system in Bangladesh**

As of now Bangladesh does not have any national data collection system, which is primarily focused for monitoring the status of health equity in terms of health outcomes, illness, and utilization of modern health services. However, there are various data collection systems in place. They range from purposively selected small-area-based samples to nationally representative ones. Some of them are longitudinal in nature and some are cross sectional and done periodically. The ones based on nationally representative samples in a longitudinal fashion include the Sample Registration System (SRS) of the Bangladesh Bureau of Statistics (BBS). This has been in place since 1980 and covers mainly mortality and fertility along with household socioeconomic information. SRS included both urban and rural samples with around 60,000 households. At present SRS is not fully active.

Another new initiative taken by the BBS in 1994 is its Multiple Indicator Cluster Survey (MICS) to monitor the national progress made in implementing the agenda for children and women as agreed in the world summit in 1990. The survey has been carried out yearly and provides prevalence data on some broad domains. The domains are mortality (U5MR, IMR, Deaths from ARI and diarrhoea among children, MMR), EPI coverage (DPT3, OPV3, measles, tuberculosis among 12-23 year old children, TT2 among pregnant women), management of diarrhoea (use of ORT and ORS, feeding during diarrhea), maternal health (ANC, use of trained birth attendants), breast feeding (exclusive breast feeding during first three months, introduction of complementary food, breast feeding among 20-23 months of age), nutrition (birth weight, iodine deficiency disorders, vitamin A deficiency, nutritional anthropometry), water and sanitation (source of drinking water, use of sanitary latrines), family planning (contraceptive prevalence rate, total fertility rate), and education (adult literacy, school enrolment and completion of five years of schooling). Details of the methodology and findings from the surveys can be seen in the annual reports (see for example, BBS and UNICEF, 1999). The MICS essentially uses a modified version of the EPI cluster survey technique. It provides estimates for each of the country's 64 districts, which can be aggregated to obtain Divisional and national estimates. The survey also provides estimates for rural, urban, and ethnic minorities living in hilly areas. A total of 60,000 households are included in the survey. The households surveyed during 1994 were repeated in 1995, 1996/97, 1997/98, and in 1999 and formed a panel data set for the nation.

Another nationally representative survey done bimonthly since 1989 by the Hellen Keller International is on nutritional status of children. The survey covers 7,200 households with samples from both urban and rural areas and collects information on anthropometry, morbidity, and household socioeconomic status. BRAC, a national NGO, collect information on primary education from a nationally representative sample. BRAC uses its countrywide infrastructure network to carry out this activity. BRAC also has a similar but small-scale operation to monitor health and development indicators from selected areas of the country. Bangladesh Demographic and Health Survey (BDHS), carried out once in two years, is another repeated cross sectional yet nationally representative data collection system. BDHS usually collects information on mortality, fertility, and healthcare utilization. Among the small-area based data collection system ICDDR,B's health and demographic surveillance is an important one. It has been in place since

Sixties covering a rural population of 200,000 and collects information on birth, death, migration, marriage and divorce, and family planning use on a monthly basis. The system is computerized and allows prospective follow-up of individuals. A collaborative project between ICDDR,B and BRAC to study the impact of BRAC's poverty alleviation programmes on health and human well-being also has been carried out in the same area.

As seen from the foregoing review, Bangladesh does not have a national system of monitoring health equity per se. It does have necessary experiences to launch one, either by expanding the scope of the existing ones or by initiating a new one using the experiences from the existing ones. There are advantages and disadvantages associated with either option. Widening the scope of the existing systems by augmenting equity relevant information means the systems have to be flexible to accommodate some new indicators and perhaps should also have continuity for a reasonable time period. On the other hand, launching a new one will mean the opportunity to take the best from the existing ones and to be able to tailor it to meet the need of the present challenge.

In view of the above this study proposed to carry out the following activities in an attempt to develop a health equity monitoring system in country and to facilitate discussions and actions for improving the situation of inequity.

### **Proposed activities**

The health equity monitoring system in Bangladesh will include four major activities. The activities are:

- 1) compilation and analysis of existing data from secondary sources to map the disparity in health among various socioeconomic, gender, and regional groups;
- 2) convincing various organizations to incorporate information on socioeconomic characteristics, geographical location, health outcome, proximity of health services and their utilization to the existing data collection systems of various agencies;
- 3) collection of relevant data from a nationally representative sample and eventually establishment of a new system in a nationally representative sample which can be adopted by the Governmental system;
- 4) dissemination of the findings among the policy makers, researchers, NGO leaders, and members of civil society in a regular fashion to facilitate actions to minimize inequity; and
- 5) development of national capacity to carryout equity focus research and analysis.

Activity (1) will be carried out by the project team and will engage young researchers.

Activity (2) mentioned above will be carried out by establishing a network of the various agencies engaged in equity relevant data collection endeavours to interact regularly such that an effective equity focus can be incorporated in the existing systems and progress can be monitored. This will also be helpful to form an alliance of the interesting parties and can have profound effect on policies and actions.

The data collection proposed in this study proposal is in relation to activity (3). Data will be collected only once in two years.

Activity (4) is a dissemination exercise and will comprise print media as well as arranging dissemination meeting during the end of this study. The participants in the meetings will be drawn from a wide variety of audience including researchers, academics, policy makers, NGO leaders, activist and the like.

Activity (5) is aimed at creating a sustainable environment by creating national capacities to carry out health equity related studies and action research. Young graduates and thesis students will be attracted to carryout and/or analyse existing data with equity emphasis.

## 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. (DO NOT EXCEED TEN PAGES, USE CONTINUATION SHEETS).

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### Variables:

#### Outcome

Morbidity and utilization of modern health services (public and private) for health problems experienced during 15 days preceding the survey, weight and height/length of individuals, distance of health facilities from the household, immunization status of children and TT of women. Utilization of antenatal, post-natal and place of delivery, and type of delivery assistance used will be in relation to the last pregnancy. Current use of family planning will also be included as an outcome measure.

#### Independent variables

Sex of individuals, household economic condition measured by occupation of household head, source of income, land ownership, education and age of head of household, union council tax category (for rural household), education, occupation and age of women, characteristics of the area- rural, urban slum, urban non-slum, Hill Tracks.

**Sample size:** The study incorporates a number of outcome variables with a wide variation in their prevalence. Thus, a prevalence of 50% is assumed in calculating sample size for it will yield the largest minimum sample size. With a prevalence of 50% moderate malnutrition among children, a minimum of 384 children is needed to have a reliable estimate with 95% confidence. With three SES categories a sample of  $384 \times 3 = 1152$  children will be needed for each level of estimation. To adjust for design effect 1.5 times of the 1152, ( $1152 \times 1.5 = 1728$ ) will be adequate for each area.

Data will be collected through cross-sectional surveys from rural, urban, and Chittagong Hill Tract areas. The rural sample will be spread to all the six divisions (highest administrative level) of the country, and the urban sample from only Dhaka and Chittagong.

In selecting the rural sample, a multistage sampling scheme will be used. At the first level one district will be randomly chosen from a division. From each district one upazilla (second administrative level) will be randomly chosen. From each upazilla, one union (lowest administrative unit) will be randomly selected. From the union one or more villages will be randomly selected to have the required number of households.

The urban sample will cover the cities of Dhaka and Chittagong. For non-slum urban samples, one ward (equivalent to rural union) will be randomly chosen. From the selected ward, one mohalla will be chosen.

From the selected mohalla required number of households will be systematically randomly chosen. Any slum selected in this process will be excluded.

For slum sample, two slums will be randomly chosen from the existing slums in the Dhaka and Chittagong metropolitan cities. Required number of households will be systematically randomly chosen from the selected slums.

**Methods of data collection:** Data will be collected through interviewing by using a questionnaire. Household information and other information pertinent to household members if better known to the household head will be collected from the head of the households. Information on children will be collected from the mothers or from the caregivers in the absence of mothers. Trained male and female field workers with at least twelfth grade of schooling will take anthropometric measurements and collect data (female workers will take anthropometric measurements of female and interview women; male workers will do the same for male). Recumbent height/length of children aged less than 24 months will be measured by using length-measuring board. For respondents aged 24 months and above, standing height will be measured by height measurement stands. Weight will be measured by hanging Salter or electronic scales. The measuring instruments will be standardized regularly to control any distortion in measurements.

Data collection will only be started after building adequate rapport with the community and the respondents. Consent will be sought by reading out the consent form before starting interviewing.

### **Facilities Available**

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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 equipments that will be required for the study. For field studies, describe the field area including its size, population, and means of communications. (TYPE WITHIN THE PROVIDED SPACE).

Survey teams will stay in rented facilities in the selected areas for data collection. Local transport will be used for movement within and between the survey areas. Necessary computers are available for data analysis in Dhaka office. Weighing scales, tapes for measuring MUAC, and height measuring sticks will be purchased.

### **Data Analysis**

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Describe plans for data analysis. Indicate whether data will be analyzed by the investigators themselves or by other professionals. Specify what statistical softwares 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. (TYPE WITHIN THE PROVIDED SPACE).

Data will be coded and entered into computer. Necessary cleaning will be done before analysis. Cross-tabular analysis will be carried out to compare proportions among various categories of independent variables. Multivariate analysis will be carried out for individual level analysis. In all cases SPSS will be used.

## Ethical Assurance for Protection of Human Rights

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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.

Household information will be collected from the head of household. Individual level information for adults will be collected from individuals. These information will be on household economic status, sickness behaviour, and acceptance of immunization. For children data will be collected from mother/caregivers. Anthropometric measurements will involve weighing and measuring height. These involve no risk to individuals. All information given will be handled with utmost confidentiality. Data will be coded and names will not be entered into computers. No individual can be identified from the study findings or from the computerised data files.

Informed verbal consent from the adults and from the mothers/caregivers in case of children will be taken before starting the interview. The respondents will be informed of the study objectives and the nature of data to be collected beforehand. It will be entirely voluntary for an individual to participate in the study and an individual will have the right to discontinue participation at any time.

### Use of Animals

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Describe in the space provided the type and species of animal 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.

None.

### Literature Cited

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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.

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United Nations Development Program. 1997. *Human Development Report 1997*. New York: Oxford University Press.

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## Dissemination and Use of Findings

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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 Bangladesh through a training programme.

The study findings will be disseminated through seminars, conferences, and published media. The study is linked to the Government of Bangladesh through the participation of the Bangladesh Bureau of Statistics.

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## Collaborative Arrangements

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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. (DO NOT EXCEED ONE PAGE)

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The study is a joint endeavour of the staff members from ICDDR,B, BRAC, Bangladesh Institute of Development Studies, and Bangladesh Bureau of Statistics. Necessary budgetary provision for the expenses to be carried at the participating organizations has been kept in the study. For administrative conveniences the collaborators from the participating organizations outside ICDDR,B may be employed as consultants to ICDDR,B.

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## Other Support

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Describe sources, amount, duration, and grant number of all other research funding currently granted to PI or under consideration. (DO NOT EXCEED ONE PAGE FOR EACH INVESTIGATOR)

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1. Abbas Bhuiya, US \$ 500,000, Swiss Red Cross, 2001-2  
US \$ 100,000, Rockefeller Foundation, 2000-2001  
US \$ 500,000, Ford Foundation up to June 2002.

## Appendix A

**Bangladesh Health Equity Gauge  
Detail Budget**

Personnel		% Efforts	2001	2002
Abbas Bhuiya		10	12,000	12,600
Mushtaque Chowdhury		16	2,500	2,500
Simeen Mahmud		16	2,500	2,500
Riti Ibrahim Ahsan		16	2,500	2,500
4 Research Fellow		100	15,000	16,500
1 Senior Research Officer		100	6,000	6,600
1 Senior Statistical Officer/Programmer		50	3,000	3,000
1 Secretary		50	3,000	3,000
Data Collection and processing			37,000	
Workshops/meetings			2,000	6,000
Computers/printers			9,000	
Office supply			1,000	1,000
Printing/reproduction			1,000	2,000
Travel/local			1,000	1,000
Sub Total			97,500	61,700
Administration and Financial Support Staff			24,375	15,425
Total			121,875	77,125
<b>Grand Total</b>	<b>199,000</b>			

*S. Khan*

## Appendix - B

আসসালামু আলাইকুম/আদাব,

আমি ঢাকার কলেরা হাসপাতাল থেকে এসেছি। আপনার সাথে কিছু কথা বলতে চাই। আমি, আপনার ও আপনার পরিবারের সদস্যদের স্বাস্থ্য সম্পর্কিত ব্যাপারে, বিশেষ করে স্বাস্থ্যের অবস্থা, প্রতিষেধক টিকা, ও অসুখ হলে ভাল হওয়ার জন্য যা যা করেন সে সম্পর্কে জানতে চাইব। তাছাড়াও পরিবারের পূর্ণ বয়স্ক সদস্যদের পড়াশোনা এবং পেশা সম্পর্কে কিছু তথ্য জানতে চাইব। একাজের অংশ হিসাবে আমি আপনার পরিবারের সকল সদস্যের ওজন করব ও উচ্চতার মাপ নেব। এসব ব্যাপারে আপনার প্রায় ৪০ মিনিট সময় লাগবে বলে আশা করি। আপনার দেয়া তথ্যের মাধ্যমে আমরা আমাদের সমাজের লোকজনের স্বাস্থ্যের অবস্থা এবং আপনারা কতটা আধুনিক চিকিৎসা ব্যবস্থা কাজে লাগান তা জানতে পারব। এই তথ্য ভবিষ্যতে এদেশের স্বাস্থ্য ব্যবস্থার উন্নয়নে কাজে লাগতে পারে।

এই কাজে আপনি অংশগ্রহন করবেন কি না এটা সম্পূর্ণ ভাবে আপনার উপর নির্ভর করে। আপনি যে কোন সময় আমার প্রশ্নের উত্তর দেয়া বন্ধ করতে পারেন কিংবা এ কাজে অংশগ্রহন করতে অসম্মতি জানাতে পারেন। আমরা আপনার অংশগ্রহনকে খুব মূল্যবান মনে করি। কিন্তু বলা দরকার যে এজন্য আপনাকে কোন পারিশ্রমিক দেয়ার ব্যবস্থা নেই।

আপনি একাজে অংশগ্রহন করতে রাজি হলে আপনার দেয়া তথ্য সম্পূর্ণ গোপন রাখা হবে। আপনার দেয়া তথ্যাদি পূর্বে উল্লেখিত কাজ ছাড়া আর কোন কাজে ব্যবহার করা হবে না।

এ ব্যাপারে আপনার কোন প্রশ্ন থাকলে আমাকে জিজ্ঞেস করতে পারেন।

আপনি কি একাজে অংশগ্রহন করতে রাজী আছেন?

হ্যাঁ/না

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সাক্ষাৎকার গ্রহনকারীর সই

তাং:

Appendix C

**Voluntary Verbal Consent Statement**

Assalamualaikum (or other forms of appropriate greetings). I am from the cholera hospital in Dhaka and I would like to talk to you for a while. I am here to know about your health and the health seeking behaviour you resort to, to prevent and cure illnesses. I would also like to know about the level of education of you and other adult members of the family, occupation you pursue to make your living, and few other socioeconomic indicator of the family. In addition to my talking to you I will also weigh and measure height/length of other family members. The whole job will take around 40 minutes of time. The information generated out of this exercise will be used to assess the level of your health, and utilization of modern healthcare services by you. This information will be useful to design health and policy interventions to improve the health of the population in your area.

Please note that your participation in this activity is absolutely voluntary. You may stop answering to my questions anytime and also withdraw from the discussion session any time. Please also note that while I will appreciate your time and participation in the programme but you will not be paid anything in cash or kind to compensate your participation.

If you decide to participate in this activity, the information you provide will be completely confidential and will only be used for research purposes mentioned before.

If you have any questions regarding the activity I will be happy to answer them.

Are you willing to participate in this work?      Yes / No

Signature of Investigator

Date:

## Curriculum Vitae

### Abbas U Bhuiya

#### **Education**

Ph.D. in Demography, The Australian National University, Canberra. 1989.  
M.A. in Demography, The Australian National University, Canberra, 1984.  
M.A. in Statistics, Chittagong University, 1976.  
B.A. Honours in Statistics, Chittagong University, 1975.

#### **Current Position**

Head, Social and Behavioural Sciences Programme, ICDDR,B.

#### **Professional Overview**

Have nearly 20 years of professional experience in the field of population and health research with special focus on equity issues, behaviour change, and community development oriented action research. Experienced in combining quantitative and qualitative research methods. Have familiarity with the social development and health problems in the developing world and intervention programmes to alleviate them. Actively involved in implementing community development oriented programmes for the improvement of health in partnership with the indigenous village-based organizations in rural Bangladesh. Engaged in studying the impact of women-focused social and economic development programme on health and human well-being and the mechanisms of the impact in rural Bangladesh.

#### **Selected Publications**

1. Bhuiya A., Chowdhury M, Ahmed F. and Adams A. Bangladesh: an Intervention Study of the factors underlying increasing equity in child survival. In T Evans et al. edited "Challenging Inequities in Health: From Ethics to Action. New York: Oxford University Press. 2001.
2. Bhuiya A., S.M.A. Hanifi, Moazzem Hossain and Ayesha Aziz. Effects of an AIDS Awareness Campaign on Knowledge About AIDS in a Remote Rural Area of Bangladesh. *The International Quarterly of Community Health Education*. Vol. 19, 2000.
3. Bhuiya A. and Chowdhury M. The effect of divorce on child survival in a rural area of Bangladesh. *Population Studies*, 51, 1997.
4. Bhuiya A, Bhuiya I, Chowdhury M. Factors affecting acceptance of immunization in rural Bangladesh. *Health Policy and Planning*, 10, 1995.
5. Bhuiya A. Streatfield K. Feeding, home remedy practices, and consultation with health care providers during childhood illness in rural Bangladesh, *Journal of Diarrhoeal Disease Research*, 13, 1995.
6. Bhuiya A. D'Souza S. Socioeconomic and demographic correlates of child health and mortality in Matlab. In Fauveau V. edited Matlab: Women, Children and Health. ICDDR,B; Dhaka, 1994.
7. Bhuiya A. Health programme inputs and infant and child survival in rural Bangladesh: evidence from Bangladesh Fertility Survey 1989. In Cleland J. edited Bangladesh Fertility Survey, 1989: Secondary Analysis. NIPORT, Dhaka, 1993.

8. Bhuiya A, Streatfield K, and Sarder AM. Mother's education and knowledge of major childhood diseases in Matlab, Bangladesh. In the proceedings of the XXIInd IUSSP General Conference - Montreal held in 1993.
9. Bhuiya A. and Mostafa G. Levels and differentials in weight, height and body mass index among mothers in a rural area of Bangladesh. *Journal of Biosocial Science*, 25, 1993.
10. Bhuiya A. and Streatfield K. A hazard logit model analysis of covariates of childhood mortality in a rural area of Bangladesh. *Journal of Biosocial Science*, 24, 1992.
11. Bhuiya A. Village health care providers in Matlab, Bangladesh: a study of their knowledge and management of childhood diarrhoea. *Journal of Diarrhoeal Disease Research*, 10, 1992.
12. Bhuiya A. and Streatfield K. Mothers' education and survival of female children in a rural area of Bangladesh. *Population Studies*, 45, 1991.
13. Bhuiya A, Streatfield K, and Meyer P. Mother's hygienic awareness, behaviour, and Knowledge of major childhood diseases in Matlab, Bangladesh. In J. Caldwell et al. (eds) *What We Know About Health Transition: The Cultural, Social and Behavioural Determinants of Health*. Health Transition Series No. 2 (Vol. I). Health Transition Centre, Canberra, 1990.
14. Bhuiya A, Wojtyniak B and Karim R. Malnutrition and child mortality: are socioeconomic factors important? *Journal of Biosocial Science*, 21(3), 1989.
15. Bhuiya A, Wojtyniak B, D'Souza S, Nahar L and Shaikh K. Measles case fatality among the underfives: a multivariate analysis of risk factors in a rural area of Bangladesh. *Social Science and Medicine*, 24(5) 1987.
16. Bhuiya A, Wojtyniak B, D'Souza S, and Zimicki S. Socioeconomic determinants of child nutritional status: boys versus girls. *Food and Nutrition Bulletin*, 8(3), 1986.
17. Bhuiya A, Zimicki S and D'Souza S. Socioeconomic differentials in child nutrition and morbidity in a rural area of Bangladesh. *Journal of Tropical Pediatrics*, 32, 1986.

### **Co-authorship**

1. Evans T., Margaret W., Finn D., Bhuiya A. and Wirth M. (Eds.) *Challenging Inequity: Ethics to Action*. New York: Oxford University Press. 2001.
2. Chowdhury A.M.R., Bhuiya A. Do poverty alleviation programmes reduce inequities in health? The Bangladesh Experience. In D Leon and G Walt (Eds) *Poverty Inequality and Health: An International Perspective*. Oxford University Press. 2001.
3. Ahmed S.M., Adams A., Chowdhury M. Bhuiya A. Gender, socioeconomic development and health-seeking behaviour in Bangladesh. *Social Science and Medicine*. 2000.
4. Choudhury K., Hanifi M.A., Rasheed S., and Bhuiya A. Gender inequality and severe malnutrition in a remote rural area of Bangladesh. *Journal of Health, Population and Nutrition*, 18, 2000.
5. Jamil K., Bhuiya A., Streatfield K., Chakrabarty N. The immunization programme in Bangladesh: impressive gains in coverage, but gaps remain. *Health Policy and Planning*, 14, 1999.

6. Chowdhury AMR, Karim FK, Sarkar SK, Cash R, Bhuiya A. The status of ORT in Bangladesh: how widely is it used? *Health Policy and Planning*, 12, 1997.
7. Ahmed SM, Adams A., Chowdhury AMR, Bhuiya A. Income-earning women from rural Bangladesh: changes in attitude and knowledge. *Empowerment*, 4, 1997.
8. Khan S.R., Chowdhury AMR, Ahmed SM, Bhuiya A. Women's education and employment: Matlab experience. *Asia-Pacific Population Journal*, 11, 1996.
9. Choudhury AY and Bhuiya A. The effects of biosocial variables on changes in nutritional status of rural Bangladeshi children pre- & post-monsoon flooding. *Journal of Biosocial Sciences*, 25, 1993.
10. Chowdhury M, Choudhury Y, Bhuiya A, Islam K, Hussain Z, Rahman O, Glass R, and Benninsh M. Cyclone aftermath: research and directions for the future. In Hossain H, C.P. Dodge, and F.H. Abed edited *From Crisis to Development: Coping with Disasters in Bangladesh*. University Press Limited, Dhaka, 1992.
11. Mostafa G, Wojtyniak B, Fauveau V, and Bhuiya A. The relationship between sociodemographic variables and pregnancy loss in a rural area of Bangladesh. *Journal of Biosocial Science*, 23, 1990.
12. D'Souza S, Bhuiya A, Zimicki S, and Sheikh K. Mortality and Morbidity: the Matlab Experience. Ottawa, Ontario: International Development Research Centre, 1988.
13. Islam S, Bhuiya A and Yunus M. Socioeconomic differentials of diarrhoea morbidity and mortality in selected villages of Bangladesh. *Journal of Diarrhoeal Disease Research*, 2(4), 1984.
14. D'Souza S and Bhuiya A. Socioeconomic mortality differentials in a rural area of Bangladesh. *Population and Development Review*, 8(4), 1982.
15. D'Souza, S and Bhuiya A. Mortality differentials in a rural area of Bangladesh: results from Matlab thana, Comilla district. In Edmonston, B and R Bairagi (eds.): *Infant and child mortality in Bangladesh. Proceedings of the Conference on Infant and Child Mortality*. Dhaka, Institute of Statistical Research & Training, University of Dhaka, January 1982.
16. D'Souza, S and Bhuiya A. Mortality differentials in a rural area of Bangladesh: results from Matlab thana, Comilla district. In: Basu A and K.C. Malhotra (eds): *Human Genetics and Adaptation, Vol. 2. Proceedings of the Indian Statistical Institute Golden Jubilee International Conference on Human Genetics and Adaptation*. Indian Statistical Institute, Calcutta, February 1982.

**Curriculum Vitae**  
of  
**Dr. A. Mushtaque R. Chowdhury**

**A. Educational qualifications**

- BA (Honours in Statistics), University of Dhaka, Bangladesh, 1976.
- MSc in Demography, London School of Economics and Political Science, 1979.
- PhD, London School of Hygiene and Tropical Medicine, London, UK. (Thesis theme: Evaluation of a large nation-wide health education programme), 1986.
- Short Course in Medical Anthropology from the London School of Hygiene and Tropical Medicine, London, UK., 1989 (duration: 3 weeks).

**B. Present positions**

- Deputy Executive Director, BRAC, Bangladesh  
(July 1999- till date)  
Director Research, BRAC (1992-till date)
- Co-Project Director, *BRAC-ICDDR,B Joint Research Project on Socio-economic development and health.*
- Co-Principal Investigator for Bangladesh, *Global Health Equity Initiative (GHEI)*, Coordinated by Rockefeller Foundation.
- Co-Principal Investigator, *Effectiveness of iron supplementation in pregnancy*, a joint project of BRAC, Umeå University, Sweden and Cornell University, USA.
- Project Director, *BRAC-DPHE-UNICEF Arsenic testing and mitigation project*, Bangladesh.
- Project Director, *AIDS awareness campaign through women's groups*, BRAC Bangladesh.
- Co-Course Director, *International Course on the Anthropology of Health and Health Care*, Dhaka.
- Adjunct Faculty, School for International Training (SIT), Vermont, USA.

**C. Past positions**

- ◆ Overseas Research Associate, London School of Hygiene & Tropical Medicine.
- ◆ MacArthur Fellow, Harvard University Center for Population and Development Studies, Cambridge, Massachusetts, USA (1992-93).
- ◆ Organised the Working Group on Essential National Health Research (ENHR) in Bangladesh with representatives from nine national institutions, and elected as its first coordinator. Also arranged funding from the International Development Research Centre (IDRC) in Ottawa, Canada for a project to train potential young Bangladeshi scientists through supervised grants.
- ◆ Principal Investigator for Bangladesh, *Social Science and Immunization Research Project* (implemented in 7 countries of Asia, Africa, Europe and North America).



#### D. Consultancy

Worked for the Government of Bangladesh, UNICEF, Harvard University, Radda Barnen, The World Bank, INCLIN, and the Government of China on various assignments.

#### E. Selected Professional Association

- Member, Executive Committee, Society for International Development (SID), Bangladesh Chapter.
- Member, FutureThink, World Health Organisation, Geneva, Switzerland.
- Member, sub-group on Commission on Macroeconomics and Health, World Health Organisation, Geneva, Switzerland.
- Former Member, British Society for Population Studies (BSPS).

#### F. Journal articles and chapter in books

Published over 80 papers in national and international journals and as book chapters on health, poverty alleviation, education, environment, and the NGO sector.

#### G. Books

1. AMR Chowdhury, Md. Zabeed Hossain, Ross Nickson, Mizanur Rahman, Md. Jakariya, Md. Shamimuddin. Combating a Deadly Menace: Early Experiences With a Community-Based Arsenic Mitigation Project in Bangladesh, Dhaka, BRAC. Research Monograph Series No. 16, August 2000.
2. AMR Chowdhury, KMA Aziz and Abbas Bhuiya (editors). The 'Near Miracle' Revisited: Social Science Perspectives of the Immunization Programme in Bangladesh, Amsterdam, Het Spinhuis, 1999 (168 pages).
3. AMR Chowdhury, RK Choudhury., Nath SR. (Editors). The Education Watch Report 1999: Hope not complacency, Dhaka, The University Press Limited. 1999 (189 pages).
4. AK Jalaluddin and AMR Chowdhury (editors). Getting Started, Universalising Quality Primary Education in Bangladesh. Dhaka, University Press Ltd., 1997, (684 pages).
5. AMR Chowdhury and Richard Cash. A Simple Solution: Teaching Millions to Treat Diarrhoea at Home. Dhaka, University Press Ltd., 1996 (149 pages).
6. AMR Chowdhury. A Tale of Two Wings: Health and Family Planning Activities in an Upazila in Northern Bangladesh, Dhaka, BRAC Publications, 1990 (60 pages).

## CURRICULUM VITAE

**Simeen Mahmud**

### *Personal Information*

Date of birth: 28 February, 1950

Female

Married

### *Education*

Masters in Statistics, Dhaka University, 1974

Masters in Medical Demography, London University, 1976

### *Current position*

Senior Research Fellow

Bangladesh Institute of Development Studies

### *Professional Experience*

Major areas of research include women's work, status and fertility behaviour, evaluation of participation in development programmes and fertility behaviour, conceptualising the process of women's empowerment, evaluation of participation in micro-credit programmes, women's labour market participation, group dynamics and functioning in the operation of women's irrigation and informal savings groups, the consequences of the demographic transition and poverty on parental decisions about investment in children, and so on. The primary analytical focus has been household behaviours and livelihood strategies under different contexts with an emphasis on gender.

### *Selected Publications*

"Women's status, empowerment and reproductive outcomes", in Population Policies Reconsidered: Health, Empowerment, and Rights, edited by Gita Sen, Adrienne Germain and Lincoln Chen, Harvard University Press, 1994.

Women and water pumps in Bangladesh: The impact of participation in irrigation groups on women's status, with Barbara van Koppen, Intermediate Technology Publications Ltd., London, U.K., 1996.

"From women's status to empowerment: The shift in the population policy dialogue", Bangladesh Development Studies, Vol 22, No. 4, 1994.

"Women's work in urban Bangladesh: Is there an economic rationale?", Development and Change, Vol.28, No.2, April 1997.

"Policies, Programs, and Financing Since the International Conference on Population and Development: Bangladesh Case Study", (with Wahiduddin Mahmud) in S. Forman and R. Ghosh (eds) Promoting Reproductive Health: Investing in Health for Development, Lynne Rienner Publishers, Boulder and London, 2000.

"The gender dimensions of programme participation: Who joins a micro-credit programme and why?", (forthcoming) Bangladesh Development Studies.

"Informal Women's Groups in Rural Bangladesh: Group operation and outcomes", (forth coming) in a book edited by Frances Stewart, Judith Heyer and Rosemary Thorpe.

## Riti Ibrahim Ahsan

**Present Designation:** Deputy Director, Demography and Health Wing, and Project Director, Child Nutrition Surveillance Project, Bangladesh Bureau of Statistics, Ministry of Planning, Statistics Building, B-27/A Agargaon, Dhaka.

**Mailing Address:** 2 Momenbagh, Rajarbagh, Dhaka-1217, Bangladesh.

**Contact Telephones:** 9117534 ex.22 and 9116440 (Office). 8318966(Home)

**Date of birth:** December 11, 1953

**Nationality:** Bangladeshi

### **Education:**

MS in Population and International Health, Harvard School of Public Health, USA (1993-94).

MS in Statistics, University of Dhaka, Bangladesh (1973-74).

B Sc. (Hons) in Statistics, University of Dhaka, Bangladesh (1970-73).

### **Seminar/Workshops/Study Tours attended outside Bangladesh:**

1. Attended "Beijing Plus Five PrepCom in New York, USA (March 3-17, 2000). Sponsored by FPAB and CIDA.
2. Presented a paper on "Nutrition and morbidity among the pre-school children in Bangladesh", in the annual general meeting of the American Population Association in New York, USA (March, 1999). Sponsored by UNICEF.
3. MacArthur Fellowship, Harvard Centre for Population & Development Studies, Cambridge, MA 02138 (1992-94). Prepared a preliminary plan to conduct a research study on nutritional status of Bangladeshi children. Prepared a project to investigate women's health and social status. Sponsored by The Ford Foundation.
4. Participated in a meeting held to prepare a compendium on gender statistics. The meeting was held in UN Statistical Office, New York, (October 1993). Sponsored by UNDP.
5. Participated in a four-week study tour in the Central Statistical Office of India and Federal Bureau of Statistics in Pakistan. Sponsored by UNDP (Dec. '91-Jan. '92).
6. Presented a paper on "The Situation of Women and Children" in a workshop. Jointly sponsored by ESCAP and UNICEF (Bangkok, Nov.-Dec., 1989).
7. Participated in a seven months-training program on economic statistics in the International Statistical Program Center, US Bureau of Census, Washington DC (Jan-July, '83). Sponsored by UNDP.
8. Participated in a four weeks seminar on Poverty Statistics in Statistical Institute for Asia and the Pacific, Tokyo (Nov.-Dec. '79). Sponsored by UNDP.

### Work experience:

I am presently heading a section in BBS which is responsible to conduct two surveys e.g., the Child Nutrition Survey and the Multiple Indicator Cluster Survey. I started my carrier in the Bangladesh Bureau of Statistics in 1977 as Statistical Officer and was promoted to the post of Deputy Director in the Demography and Health Wing of BBS in 1987. I am also the Project Director in the Child Nutrition Survey Project. The project started its work in 1984. I also work in the Multiple Indicator Cluster Survey as Deputy Director since 1992.

Besides these work, I am also the Associate WID Focal Point for BBS. I am involved in the gender disaggregated data analysis work of BBS. A "WID Data Sheet" and a "Compendium on gender disaggregated data" was prepared under my guidance.

I worked in the Urban Extension Project (MCH-EP) of ICDDR,B, Dhaka for two years (Dec. 92- Nov. 94). My designation there was Demographer and was responsible for collection and dissemination of demographic and family planning data.

Courses taken in the masters in Population and International Health, Harvard University, are:

- i. Anthropological Approaches to Demography and Health Research,
- ii. Demography of the Family,
- iii. Women, Health and Development,
- iv. Nutritional Surveillance,
- v. Nutritional Epidemiology,
- vi. Survey Research Methodology,
- vii. Principles to Biostatistics,
- viii. Introduction to Epidemiology,
- ix. Introduction to Population and International Health,
- x. Introduction to Demographic Method, and
- xi. Completed a Project Planning Course on "Son preference" and tutorial to plan a research study in Bangladesh to find the relations of maternal education, income, nutrition with the nutritional status of their children in Bangladesh.

### Publications:

1. Four reports of Child Nutrition Surveys on 1985-86, 1988-89, 1992 and 1995-96, BBS.
2. "Progoti Pathy", a publication on the status of women and children, prepared from the data collected through the survey "Multiple Indicator Cluster Survey", BBS.
3. Women and Men in Bangladesh *facts and figures*, 1970-90, BBS.
4. WID Data Sheet 1998, BBS.
5. "Gender Dimensions in Development - Statistics from Bangladesh, 1999".  
A collaboration between BBS and Ministry of Women and Children Affairs.

### Attachment with other organization:

1. Life Member, Family Planning Association of Bangladesh.
2. Life Member, Population Association of Bangladesh.
3. Executive Committee Member, Bangladesh Mahila Samity.
4. Life Member, Bangladesh Statistical Organization.
5. Member, Population Association of America.
6. Vice President, BCS (Statistic) Cadre Association.

### Reference:

1. Mr Mamun-Ur-Rashid, Secretary, Statistics Division and Director General, Bangladesh Bureau of Statistics.
2. Dr A K M Ghulam Rabbani, Retired Director General, Bangladesh Bureau of Statistics.

**MONITORING THE DISPARITY IN HEALTH STATUS AND ACCESS TO  
AND UTILIZATION OF HEALTH SERVICES:  
BANGLADESH HEALTH EQUITY GAUGE - PHASE 1 QUESTIONNAIRE**

<b><u>IDENTIFICATION</u></b>					
1 NAME OF HOUSEHOLD HEAD _____					
2 UNION _____	Union <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td><td> </td></tr></table>				
3 WARD _____	Ward no. <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td><td> </td></tr></table>				
4 VILL/MOHOLLA: _____	Vill/Moholla <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td><td> </td></tr></table>				
5 HOUSEHOLD NO. _____	HH.no <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td><td> </td><td> </td></tr></table>				
6 THANA _____	Thana <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td><td> </td><td> </td></tr></table>				
7 DISTRICT _____	District <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td><td> </td><td> </td></tr></table>				
8 DIVISION _____	Division <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td><td> </td><td> </td></tr></table>				
9 DATE OF INTERVIEW.....					
	DAY <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td><td> </td></tr></table>				
	MONTH <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td><td> </td></tr></table>				
	YEAR <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td>2</td><td>0</td><td>0</td><td> </td></tr></table>	2	0	0	
2	0	0			
10 INTERVIEWERS NAME.....	<table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td><td> </td></tr></table>				
11 RESULT*.....	<table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td><td> </td></tr></table>				

- \* RESULT CODES
- 1 COMPLETED
  - 2 NO HOUSEHOLD MEMBER AT HOME OR NO COMPETENT RESPONDENT AT HOME AT TIME OF VISIT
  - 3 REFUSED

**HOUSEHOLD CHARACTERISTICS**

**RURAL**

12 HOW MUCH LAND DOES YOUR HOUSEHOLD OWN?  DECIMALS  KATHA

13 HOW MUCH DID YOUR HOUSEHOLD PAY IN UNION TAX LAST YEAR?  TAKA

14 WHAT IS THE OCCUPATION OF YOUR HOUSEHOLD HEAD? \_\_\_\_\_

15 WHAT IS THE HIGHEST CLASS OF SCHOOL COMPLETED BY THE HOUSEHOLD HEAD?  CLASS

DOES YOUR HOUSEHOLD HAVE YES NO

16 TELEVISION ?.....	<input type="checkbox"/>	<input type="checkbox"/>
17 RADIO ?.....	<input type="checkbox"/>	<input type="checkbox"/>
18 LEP(QUILT)?.....	<input type="checkbox"/>	<input type="checkbox"/>
19 WATCH?.....	<input type="checkbox"/>	<input type="checkbox"/>

20 HOW FAR IS YOUR HOME FROM THE NEAREST FWC?  HOURS  MINUTES  KM

**URBAN**

DOES YOUR HOUSEHOLD HAVE YES NO

21 DO YOU OWN THIS HOUSE?

IF NO

22 WHAT IS THE MONTHLY RENT PAID FOR THIS HOUSE?  TAKA

23 WHAT IS THE OCCUPATION OF YOUR HOUSEHOLD HEAD? \_\_\_\_\_

24 WHAT IS THE HIGHEST CLASS OF SCHOOL COMPLETED BY THE HOUSEHOLD HEAD?  CLASS

DOES YOUR HOUSEHOLD HAVE YES NO

25 TELEVISION ?.....	<input type="checkbox"/>	<input type="checkbox"/>
26 RADIO ?.....	<input type="checkbox"/>	<input type="checkbox"/>
27 FRIDGE?.....	<input type="checkbox"/>	<input type="checkbox"/>
28 WATCH?.....	<input type="checkbox"/>	<input type="checkbox"/>

29 HOW FAR IS YOUR HOME FROM THE NEAREST GOVERNMENT HOSPITAL?  HOURS  MINUTES  KM

**INDIVIDUAL CHARACTERISTICS**

	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46
	USUAL RESIDENTS OF HOUSEHOLD	RELATIONSHIP TO HEAD OF HOUSEHOLD	SEX	AGE	EDUCATION	OCCUPATION	WEIGHT	HEIGHT	ILLNESS DURING LAST 15 DAYS	IF YES, WHAT ILLNESS	WHO WAS CONSULTED DURING ILLNESS	LAST PREGNANCY	RECEIPT OF TETANUS TOXOID DURING LAST PREGNANCY	WHERE LAST CHILD DELIVERED	LAST CHILD DELIVERED BY	RECEIPT OF ANC/PNC	EPI
	Please give me the names of the persons who usually live in your household?	What is the relationship of (NAME) to the head of the household?	Is (NAME) male or female?	How old is (NAME)?	What is the highest level of education that (NAME) completed?	What is (NAME's) main occupation?	Weight in kgs	Height in cm.	Has (NAME) been ill during the last two weeks	If so, what was the illness that (NAME) suffered from?	Who did (NAME) consult about the illness?	When was (NAME's) last child born?	Did (NAME) receive TT during their last pregnancy?	Where was (NAME's) last child delivered	Who was (NAME's) last child delivered by?	Did (NAME) receive ANC/PNC during last pregnancy /delivery	Did (NAME?) receive (.....) vaccine?
<b>Males &gt;24 mn</b>																	
1																	
2																	
3																	
4																	
<b>Females &gt; 24mn</b>																	
5																ANC PNC	
6																ANC PNC	
7																ANC PNC	
8																ANC PNC	
<b>Males &lt; 24mn</b>																	
9																	DPT1/2/3 POL/MSL/BCG
10																	DPT1/2/3 POL/MSL/BCG
11																	DPT1/2/3 POL/MSL/BCG
12																	DPT1/2/3 POL/MSL/BCG
<b>Females &lt; 24mn</b>																	
13																	DPT1/2/3 POL/MSL/BCG
14																	DPT1/2/3 POL/MSL/BCG
15																	DPT1/2/3 POL/MSL/BCG

**MONITORING THE DISPARITY IN HEALTH STATUS AND ACCESS TO**

**AND UTILIZATION OF HEALTH SERVICES:**

**BANGLADESH HEALTH EQUITY GAUGE – PHASE 1 QUESTIONNAIRE**

**স্বাক্ষর**

- ১ খানা প্রধানের নাম .....
- ২ ইডনিয়ন .....
- ৩ ওয়ার্ড .....
- ৪ গ্রাম/মহল্লা .....
- ৫ বাড়ি নং .....
- ৬ থানা .....
- ৭ জিলা .....
- ৮ বিভাগ .....

ইডনিয়ন		
ওয়ার্ড		
গ্রাম/মহল্লা		
বাড়ি নং		
থানা		
জিলা		
বিভাগ		

- ৯ স্বাক্ষরকারের তারিখ
- ১০ স্বাক্ষরকার প্রত্যক্ষকারীর নাম .....
- ১১ ফলাফল .....

দিন			
মাস			
বছর	২	০	০


\* ফলাফলের কোড

- ১ সফল
- ২ খানায় কোর্ড নেই বা খানায় প্রাপ্ত বয়স্ক কোর্ড নেই
- ৩ স্বাক্ষরকার দিতে রাজী নয়



খানা মৎস্যকাজ প্রশ্ন

গ্রাম

- ১২ আপনার খানার মানিকগনাম কতখানি জমি রয়েছে?  
 ১৩ গত বছর আপনার খানা থেকে কত টোকা কর দেয়া হয়েছে?

<input type="text"/>	<input type="text"/>	<input type="text"/>	ডেমিমেন	<input type="text"/>	<input type="text"/>	<input type="text"/>	কটা
<input type="text"/>	<input type="text"/>	<input type="text"/>		<input type="text"/>	<input type="text"/>	<input type="text"/>	টোকা

- ১৪ খানা প্রধানের প্রধান পেশা কি?  
 ১৫ খানা প্রধান কত গ্লাম পর্যন্ত পড়েছেন?

<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	গ্লাম
----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	-------

খানায় কি এই জিনিসগুলি আছে হ্যা না

১৬	টোম্যাটেশম	<input type="checkbox"/>	<input type="checkbox"/>
১৭	রোডিও	<input type="checkbox"/>	<input type="checkbox"/>
১৮	নেপ	<input type="checkbox"/>	<input type="checkbox"/>
১৯	ঘাঁড়	<input type="checkbox"/>	<input type="checkbox"/>

- ২০ আপনার বাড়ি পরিবার কন্স্যান আফিম থেকে কতদূরে

<input type="text"/>	ঘন্টা	<input type="text"/>	<input type="text"/>	মিনিট	<input type="text"/>	<input type="text"/>	<input type="text"/>	কিমি
----------------------	-------	----------------------	----------------------	-------	----------------------	----------------------	----------------------	------

শহর

- ২১ আপনি কি বাড়ির মানিক হ্যা না

<input type="checkbox"/>	<input type="checkbox"/>
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উত্তর না হলে

- ২২ মানিক আপনার বাড়ি ডাড়া কত?  
 ২৩ পরিবার প্রধানের পেশা কি?  
 ২৪ পরিবার প্রধান কেশন গ্লাম পর্যন্ত পড়েছেন?

<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	টোকা
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	গ্লাম

খানায় কি এই জিনিসগুলি আছে? হ্যা না

২৫	টোম্যাটেশম	<input type="checkbox"/>	<input type="checkbox"/>
২৬	রোডিও	<input type="checkbox"/>	<input type="checkbox"/>
২৭	ফ্রিজ	<input type="checkbox"/>	<input type="checkbox"/>
২৮	ঘাঁড়	<input type="checkbox"/>	<input type="checkbox"/>

- ২৯ আপনার বাড়ি নিকটস্থ সরকারী হাসপাতাল থেকে কত দূরে?

<input type="text"/>	ঘন্টা	<input type="text"/>	<input type="text"/>	মিনিট	<input type="text"/>	<input type="text"/>	<input type="text"/>	কিমি
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**INDIVIDUAL CHARACTERISTICS**

	৪০	৪১	৪২	৪৩	৪৪	৪৫	৪৬	৪৭	৪৮	৪৯	৫০	৫১	৫২	৫৩	৫৪	৫৫	৫৬
খানার সদস্য	খানা প্রধানের সাথে সম্বন্ধে	শিক্ষা	বৃত্ত	শিক্ষা	পেশা	পুষ্টি	ক্ষমতা	শত ১৫ দিনে অসুস্থতা	কি অসুস্থ হয়েছিল?	কার পরামর্শ গ্রহণ করেছিলেন?	অবশেষে মৃত্যু	অবশেষে মৃত্যুকালে টিকা দিয়েছিলেন কি?	মব ছোট শিশু কোথায় জন্মেছিলো?	ছোট শিশুর জন্মের সময় কার সাহায্য নিয়েছিলেন?	শিশুর জন্মের আগে ও পরে ডাক্তারী পরীক্ষা করিয়ে ছিলেন কি?	শিক্ষা	(নাম) কে কি টিকা দেয়া হয়েছিল?
খানার সদস্য	খানা প্রধানের সাথে সম্বন্ধে কি?	(নাম) কি (নাম) শিক্ষা	(নাম) কি (নাম) বৃত্ত	(নাম) কি (নাম) শিক্ষা	(নাম) এর পেশা কি?	(নাম) এর উচ্চতা কে কি	কো : (নাম) কি (নাম) কি	শত ১৫ দিনে অসুস্থ হয়েছিল?	কি অসুস্থ হলে কি অসুস্থ হয়েছিল?	কার পরামর্শ গ্রহণ করেছিলেন?	(নাম) এর মব মৃত্যু	(নাম) কি মৃত্যুকালে টিকা দিয়েছিলেন?	(নাম) এর মব ছোট শিশু কোথায় জন্মেছিল?	শিশু জন্মের সময় কার সাহায্য নিয়েছিলেন?	(নাম) মৃত্যুর আগে ও পরে ডাক্তারী পরীক্ষা করিয়েছিলেন কি?		
প্রশ্ন ১২৪ গায়																	
১																	
২																	
৩																	
৪																	
প্রশ্ন ১২৪ গায়																	
৫																ANC PNC	
৬																ANC PNC	
৭																ANC PNC	
৮																ANC PNC	
প্রশ্ন ১২৪ গায়																	
৯																	DPT1/2/3 POL/MSU/BCG
১০																	DPT1/2/3 POL/MSU/BCG
১১																	DPT1/2/3 POL/MSU/BCG
১২																	DPT1/2/3 POL/MSU/BCG
প্রশ্ন ১২৪ গায়																	
১৩																	DPT1/2/3 POL/MSU/BCG
১৪																	DPT1/2/3 POL/MSU/BCG
১৫																	DPT1/2/3 POL/MSU/BCG
১৬																	DPT1/2/3 POL/MSU/BCG

TITLE: MONITORING THE DISPARITY IN HEALTH STATUS AND ACCESS TO AND UTILISATION OF HEALTH SERVICES: BANGLADESH HEALTH EQUITY GAUGE- PHASE 1

Summary of referee's opinions:

Quality of the project	Medium
Adequacy of Project Design	High
Suitability of Methodology	Medium
Feasibility within time period	High
Appropriateness of budget	N/A
Potential Value of Field of Knowledge	High

CONCLUSIONS

I support the project proposal with small modifications (See below).

Detailed comments:

The project is interesting and shall provide important information on the health situation of people living in the Chittagong Hill Tracts. From earlier reports it seems that that area is virtually untouched in as far as understanding the difficult situation lived there. Therefore this is a timely project which will provide basic, yet critical information. I assume the investigators made a thorough review on the availability of information on the CHT population.

I have the following 5 points to make:

1- **Hypothesis to be tested: Socio-economic variation.** It is not clear how socio-economic variation will be defined. While this is an important variable for the model, it is important to define it further as it is frequently associated with the definition itself. In many instances low nutritional status, higher morbidity and mortality, and lower utilisation of health care services are used, alongside others, to define low socio-

economic status. If this is the case, then there will be a **classification bias**. The study is likely to show that people from low SEV will have inferior nutritional status, suffer from more illness and have lower access to modern health services.

**2- Quantitative surveys:** I do not think that the results from this study will have the desired impact unless there are quantitative studies conducted in this population further exploring the reasons for these differences. To leave this study at the demographic analysis level would be a mistake, as many studies conducted in Bangladesh, not entering to analyse ways to **potentially modify the situation**. I assume that this is the reason for which this study is called Phase 1 and that there will be a Phase 2 getting deeper into the economical, political and social reasons for the disparities likely to be found. If this is not the case, I would urge the investigators to consider complementing the demographic information with qualitative studies explaining the results.

**3- Gender:** I am glad to see gender as a separate hypothesis.

**4- Use of modern health services:** This information will be useful for health planners. However, for people who do not use modern health services, it is important to describe which **types of health services** they are using. This could be done by prompting specific examples, such as deliveries, antenatal care, episodes of fever, accidents, amongst others.

**5- Background information:** While the proposal reviews some demographic studies (including the BBS, BHDS, SRS, HKI), it fails to describe other attempts to work on 'health equity monitoring systems'. I think that it is important to join efforts with other attempts, if this is not at present the case, in particular with the system developed and used by the Rockefeller Foundation as well as that being developed by COHRED on Essential National Health Research (ENHR). I am aware that the Rockefeller Foundation has worked with people in Bangladesh on a case on health equity. This interaction with other studies will strengthen the study and will in addition offer opportunities for young scientists to get involved into other parallel studies (as it is mentioned as activity 4 of this proposal).

## Bangladesh Health Equity Gauge – Phase 1

I think the hypotheses presented on page 4 are somewhat naive, and can be answered without further research. However, I suspect that the real hypothesis is stated on page 5 – if differentials between socio-economic and gender groups are closing?

There exists a lot of experience from health monitoring systems, and many countries in Western Europe have variants. One problem seems to be that these systems generate a lot of observational data, but it can be problems when coming to the explanation phases. These monitoring systems can show that mortality/morbidity decrease, but it is in general difficult to explain the observed trends. One consequence can be that the information collected has a limited use in decision making. Thus, I will strongly encourage that the proposed monitoring system will be used as a setting for interventions studies, aimed at testing different measures with the purpose of increased equity.

One question not fully clear is the timetable – how often will the surveys be repeated?

Some details: Independent variables are occupation and education of the household, in most cases a man, I guess. I suggest that these data should be collected also for adult women in the household.

What measure on nutritional status will be used? Weight and height?

Title:

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			
Appropriateness of budget			
Potential value of field of knowledge		x	

CONCLUSIONS

I support the project proposal

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

I do not support the project proposal

Name of Referee:

\_\_\_\_\_

Date: April 1 2001 .....

ieá University

necessary.)

Appendix G

Monitoring the disparities in access to and utilization of health services  
and health status: Bangladesh health equity gauge phase I

Work plan

2001

Activities	January	February	March	April	May	June	July	August	September	October	November	December
Development of proposal	■	■	■									
Identification of partners		■	■									
Meeting/workshop with partners				■								
Analysis of existing data					■	■	■	■	■	■	■	■
Formation of network								■				
Formation of equity forum										■		
Selection of field sites for data collection								■				
Data collection									■	■	■	■
Dissemination workshop										■		
Report writing											■	■

2002

Analysis of data	■	■	■	■	■	■	■	■	■	■	■	■
Dissemination workshop											■	■
Writing of reports/papers	■	■	■	■	■	■	■	■	■	■	■	■

### Check List

After completing the protocol, please check that the following selected items have been included.  
Face Sheet Included

- 1) Approval of the Division Director on Face Sheet
- 2) Certification and Signature of PI on Face Sheet
- 3) Table on Contents
- 4. Project Summary
- 4) Literature Cited
- 5) Biography of Investigators
- 6) Ethical Assurance
- 7) Consent Forms
- 8) Detailed Budget



Protocol 2001- 013 : **Monitoring the Disparity in Health Status and Access to and Utilization of Health Care Services: Bangladesh Health Equity Gauge - Phase I**  
P.I. : Abbas Bhuiya

### Comments

This study aims at assessing the disparities in access and utilization of health care services and health status of males and females of different socio-economic status (SES) living in rural, urban, and Hill Track areas of Bangladesh. Its specific objectives, as stated in the proposal, are as follows:

1. To compare the nutritional status, illness episode, presence of health services, acceptance of immunization services, and utilization of modern health care facilities by the population living in rural area, Hill Tracks, urban-slums with those living in non-slum areas;
2. To compare the nutritional status, illness episode, acceptance of immunization services and utilization of modern health care facilities among the people from high, medium and low SES households;
3. To compare the nutritional status, illness episode, acceptance of immunization services and utilization of modern health care facilities between male and female.

The methods of data collection are (1) archival i.e., exploring records or secondary sources and (2) administering a questionnaire.

Regarding ethical concerns, the Consent Form looks OK. However, since no procedural details are there it is not possible to say whether ethical norms are likely to be violated while collecting the data through primary sources. One relevant concern is the way weight and height would be measured. I wonder how the investigator would approach the respondents and whether that would be acceptable to the tribal/rural people. However, respondent's right to refuse participation is ensured in the consent form.

The questionnaire has not been enclosed with this protocol. I will comment on that after I get it.

In a word, the protocol looks acceptable to me so far as ethical issues are concerned.

*H. Begum*  
12.6.01

Hamida Akhtar Begum  
Member ERC

Protocol 2001-013 : Monitoring the Disparity in Health Status and Access to and Utilization of Health Care Services: Bangladesh Health Equity Gauge - Phase I  
PI : Abbas Khuiya

Comments

This study aims at assessing the disparities in access and utilization of health care services and health status of males and females of different socio-economic status (SES) living in rural, urban, and Hill Tract areas of Bangladesh. Its specific objectives, as stated in the proposal, are as follows:

1. To compare the nutritional status, illness episode, presence of health services, acceptance of immunization services, and utilization of modern health care facilities by the population living in rural area, Hill Tracts, urban-slums with those living in urban slum areas;
2. To compare the nutritional status, illness episode, acceptance of immunization services and utilization of modern health care facilities among the people from high, medium and low SES households;
3. To compare the nutritional status, illness episode, acceptance of immunization services and utilization of modern health care facilities between male and female.

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12.6.01

Hemida Akhter Begum  
Member-ERC