Attachment 1.
(FACE SHEET)

Date 20.07.99

ETHICAL REVIEW COMMITTEE, ICDDR,B.

Principal Investigator Dr. M. Mahmud Khan Trainee Investigator (if any) _____

Application No. 99-016 Supporting Agency (if Non-ICDDR,B) UFHP (John Snow Inc.

Title of Study Health Care Seeking Behaviour, Willingness to Pay for Health Services delivered through NGO-run facilities of UFHP

Project status:
(✓) New Study
( ) Continuation with change
( ) No change (do not fill out rest of 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) Minors or persons under guardianship — Yes (No)
2. Does the study involve:
   (a) Physical risks to the subjects — Yes (No)
   (b) Social Risks — 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)
3. Does the study involve:
   (a) Use of records, (hospital, medical, death, birth or other) — Yes (No)
   (b) Use of fetal tissue or abortus — Yes (No)
   (c) Use of organs or body fluids — Yes (No)
4. Are subjects clearly informed about:
   (a) Nature and purposes of study — (Yes) No
   (b) Procedures to be followed including alternatives used — Yes (No) → NA
   (c) Physical risks — Yes (No) → NA
   (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) → NA
5. Will signed consent form be required:
   (a) From subjects — (Yes) No
   (b) From parent or guardian (if subjects are minors) — (Yes) No
6. Will precautions be taken to protect anonymity of subjects — (Yes) No
7. Check documents being submitted herewith to Committee:
   ___ Umbrella proposal - Initially submit an 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 *

* 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. Examples 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 Cttee. 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.

Mahmud Khan
Principal Investigator

Trainee

CHECK-LIST FOR SUBMISSION OF PROPOSALS TO THE RESEARCH REVIEW COMMITTEE (RRC)

[Please tick (✓) the appropriate box]

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

Yes ☑

No ☐

If 'No', please clarify the reasons: _____

_____

_____

2. Has the proposal been peer-reviewed externally ?

Yes ☑

No ☐

If the answer is 'NO', please explain the reasons: _____

_____

_____

3. Has the proposal scope to address gender issues ?

Yes ☑

No ☐

If the answer is 'YES', have these been adequately incorporated in the proposal. Please indicate: _____

_____

_____

4. Has a funding source been identified ?

Yes ☑

No ☐

If the answer is 'YES', please indicate the name of the donor: _____

UFHP (John Snow Inc.,)

_____

_____

5. Whether the proposal is a collaborative one ?

Yes [✓]

No [ ]

If the answer is 'YES', the type of collaboration, name and address of the institution and name of the collaborating investigator be indicated:

Abt Associates: Technical Support Only and directly funded through Abt Associates.

6. Has the budget been cleared by Finance Division ?

Yes [✓]

No [ ]

If the answer is 'NO', reasons thereof be indicated: _____

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

Yes [ ]

No [✓]

If 'YES', fill the necessary form.

July 20, 99
Date

Mahmud Khan
Signature of the
Principal Investigator

APPLICATION FOR PROJECT REVIEW BY RRC AND ERC

1. Principal Investigator (s)	Dr. M. Mahmud Khan
2. Other Investigators	Zahidul Quayyum, Shakil Ahmed, Suahila H Khan, Kuntal K. Saha, Ishtiaq Bashir
3. Title of Project	Health Care Seeking Behaviour, Willingness and Ability to Pay for Health Services delivered through NGO-run facilities of UFHP
4. Starting Date	June' 99
5. Expected Date of Completion	Dec' 2000
6. Total Budget Requested	46,933 US $
7. Funding Source	UFHP (John Snow Inc.,)
8. Head of Programme	Dr. M. Mahmud Khan
9. Signature by Division Director	

Principal Investigator: Last, first, middle __Dr. Khan Mahmud M___. _____

International Centre for Diarrhoeal Disease Research, Bangladesh

RESEARCH PROTOCOL

FOR OFFICE USE ONLY
Protocol No: Date:

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

1. Title of Project (Do not exceed 60 characters including spaces and punctuation)
Health Care Seeking Behavior, Willingness and Ability to Pay for Health Services delivered through NGO-run facilities of UFHP

2a. Name of the Principal Investigator(s) (Last, Middle, First).	2b. Position / Title	2c. Qualifications
Khan, M, Mahmud	Health Economist	Ph.D.

3. Name of the Division/ Branch / Programme of ICDDR,B under which the study will be carried out.
Public Health Sciences Division, Health Economics Programme

4. Contact Address of the Principal Investigator
4a. Office Location:
Health Economics Programme
Public Health Sciences Division
ICDDR,B

4b. Fax No: +880-2-886050
4c. E-mail: mkhan@icddrb.org
4d. Phone / Ext: 2218/2219/2215
9881762 (direct)

5. Use of Human Subjects: Yes [✓] No [ ]
5a. Use of Live Animal: Yes [ ] No [✓]
5b. If Yes, Specify Animal Species

6. Dates of Proposed Period of Support *(Day, Month, Year - DD/MM/YY)*
15 June 1999-31 Decmebr 1999

7. Cost Required for the Budget Period
7a. Ist Year ($): 46,933 *2nd Year ($): X* *3rd Year: X*
7b. Direct Cost ($) 37,547 Total Cost ($): 46,933

8. 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.

Prof. L.Å. Persson — Name of the Division Director
Signature
4/7 99 — Date of Approval

9. 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.

10. Signature of PI
kw
Date: 4/7/99

Table of Contents

☐ Check here if appendix is included

Principal Investigator: Last, first, middle Dr. Khan Mahmud M

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).**

Principal Investigator: Dr. M. Mahmud Khan

Project Name: **Health Care Seeking Behavior, Willingness and Ability to Pay for Health Services delivered through NGO-run facilities of UFHP**

Total Budget 46,933 Beginning Date 15 June ' 99 Ending Date: Dec.' 2000

I. Background

Under the National Integrated Population and Health Program (NIPHP), the Urban Family Health Partnership (UFHP) funded various NGO-run health facilities to provide the ESP services to rural population of Bangladesh. Besides its efforts for the improvement in management and quality of service delivery, the NIPHP emphasizes the sustainability of the health care delivery activities. In order to attain sustainability, cost recovery through the introduction of user fees has been adopted. The current shift of the program focus on delivery of an essential package of health and family planning services (ESP) will require a pricing strategy based on all the components of the package, resource requirements for the delivery of various components, the exemption policy to be followed for increasing social benefits, cost recovery targets, the possibility of cross subsidization, and health care seeking behavior of the population in terms of the ESP services.

It was felt by the service delivery partners and the USAID that a systematic pricing policy should be devised and made available to the NGOs delivering the ESP services to rationalize the use of health care resources allocated to the primary care facilities of the country. To clearly define the scope of the study, the methodology to be followed, types of information to be collected, the Health Economics Program (HEP) of ICDDR,B met with the working group and the service delivery partners a few times. This proposal has been developed by taking into account the information needs identified and other related ideas and suggestions discussed in the meetings during the preparative phase.

The hypothesis of the study is that customers/potential customers will utilize and pay for the services provided by RSDP NGOs if 'quality' services can be delivered. The NGOs contracted by UFHP have already adopted a user fee based service delivery system. Nevertheless, to improve efficiency in service delivery and to protect the poor, a proper pricing policy and strategy will be necessary. This policy should be carefully evaluated on the basis of following issues.

The Price setting mechanism for health care services;
Implications of the pricing policy on utilization of services and on quality of care;
Perspective about the quality of services;
Health care seeking behaviour of the clients/potential clients;
The customers'/potential customers', willingness to pay; and
Costs of producing different components of ESP services;

The HEP of ICDDR,B will examine the following aspects of pricing policy through this research:

a. To understand the health care seeking behavior of the population in the catchment area of the health facilities
b. To examine the willingness and ability to pay for the health services provided by the NGO clinics
c. To suggest the level of user charges for each of the ESP services
d. To examine the effect of social mobilsation, contacts, knowledge about health etc. on willingness and ability to pay
e. To understand the perception and knowledge of household about the benefits of the services provided by the NGO facilities

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

Name	Professional Discipline/ Specialty	Role in the Project
1. M. Mahmud Khan	Health Economist	PI
2. Zahidul Quayyum	Health Economist	Co-PI
3. Shakil Ahmed	Public Health Physician	Co-PI
4. Suhaila H. Khan	Public Health Physician	Co-PI
5. Kuntal K. Saha	Public Health/Health Systems Research	Co-Investigator
6. Ishtiaq Bashir	Public Health/Health Systems Research	Co-Investigator

Principal Investigator: Last, first, middle __Dr. Khan Mahmud M_____

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.

The hypothesis of the study is that customers/potential customers will utilize and are willing to pay for the services provided by UFHP NGOs. if 'quality' services can be delivered

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 **(TYPE WITHIN LIMITS).**

Develop a strategy for the NGO for the delivery of ESP services to rationalize the use of health care resources allocated to the primary care facilities. The specific parameter that will be assessed include the implication of pricing policy on utilization and quality of care, the health seeking behavior of clients/potential clients, willingness and ability to pay of the clients for different component of ESP services.

The study will address the following key issues in the introduction of user fees:

a) For each of the services provided can the users clearly define the scope of the services? Is the unit of services clearly understandable to consumers?
b) Is the service clearly desirable into "standard" units?
c) Can one clearly identify the beneficiary/beneficiaries of the service delivered?
d) Is there a significant positive or negative externality?
e) The socioeconomic status of the consumers by services types/categories.
f) Willingness and ability to pay for different services by socio-economic status.

Principal Investigator: Last, first, middle __Dr. Khan Mahmud M_____

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

The delivery of Essential Service Package (ESP) is one of the major initiatives of the Health Sector Reform being implemented through the Health and Population Sector Program (HPSP) of the Ministry of Health and Family Welfare, Government of Bangladesh[1]. The ESP includes the following as important components: Reproductive Health Care, Child Health Care, Communicable Disease Control, Limited Curative care, and Behavioral Change Communication. For efficient implementation of the reform strategy, it is extremely important to estimate the amount of resources needed for delivering this package of services. The preparation of a financing plan needs the estimates of costs to produce each of the ESP services, and the potential for local resource mobilization in the health sector through user charges and/or community participation.

Under the National Integrated Population and Health Program (NIPHP), the Urban Family Health Partnership (UFHP) funded various NGO-run health facilities to provide the ESP services to rural population of Bangladesh. Besides its efforts for the improvement in management and quality of service delivery, the NIPHP emphasizes the sustainability of the health care delivery activities. In order to attain sustainability, cost recovery through the introduction of user fees has been adopted. A review of user fee based cost recovery initiatives of the NGO programs indicates that the fees were not set taking into account the relevant variables like the cost of production, willingness and ability to pay of the clients, and the market structure of the primary health care delivery system. Often, the price setting does not take into account the full range of services being offered to understand the possibility of cross-subsidization, and the effect of prices on certain types of services on the utilization of other types[2,3,4]. The current shift of the program focus on delivery of an essential package of health and family planning services (ESP) will require a pricing strategy based on all the components of the package, resource requirements for the delivery of various components, the exemption policy to be followed for increasing social benefits, cost recovery targets, the possibility of cross subsidization, and health care-seeking behavior of the population in terms of the ESP services.

It was felt by the service delivery partners and the USAID that a systematic pricing policy should be devised and made available to the NGOs delivering the ESP services to rationalize the use of health care resources allocated to the primary care facilities of the country. A working group was formed to look into this issue. The working group, consisting of representatives of USAID, RSDP, UFHP and ORP met a number of times and discussed the problems of policy formulation in absence of the relevant information. The group decided to commission a study to help the RSDP and the UFHP in formulating a comprehensive pricing policy for basic ESP components. To clearly define the scope of the study, the methodology to be followed, types of information to be collected, the Health Economics Program (HEP) of ICDDR,B met with the working group and the service delivery partners a few times. This proposal has been developed by taking into account the information needs identified and other related ideas and suggestions discussed in the meetings during the preparative phase.

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).

Research Questions and Objectives of the Research

The RSDP have initiated their program by hypothesizing that customers/potential customers will utilize and pay for the services provided by RSDP NGOs if 'quality' services can be delivered. The NGOs contracted by RSDP have already adopted a user fee based service delivery system. Nevertheless, to improve efficiency in service delivery and to protect the poor, the RSDP is interested in determining a proper pricing policy and strategy that will be based on careful evaluation of the following questions:

(i) How to set prices for health care services?

(ii) What will be the implications of the pricing policy on utilization of services and on quality of care?

(iii) How do the clients define the quality of services?

(iv) What is the health care seeking behaviour of the clients/potential clients?

(v) How much money does the customers/potential customers is willing to pay?

(vi) What are the costs of producing different components of ESP services?

Although all the above questions are important for pricing policy, the studies will be carried out in phases or stages through various research organizations. The HEP of ICDRR,B will be responsible for a number of specific areas of the research questions mentioned above. The definition of 'quality' from the client's point of view is being examined by another research initiative. The HEP of ICDDR,B will examine the following aspects of pricing policy through this research:

a. To understand the health seeking behavior of the population in the catchment area of the health facilities
b. To examine the willingness and ability to pay for the health services provided by the NGO clinics
c. To suggest the level of user charges for each of the ESP services
d. To examine the effect of "social mobilization" contacts, knowledge about health etc. on willingness and ability to pay for the ESP services and its utilization.
e. To understand the perception and knowledge about the benefit of the services provided by the NGO facilites.

Methodology

The study will conduct one of activities to address the user-fee issues. The research activities will include:

a. Health seeking behavior, households' willingness and ability to pay by type of service, characteristics of the patients and the socio-economic status of the household.

The study will select 10 percent of the UFHP sites of USAID-funded NGOs after stratifying the NGOs or the facilities based on stratification variable used.

Household Survey for Health Seeking Behavior

Ideally, health care seeking behavior survey should have a number of discrete steps: a qualitative survey to prepare a list of commonly occurring illnesses and conditions with local terminology; a key informant interview survey to list all the health care options available in the community; a survey of providers to understand the types of services provided, training and experience of health care personnel, quality of physical infrastructure, a household survey to explore illness occurrences and utilization of services, and household survey to understand the willingness and ability to pay for different types of health care services.

The household survey should examine the health-seeking behavior in different seasons and therefore should be for at least six months. However, since the policy makers need the information of this research within a very short period of time, the above approach can not be followed. For quick results, the following approach is proposed:

A cross sectional household survey will be conducted in selected rural areas to cover common illness occurrences and health service utilization in the community during the last two weeks prior to the visit. Recall period of two-weeks may be too short for certain types of services provided through the ESP. For example, antenatal care (ANC) services are used by about a third of all women giving birth during the year. The Crude Birth Rate in Bangladesh is about 25 per thousand and therefore about 8 per thousand use ANC over their pregnancy. If the recall period of using ANC services is three months, we should get only four users per thousand population. A recall period of last one-year should increase the numbers to about 15 per thousand. Therefore, a random sample of households will not generate enough cases for statistical precision.

To ensure that a higher number of pregnancy cases and users of ANC services are observed, the selection of the household for the survey can be biased towards households with at least one woman in the reproductive age group and having a child of less than two year old. Most of the ESP services delivered by the NGOs are for women in their reproductive age group, children of age less than two years and pregnant women. Therefore, selecting the households satisfying the above three conditions should provide the relevant information on the use of ESP services in the country. Once the households are selected, a survey will be carried out to understand the health seeking behavior of the population, especially the preventive services as well as maternal and child health related activities. To ensure that the survey explicitly considers preventive and promotive services, all contacts with health care providers will be considered irrespective of illness and health conditions. It will enable a better understanding of the nature of illness episodes and the health care resource used and the factors influencing decision making in selecting that particular health care option. This will also enable to clearly identify the beneficiary/beneficiaries of the services being delivered.

Data will be collected on health care resource used for each target illness episode. As mentioned above, the emphasis of data collection will be on a sub-set of health care services, although overall behavior will be examined. Data will also be collected for each health care option used, and the factors that influence the decision making in the process of their health seeking behavior. In addition to this, data on willingness to pay for different services, perceived quality of care, and level of satisfaction with the health care option used for different socio-economic group will also be collected. The survey will be conducted with structured questionnaires by trained interviewers. There will be two questionnaires for the households to be surveyed. One will collect information on illness episodes, health care resource used, and the factors influencing decision making in selecting that particular health care option and providers, perceived quality of care and level of satisfaction from the services obtained from the selected providers. The other questionnaire will be used to collect information on willingness to pay for different services provided, and for different quality of services.

The recall period of the service used or health conditions will vary by service. The services delivered through the satellite clinics will have a recall period of two to three months. The satellite clinics are held only once a month and so recall period of two weeks will not be appropriate. For curative services related to common illnesses, the recall period should be lower, preferable about two weeks. As mentioned earlier, the recall period for the utilization of ANC will be about a year.

Sample Selection

a. Selecting the Clinics

The household survey will be based on UFHP static clinics catchment area. The first step in sampling will be to select the UFHP clinics from the different categories: A, B, and C. The categories are defined by the size of urban area, or the degree of urbanization in which the clinic is located. Clinics in categories A are located in major cities, and clinics in category B and C are located in smaller cities. Two static clinics from each group will be selected. Once the static clinics are selected for each of the clinics, all satellite clinics will be listed. Depending upon the number of satellite, about four satellite clinics per static clinics will be randomly selected for the household survey.

b. Defining the sampling frame for household survey

Taking the static clinics or the satellite clinics as the centre of the catchment area, households living around the clinics will be listed. A simple structured questionnaire will be used to list the households as well as some basic household characteristics required to identify the eligible household for the survey. The census-based list of households will be used as the sampling frame.

c. Selecting Households

For each of the clinic-based list, about 60 household will be randomly drawn by categorizing the households by distance from the health centre. This stratified sampling approach is used to ensure that household for all three distance categories are included in the survey (for example, very close within five minutes of walking distance, close and within 10 minutes of travel by rickshaw/van, far and about 15-30 minutes of travel by motor vehicles). The selected households (about 300 per static centre) will be visited twice for in-depth interview. Total households to be surveyed will be about 1800 for this study.

For selecting the sample household, the facilities will be considered as the center of the catchment area. In Bangladesh, utilization of a health facility declines drastically with distance. Therefore, random selection of households from a pre defined catchment area will not be appropriate, especially when the sample is quite small and the main purpose of the study is to understand the health seeking behavior, willingness and ability to pay rather than the rate of utilization of the center by the population in the catchment area.

Information to be Collected During the Household Survey

Census questionnaire

The census questionnaire will collect information on demographic characteristics of the households (number of women in reproductive age group, number of women with less than one year old children, children below the age of six years, number of women pregnant and lactating, etc.), distance from the health facility (the satellite clinic or the thana level static clinic), whether used the RSDP NGO facilities during the last three months. Socioeconomic status of the household

In-depth Household questionnaire

The in-depth questionnaire will collect the following information:

Household characteristics and the health environment.
Number of illness episodes in the household during the last 15 days, Number of the episodes acute in nature, Number of episodes that can be considered chronic.

Any health conditions present now that appears to be related with past pregnancies
Any health conditions present now those appear to be related with family planning interventions
Use of health care services during the last 15 days
Types of services used, source of the service, amount of money spent by expenditure categories

Use of health care services for immunizing children and women during the last three months
Use of family planning services during the last three months
Use of maternal care services during the past one year

Use of child health services during the past one year
Number of contacts with community health promoters, social mobilizers
Types of messages obtained from the community health promoters
Number of contacts with family planning workers
Types of services received from the family planning workers

Quality of the services obtained from the health professionals, health workers, etc.
Quality of the health facility used by household members

Knowledge about benefits of immunization to the child or mother being immunized or to others in the society
Knowledge about benefits of getting ANC services
Knowledge about the benefits of family planning services
Questions on household perception about negative consequences of the above health services on health and wellbeing (side effects, other negative effects), if any
Knowledge about various common illnesses, the symptoms and how to manage the illnesses within the household
Willingness to pay for specific health care interventions by the characteristics of the patient

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. (TYPE WITHIN THE PROVIDED SPACE).

The fixed health services facilities, which will be selected randomly are located at thana level and in different districts of Bangladesh. Each facility at the Thana is designed to provide ESP services to all individuals in the Thana through the fixed site an a number of satellite clinics. The RSDP NGOs will assist in locating the household areas that will be selected in the sample. The travel to the study area will be by road.

Data Analysis

Describe plans for data analysis. Indicate whether data will be analyzed by the investigators themselves or by other professionals. Specify what statistical soft wares 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).

Method of Analysis

The household survey will use both bivariate and multivariate approaches of data analysis. Average willingness and ability to pay by service type will be reported. However, the policy makers are more interested to understand the willingness to pay by socio-economic status of the households. Simple bivariate analysis can be used to show this relationship.

Multivariate analysis will be used to understand the factors affecting the choice of providers. Households might choose the NGO facility for certain types of services but not for others. The factors that may have affected this decision-making will be examined. The potential determinants of the choice of health facilities are: household size and composition, income per capita, distance from the health center, knowledge about the types of services provided in the NGO clinic, knowledge about health and wellbeing, quality of service at the facility, etc.

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.

The study, as noted earlier, will examine the health care seeking behaviour, willingness and ability to pay of the sample population. The study will interview the user of the RSDP health centres to gather information on perceived quality of the services. Observation will be made on the service produced to study the time allocation for different activities. The study subjects will be informed about the objectives, procedures and potential benefits of the study. Consents will be obtained from the subjects to protect subjects' rights.

Use of Animals

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.

NOT APPLICABLE

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.

1. Ministry of Health and Family Welfare. Health and Population Sector Programme (HSSP). 1998-2003: Programme implementation Plan. 1998

2. Quayyum Z., Routh S, Rahman MA, Jahan M, Khuda B; Cost-Recovery Strategies in the Health and Population Programmes of Bangladesh: Issues for the Application of User Fees. Special Publication, ORP, HPED, ICDDR,B. 1999

3. Quayyum Z, Thwin AR, Baqui AH, Mozumder MA,Begum A, Sobhani J. Establishing a systematic pricing mechanism for MCH-FP services of NGO in urban Bangladesh: a preliminary assessment. ICDDR,B Working Paper. 1997

4. Barkat-e-Khuda, Larson A, Barkat A, Lerman C. A study of the feasibility and impact of pricing scheme for condoms and pills. University Research Corporation. 1999.

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 Bangladesh through a training programme.

The finding will be disseminated jointly by UFHP and ICDDR,B at seminars and workshop, Interdivisional Scientific Forum of ICDDR,B, UFHP seminars, through internet, ICDDR,B working paper, and Abt Associate publication. USAID's concurrence will be obtained for dissemination of the study results as and when needed.

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. **(DO NOT EXCEED ONE PAGE)**

The study will have an arrangement of technical assistance with Abt Associates. Dr. M.Mahmud Khan, who will be ending his term at the HEP, ICDDR,B in July will work as Abt Associates Consultant. The funding agency will enter into agreement with the Abt Associates to buy Dr. M. Khan's time for providing technical assistance and guidelines to the Co-Principal Investigator and other Co-Investigators at HEP, ICDDR,B after his departure from ICDDR,B. Professional collaboration will be developed with the NGO health facilities surveyed, so that the analysis will be useful for policy formulation at the NGO level as well.

Principal Investigator: Last, first, middle __Dr. Khan Mahmud M_____

Biography of the Investigators: *Please find enclosed separately*

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

Name	Position	Date of Birth

Academic Qualifications (Begin with baccalaureate or other initial professional education)

Institution and Location	Degree	Year	Field of Study

Research and Professional Experience

Concluding with the present position, list, in chronological order, previous positions held, experience, and honours. Indicate current membership on any professional societies or public committees. List, in, chronological order, the titles, all authors, and complete references to all publications during the past three years and to representative earlier publications pertinent to this application. **(DO NOT EXCEED TWO PAGES, USE CONTINUATION SHEETS).**

Bibliography

Principal Investigator: Last, first, middle Dr. Khan Mahmud M

Detailed Budget for New Proposal

Project Title: **Health Care Seeking Behavior, Willingness and Ability to Pay for Health Services of the ESP Components delivered through NGO-run facilities of UFHP**

Name of PI: Dr. M. Mahmud Khan

Protocol Number: Name of Division: Public Health Sciences Division

Funding Source: UFHP. Dhaka. (JSI) Amount Funded (direct): 37,547 Total: 46,933

Overhead (%) 25% 9,386

Starting Date: June 1999 Closing Date: 31 December, 1999

Strategic Plan Priority Code(s):

Sl. No	Account Description	Salary Support			US $ Amount Requested		
	Personnel	Position	Effort%	Salary	1st Yr	2nd Yr	3rd Yr
01	Principal Investigator*						
02	Sr. Operations Researcher	1	100%	1000	6,000		
03	Field Research Officer	1	100%	349	698		
04	Sr. Field Research Assistant	4	100%	267	2,136		
05	Field Research Assistant	16	100%	224	7,168		
06	Data Entry Technician	4	100%	267	3,204		
07	Programmer for Data Analysis	1	100%	635	2,540		
08	Administrative Support	1	50%	455	1,371		
	Sub Total				**23,117**		
	Consultants						
	Local Travel	Including Per diem			9,930		
	International Travel						
	Sub Total				**9,930**		
	Supplies and Materials (Description of Items)						
	Printing Questionnaire/list				1,000		
	Stationary & other Filed Materials				1,500		
	Computer rentals				2,000		
	Sub Totals				**4,500**		

Principal Investigator: Last, first, middle __Dr. Khan Mahmud M_____

	Other Contractual Services			
	Repair and Maintenance			
	Rent, Communications, Utilities			
	Training Workshop, Seminars			
	Printing and Publication			
	Staff Development			
	Sub Total			

	Interdepartmental Services	**1st Yr**	**2nd Yr**	**3rd Yr**
	Computer Charges			
	Pathological Tests			
	Microbiological tests			
	Biochemistry Tests			
	X-Rays			
	Patients Study			
	Research Animals			
	Biochemistry and Nutrition			
	Transport			
	Xerox, Mimeographs etc.			
	Other Operating Costs			
	Capital Expenditure	37,547		
		~~46,933~~ 3986		

TOTAL DIRECT COST (including 25% overhead $9,386)

*To be funded separately through a consulting arrangement with Abt Associates after his departure from the Centre.

BS# 46,933

5/7/99

M. Bodiar Rahman
Senior Budget & Cost Officer
ICDDR, B, Mohakhali
Dhaka-1212, Bangladesh

Budget Justifications

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

One Senior Operations Researcher will need to work full time (six) and will have the overall responsibility in undertaking the activities of the study. .The Senior Operations Researcher will work under the guidance and close collaboration of the Principal Investigator. Considering the number of households and the amount of information to be collected from the household for the health seeking behavior , willingness and ability to pay, and the facility survey for collecting cost information and time allocation study, it has been estimated that around 16 Field Research Assistant and 4 Senior Field Research Assistant will be needed to complete the work within the stipulated time of data collection (two months). One Field Research Officers will be needed to supervise the filed research assistants for three months, the period of data collection. Four data entry technicians will be needed to complete the data entry in the stipulated time. The programmer will be employed for 4 months, who will help in data entry design and management and also assist in analysis of the data.

The travel and per diem expenditure is designated for staff members (research assistants and investigators). It is estimated that about 3 round trips will be made by the field research staff. While calculating the total expenses, the standard ICCDR,B per diem rate and travel by bus has been taken into account.

Other Support

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)

APPENDIX

International Centre for Diarrhoeal Disease Research, Bangladesh
Voluntary Consent Form

Title of the Research Project: **Health Care Seeking Behavior, Willingness and Ability to Pay for Health Services and Costing of the ESP Components delivered through NGO-run facilities of RSDP**

Principal Investigator: **Dr. M. Mahmud Khan**

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.

English Version:

We are going to conduct a study on the health seeking bahaviour, willingness and ability to pay for Health Services. This study will help us to obtain information on household's health seeking behaviour pattern of the different socio-economic group, use of different type of providers, value of health services, the perception about the benefits of seeking different type health care, the different type total expenditures incurred for seeking preventive and curative care, client's willingness to pay for different health and family planning services. The results of the study will help improve the quality of services, improving the policy for service delivery. Please feel free to answer the questions. All individual information will be kept strictly confidential and will be used for research study only. We are requesting you to take part in this study. You have the option to accept or to refuse participation. If you agree, you may please sign your name or give thumb impression on this form.

Bangla Version: Will follow.

Signature of Investigator/ or agents
Date:

Signature of Subject/ Guardian
Date:

Principal Investigator: Last, first, middle __Dr. Khan Mahmud M_____

Check List

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

1. Face Sheet Included ☑
2. Approval of the Division Director on Face Sheet ☑
3. Certification and Signature of PI on Face Sheet, #9 and #10 ☑
4. Table on Contents ☑
5. Project Summary ☑
6. Literature Cited ☑
7. Biography of Investigators ☑
8. Ethical Assurance ☑
9. Consent Forms ☑
10. Detailed Budget ☑

CURRICULUM VITAE

M. Mahmud Khan

PRESENT POSITION

Associate Professor
Department of International Health and Development (IHD)
and Department of Health Systems Management (HSM)
Tulane School of Public Health and Tropical Medicine, USA
and
Head, Health Economics Programme
Public Health Sciences Division, ICDDR, B
GPO Box. 128, Dhaka – 1000, Bangladesh
Tel: +880-2- 9881762 (W), 885606 (R), Fax: +880-2-886050
E-mail: mkhan@icddrb.org

EDUCATION

B.S.S.	University of Dhaka, Bangladesh Major: Economics, Secured first position in the first class	1978
M.S.S.	University of Dhaka, Bangladesh Economics, Secured first position in the first class	1980
M.A.	Stanford University, California Applied Economics. Areas: Food, Nutrition and Health, Production Economics, Development	1982
M.A.	Stanford University, California Economics. Areas: Econometrics, Labor Economics, Development theory, Micro-economics	1987
Ph.D.	Stanford University, California Applied Economics. Household modeling	1988

POSITIONS HELD

Feb 1980 to Aug '81	Lecturer, Dept. of Economics, University of Dhaka, Bangladesh
Jan 1984 to June '85	Assistant Professor, Dept. of Economics, University of Dhaka, Bangladesh
July-Sept '85	Visiting Fellow, Warwick University Development Economics Research Center, Coventry, UK
August 1987 to July 1988	Acting Assistant Professor Economics Department, University of Washington, Seattle, USA.
July 1988 to May 1992	Assistant Professor, International Health and Development (IHD) Tulane University, Louisiana, USA
June 1992 to June 1994	Assistant Professor, IHD and HSM Departments, Tulane University, USA.
July 1994-	Associate Professor (tenured), IHD and HSM, Tulane University.
January 1997	Head, Health Economics Programme, ICDDR,B, Dhaka. (on secondment from Tulane University)

PUBLICATIONS (since 1992)

1. "RE: The Use of Residuals for Longitudinal Data Analysis: The Example of Child Growth", letter to the editor, American Journal of Epidemiology (USA), February 1993.

2. "Composite Indicators for Famine Early Warning Systems", first author with Nancy Mock, William Bertand, The Disaster, September, 1992 (UK)

3. "Is Madagascar becoming Increasingly Vulnerable to Food Crises?", first author with Nancy Mock, Victor Jeannoda, Shawn Baker, in Ecology of Food and Nutrition, 1992 (USA).

4. "The Costs of Rearing Children in Agriculture Economics: An Alternative Estimation Approach and Findings from Rural Bangladesh", first author with Robert Magnani, Nancy Mock and Yusuf Saadat, in Asia-Pacific Population Journal, 1992 (ESCAP, United Nations).

5. "The Utility of Clinic-based Anthropometric Data for Early-Timely Warning Systems: A Case Study Niamey, Niger", second author with Nancy Mock, D. Mercer, and others, Food and Nutrition Bulletin, December, 1992 (USA).

6. "Financial Development and Income Velocity of Money in Bangladesh", second author with Dr. Kabir Hassan, Dr. Badrul Haque, Bangladesh Development Studies, Volume 21, No1, March 1993.

7. "Market Based Early Warning Indicators for Pastoral Households of the Sahel: A Case Study for Niger", World Development, February 1994.

8. " Economics of Schistososmiasis Control Strategies in Northern Cameroon: A Study based on Household Survey Data from the Extreme North Province", M. Mahmud Khan, Small Applied Research Paper No.16, Peer-reviewed paper, Health Financing and Sustainability Project, Abt Associates, December 1994.

9. "A Note on Choice of Indicators for Food Security and Nutrition Monitoring", Letter to the editor, M. Khan and F. Riely, Food Policy, Vol.20, No.1, February 1995.

10. "Economic Status of Households and Labor Supply to Market and Non-market Activities - Some Results from a Poor Rural Economy", M. Mahmud Khan, Applied Economics, Vol.27, 1995.

11. "Socioeconomic Development and Health: A Comparative Analysis", M. Mahmud Khan, Asian Affairs, Vol. 17, August 1995.

12. "Community-based Health Insurance in China: Bending to the Wind of Change", M. Khan, N.Zhu, J. Ling, World Health Forum, Vol.16, 1995.

13. "The Use of Non-project Assistance for Health Policy Reform: An Analysis of the Case of Republic of Niger", M, Khan, Nancy Mock and R. Magnani, Journal of African Policy Studies, December 1995.

14. "Health-seeking behavior in Niger, the Role of Traditional Healers", Scandinavian Journal of Development Alternatives, June 1996.

15. "Market based Price Support Program: An Alternative Approach to Large Scale food Procurement and Distribution System", M. Khan and A.M.M. Jamal, Food Policy (UK)., December 1997 Vol.22, No.6, pp.475-486.

16. M. Ali, A de Francisco, M. Khan et al., "Factors affecting the performance of family planning workers: Importance of geographic information system in empirical analysis", International Journal of Population Geography, Volume 5, 1999, pp.19-29.

17. M.M. Khan, M. Shahadat Hossain et al., "Social Situation and Health Status of Women in Bangladesh: A Preliminary Analysis", Chapter 15 in Health Situation and Health Care Expenditures in Bangladesh: Evidences from Nationally Representative Surveys, edited by Waliul Islam, M. Mahmud Khan and M. Shahadat Hossain, Bangladesh Bureau of Statistics, 1998.

18. M. Khan, Y. Celik et al., " Inappropriate Use of Hospital Beds in a tertiary hospital of Turkey", accepted for publication. Forthcoming in World Hospital.

19. M. Khan, N. Zhu and J. Ling. "Designing a Health Insurance Programme for Rural Bangladesh: Lessons from the Cooperative Medical System of Taicang County of China", forthcoming in Bangladesh Development Studies.

CURRENT RESEARCH

1. Costs and benefits of syphilis screening and treatment in Bangladesh
2. Costs and benefits of introducing hepatitis-B vaccination with EPI in Bangladesh.
3. Optimal distribution of Emergency Obstetric Care facilities: A social cost-minimization approach.
4. Macroeconomic aspects of health sector of Bangladesh
5. Effect of development programmes on health and nutrition
6. Costing IMCI activities at the community level
7. Costing Integrated Nutrition Project of Bangladesh.

PRESENTATIONS (since 1997)

February 1999	Presented two papers on Expanded Program on Immunization in Bangladesh at the Annual Scientific Conference of ICDDR,B, 14-15 February.
February 1999	Presented a paper/research findings on Status of Immunization Costs, Cost-effectiveness and Financing: Bangladesh Case, Meeting on Sustainable Financing for Vaccination Programs, organized by Child Vaccine Initiative, New York, 4-5 February
February 1998	Poster presentation at ASCON VII organized by ICDDR,B on 14-15 February, 1998. Title of the paper: Economics of Hepatitis B Vaccination for Bangladesh.
February 1998	Paper presented at ASCON VII organized by ICDDR,B on 14-15 February, 1998. Title of the paper: Costs and Benefits of Syphilis Screening in Bangladesh: Some Preliminary Estimates.
December 1997	Paper presented at the workshop on "Women's Health in the Community:

CURRICULUM VITAE

Zahidul Quayyum

PRESENT POSITION

Senior Operations Researcher
Health Economics Programme, Public Health Sciences Division. ICDDR, B.
GPO Box. 128, Dhaka – 1000. Bangladesh. Tel: +880-2- 9881762 (W), 9117400 (R).
E-mail: zquayyum@icddrb.org

EDUCATION

Bachelors of Social Science (BSS)	University of Dhaka Dhaka, Bangladesh	1980
Masters of Social Science (MSS) Economics	University of Dhaka Dhaka, Bangladesh	1982
Masters of Arts (MA), Economics	Thammsat University Bangkok, Thailand.	1984
M. Sc. Health Policy, Planning and Financing	London School of Hygiene and Tropical Medicine and London School of Economics University of London, UK	1996

POSITIONS HELD

1 February 1985 to 6 November 1993	Research and Statistical Officer International Jute Organisation Dhaka, Bangladesh	Major Responsibilities included: Writing on reports on market and trade situation of jute and jute products. Assist in project preparation and implementation.
7 November 1993 to 30 November 1994	Research Investigator Urban Health Extension Project Community Health Sciences Divivsion, ICDDR,B.Dhaka.	Major Responsibilities included Supervise the urban health and. demographic surveillance system Prepare research reports
1 December 1994 31 July 1997	Senior Operations Researcher, Urban MCH-FP Extension Project Health and Population Extension Division. ICDDR,B. Dhaka	Design and Implement interventions and studies on financial sustainabi-. lity. Prepare research reports
1 August 1997 to to 12 April 1999	Senior Operations Researcher, Operations Research Extension Project, Health and Population Extension Division. ICDDR,B. Dhaka	Major Responsibilities included: Design and implement operations research interventions, and studies on financial sustainability. Prepare research reports

12 April 1999 till to date	Senior Operations Researcher, Health Economics Programme, Public Health Science Division ICDDR,B. Dhaka	Major Responsibilities include: Design and undertake studies on costing, financing, economic evaluation, major health policy Issues of the health systems. Faculty for the short training courses organised by the programme.

PUBLICATIONS/RESEARCH REPORTS

1. **A Review of Cost Recovery Strategies in the Health and Population Sector of Bangladesh**. Published as a Special Publication Series of the Operations Research Project. ICDDR,B. I am the principal author. April 1999.

2. **Demand for Child Curative Care in Two Rural Thanas of Bangladesh: Effects of Income and Women's Employment.** Working paper of the Operations Research Project, ICDDR,B, published in 1998. I am one of the co-authors of the paper.

3. **Establishing A Systematic Pricing Mechanism for MCH-FP Services of NGOs in the Urban Bangladesh: A Preliminary Assessment**. A working paper of Urban MCH-FP Extension Project, ICDDR, B, published in October 1997. I am the first author of the paper.

4. **Impact of national immunization days on polio-related knowledge and practice of urban women in Bangladesh**. Working Paper of the Urban Health Extension Project, ICDDR,B published in 1997. I am one of the co-authors of the paper.

5. **Impact of national immunization days on polio-related knowledge and practice of urban women in Bangladesh.** A journal article published in the journal: "Health Policy and Planning", **12(4)**, published in 1997. I am one of the co-authors of the paper.

6. **Reducing drug cost through rationalization of Diarrhoea and ARI case management at Urban PHC level**. Forthcoming working paper of the Operations Research Project. I am the principal author of the working paper.

7. Co-author of the book, "**New Horizons for Jute**", published by National Information Center for Textile and Allied Subjects (NICTAS), Ahmedabad, India. February 1993.

8. Co-author of the article "**Jute Has a Bright Future**", published in **Textile Horizon**, October 1989, Textile Institute, Manchester, UK.

9. Co-author of the publication on **"Yield Performance and Cost of Cultivation of Jute Kenaf and Allied Fibre in the Major Jute Producing Countries.** A Research Report of the International Jute Organisation, published in 1990. Dhaka.

10. "**Determinants of Export Performance of Jute Goods from Bangladesh.** "A Thesis submitted in partial fulfillment of the requirement of Masters of Economics, Faculty of Economics, Thammasat University, Bangkok, August 1984. Unpublished.

PRESENT RESEARCH

1. Costing of NGO Health Facilities Providing Essential Services Packages of Health and Family Planning Services.
2. Health Seeking Behaviour, Willingness and Ability to Pay of Rural and Urban Households of Bangladesh.
3. Economic Evaluation of Home Gardening supported by NGO as an Alternative to Improvement of the Nutritional Status in Bangladesh
4. Pricing the Essential Services Packages delivered by USAID funded NGOs in the Urban and Rural Bangladesh.

PREVIOUS RESEARCH

1. Designed and implemented an intervention for developing a systematic pricing mechanism for the MCH-FP services provided by the NGO in Urban Dhaka.
2. Willingness and Ability to Pay and Ability to Pay for MCH-FP services
3. Reducing Drug Costs thorough Rationalization of Diarrhoea and ARI Case Management at the Primary Health Care Facilities
4. Study on the knowledge of urban mothers on immunization (particularly about polio vaccine) and the impact of National Immunization Day on knowledge and coverage of polio vaccine.

PRESENTATIONS

1. **Reducing Drug Costs Through Rationalization of Diarrhoea and ARI Case Management at Urban PHC Level.** Paper presented at the Seventh *Annual Scientific Conference of ICDDR,B. 14-15 February, 1998*. This paper was presented at annual conference of *National Council for International Health (NCIH), for the year 1998, held in Virginia during 25-27 June 1998*. I am the principal author of the paper.

2. **The Demand for Child Curative Care in Rural Bangladesh**". *Paper presented at the Population Association of America (PAA) 1998 Annual Meeting, held in Chicago, Illinois on April 2-4, 1998.* I am one of the co-investigators of the study.

3. **Establishing Systematic Pricing Mechanism for Essential Service Package in Urban Areas.** Presentation of findings of the operations research on the subject at the *Dissemination Seminar: Lesson Learned and Programmatic Implications," organised by MCH-FP Extension Project, ICDDR, B. 17 July 1997*. I was the principal investigator of the operations research.

4. **Willingness and Ability to Pay for MCH-FP Services in Urban Bangladesh.** Paper presented at the Sixth *Annual Scientific Conference of ICDDR,B. 8-9 March 1997.* This paper was also presented at the annual conference of *American Public Health Association held in November 1997*. I am the principal author of the paper.

5. **Cost of MCH-FP Services Delivery: An Analysis of Concerned Women for Family Planning Branches.** Paper presented at *the Sixth Annual Scientific Conference of ICDDR,B. 8-9 March 1997.* I am one of the co-authors of the paper.

6. **Vital Role of Human Resource Development in the Jute Industrial Sector**, Paper presented at the "Workshop on Mill Practices in Jute and Jute Goods Producing Countries". International Jute Organisation, Dhaka. June 1991.

TEACHING EXPERIENCES

I am a faculty member for the short courses on "Applied Health Economics for Developing Countries" and "Clinical Economics" conducted by the Health Economics Programme of Public Health Science Division of ICDDR, B.

Teaching Health Economics for the Course: Diploma in Health Economics at the Institute of Health Economics, University of Dhaka as a guest lecturer since November 1998.

I was one of the external faculty member to take lecture for the Health Economics Course offered for the Msc students (1997/98) of Department of Economics, Jahangirnagar University, Savar, Dhaka.

I taught Health Economics to the M. Phil Students (M.Phil in Preventive and Social Medicine) at the National Institute of Preventive and Social Medicine (NIPSOM), Dhaka, during 1996-97 as a guest lecturer.

Dr. Suhaila H. Khan, MBBS, MPH
Senior Operations Researcher, Health Economics Programme, ICDDRB

EDUCATION : *Master of Public Health, Population & International Health*, June 1995
Harvard School of Public Health, Boston, USA.

Bachelor of Medicine and Surgery, April 1993
Dhaka Medical College, Dhaka, Bangladesh.

RESEARCH EXPERIENCE :

International Centre for Diarrhoeal Disease Research, Bangladesh
Department, Designation: Health Economics Programme, Senior Operations Researcher
Duration of employment: January 1999 - current
Currently conducting study on evaluating the cost-effectiveness of the urban Expanded Programme on Immunization in Bangladesh. Key responsibilities include study designing, preparing data collection tools, training and supervising data collectors, analysis, and report writing.

Bangladesh Rural Advancement Committee (BRAC), Bangladesh
Department, Designation: Research and Evaluation Division, Senior Medical Officer (Research)
Duration of employment: April 1996 - December 1998
Conducted various research studies relevant for uplift of BRAC programmes such as, financial and economic sustainability of BRAC Health Centres, challenges faced during natural calamities such as the 1998 flood, immunization in urban slums, needs of urban slum dwellers, and reasons for turnover of BRAC's *Shasthyo Shebikas*. For each study had responsibilities of principal investigator which included formulating study proposals, study designing, data collection tools, supervising data collection, analysis, report writing and dissemination.

Ministry of Health and Family Welfare, Government of Bangladesh
Department, Designation: Health Economics Unit, Consultant
Duration of employment: October - November 1995
Drafted a report for the HEU research strategy on cost-recovery through user fees.

Harvard University, USA
Department: Health Office of the Harvard Institute of International Development (HIID)
Duration of employment: October 1994 - March 1995
Worked as Research Assistant at the HIID and reviewed literature for a textbook on health management information systems, and wrote the preliminary draft for the first chapter on the evolution of HMIS.

PUBLICATIONS and REPORTS :

- Are government reproductive healthcare services 'free' or are they a burden? A case study in Bangladesh. Paper partially accepted at the Asia-Pacific Population Journal.
- Training and retaining *Shasthyo Shebika*: reasons for turnover of community health workers in Bangladesh. Health Care Supervisor, Aspen Publishers, USA. September 1998, 17 (1), 37-47.
- A comprehensive women's health care programme in Bangladesh: towards financial sustainability. In: Implementing Women's Health Programmes in the Community: The Bangladesh Experience. BRAC Publishers, Bangladesh. August 1998. p.247-255.
- The trade-off between sustainability and equity at the grassroots level: the case of the BRAC Health Centres in Bangladesh. BRAC-Research & Evaluation Division. December 1998.
- Beneath the shadows of the BRAC Centre, slums of Mohakhali. BRAC-Research & Evaluation Division. June 1997.

Shakil Ahmed

Senior Operations Researcher
Health Economics Programme, PHSD, ICDDR,B

EDUCATION

Tulane University, New Orleans, LA, USA
Department of International Health & Development
Master of Public Health, May 1998
Focus on International health with emphasis on health economics research.

University of Dhaka, Mymensingh Medical College, Dhaka, Bangladesh
Bachelor of Medicine & Surgery MBBS, May 1994

TRAINING

International Workshop on Research Methodology at ICDDR,B.
Applied Health Economics for Developing Countries at ICDDR,B.
Clinical Economics at ICDDR, B.

RESEARCH EXPERIENCE

June 98 – Present

Assist the Principal Investigator in cost benefit, cost effective analysis of different health interventions especially in child health and nutrition and also looking in strategies for cost recovery. Specific responsibilities include, identification of areas in need of research, writing proposals, supervising ongoing researches, proper implementation of projects in Matlab field area of ICDDR,B and five rural thanas of Bangladesh, data management and analysis of data, report writing, preparing seminar documents, attending various workshops and seminars.

Presently involved as a Co-investigator in the following projects:
Costing of Integrated Management of Childhood Illness (IMCI).
Costing of Bangladesh Integrated Nutrition Project (BINP) at the community level.
Cost Estimates for the National Nutrition Program and Potentials for Local Resource Mobilization.
Effectiveness of Bangladesh Integrated Nutrition Project (BINP) at the community level.

Aug 97 - May 98

Research Assistant, Tulane University
Data collection, entry, verification, and statistical analysis of different projects of the Department of International Health & Development.

Jan. 97 - Jun 97
Nov. 95 - April 96

Short – Term Evaluator, AVSC International, Bangladesh Country Office
Completed Training Impact Evaluation (TIE) of clinical service courses as well as comprehensive training on clinical contraception conducted by AVSC International. Was responsible for assisting the principal evaluator of the training impact evaluation of the IUD, injectable and family planning counselling training programs.

PRESENTATION

A paper "Cost Estimates for the National Nutrition Program and Potentials for Local Resource Mobilization" by **Shakil Ahmed**, presented at the National Nutrition Program workshop in Bangladesh on October 20, 1998.

A paper "Costing of the Integrated Management of Childhood Illness (IMCI): A Study Based on Matlab Data" by M. Mahmud Khan, Kuntal K Saha and **Shakil Ahmed,** presented at the Inter-Divisional Scientific Forum at ICDDR,B on May 17, 1999.

CURRICULUM VITAE

Name : **Kuntal Kumar SAHA**
Position : Medical Officer

Education:

- ☐ *Master of Science* in Nutrition in 1995 from the Institute of Nutrition and Food Science, the University of Dhaka.
- ☐ Bachelor of Medicine and Bachelor of Surgery *(MBBS)* in January 1990 from Dhaka Medical College.

Training:

- *Applied Health Economics in Developing Countries* at ICDDR,B.
- *International Workshop on Research Methodology* at ICDDR,B.
- *Introductory Course on Epidemiology and Biostatistics* at ICDDR,B.
- *Clinical Economics* at ICDDR,B.
- *Operations Research Methodology* at BIRPERHT.
- *Practical Epidemiological and Computing Skills for Nutritional surveillance* in Addis Ababa, Ethiopia.

Research:

- Involved in the study "Assessment of Maternal Mortality in Bangladesh" - a collaborative study of BIRPERHT and CDC, Atlanta, USA.
- Health Care Use Pattern of the Non-slum Residents in Dhaka City.
- Assessing Health Services Utilization for Policy Development.
- Costing of the Integrated Management of Childhood Illnesses (IMCI): A Study Based on Matlab Data

Publication and Presentation:

- Akhter HH, **Saha KK**, Elahi ME, Karim F, *Knowledge, Attitude and Practice of Mothers/Female Guardians on Nutrition of Adolescent Girls in Rural Bangladesh.* Programme and Abstracts, 7th Bangladesh Nutrition Conference of Nutrition Society of Bangladesh 1997, p 37.
- A paper *"An Analysis of Health Care Interventions in Bangladesh"* by Ishtiaq Bashir and **Kuntal K Saha**, presented at the Workshop on Health Care Organization in Bangladesh.
- A paper *"Costing of the Integrated management of Childhood Illnesses (IMCI): Bangladesh Module"* by M Mahmud Khan and **Kuntal K Saha** presented at the IMCI Technical Coordination Committee meeting in Geneva in March 1999.
- A paper *"Costing of the Integrated management of Childhood Illnesses (IMCI): A Study Based on Matlab Data"* by M Mahmud Khan, **Kuntal K Saha** and Shakil Ahmed, presented at the Inter-Divisional Scientific Forum at ICDDR,B on May 17, 1999.

Current involvement:

Data analysis and writing of scientific reports on the following studies:

- Health care Use Pattern of the Non-slum Residents in Dhaka City.
- Assessing Health Services Utilization for Policy Development.
- Costing of the Integrated Management of Childhood Illnesses (IMCI): A Study Based on Matlab Data.

CURRICULUM VITAE

Name: Ishtiaq BASHIR
Position: Senior Medical Officer, Public Health Sciences Division, ICDDR,B

EDUCATION

- Master of Public Health (MPH) from the Prince Leopold Institute of Tropical Medicine at Antwerp, Belgium in June 1996.
- Bachelor of Medicine and Surgery (MBBS) from Rajshahi Medical College, Univ. of Rajshahi, Bangladesh in Feb.1984.

TRAINING

- *Epidemiological Methods in Public Health*, ICDDR,B, Dhaka.
- *Qualitative Methods in Research*, Bangalore, India.
- *International Course in Health Development* , Antwerp, Belgium.
- *Cost Effectiveness Analysis for Primary Health Care*, Dhaka.
- *Clinical Economics* ICCDR,B, Dhaka.
- *Applied Health Economics for Developing Countries*, ICDDR,B, Dhaka.

PROFESSIONAL EXPERIENCE

From Jul. 1996 till date: Currently Field Coordinator of Safe Motherhood: Emergency Obstetrics Care In Matlab, Bangladesh and Co-Investigators of: Assessing Health Service Utilization For Policy Development a) In The Non-Slum Population Of Dhaka-City, Bangladesh b) In The Catchment Area Of Gonosasthaya Kendra Health Care System In Savar And Gazipur Thanas, Bangladesh. Provides training on Health Systems Research; Epidemiology & Biostatistics.
From Jul 1992 to Aug 1995: Co-investigator of Health Care Use Patterns of Slum Residents in Dhaka, Bangladesh.
From Nov. 1990 to Jan. 1992: Project Manager, Training Immunizers in Community Approach (TICA), CARE Bangladesh
From Oct. 1989 to Oct. 1990: Research Associate, Epidemiology Dept., ICDDR,B
From Dec. 1987 to Sept. 1989: Medical Officer - Epidemic Control Preparedness Program (ECPP), ICDDR,B
From Oct. 1985 to Jan. 1987: Medical Officer, Amo Tea Estate Hosp, Duncan Brothers(BD) Ltd. (Incorporated in UK)

PUBLICATIONS & PRESENTATIONS

- Siddique AK, Zaman K, Majumder Y, Islam Q, **Bashir I**, Mutsuddy P, Eusof A. *Simultaneous Outbreaks Of Contrasting Drug Resistant Classic And El Tor Vibrio Cholera 01 In Bangladesh.* Lancet 1989;ii:396
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- **Bashir I**, Saha KK. *An Analysis Of Health Care Interventions In Bangladesh.* A paper presented at the workshop on 'Health care organisation in Bangladesh' held on 10/11 June 1998, at BRAC Centre for Development Management, Rajendrapur, Dhaka, Bangladesh.
- **Bashir I** *'Utilisation Patterns of Health Care Services in Urban Dhaka: A Comparative Analysis'* Presented at the Interdivisional Scientific Forum Meeting of the International Centre for Diarrhoeal Disease Research, Dhaka, Bangladesh. October 1998.

Response to the reviewers' comment on the proposal on "Health care seeking bahaviour, willingness and ability to pay for health services through NGO-run facilities of UFHP.

The research proposal has been prepared in close consultation with UFHP and USAID. UFHP had given their comments on earlier drafts and this final proposal has been prepared incorporating their comments. This proposal was sent to two external reviewers, i) Professor Sushil Ranjan Howlader, Director, Institute of Health Economics, University of Dhaka, and ii) David Hotchkiss, Health Economist at the Tulane University, New Orleans, USA.

Copy of comments from Professor Howlader is enclosed.

David Hotchkiss has verbally communicated and informed that he does not have any major comments on the study proposal. His written comments will follow soon.

Our responses to Prof. Howlader's comments are:

a) The providers in delivering the survey will consider the social cost and benefit as well; the information that will be collected will address such issues.

b) The research finding will address the issue that will help in determining the poor and the data collection instruments will be designed to address these.

c) The sample size is small because UFHP would like the study to be done in short time and with less money. We are discussing this issue. There is a possibility that we will be able to change it.

স্বাস্থ্য অর্থনীতি ইনষ্টিটিউট
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স্মারক নং .....

DATE : 19

July 3, 1999

Dr. Mahmud Khan
Head, Health Economics Program
Public Health Science Division
ICDDR'B
Mohakhali
Dhaka

Dear Dr. Mahmud.

I have gone through the proposals sent to me for my comments. My comments are as follows:

1. Study Proposal on : " Health Care Seeking Behaviour, Willingness and Ability to Pay for Health Services delivered through NGO-run facilities of UFHP".

   Comments:

   a. As regards the aspect of the pricing policy to be examined (p. 4), the research should consider the issue of externalities not only from the consumer viewpoint but also from providers'.
   b. The issue of protecting the poor and ensuring the safety net for them needs to be specified. Also, the tools to be used in identifying the poor or the poorest of the poor need to be mentioned.
   c. The size of sample households is not large enough to capture the difference in various services and to represent the population served by UFHP.

2. Study Proposal on: " Health Care Seeking Behaviour, Willingness and Ability to Pay for Health Services and Costing the ESP Components delivered through NGO-run facilities of RSDP."

   a. The points noted as "a" and "b" for the former proposal apply to this one as well.
   b. It is mentioned that to allocate cost there will be time allocation study. The observation method may give biased results. It is necessary to mention how these biases will be corrected.
   c. The cost differentials may also vary among the facilities due to varying quality of services provided in different facilities. This should be taken into account.

With best regards.

Yours sincerely,

(Prof. Sushil Ranjan Howlader)
Director

Attachment

Name of the Study : **Health Care Seeking Behavior, Willingness and Ability to Pay for Health Services of the ESP Components delivered through NGO-run facilities of UFHP**

The study as noted in the summary submitted is based on household survey of population in the cathment area of the NGO health facilities.

The **household survey** will be conducted to examine the health care seeking behaviour, (for family planning services, ANC and PNC, immunization and general illness of mother and child and other members of the households) willingness and ability to pay for ESP delivered by UFHP NGOs. This will involve collecting information on the socio-economic status of the household (income, expenditure, the household type, durable assets of the households), source of care for above mentioned services, all the expenditure incurred for obtaining the health and family planning services/care, willingness to pay for selected ESP services.

1. The subject population will be the selected from areas served by NGOs. For the household survey, the information will be collected from the mothers of the households, and women of reproductive age group.

2. There will be no potential risk of physical, psychological, social, legal and of any other kind. The study do not involve any physical risks because it does not involve any physical intervention on the subjects. No sensitive questions will be asked in interviews that may have adverse psychological affect on the subjects.

3. In order to safeguard the confidentiality and the protection of anonymity, the questionnaires will be coded to represent the households and/or the individual. The questionnaire will be marked as "confidential" and the data/information will be used for study purpose only.

4. For collecting the information, a consent form will be used (as attached). This will be signed consent from. For illiterate mothers, the contents of the consent from will be read out and consent will be obtained.

5. For the household survey, interviews will be carried out at the respondent's household. Trained female interviewers will conduct the interview using structured and semi structured questionnaire. The estimated time of the interview will be around 20 min.

6. The study will assist the UFHP in improving the pricing policy for the services delivered by UFHP NGOs. It will also help in improving the resource allocation between services that will help in improving the efficiency of the service delivery and improve the quality of services. The information will also provide an opportunity of cross subsidizing some preventive services delivered which may help to develop an "safety net" measures for the poor clients.

7. The study activity will not require the use of records, organs, body fluids, the fetus or the aborts.

আন্তর্জাতিক উদরাময় গবেষণা কেন্দ্র
মহাখালী

তারিখ, মাস, এবং সাল

সম্মতি পত্র

উক্ত কেন্দ্রের পক্ষ থেকে আমরা কিছু সাস্থ্য বিষয়ক তথ্য জরীপের জন্য আসিয়াছি, আমাদের কাজের মূল উদ্দেশ্য হচ্ছে:

স্বাস্থ্য ও পরিবার পরিকল্পনা সম্পর্কে সঠিক তথ্য সংগ্রহ করা। আমরা যে সমস্ত স্বাস্থ্য ও পরিবার পরিকল্পনা বিষয়ক কাজ করিতেছি।

পরিবার পরিকল্পনা পদ্ধতি, গর্ভবতী মায়েদের সেবা, প্রসবউত্তর সেবা, মায়েদের শিক্ষা, বাচ্চাদের টিকা এবং পরিবারের সদস্যদের যেকোন স্বাস্থ্যগত অনুসন্ধান। আমরা আপনাদের পরিবারের আর্থ সামাজিক অবস্থা সম্পর্কে যেমন (আয়, ব্যয়, সঞ্চয়) এসব বিষয়ে প্রশ্ন করা হবে।

এছাড়া আপনাদের এই সকল সেবার জন্য কত টাকা খরচ করেন এবং কতটাকা হলে করতে রাজী আপনি এই সম্পর্কে তথ্য নিব।

এই জরীপের ফলাফল ও তথ্য এই এলাকার স্বাস্থ্য ও পরিবার পরিকল্পনা সেবার উন্নতি সাধনে সাহায্য করবে, আপনার ইচ্ছা করলে এই জরীপে অংশ নাও করতে পারেন, অতএব এই বিষয়ে আপনাদের সহযোগীতা কামনা করছি এবং জরীপে অংশ গ্রহন করিতে অনুরোধ করছি।

আপনাদের দেয়া তথ্য সম্পূর্ণ গোপনীয়তা রক্ষা করা হবে।

অংশগ্রহনকারীর নাম: তারিখ:

নিরীক্ষকের নাম: তারিখ:

Comments on the project entitled "Health Care Seeking Behavior, Willingness and Ability to Pay for Health Services delivered through NGO-run facilities of UFHP"

Dr. Halida Hanum Akhter
Director, BIRPERHT

Research aims and methods: The research plans,

- To examine the health care seeking behavior of the population in the catchment area of the health facilities as well as to examine the willingness and ability to pay for the health services provided by the NGO clinics and suggest the level of user charges for each of the ESP services.
- To examine the effect of social mobilization, contacts, knowledge about health etc. and willingness and ability to pay.

This study will select 10 percent of the UFHP sites of USAID-funded NGOs after stratifying the NGOs or the facilities based on satisfaction variable used and a total of 1800 households will be selected.

A cross sectional household survey will be conducted in selected rural areas to cover common illness occurrences and health service utilization in the community during the last two weeks prior to the visit. Data will be collected on health care resource used for each target illness episode, for each health care option used, and the factors that influence the decision making in the process of their health seeking behaviour.

The study will interview the user of the selected UFHP health centres catchment areas to gather information on perceived quality of the services. Facility survey for the costing part of the study will involve collection of information on types quality and cost of all inputs used for providing the health and family planning services. To study the time allocation for different activities observation will be made on the services provided at the facilities.

The study subjects will be selected from areas served by NGOs. For the household survey, the information will be collected from the women of reproductive age group by recruited interviewers.

The study subjects will be informed about the objectives, procedures and potential benefits of the study and consents will be obtained from the subjects as well as from the clinic staff participating in the study through a consent form. For illiterate mothers, the contents of the consent from will be read out and consent will be obtained.

Final comments:

The Bangla consent form contains relevant information about the study including confidentiality and safety issues and type of data to be collected. The consent form needs some language modification and should include the information on approximate time required for the interview.

Since the NGOs of UFHP have already adopted user fees in their clinics, interviewing clinic attendants (who are already seeking services from the clinic) may exclude poor who can not pay the amount necessary to attend the clinic.

We have not seen the questionnaire for the household interview. To include the poor the PI should interview poor households during the survey and try to identify reasons for not attending the UFHP clinics if they preferred categories of providers in the same communities other than the UFHP clinics. The PI should also recruit subjects from the households who were not served by the clinic of UFHP.

Having no major ethical concerns the proposal may be approved with following modifications:

- Modify Bangla consent form.
- Plan to select poor households not served by UFHP clinics.

INTERNATIONAL CENTRE FOR DIARRHOEAL DISEASE RESEARCH, BANGLADESH (ICDDR,B)

INTERIM/FINAL

SUMMARY COMPLETION FORM FOR PROTOCOLS

Title : Health Care Seeking Behavior, Willingness and Ability to Pay for Health Services delivered through NGO run facilities of UFHP (Urban Family Health Partnership).

Investigator(s) : Shekil Ahmed, M. Mahmud Khan, Zahidul Quayyum.

Protocol No. : 99-016 **Budget Code** : 309021

Findings (Abstract) :

ENCLOSED

Policy Implications: ENCLOSED

Dissemination plans: IDSF
International Health Economics Association.
ASCON
UFHP dissemination.

Date : 12-04-2000

Shekil Ahmed
Signature of the P.I.

Health Care Seeking Behavior, Willingness and Ability to Pay for health services delivered through NGO run facilities of UFHP (Urban Family Health Partnership)

Study funded by: UFHP and USAID

Health Economic Program, Public Health Sciences Division, ICDDR,B, Dhaka
Tulane University, New Orleans, USA and
PHR, Abt Associates, USA

Health Seeking Behavior, Willingness and Ability to Pay for Selected Health Services in Urban Family Health Partnership (UFHP) Areas of Bangladesh

Findings and Policy Implications

1. The study has been conducted to understand health-seeking behavior, and to examine the willingness and ability to pay for health services of the people living in the catchment area of the UFHP facilities. The study attempts to suggest level of user charges for selected ESP services, and to describe the possible impact of increasing user charges on utilization. The study also examined the extend of "social mobilization (contact with field workers) and the potential effect on knowledge and utilization about health and illness, willingness and ability to pay for ESP.

2. The study was conducted in areas served by 10 different UFHP funded NGOs providing ESP services. Households were selected from the catchment area of the static and satellite clinics of selected UFHP NGOs for the survey. These NGOs are classified in three different categories: A, B, C. Category A belong to metropolitan city, B and C in the municipal and small cities respectively. Listing of households was carried out within about one mile radius from the clinics as part of census. About 300 households were entered in the census list for each static/satellite clinic for the survey. These households were used as the sampling frame for the study. Four satellite sites were selected for each static clinic, hence the survey was carried out in the catchment area of 40 satellite sites, and ten static sites. The census collected data from about 15,000 households residing in the catchment area of 50 sites. Information on basic household characteristics was collected to identify the eligible households for in-depth household survey.

3. From the 300 households selected in each clinic area (static and satellite), 80 households were randomly drawn by categorizing them into different criteria/conditions for selection. The conditions were: currently pregnant women, and women who delivered recently, currently married women of reproductive age group and children of less than five years of age. The target was to interview at least 60 households from the 80 households. The total numbers of households surveyed in each clinic (the main static clinics and four satellite clinics) area were 300. For the ten-clinic area, 3000 households were interviewed for the in-depth survey on health seeking behavior, pattern and utilization of health facilities and willingness to pay for medical care services.

4. The currently married women of reproductive age group were interviewed for the in-depth survey using six sets of household in-depth questionnaires. The "household information questionnaire" was used to collect information on demographic information, socio-economics status of the households, and on visit of field worker for social mobilization. The "knowledge questionnaire" collected information about women knowledge on: family planning methods, ANC, diarrhea and ARI of children, child immunization, signs of severity of diarrhea and ARI, positive and negative externalities

of seeking various preventive and promotive health care services. Information on women's knowledge about the providers in the locality, and prices they charge was also collected.

5. The in-depth survey collected information on care seeking behavior for selected ESP services: child immunization, different family planning services, and general illness. Information on last source used for these services, the amount of money spent, ability to pay, willingness to pay additional amount of money for the services/care, and opinion about the quality of services and willingness to pay for the quality improvement.

6. To crosscheck the household information on quality and willingness to pay, the study surveyed a number of clients who have used the UFHP facilities. A questionnaire on "facility survey" were used to collect information on quality of care, type of services provided, the cost recovery strategy and charges for services. Two of the 10 static facilities were selected for this survey.

7. Patient's observation and exit interviews were conducted in six of the 10 facilities. This was done to find out at what point the clients are informed about charges, who provides the information, who collects the fees, and who assess the clients' ability to pay. The exit interviews collected information on reasons for using the facility, total waiting time, total travel time and expenditure, total expenditure at the facility, opinion about the level of users fees, willingness to pay an additional amount for the services with and without quality improvements. About 177 clients were interviewed.

8. About 80% of the households in the census are from the satellite clinic areas. This is due to higher weight assigned to satellite clinics. The population in the satellite clinic area has higher number of children per household than that in static clinic areas. The number of currently married women per household was about 1 for all areas. The number of women delivering over the last 12 months varied from 7 per 1000 households in urban category A, and to 12 per 1000 households in category C. The satellite clinics areas showed higher number. About 17% the households used poor construction material in the catchment areas of static clinics. This ratio was found to be 50% in the areas of satellite clinics. The main earner of 55% of the census households is employed on daily wage/earnings basis.

9. The households selected for the in-depth survey had average family size of 5.3. The age distribution of the population of the sample households is biased towards certain group. About 21 % of the individual belong to the age group less than five years. The population in the age group 15-39 is also higher than the national average.

10. About 60% of the head of the households in the static clinic areas reported to have completed five years of education. This proportion was about 28% in the satellite clinic areas, where half of all household heads had no formal education.

11. The households living in the satellite clinic areas were much poorer than the households living in static clinic areas were. About 57% of households in satellite clinic

areas belonged to less than Tk. 3000 monthly expenditure group. On the other hand, 27.8% of households in static clinic area and 5.7 % in satellite clinic areas belonged to more than Tk. 7.000 expenditure category.

12. For all women in the survey (3148 currently married women in the reproductive age group), 93.5% knew that pregnant women should go to a medical care provider even though they are not sick. In category A clinic areas, only about 2% of women did not about it. In category C clinic areas, more than 12% of women did not know about ANC.

13. About 30% of the women mentioned that a woman should have 3 to 5 ANC visits over the whole pregnancy period. About 25% thought that the number of visits should be once per month and 13% mentioned either less than three visits or more than 10 visits.

14. Women from higher expenditure household groups show slightly higher level of knowledge than the women from poor households. The depth of knowledge is also higher for the higher expenditure groups.

15. Most of the women (about 91%) in the survey were aware of the benefits of ANC. The benefits mentioned by most of the women were that the service helps to identify mothers' physical problems and position of the baby. Poor women appear to be less aware about the benefits of ANC than the women from richer households.

16. About 92% of women reported that they know at least one provider of ANC services in the locality. About 80% of all women mentioned public facilities as one of the ANC providers. This proportion varies with the degree of urbanization of the area. In most urbanized area (Category A), only 62% of women mentioned public facility as a source of ANC but in the least urbanized part of the country (Category C), 91% of respondents mentioned public facilities.

17. In most urbanized area (category A), 62% of women mentioned UFHP clinic while in category C area only 29% mentioned it as a source. More than 45% of women from the expenditure category less than Tk.5,000 per month mentioned UFHP clinic as a source compared to less than 30% for households with expenditures exceeding Tk.5,000.

18. About 30% of women were aware of a facility where ANC was available free in their locality. About 46% women in "C" category knew where they could find free ANC services compared to 27% and 13% in categories "B" and "A" respectively. About a quarter of women could not mention whether the facilities in the locality charge money or not.

19. About 76% of women were aware of at least one ANC provider charging money. 50% of them mentioned UFHP clinic as provider charging. About 28% from the lowest expenditure category and 13% from the highest expenditure category lacked knowledge about a facility, which is charging fee for ANC.

20. The respondents in lowest expenditure group reported that the normal charge for ANC range from Tk.20 and 30, and those in the highest expenditure group reported that it range from Taka 54 and 90.

21. The average price of UFHP clinic ANC services was reported to be Tk.14, much lower than the average minimum price mentioned for the clinics in the survey areas. About 18% of women mentioning a price for UFHP clinics thought that the price was high and more than 60% thought that the price was 'OK'. Proportion of women reporting UFHP prices as 'high' declines with improving economic status.

22. 63% of women who delivered within 12 months prior to the survey sought ANC while 50% of women pregnant at the time of survey used ANC services. The lower rate among currently pregnant group may be due to early stage of pregnancy for some women. Proportion of women seeking ANC was found to be highest in Category B urban areas compared to the situation in A or C.

23. Over the last two-year period, the public sectors as a source of ANC has declined in category A and category B of urban areas. In category C, role of public sector in the provision of ANC has remained more or less static. A significant expansion in the use of UFHP clinics in category B has been observed. In all categories, a higher proportion of women reported using UFHP clinics and this expansion was mainly at the expense of public sector.

24. The modal reason noted by users of public providers/facilities, was 'free service and free drugs'. The second most important mentioned was the presence of 'qualified provider' in the facility. For the users of private sector providers, the most common reason mentioned was the presence of 'qualified providers' followed by 'convenient hours' of the facility. For UFHP clinics, the modal group was that the facility is located 'near the house'.

25. About a third of all women seeking ANC reported an expenditure of Tk.26 or more per visit. A significant proportion of women obtained ANC free of charge (24%). The use of free ANC services was more common among the poor households. Only about 15% of women belonging to household expenditure category Tk.5001 and above sought free ANC.

26. The average cost per ANC visit varies from Tk.18.30 for the lowest economic status group to Tk.94 for the highest economic status group. On the average, the reported ANC visit cost was Tk.42. The average cost of ANC in private sector was reported at Tk.110 while the average costs at UFHP clinics and public facilities were only Tk.16 and Tk.17 respectively. Other NGOs charge about Tk.28 on the average according to the women using the facilities.

27. Among the lowest household expenditure group, 37% used the public facilities and another 36% used UFHP facilities. Only about 12% of the poorest group went to private providers for getting ANC. For the richest group, 56% went to private providers and

another 21% went to public facilities. Utilization of ANC services from UFHP clinics shows a systematic downward trend with increasing economic status.

28. The estimates of the logistic regression model show that the utilization of ANC is affected by household expenditure level (up to Tk.6, 000), having primary level education, knowledge score of the woman about ANC, knowledge about the presence of a health center that provides free ANC care. The price charged by the clinics for ANC care was not statistically significant.

29. About a fifth of all ANC users thought that the price they paid was too high and two-thirds considered the price as 'just right'

30. About 60% of women from poor households reported their willingness to pay some additional money (over what has been paid) for the services. This proportion tends to increase with household income excepting the expenditure category Tk.5,001-7000. For public facilities the proportion was 66% and for UFHP clinics, it was 60%. In category C urban areas, 65% of women said that they will pay more money for ANC while the proportions were 62% and 58% for category A and B areas respectively.

31. The modal value of willingness to pay was found to be about Tk.40 for public sector, Tk.150 for the private sector and Tk.40 for NGOs, when we consider only those women who paid for their last ANC visit. If the last visit was free, the willingness to pay amounts was significantly lower, Tk.13 for public sector, Tk.27 for private and Tk.17 for NGO facilities.

32. Among the women who paid some money during the last ANC visit at UFHP, the average willingness to pay varies from Tk.22 for the lowest economic category to Tk.41 for the richest group. There is a clear increasing trend in willingness numbers with improving economic status.

33. Estimates of regression models suggests knowledge about the ANC service affect the WTP significantly in all areas and the quantitative value of the effect is also quite high. A 10% increase in knowledge index from the mean value will increase the willingness to pay for ANC services by about Tk.1.25. Access to free care reduces WTP significantly, it is about Tk.14 lower than the others who obtained care at a fee. The effect of access to free care was strong in urban area A and B but the variable shows no impact in urban area C. Education of the woman seeking care is another significant variable in affecting WTP. Those who have more than five years of education are willing to pay Tk.50 more than others.

34. Economic status has no impact on WTP for ANC services except in Urban C areas where it has been found that an increase in the household economic status or expenditure levels by 10% will increase the WTP by about Tk. 1.81.

35. 98% of women knew about the need for immunization by age 12 months and they also know the source of such services. On the average, the each respondent mentioned

about 1.45 sources. The most common source mentioned was the 'public facilities' followed by the UFHP clinics. Other NGOs were also mentioned by about a quarter of all women. Private facilities were mentioned by only 5% of respondents.

36. Ninety nine percent of women in the survey knew about the benefits of childhood immunization. More than 73% of the respondents mentioned that immunization prevents diseases of children.

37. 31% of the children in the survey were not immunized. Almost perfect knowledge about immunization did not translate into actually obtaining immunization. In terms of proportion of children immunized, urban category B was the best followed by urban category A and C.

38. Out of the total cases of immunized in the last three months, 48% obtained their last immunization from the public facility and 32% obtained that from the UFHP clinics. Only 4.5% reported obtaining immunization from private facilities. Other NGOs provided immunization to 15% of children.

39. The modal responses for selection of the facility chosen: close to the house for public sector, other NGOs and UFHP, free service or free drugs for public sector and other NGOs, convenient hours for private facilities. For UFHP clinics, close to the house is the predominant reason (52% mentioning the reason).

40. About 50% of all women getting immunization for children got the service free of cost and another 44% received the service by paying less than Taka 10. In public facilities about 73% of immunizations were obtained free. In UFHP clinics, 37% received free immunization. The proportion of children getting free immunization appears to be independent of expenditure levels.

41. The average charge for one immunization visit was Tk.3.73. Cost of immunization varies quite significantly by source of care. The average cost of immunization in the public sector is Tk.1.42 and in other NGOs, it was Tk.7.63. The UFHP clinics charge about Tk.5.00 for immunization on the average. The average cost of immunization in the private sector is also quite low, lower than what other NGOs were charging.

42. Although the immunization charges are low, 17% of mothers felt that the charge was too high. Almost 70% of the mothers were of opinion that the charges they have paid were 'alright'. Excepting the richest household group, about 20% mothers from all other groups felt that the prices were too high. About a quarter of all mothers from expenditure categories Tk.5,000 and above reported that the price they paid were too low. About a fifth of UFHP users thought that the UFHP price for immunization was too high and another one fifth thought that the UFHP price is too low.

43. About 56 % of the mothers who have paid some money for immunization during the last visit were willing to pay more money. The proportion willing to pay more money remains at around 50 to 60% for expenditure categories less than Tk.7,000, and it was 84

% in the next higher group. The proportion of willing to pay more was about 65% for both public and private providers and about 50% for UFHP and other NGOs. Proportion willing to pay more for immunization was lowest in category A areas and highest in the category B areas.

44. The average WTP for immunization were found to be Tk.11, Tk.15 and Tk.14 for public, private and NGO providers for those who paid some money in the last visit. The average willingness tends to increase with economic status of households. It remains about Tk.7 to 8 for the mothers who did not pay anything during the last visit.

45. The estimates of multivariate analysis shows that household expenditure levels increase willingness to pay by Tk.0.0007 for each Taka increase in expenditure. Five or more years of education of women increases the WTP for immunization by Tk.1.50, knowledge about the presence of a free facility reduce WTP by Tk.4.70, etc. In urban category A, all variables other than the knowledge about the presence of a free provider becomes statistically insignificant.

46. About 48% of the women could identify the three major symptoms of ARI (unprompted) in the survey. In urban location A, a higher proportion of women could identify the symptoms (56%) while in urban category B about 42% could mention the three major symptoms.

47. More than 95% of women knew at least one provider for ARI related care. Knowledge about source of care was slightly higher in urban category C than in categories A and B. Three quarters of all women mentioned private facilities as a source while 47% mentioned public facilities as a source. The UFHP clinic as a source of care for ARI was mentioned by only 14% of women. The average number of sources mentioned per woman in the survey was about 1.4.Only 21% of women knew at least one provider who supply service free of cost. The knowledge about the presence of free provider is much higher in urban category C than in other two urban categories. 24% in the lowest expenditure category knew a free care provider but it was found to be about 18% for all other expenditure categories.

48. Although a high percent of women did not know a facility where ARI treatment was provided free of charge, about 90% knew a facility where ARI treatment is provided for a fee. This type of knowledge about market situation is slightly lower in category C urban areas.

49. On the idea of the respondent's market price for ARI treatment, the average of maximum reported prices charged for ARI treatment was Taka 64.76 while the average of minimum was Tk.40.64. The average prices show an increasing trend with expenditure levels of the households. The average price mentioned for UFHP was less than Tk.15, much lower than the average of the minimum prices in the locality. About 17% of women who knew about UFHP clinics mentioned that the price was too high and 14% thought that the price of UFHP clinics was low.

50. About 97% of women could identify a place where treatment for diarrhoea was available. Most of the women mentioned the public and private facilities as sources of care. Only 6% of women reported UFHP clinic as a possible source of care, indicating that they do not consider UFHP clinic as a source of curative care services.

51. About 35% of the women reported that they were aware of facilities where treatment for diarrhoea was available free of charge. In urban category C, almost 50% mentioned that they knew a free facility for treating diarrhea but the proportion was less than 30% for urban categories A and B.

52. 78% of women were aware of at least one provider in the locality who delivers treatment for diarrhea by charging money. This proportion was lowest in urban category C (68%) and highest in urban category B (90%). The UFHP clinics were also mentioned as a source of care in exchange for money by only 8.5% of respondents. Less than 8% of women in the lowest expenditure category mentioned UFHP clinics as an option but the proportion was about 13% for the highest expenditure group.

53. The number of illnesses per household over the two-week period was 0.75. The prevalence rate of illness among the survey individuals was about 141 per thousand.

54. 50% of all illness cases did not seek medical attention. The proportion not seeking care varied from about 45% in urban category A to 54% in urban category C. Among the users of medical care, more than 80% sought care from private providers and another 12% obtained care from public facilities. Only about 3% of illness cases obtained care from the UFHP clinics in the location, which is consistent with the response obtained from the women about their knowledge of sources of care for curative services.

55. The average cost of care was highest in urban category B followed by urban category A. The average cost in public facilities was also quite high. This may indicate that the severity-mix of the illnesses seeking care from public facilities may be higher than the severity-mix in other sources. The UFHP clinics show relatively low cost and the severity of cases showing up in UFHP clinics, by definition, should be very low.

56. No relationship between willingness to pay and educational status of women, knowledge about illnesses, were found in multivariate analysis. Only variable that turns out to be statistically important in explaining WTP is the expenditure level of households. Increase in the household expenditure by Tk.100 per month will increase the willingness to pay for curative care by about Tk.5. The regression equation estimated for WTP is given below.

57. About 97% of the women knew the places to get family planning methods. 67% of the respondent mentioned private providers as a source and 60% mentioned public facilities as a source. About 46% of women also mentioned UFHP clinics as a source. Knowledge about UFHP clinics as a source of family planning services was highest in urban area A. About 1.9 sources per woman were noted. On the average this is the

highest number of sources mentioned among all the different types of services considered in this study.

58. Women from higher economic status mentioned private sector as a source (more than 70% compared to 63% for the lowest expenditure category).

59. Only about one third woman knows about a free provider of family planning services in their area. About a quarter did not know whether the providers in the locality were free or not. In the urban category A only about 10% reported knowing a free provider but in urban category C more than 50% knew a free provider of family planning services.

60. About 24% of women mentioned public sector facilities as a source. Private providers and facilities were mentioned by about 38% of women and 29% mentioned UFHP clinics. Other NGOs and other providers constituted only a very small proportion of total. less than 10% of the current users. In category A area, 12% mentioned public sector as a source but in category C about 36% mentioned public sector as a potential source. The UFHP clinic was mentioned as a source by 35% of women in A but by only 23% women in C.

61. The women selecting private sector as the source were basically pill users (96%) and UFHP clinic users were equally split between adoption of pill or condoms and injectables.. For injectables. UFHP clinics were the principal suppliers accounting for 70% of total injectable users. For IUD/Norplant and sterilization. public sector is the predominant supplier.

62. The modal reason for selecting public facility is because the services are provided free of cost. The modal reasons for private, UFHP and other clinics were convenient time of operation, close to the house and convenient time of operation respectively. Privacy has been mentioned by 11% of responses for the reason for selecting private providers and by only 1.2% of the UFHP facility users. Cleanliness and lower waiting time was mentioned by only few individuals. less than 3% of all respondents.

63. The average costs of family planning services vary quite significantly among all the sources of care. The average cost of family planning services in the public and private sectors were Taka 1.00 and 14.00 respectively. For other providers, the average price was about Taka 7.00.The average cost of a family planning visit was found to be about Tk.8.00. A higher proportion of women from the lowest household expenditure group obtained free service and supplies (27%) than that in the highest expenditure group (16%). Only 2.4% of users of UFHP clinics mentioned that they obtained family planning services free of cost

64. About a fifth of all women mentioned that the price they have paid for family planning was too high. About 70% mentioned that the price they have paid is all right. About 12% women using UFHP clinics and 16% using public facilities mentioned that the prices they have paid were too low.

65. About 52% of women mentioned that they would pay more than what they have already paid to obtain the family planning services. The willingness to pay more increases with the economic status of the household.

66. The average willingness to pay for family planning services in the public sector was Tk.12 for those who paid a price and Tk.9.25 for those who did not pay anything for getting family planning services or supplies. The average willingness to pay for the private sector was higher than any other sources, at about Taka 19. The average willingness numbers for NGO service providers were about Taka 13, irrespective of whether the women paid for the service or not.

67. Multivariate analysis showed that knowledge about a free provider or obtaining service for free in the past do not affect the willingness to pay for family planning services. Education of the woman (whether the woman has five years of education or not) significantly affect the willingness to pay in all urban regions.

68. The Community Health Workers (CHWs) visited about 25% of all households in the survey. CHW visits are not specially targeted towards the households with low income or low educational status of women. The CHW visits are not also related to knowledge and utilization of specific health care services like immunization and ANC services. Women's knowledge about immunization and ANC were not higher than the average if the household was visited by a CHW.

69. CHWs can potentially play an important role in increasing the demand for health care service and the willingness to pay for various health interventions. Knowledge about health care services turned out to be an important variable affecting the willingness to pay. Women from lower socio-economic groups have lower level of knowledge and if the CHW activities are targeted towards them, it will help to increase the utilization of services as well as the willingness to pay for the services.

70. In total 177 service recipients were interviewed at the exit. It was found that the average waiting time was highest for immunization service (27.66 min.). Average travel cost was minimum for maternal service.

71. The other NGO in the study areas were found to be providing ESP services. They were found to have field workers to providing doorstep services. The UFHP clinics were found to be more equipped with IEC materials

72. Using a particular the definition of a basic health service package (which included ANC services, immunization of children, family planning services, child hood illness and adult illness), cost was estimated for each of the households depending upon the demographic characteristics of the household. Using the median and mode values of the reported price paid the total cost of the service package was estimated and then compared with the household expenditure level to determine the proportion of the household who has the ability to pay. If the prices for the services were set at the modal value, only 2.2

% of the household will not be able to pay. Using any other price levels the program managers can simulate the results to examine the impact of change in price of services.