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ETHICAL REVIEW COMMITTEE, ICDDR,B.

Principal Investigator NANCY FRONCZAK Co-Investigator (if any) DR. SELINA AMIN
 Application No. 93-004 Supporting Agency (if Non-ICDDR,B) _____
 Title of Study MATERNAL MORBIDITY AND CHOICE OF DELIVERY SERVICE PROVIDER IN URBAN SLUMS, DEAKA 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
 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
 Does the study involve:
 (a) Use of records, (hospital, medical, death, birth or other) Yes No
 (b) Use of fetal tissue or abortion Yes No
 (c) Use of organs or body fluids Yes No
 Are subjects clearly informed about:
 (a) Nature and purposes of study Yes No
 (b) Procedures to be followed including alternatives used Yes No
 (c) Physical risks Yes No N/A
 (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

5. Will signed consent form be required:
 (a) From subjects Yes No N/A
 (b) From parent or guardian (if subjects are minors) Yes No N/A
 6. Will precautions be taken to protect anonymity of subjects Yes No
 7. Check documents being submitted herewith to Committee:
 N/A 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
 N/A 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.

(FTO)

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

[Signature]
Principal Investigator

A-031980

[Signature]
Trainee

1. TITLE OF PROJECT: Maternal Morbidity and Choice of Delivery Care Provider in the Urban Slums of Dhaka, Bangladesh
2. PRINCIPAL INVESTIGATOR: Nancy Fronczak
3. OTHER INVESTIGATORS: Dr. Selina Amin, Research Investigator (ICDDR,B) Dr. Anwara Begum, Head of Obstetric and Gynecology. Mitford Hospital, Dhaka.
4. STARTING DATE: As soon as possible
5. DATE OF COMPLETION: 18 months after starting date
6. TOTAL BUDGET REQUESTED: \$108,120
7. FUNDING SOURCE: Urban Health Extension Project, ICDDR,B
8. HEAD OF PROGRAMME: Dr. Bradley Sack, Associate Director, Community Health Division

Bradley Sack

ABSTRACT

The goal of this study is to generate information from which recommendations can be formulated for interventions aimed at decreasing maternal morbidity in the urban slum population of Dhaka, Bangladesh.

The specific purposes of this study are threefold.

- 1) To identify maternal morbidity which occur from after birth to within two weeks post partum. Maternal morbidity refer specifically to illnesses which are associated with the birth process.
- 2) To identify factors which influence the choice of who conducted the delivery and where it takes place. This will include characteristics of delivery service providers such as location, measures of quality, personal characteristics, etc. Delivery service provider refers specifically to the person/facility chosen when labor starts.
- 3) To identify associations between delivery service providers, women who have had a delivery, and maternal morbidity.

DESIGN:

This is a longitudinal study of a sample of pregnant women (from their sixth month until their delivery and post partum stage), using a "household interview".

The study population was previously chosen for health and demographic surveillance purposes by the Urban Health Extension Project (UHEP) of the International Center for Diarrheal Diseases Research, Bangladesh (ICDDR) to be representative of the urban slum population, using a multistage probability technique. The sample will be women who delivered over a one year period, identified through every three monthly, routine data collection activities of the UHEP.

An estimated 1000 women will be seen at approximately six and again seven months pregnancy to collect initial household and personal information and to establish a rapport to facilitate development of a system for notification of delivery and acceptance of a post partum visit. At approximately seventy-two hours and again at two weeks post partum a household interview will be conducted for information on choice of delivery service provider, the course of the delivery, and morbidity. In addition, a simple physical and visual verification of morbidity will be conducted at two weeks post partum.

Providers of home deliveries will be interviewed after the household delivery to assess level of training, skill, and practices during the most recent delivery.

A pre study survey will be conducted to determine the delivery services available to the study population. Facilities will be visited to assess the levels of training and types of services available.

Analyses will look for associations between service providers, maternal factors, and maternal morbidity.

Bivariate analysis will be used both to determine factors significantly associated with morbidity and to determine factors significantly associated with choice of delivery service provider. A separate logistic regression model will be developed for each outcome (morbidity, and choice of delivery service provider).

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Aims of the Study

The goal of this study is to generate information from which recommendations can be formulated for interventions aimed at decreasing maternal morbidity in the urban slum population of Dhaka, Bangladesh.

The specific purposes of this proposed research are threefold.

- 1) To identify maternal morbidity which occurs from after birth to within two weeks post partum. Maternal morbidity refers specifically to illnesses which may be associated with the birth process.
- 2) To identify factors which influence the choice of who conducts the delivery, and where it will take place. This will include characteristics of delivery service providers such as location, measures of quality, personal characteristics, etc. Delivery service provider refers specifically to the person/facility chosen when labor starts.
- 3) To identify associations between delivery service providers, women who have had a delivery, and maternal morbidity.

Background and Justification for the Study

Maternal health is an issue of increasing concern in developing countries. The health of a woman during pregnancy and after delivery affects not only herself, but her family and the birth and survival of her infant. Increased infant and child mortality has been found where the mother has died (2,51).

Maternal morbidity can be attributed to conditions existing prior to pregnancy or can be attributed to practices during the time of delivery (or to both). Morbid conditions which may have been pre-existing, but often are results of delivery practices include vaginal and urinary tract infections. (62,63,64,65,66). Morbidity attributable to practices during the time of delivery may result from late recognition and poor management of high risk conditions or may be due to complications arising directly from delivery practices. Late recognition with inappropriate management of high risk conditions such as severe anemia, pre-eclampsia, cephalo-pelvic disproportion, or a malpositioned baby, can lead to death or severe disability from eclampsia, excessive bleeding, or obstructed labor. Fistulas, and ruptured uterus can occur from prolonged labor. Uterine prolapse can occur. Morbidity arising directly from poor delivery practices can include vaginal tears, infections, extensive bleeding due to retained placenta or atonic uterus as well as some of the conditions previously described.

The extent of maternal morbidity in Dhaka, and its effect on the daily lives of women and their families has not been studied. The Maternal Mortality Ratio (MMR) of 5-6 maternal deaths for every 1000 live births, in Bangladesh (1,2,46,51), implies high levels of morbidity associated with childbirth. Utilizing the World Health Organization (WHO) estimates of 16 to 50 serious morbidity conditions for every maternal death (23,37,63), suggests that 10-35 percent of pregnancies in Bangladesh result in serious morbidity.

Methods exist to prevent or lessen mortality and morbidity related to pregnancy and delivery. Current strategies include promotion of antenatal care, and increasing availability and utilization of trained persons to conduct deliveries. Training of non-medically qualified persons to deliver babies has been accepted, with the recognition that this is most effective where health system support is available for management of complications requiring higher skill or technology (ie. management of eclampsia, blood transfusion, caesarean section) (5,6,10,11,16,32,35,43).

When antenatal care and trained delivery service providers are available, however, it has been found in many countries that they are not necessarily used (8,12,26,45,56). This is true of Dhaka as well. The urban setting of Dhaka offers a variety of health services for pregnant women. There are numerous government hospitals and several maternity centers which are, in theory, available for use by the urban slum population (67). Rickshaw as well as other forms of transportation are available throughout Dhaka. Yet, up to 80% of the women have their babies delivered by untrained persons in their homes (19,67,68).

Siddiqi et al. (1991) conducted one of the few studies where information was collected on maternal health practices in the urban slum areas of Dhaka. He found that in this small sample of 59 births only 54% of the women had received any antenatal care (mostly from NGOs), and of these only 50% had received the two tetanus toxoid injections required to prevent tetanus. 85% of the deliveries were in the home, with the other deliveries (mostly complicated) taking place in hospitals. Only 8% of the deliveries were conducted by trained birth attendants, 11% by physicians, and the rest by untrained birth attendants, neighbors, or relatives (19).

In Bangladesh, almost all of the literature regarding maternal health services, utilization patterns, and pregnancy outcomes is from studies conducted in rural settings. Strategies to improve access to health care as well as health outcomes for women before, during, and after delivery, have also most often been targeted to rural areas (5,7,13,14,15,16,36,37). The assumption has been that there are services in urban settings to which women have access, whereas services and trained personnel are very limited in rural areas.

While many research findings from rural areas are useful for understanding traditional beliefs and practices regarding pregnancy and delivery, the population of the urban slums live under circumstances which necessitate change. They may face different constraints

than persons in rural areas, although they appear to have more opportunities for health care (17,60,61).

There is a lack of information on availability and utilization of maternal health services by the urban poor. There is a lack of knowledge of maternal outcome (specifically, morbidity) of pregnancy and the relationship (if any) to the services used. There is a lack of knowledge of the factors affecting selection and utilization of maternal health services.

Pregnant women make choices. They choose who they will or won't ask to help them and where they will or will not go for services or assistance. Understanding the factors which influence these choices and the impact of these decisions on the health of women, will better equip health planners to develop strategies to improve maternal health during and after childbirth.

This study will focus on maternal health relating specifically to conditions which may be associated with delivery practice, and on the primary provider of the delivery service.

Significance of the Study

Findings from this study will be used for making recommendations for changes in the existing maternal health services which might decrease maternal morbidity.

1. Information on maternal morbidity post partum, as well as on delivery service providers will be used to identify priority areas for training or refresher training for delivery service providers.

As most deliveries in Dhaka are home based, it is expected that program recommendations will be aimed at improving identification by the family or TBA of complications requiring medical intervention, developing a system to improve the basic practices of a TBA, and integration of the TBA into a system whereby her referrals are acknowledged and given importance.

2. Information on the choice of service provider as well as maternal and household characteristics will be important for understanding constraints which exist and which will influence the effectiveness of recommended interventions. Educational/motivational activities focused toward pregnant women and their families, or changes in the systems of the service providers might be indicated based on this information.
3. Analysis of associations between service providers, maternal factors, and maternal morbidity will be used to develop the specific content for the recommendations described above.

The specific hypotheses to be studied are:

HYPOTHESIS 1

Maternal morbidity post partum is associated with:

skill (level of training and/or amount of experience) of service provider

specific delivery practices (for home deliveries) (assessed by post partum interview with the mother and the delivery service provider)

quality of service (defined using objective assessment of facilities/supplies as a proxy for quality)

socio-economic status

pre-existing maternal malnutrition (arm circumference/height)

after adjusting for possible confounding factors such as utilization of antenatal care, parity, and age.

(See attachment 1 for operational definitions for morbidity and other variables).

HYPOTHESIS 2

Factors associated with choice of provider for delivery will be:

maternal factors (education; age; employment; outcome, for child and/or mother from prior pregnancy-for multigravidas; perception of health status prior to labor; parity)

household factors (husband's education; socio-economic status; family composition (nuclear family vs extended)

service factors (proximity and type of trained service provider; perceived cost of service; perceived quality of service; prior personal contact with the service provider).

additional factors to be evaluated for association with choice of provider for delivery include:

length of time living in Dhaka slum area, household contact with home health visitor, religious affiliation

Rationale for Hypotheses

The association between care provided during pregnancy and delivery and maternal morbidity is clearly documented. While there are studies which show that a percentage of complications, particularly immediately preceding or during delivery, will occur without early signs of risk (36,48) the level of maternal morbidity in developing countries is high due in large part to preventable, or manageable conditions. Most maternal morbidities can be prevented or their severity decreased through the provision of good antenatal and delivery care (16,31,34,36,37,38,43).

Morbidity to be identified includes the following:

Probably attributable to delivery service (either poor practice or lack of early identification and appropriate management of complications):

PERINEAL TEARS, PELVIC INFECTIONS, REDUCED ACTIVITY (general weakness due to hemorrhage, prolonged labor, post eclampsia), NERVE DAMAGE for the leg/PHLEBITIS, FISTULAs, UTERINE RUPTURE.

Possibly pre-existing morbidity, which may also be due to delivery practice: VAGINAL INFECTION; URINARY TRACT INFECTION; PROLAPSED UTERUS.

As previously cited, there are studies supporting the hypothesis that higher skilled persons conducting delivery can decrease maternal mortality (7,11,13,15). While there are no studies which look at maternal morbidity and the level of training and experience of the delivery service provider, it can be expected that the lesser trained or experienced delivery service provider should have more maternal morbidity as a result of poor technique, late or non referral of complications, and poor management of complications during and after delivery.

Parker et al. have cited studies showing a beneficial relationship between outcome of pregnancy (infant status) and use of antenatal care (38). It is expected that maternal morbidity would also be less in women receiving antenatal care as referrals and interventions for risk situations should occur in a timely and appropriate manner, and acceptance of referrals should be higher in women who use antenatal care. In Tanzania there is evidence that many of the women receiving antenatal care were appropriately identified as risk pregnancies and/or deliveries and that the women accepted referral to a distant location to receive appropriate management (72).

Risk for maternal mortality has been well documented for women at the extremes of the reproductive life cycle, for women of high gravida, for short women, and for women with prior history of poor pregnancy outcome (40,42,48,51). Prior health status may also determine the susceptibility of a person to morbidity. Thus arm circumference will be

taken on the women at six months of pregnancy and used as an indicator of nutritional status (ie. proxy for health status) (73,74). Height will also be taken at this time as an indicator for risk of cephalo-pelvic disproportion. These factors will be reviewed to determine if they are confounders for risk of maternal morbidity post partum.

Studies in both developed and less developed countries, of use of prenatal care and choice of care for delivery, have shown that factors which influence choice of provider for care include system factors as well as subjective perceptions. System factors identified with choice of maternal health service providers include distance to the service, accessibility of transportation, cost (monetary and time), availability of supplies, and the training and attitudes of health personnel. Subjective perceptions which have been identified as influencing choice include the perception by the user of quality of care, perception of her health status, and user attitudes and perceptions regarding the need for care. (38,45,47,50,71).

In addition to the above, income and education have been positively correlated with tendency to seek antenatal care and higher levels of skilled providers (31,38,39).

Correlations of other factors such as the influence of family members on decision making, and the impact of age and gravida of the pregnant woman on decision making for care during pregnancy and delivery, have shown mixed results. The influence of these factors and the direction of the effect appear to differ depending on culture, or particular settings (6,31,38).

In the urban Dhaka setting, where traditional norms for family relations and decision making may have been weakened (60,69), it is expected that acceptance and seeking of delivery care from higher levels of skilled (training or experience) personnel will be increasingly associated with the changed household characteristics (less traditional household composition, women working, higher educational level), with younger, primigravida women being more open to seeking non traditional patterns of care. In addition, it is expected that persons living in close proximity with skilled service providers, those who are acquainted with the service provider, and those who are more familiar as a result of home health visitor services will also choose more skilled service providers.

Ethical Implications

There will be no direct study interventions. There may, however, be cases where at the time of interview, a serious maternal health condition is found. Interviewers will be instructed that if at the time of interview there are complaints from the subject regarding her pregnancy or her post partum health the woman will be encouraged to go to the nearest appropriate medical facility for a check up.

A collaborative agreement has been made with a female Obstetric Physician in Dhaka (at a government hospital), where women who are identified as having post partum morbidities can receive basic treatment. The interviewers will attempt to motivate all women with symptoms suggesting morbidity to go to the hospital for a check up and for treatment. A reporting form will be developed, in collaboration with the physician at the hospital, so that physical findings from the referred women are reported back to the study, for verification of findings from the household questionnaire. Round trip transportation costs will be offered for those who can not afford this.

The major ethical issue for this study will be to maintain the confidentiality of the information gathered from the subjects, as questions regarding reproductive health may be sensitive and personal. Questionnaires will be numerically coded, with the identification key kept locked in the UHEP office, to maintain confidentiality.

Research Plan

This is a longitudinal study of a sample of pregnant women (registered at their sixth month of pregnancy, and interviewed one month later, at seventy-two hours and at two weeks post partum), using a "household interview".

Questionnaires will be developed using information from "key informants" chosen from women who have given birth previously in the Dhaka slums. The questionnaires will focus on choice of care for childbirth, the history of the delivery process, and morbidity post partum. The key informants will be chosen from women delivering in health facilities, and from women delivering at home, identified through the Urban Health Extension Project (UHEP) Urban Surveillance System (USS). (See attachment 2 for sample questionnaires, in English. The final questionnaires will be in Bangla).

In addition, a survey and questionnaire for delivery service providers will be conducted so that access, cost, and an objective proxy measure of quality of delivery service can be included in the analysis for decision making and for maternal morbidity.

Ten female interviewers will be trained to administer the questionnaires to the study population and to conduct a brief exam with visual verification of morbidity/ health status symptoms. They will also be trained to administer the questionnaire for delivery service providers for home deliveries. The interviewers will have health and gynecologic/family planning background (nurse or Family Welfare Visitor).

Training for the household level physical and visual verification will be conducted at the collaborating hospital by the physicians who will be examining referred women.

Information on service availability and distance has been collected by the UHEP field research assistants as a part of the ongoing Urban Surveillance System (USS) data collection.

Steps in the Study Implementation

Pregnant women will be identified through the three monthly USS household data collection system. At approximately six months of pregnancy the identified woman will be contacted for registration, collection of household information, a prior pregnancy history, for height, weight and arm circumference measurement, and for permission for follow up visits. A second antenatal visit will be made one month later to establish the system for reporting the delivery. Travel reimbursement will be offered to the family to report the delivery to the nearest Urban Volunteer field office, to ensure timely follow up. A record will be kept by the interviewer so that a household visit can be made if the time for delivery seems past but the project has not yet been informed of the delivery.

At seventy-two hours and again at two weeks post partum the women will be contacted again for administration of questionnaires on decision making, history of the index pregnancy and delivery process, and current morbidity. The interviewers will conduct brief visual and physical examinations to verify perineal tear, vaginal discharge, abdominal tenderness, and general state of health on all women. Every woman with symptoms of morbidity who does not accept the referral to the hospital for examination, and every woman with no symptoms of morbidity who is referred to the hospital for examination and refuses (ie. every tenth non-morbid woman) will be visited by the primary investigator or co-investigator to verify the morbidity data.

For home deliveries, the person who conducts the delivery will be contacted after the delivery for administering a questionnaire on her general delivery practices. This will be done by a different interviewer than the one collecting the information from the household to decrease the chance of interviewer bias. The questionnaire will include a request to the delivery service provider to demonstrate (using props of a doll and items promoted in Bangladesh for safe delivery) the steps she normally takes in conducting deliveries.

For deliveries outside of the home by professionally recognized practitioners (nurses, midwives, doctors) the training qualification of the persons conducting the delivery will be collected.

Sample

The sample will consist of all women living within the USS who deliver a baby in Dhaka during the one year study period.

Sample size is based on the following:

Sample 1:

Outcome of interest: Choice of provider of delivery service (trained vs untrained; household member non TBA, vs TBA).

Based on UHEP data for 1991, it is estimated that approximately 80 percent of the deliveries in the urban slums are conducted by non trained persons. It is anticipated that higher educated, higher socio-economic status persons will choose a trained person for delivery over an untrained person. Thus, with the following assumptions:

- $\alpha = .05$
- $\beta = .20$
- significant difference to be detected = .10
- $p1 =$ (expected proportion using trained, for lower educated or lower socio economic status) = .10
- $q1 = 1 - p1$
- $p2 =$ (expected proportion using trained, for higher educated, or higher socio economic status) = .2
- $q2 = 1 - p2$

$N =$ sample required for each group (assuming equal sample sizes)

$$N = \frac{(Z\alpha + Z\beta)^2 [p1q1 + (p2q2)]}{(p1 - p2)^2}$$

$$196 = \frac{(1.96 + .84)^2 [(.1 \times .9) + (.2 \times .8)]}{(.1 - .2)^2}$$

A minimum of 200 deliveries for each group (higher socioeconomic status, higher educated) (ie. 400 deliveries) are required to detect a difference of .1 between women using trained versus untrained delivery service providers. The actual sample will be approximately 1000, based on the anticipated number of deliveries to be found over a one year period and on the number of deliveries required to assess morbidity.

SAMPLE 2 (ref. 52) Outcome of interest = maternal morbidity (yes/no). Case = outcome with morbidity. Control = outcome without morbidity.

The maternal morbidity to be detected for these purposes is that which is most often related to the practice at the time of delivery. Using the sample formula for case control, with 3 controls for each case,

- $\alpha = .05$ (significance 95%)
- $\beta = .20$ (power 80%)
- $R =$ Relative Odds to be significant = 1.5
- $c =$ # control/case = 3
- $N =$ # cases required for the specified # controls

Φ = percentage of controls exposed to factor under study (ie. expected to choose trained providers for delivery = .3)

$$p_1 = (p\Phi)(R) \div [1 + p\Phi(R-1)] = (.3)(1.5) \div [1 + .3(1.5-1)] = .39$$

$$q_1 = (1-p_1) = 1-.39 = .61$$

$$p' = (p_1 + cp\Phi) \div (1 + c) = [.39 + (3)(.3)] \div (1+3) = .32$$

$$q' = (1-p') = 1-.32 = .68$$

$$N = \frac{\{(Z\alpha)\sqrt{(1 + 1/c)p'q'} + (Z\beta)\sqrt{(p_1q_1) + (p\Phi q\Phi/c)}\}^2}{(p_1 - p\Phi)^2}$$

$$178 = \frac{\{(1.96)\sqrt{(1+1/3)(.32)(.68)} + (.84)\sqrt{[(.39)(.61) + (.3)(.7) \div 3]}\}^2}{(.39 - .3)^2}$$

178 cases (detected morbidity) are required to detect an odds ratio of 1.5, assuming that 30% of the controls used trained delivery service providers.

If the prevalence of morbidity is 25-30%, as per the WHO estimation, one year of data collection (with an estimated 1000 deliveries being followed up) is more than sufficient to identify the required cases and controls to identify a relative odds of 1.5 or more. If the prevalence of morbidity is 10%, we will be able to identify a relative odds of 2 or more with the sample of 1000 (ie. We would require 80 cases for every three controls.).

While this is not a case control study, the formula for case control was chosen so that the minimum number of cases of morbidity required to find significant relationships for the odds of having morbidity would be known.

Sample Selection

The UHEP has selected 252 research clusters of approximately 50 households (ie. 7,500 households) as representative of the urban slum populations of Dhaka. Information on vital events, including pregnancies and births, is routinely gathered from each household every three months through household visits.

The research cluster selection for the Urban Surveillance System is based on a multistage probability sample of the slum communities of five thana of Dhaka. The five thanas were specifically selected as thanas with large slum populations, and central to Dhaka. Slum

areas in all five thanas were mapped and then divided into primary sampling units (PSUs). A PSU was either a slum or a segment of a large slum, with the size ranging from 20-200 households. Slums below this size range were excluded and above this size range segmented. The PSUs were stratified into eight strata based on water and sanitation conditions (based on information collected from a random sample of households in each PSU). The number of PSUs for each stratum was allocated proportional to the population in each stratum. Each PSU was assigned a "measure of size" equal to its number of clusters. The number of clusters was determined as the smallest integer that divided the PSUs total number of households into clusters of 20-50 households. The PSUs were then selected with probability proportional to its size, using the "PPS sequential method" (75). One cluster was then selected randomly from each PSU.

The sample population will include all women who are living in the cluster areas at the time of the study, and who have a pregnancy of at least 6 months gestation (identified through history and verified by the interviewers who will check fundal level) and deliver in Dhaka. The USS data system collects last menstrual period as well as other household events every three months, so the assessment of month of pregnancy should be reasonably accurate.

At least six months pregnancy is chosen for eligibility for the sample to include cases where a delivery service provider would be expected to be utilized.

Analysis

The unit of analysis is the pregnant woman, however, characteristics of the household in which she lives will also be included in the analyses. If there are two deliveries within the same household, information will be collected on both. Only the first delivery, however, will be included in the logistic regression equations, to ensure the independence of each study subject.

In theory, all persons in the urban slums have access to the same health facilities. Cost and distance will vary according to geographic location (ie. sample cluster), but these are factors which are being evaluated to determine their impact on choice for utilization. A prestudy evaluation of available service providers within reasonable proximity of the clusters will be made. After review of the information and discussion locally of reasonable expectations for transportation, a judgement will be made whether any cluster has a unique difference in access to service providers such that it should be looked at separately during analysis (ie. if any particular cluster does not even theoretically have access to the different levels of delivery service).

Between and within cluster variation in choice of service provider and occurrence of morbidity will be looked at to see if there is a provider within clusters who is used by several women. If there is a particular provider who is responsible for a difference in

inter vs intra cluster variance, data will be analyzed with and without the provider so that the delivery service impact can be evaluated.

Primigravida and multigravida women will be analyzed separately to determine if there are differences in the factors affecting choice of service provider and morbidity.

The case control sampling formula was used to provide an estimate of the number of morbidities which will need to be detected to find significant differences between women with and without morbidity. Analysis will use all of the data.

Variables will be created using the operational definitions. While the operational definitions will be used for the main analysis, all information gathered will be reviewed to determine if there is other relevant information which appears to contribute to the understanding of morbidity or choice of delivery service provider. If so, this will be examined.

1. Frequency tables will be run on all variables.
2. Bivariate analysis (using chi squared test for binomial variables, or t test when means are being tested) will be conducted comparing the independent and dependent variables.
3. Covariates which were significant when tested against the dependent variable with the bivariate analysis will be entered into two separate multiple logistic regression models. One will have morbidity as the outcome measure, and one the choice of provider as the outcome measure. For each model, covariates will be entered one by one to evaluate the change in significance of each as other factors are added and to assess collinearity. Interaction terms will also be entered to determine if interaction between covariates exists.
4. If there are sufficient numbers of women who receive antenatal care, the Mantel-Haenzel chi-square test for trends in 2xk tables will be used to analyze the possible trend in association of number of antenatal visits with outcome of pregnancy.

Women who are included in the sample, but who do not have the birth in Dhaka will be analyzed and described separately from the others.

Informed Consent and Confidentiality

Questionnaires will be provided with a code which matches a master sheet where the name of the interviewee and location of the house are noted. All data entry will use the code for identification.

Interviewers will be counseled on the sensitive nature of some of the information we are collecting, and on the need for confidentiality.

Women who agree to participate in the study will provide a verbal consent after being read a prepared informed consent letter. They will keep a copy of the informed consent.

Flow Chart for Research Activities

ACTIVITY	TIMELINE MONTH OF STUDY																					
	-4	-3	-2	-1	*1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
KEY INFORMANT INTERVIEWS AND DRAFT OF QUESTIONNAIRES																						
SURVEY OF HEALTH FACILITIES PROVIDING ANTENATAL AND MATERNITY CARE																						
PROPOSAL THROUGH REVIEW PROCESS CDDR,B																						
HIRE AND TRAIN INTERVIEWERS																						
PRETEST QUESTIONNAIRES, REVISE, PRETEST AGAIN																						
HOUSEHOLD INTERVIEWS AND FOLLOW UP OF HOME DELIVERY SERVICE PROVIDERS																						
INTERIM DESCRIPTIVE REPORT ON FINDINGS THUS FAR																						
DATA ANALYSIS, REPORT TO PROJECT REGARDING FINDINGS, RECOMMENDATIONS																						

Specific Tasks for each Investigator

- Principal Investigator:
- Develop and finalize protocol
 - Select interviewers
 - Provide training to interviewers
 - Develop outline for key informant interviews
 - Participate in key informant interviews
 - Finalization of questionnaires
 - Participate in training of interviewers and in quality control supervision of their work
 - Assist with clinical assessment of post partum morbidity
 - Conduct assessment of maternity facilities
 - Code responses, data analysis, writing of findings, interpretations, recommendations

Dr. Selina Amin, MBBS
Co-Investigator:

- Provide medical expertise for development of key informant interviews and for interpretation of responses, for finalization of questionnaires.
- Participate in key informant interviews
- Provide assistance in finalization of protocol and of questionnaires.
- Primary person for clinical assessment of postpartum morbidity.
- Conduct assessment of maternity facilities
- Assist with coding of responses.
- Assist with data analysis and writing of findings, interpretations, recommendations

Co- Investigator:

Dr. Anwara Begum MBBS

- Provide assistance in finalization of questionnaires for mothers and home delivery providers.
- Provide facility and expertise for training of interviewers to assess post partum morbidity.
- Provide facility and expertise for management of post partum morbidity.
- Provide technical expertise in interpreting data where diagnostic judgement is required.
- Assist with data analysis and writing of findings, interpretations, recommendations.

Budget

	TAKA	US\$
Salary for Principal Investigator		Self
Salary for Co-Investigator (1/2 time for 18 months- to assist with data analysis and write up) Grade=NO-A		5,850
Salary for Co-Investigator Mitford Hospital		Self
Salary for 10 field interviewers (full time x 15 months) Grade: GS-5		56,850
Salary for data input (full time x 1 year)		5,000
Transportation for field interviewers during data collection		13,000
Travel reimbursement for family member reporting termination of pregnancy (1000 x 60 tk)		1,600
Supplies and materials		5,000
Transport and medication for post partum women going for medical treatment		5,000
Interdepartmental costs		2,500
SUBTOTAL		94,800
Miscellaneous/unanticipated expenses (15%)		13,320
TOTAL		108,120

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ATTACHMENT 1

VARIABLES AND OPERATIONAL DEFINITIONS

DEPENDENT VARIABLE

MATERNAL MORBIDITY: The data will be reviewed and either one of the two following definitions will be used for binomial multiple regression, or multinomial regression using "no morbidity/morbidity influenced by delivery practice/morbidity which may be pre-existing" as the outcome measures.

MM1: Binary (present/ absent).

Condition exists at the time of interview, or did exist by history, which meets the definition of hemorrhage, eclampsia, perineal laceration, pelvic infection, fistula or uterine rupture, maternal mortality, reduced activity (ie. maternal morbidity influenced by delivery practice).

MM2: Binary (present/absent)

Any of the above conditions or presence of condition meeting the definition of urinary tract infection, phlebitis, prolonged bed days, vaginal infection.(ie. any maternal morbidity- may include pre-existing conditions).

(See definitions of morbidity conditions after Independent Variables).

CHOICE OF PROVIDER: Choice of provider refers to the person who started the delivery regardless of who or where it was completed. This may be defined one of two ways. The final definition will depend on the variability found in the data.

CP1: ordinal,categorical scale of increased level of training.
1= untrained, non TBA (ie. family, neighbor)
2= untrained,TBA
3= trained TBA
4= trained, midwife/family welfare visitor
5= trained, doctor.

UNTRAINED, NOT TBA= usually family member
TRADITIONAL BIRTH ATTENDANT (TBA)- Person
with no formal training who is recognized by the
community as a TBA and who delivers babies outside of
her immediate home. She usually receives some form of
payment for her services.

TRAINED TBA-TBA who attended training program by
acknowledged organization (NGO, government).

MIDWIFE/FAMILY WELFARE VISITOR-government
recognized midwifery training received

DOCTOR-government recognized training (MBBS)

CP2: For all home deliveries. Binary, (experienced/unexperienced)

Upon review of the data either a cutoff point for the
number of deliveries a person should have conducted to be
considered experienced or categories of numbers of
deliveries conducted (from least experienced to most
experienced) will be determined.

(ALSO OUTCOME VARIABLES FOR DESCRIPTIVE PURPOSES)

OUTCOME OF CURRENT PREGNANCY: binary (live birth and no
perinatal death/ stillbirth, abortion, or perinatal death).

INFANT STATUS: Binary (<2500 grams/>=2500 gm) and continuous.
Weight at two weeks will be taken and extrapolated to determine
birthweight.

INDEPENDENT VARIABLES:

RELATING TO MATERNAL RISK:

ANTENATAL CARE: Depending on the distribution of the types of antenatal care
received this may be defined in one of two ways:

ANTENATAL CARE (SCREENING FOR HIGH RISK) Binary (yes/no), and
ordinal (# of times antenatal visit made).

Antenatal care received at least twice. At least one visit should consist of services which include physical checks for risk during pregnancy (blood pressure, urine, hemoglobin, position of baby are minimum services), treatment of less serious problems (iron/folate tablets), provision of tetanus toxoid.

ANTENATAL CARE SCORE: Summary scale with a cumulative score being given to each woman. (The scores are based on medical assumption of effectiveness of the service). This may be used in place of ANTENATAL CARE if on review of the data the numbers of women who qualify for receiving antenatal care are too few for meaningful analysis, and if on review of the data there are distributions along meaningful gradations of components of antenatal services such as those described below. (score range 0-10)

- 0= no care, no advise received
- 1= seen prior to delivery by delivery service provider for check of condition (this may include receiving advise on diet or level of activity, cursory check of position of baby or for edema, or any other measure which the provider and mother define as "check before delivery".
- 1= received iron tablets at least x 1 month
- 1= received TT x 1
- 3= received TT x2 or received TT booster
- 2= screened for high risk (blood pressure, hemoglobin, urine test, position of fetus)
- 3= screened for high risk a second or more time

GRAVIDA: # of times ever pregnant. Ordinal, also categorical (1,2-4,5+) based on standard groupings for risk in pregnancy.

PARITY: ordinal. # of times delivered a baby (after 28 weeks of pregnancy).

MATERNAL AGE: categorical (<18, 18-34, 35+) based on standard age groupings for risk in pregnancy. A local calendar will be used to help determine critical ages.

MATERNAL RISK STATUS:

Medically recognized risk factors (maternal age, gravida, height, previous birth history), will be used to develop a binary variable high risk/ low risk.

a) primigravida < 18 or >= 30 years= high risk

b) >35 years or 5th or greater gravida or < 18 months between pregnancies or <=144 cm height or poor pregnancy history= high risk

(maternal height and maternal arm circumference will be measured)

OUTCOME OF PREVIOUS PREGNANCY: binary variable good (live-birth/no perinatal death) / bad (stillbirth/spontaneous abortion/perinatal death).

SOCIO-ECONOMIC FACTORS:

- * EDUCATIONAL LEVEL: literate (can read a page from a first grade reader) illiterate, years of education will be collected for descriptive purposes
- * EMPLOYMENT: nominal, categorical. (ie. 1=no reported income generating activities; 2=home based income generating activities; 3=employed outside home). These categories will be redefined upon analysis of the responses.
- * TRADITIONAL HOUSEHOLD: Binary (yes/no). Either mother, mother in law, older sister, or sister in law lives in the same household.
- * RELIGIOUS AFFILIATION: ordinal, categorical
1=Muslim
2=Hindu
3=Christian
4=Buddhist
- * SOCIO-ECONOMIC STATUS (SES): Each household will receive a SES score using a modification on the Guttman scale, the number of gradations on the score to be determined upon review of the data.
- * HOUSEHOLD: Group of persons who regularly eat from the same prepared meal and reside in the same household complex.

SERVICE FACTORS:

AVAILABILITY OF SERVICES (proximity): An ordinal scale will be developed for each of the major service provider categories, by cluster:
3=near (walking distance, people normally never take rickshaw
2= medium (Cost of rickshaw ride round trip six taka or less, people sometimes choose to walk)
1= far (people usually take rickshaw; cost of rickshaw >6 taka round trip)

COST OF SERVICES: Ordinal. This will be assessed two ways.

CS1: official fee or cost of goods in kind

CS2: what was actually paid by the client

QUALITY OF SERVICE (ASSESSED): For each service provider, a proxy for quality of service will be developed using the following indicators on an ordinal scale.

4=EXCELLENT: safe delivery kit (or soap, sterile item to cut cord, clean surface for delivery, clean ties for baby cord), iron tablets, tetanus toxoid vaccine, functioning sphygmomanometer, functioning urine testing equipment, functioning equipment for hemoglobin/hematocrit testing, record of care given-all available at the time of the survey.

3=GOOD: safe delivery kit or items available, functioning sphygmomanometer and stethoscope,

2=FAIR: demonstrated knowledge of safe delivery kit items and either supplies or requests families to supply the items at the time of delivery.

1=POOR: no supplies available or service provider not routinely present.

If there are several providers of equal distance, then the one with the best quality score will be used for analysis.

QUALITY OF SERVICE (PERCEIVED): This will be a Likert scale from 5-0 (excellent to poor), based on the opinion of the interviewee.

PERCEPTION OF HEALTH: This will be a Likert Scale from 5-0 (excellent to seriously ill).

SAFE DELIVERY CONDUCTED: (for home deliveries) A summary score will be given based on information during the post partum interview with the delivered woman, using the following points:

1-delivered on a clean surface

3-washed hands with soap prior to delivery

3-used sterile razor blade or scissors to cut umbilical cord

2-tied cord with clean or sterile ties

2-vaginal inspections by insertion of hand not conducted

2-appropriate referral made

(assessed from interview with woman who delivered, and/or family members present during delivery)

APPROPRIATE REFERRAL: Patient was requested to go to higher level of care (ie. hospital, health center) at appropriate time. To be determined by obstetric consultant based on written history of delivery, collected by interview.

(0=should have been referred but was not

1=referred after complication became severe

2=identified and referred complication appropriately, or no complications-
implying "appropriate referral".

RESPONSE TO REFERRAL: This will be binary (yes/no) depending on whether a woman was referred due to complications and accepted or rejected the referral.

HOME HEALTH VISITOR: Binary (yes/no) Visitor who as part of a formal program visits households to provide health education (this does not have to officially include advise for antenatal care).

SUPPORT SYSTEM: Binary (yes/no) System for supervision, referral, upgrading of skills is available and used by service provider. Details of how often contact with support system should occur to count it as present will be determined through discussion of the norms of existing systems in Dhaka. This may be binary (yes/no) or may be an ordinal score depending on the amount of variability in the support systems which exist for practitioners. This will be used for descriptive purposes.

DEFINITIONS of MORBIDITIES:

Possible PRE-ECLAMPSIA: Presence of edema in hands plus face in last three months of pregnancy; or diagnosis of pre eclampsia, hypertension and treatment given; or eclampsia resulted

ECLAMPSIA: Convulsions before, during, or after delivery.

VAGINAL INFECTION: Presence of foul smelling yellow or green discharge; irritating; presence of white or cheesy discharge described as different than before pregnancy.

URINARY TRACT INFECTION: Frequency; urgency; burning with urination. Two of the above.

PELVIC INFECTION: Fever with tender abdomen; or Vaginal discharge and fever;

PERINEAL LACERATION: tear which is still bleeding; which was stitched (not including episiotomy); tear which is still causing enough pain to affect daily activities.

PROLONGED LABOR: Labor lasting more than 24 hours in the primigravida and more than 12 hours in the multigravida.

OBSTRUCTED LABOR: prolonged labor with malpositioned baby; prolonged labor requiring C-section; diagnosis of obstructed labor with c-section;

FISTULA: leaking urine or feces

HEMORRHAGE:

+++

history plus transfer due to bleeding

received transfusion

history of excessive bleeding which includes symptoms and treatment for retained placenta; atonic uterus

++

history of excessive bleeding plus story of need to change pads, clothes, cloth under woman due to excessive blood.

history plus story of treatments for the bleeding, and story of delay in getting out of bed after delivery due to bleeding

PHLEBITIS: One leg swollen more than the other with warmth in the leg

UTERINE PROLAPSE: History which would reflect uterus descending into vagina.

UTERINE RUPTURE: By surgical history.

REDUCED ACTIVITY: A definition of normal level of activity two weeks post partum will be developed through interviews prior to the study, with post partum women. When consensus for a norm for the urban slum population is reached, a normal curve will be developed using the continuum of gradual increase in activity. Women falling below a determined point will be considered to have reduced activity.

BED DAYS: Number of days the woman stayed in bed post partum will be collected and an curve developed from which to evaluate normal versus prolonged bed days.

BREAST PROBLEM: Presence of fever, and painful, tender breast
or cracked/infected nipples

MALNUTRITION: Arm Circumference below 20.8 cm. (for descriptive purposes).

ENROLLMENT INTERVIEW

[COMPLETE NAME, AGE, RELIGION, LMP, EDD FROM USS]

Date: ___/___/___ Interviewer: _____

Study ID #: _____ USS Household ID: _____

Respondent's name: _____

Address: _____

Age: _____ LMP: _____ EDD: _____
dy mo yr dy mo yr

List persons present during interview: _____

- Religion: Muslim 1
Hindu 2
Christian 3
Buddhist 4
Other _____ 5

I'll start with some questions about your family, household, and your health. Then I will take your weight, height and arm size.

SECTION I. FAMILY AND HOUSEHOLD

1001. What is the highest grade in school that you completed? (your husband, mother, mother-in-law?)

1002. Can you read and write? (your husband, mother, mother-in-law?)

Highest Grade Literacy Code
 1=Reads and writes
 2=Reads only
 3=Cannot read or write

a. Respondent _____ _____
 b. Husband _____ _____
 c. Mother _____ _____
 d. Mother-in-law _____ _____

1003a. Have you received any training outside of graded school? (e.g. Madrasa, skill training, etc.)

Yes 1
 No 2[GO TO Q1004]

1003b. Where was the training?
 1003c. How long was the training?
 1003d. What skills did you learn?

1003b. Name and location of place	3c. How long trained	3d. Skills learned

1004a. Do you currently work outside the home?

Yes 1[GO TO Q1004C]
 No 2

1004b. Did you work outside the home before you became pregnant?

Yes 1
 No 2 [GO TO Q1005]

1004c. Where do/did you work?

1004d. Is/was the job seasonal or permanent?

Seasonal 1

Permanent 2

1004e. How many hours/week? . . _____ hours/week

1004f. What do/did you do at the job?

1004g. What is/was your income? _____ taka per dy/wk/month

1004h. Other benefits such as food, clothing etc.? _____

[IF NOT CURRENTLY EMPLOYED]

1004i. When did you leave the job? _____

1004j. Why did you leave the job? _____

1005a. Do you currently do any activities around your house from which you earn money?

Yes 1[GO TO Q1005C]

No 2

1005b. Did you do any income-generating activities around your house before you became pregnant?

Yes 1

No 2[GO TO Q1006]

1005c. What activities? _____

1005d. Are/were the activities seasonal or permanent?

Seasonal 1

Permanent 2

1005e. How many hours/week _____ hours/ _____ week

1005f. What is/was your income? _____ taka
dy/wk/mo

1005g. Other benefits such as food, clothing etc.? _____

[IF NOT CURRENTLY DOING SUCH ACTIVITIES]

1005h. When did you stop doing these activities? _____

1005i. Why did you stop?

1006a. Does your husband currently work outside the home?

- Yes 1
- No, not now 2
- No, never worked . 3 [GO TO Q1007]

[IF NOT CURRENTLY EMPLOYED, ASK ABOUT LAST JOB]

1006b. Where does/did your husband work? _____

1006c. Is/was the job seasonal or permanent?

- Seasonal 1
- Permanent 2

1006d. How many hours/week? _____ hours/week

1006e. What does/did he do at the job?

1006f. What is/was his income? _____ taka per dy/wk/month

1006g. Other benefits such as food, clothing etc.? _____

[IF NOT CURRENTLY EMPLOYED]

1006h. When did he leave the job?

1006i. Why did he leave the job? _

1007a. Does your husband currently do any activities around your house from which he earns money?

- Yes 1
- No 2 [GO TO Q1008]

1007b. What activities?

1007c. Are the activities seasonal or permanent?

Seasonal 1

Permanent 2

1007d. How many hours/week? _____ hours/week

1007e. What is his income? _____ taka per dy/wk/month

1007f. Other benefits such as food, clothing etc.? _____

1008. Can you tell me about all the people who live here and eat meals together? What is each person's relationship to you, sex, and age?

Relationship to Respondent	Sex 1=F 2=M	Age

1011. How long have you lived in this house?

_____ years and _____ months

1012a. Where did you live before this house? _____

1012b. How long did you live at that house?

_____ years and _____ months

SECTION II. PREGNANCY HISTORY

1013. Have you ever given birth before?

- Yes 1
- No 2

[IF PRIMIPARA, GO TO SECTION III]

1014a. How many children have you given birth to who are living with you now?

- _____ Boy(s)
- _____ Girl(s)

1014b. Do you have any sons or daughters to whom you have given birth, who are alive but do not live with you?

- Yes 1
- No 2 [GO TO Q1016]

1014c. How many sons are alive but do not live with you?

- _____ Son(s)

1014d. How many daughters are alive but do not live with you?

- _____ Daughter(s)

1015. Have you ever given birth to a boy or a girl who was born alive but later died?

- Yes 1
- No 2

1016. Have you ever given birth to a baby who cried or showed any sign of life, but only survived a few hours or days?

- Yes 1
- No 2

[IF NO TO Q1016 AND Q1017, GO TO Q1019]

1018a. In all, how many boys have died?

- _____ Boy(s) died

1018b. How many girls have died?

_____ Girl(s) died

1019a. Have you ever given birth to a boy or girl at full term (after 7 months of pregnancy) who was dead?

Yes 1

No 2 [GO TO Q1020]

1019b. How many of these types of births?

_____ Stillbirth(s)

1020a. Have you ever had an abortion (pregnancy wastage within 7 months of pregnancy)?

Yes 1

No 2 [GO TO Q1021]

1020b. In total, how many abortions have you had?

_____ Abortion(s)

1021a. Have you ever given birth to a boy or girl, who was either alive or dead, and who was born too early, that is, before 9 months of pregnancy but after 7 months?

Yes 1

No 2 [GO TO Q1022]

1021b. How many of these types of births?

_____ Too early birth(s)

1022a. Have you ever given birth to a boy or girl, who was either alive or dead, and who was born smaller than usual?

Yes 1

No 2 [GO TO Q1023]

1022b. How many of these types of births?

_____ Too small birth(s)

1023a. When did your last pregnancy end?

_____ Months ago

1023b. Where was that baby delivered?

- At home 1
- Hospital/clinic 2
(name _____)
- Parent's home 3
(Dhaka____ Village____)
- Other relative's home . . . 4
(Dhaka____ Village____)
- Other _____..... . 5

1023c. Who delivered the baby?

- Relative 1
- Untrained dai 2
- Trained birth attendant . . . 3
- Doctor, nurse, midwife . . 4
- Self 5
- Other 6

1024a. Is the child alive now?

- Yes 1 [GO TO Q1026]
- No 2

1024b. Was the child born alive?

- Yes 1
- No 2 [GO TO Q1025]

1024c. How old was the baby when he/she died?

- < 24 hrs after birth 1
- > 24 hrs and <=7 dys . . . 2
- > 7 dys old 3

[IF GREATER THAN 7 DAYS OLD, HOW OLD AT DEATH? _____ DAYS/MONTHS]

1024d. What was the cause of death (if cause unknown, record symptoms surrounding death such as convulsions, poor feeding/sucking, fever, skin rash, abnormal breathing, cough/wheeze, diarrhea, malnutrition/wasting)?

1025. Just during or after the birth, did the child show any sign of life, such as taking a breath or crying?

Yes 1
No 2

1026a. Were there any problems with the delivery or postpartum?

Yes 1
No 2

[IF NO COMPLICATIONS, GO TO SECTION III]

1026b. What kind of problems with the delivery? _____

1026c. Are there any problems from that delivery or in the weeks afterwards which you still think are problems?

Yes 1
No 2

[IF NO CHRONIC PROBLEMS, GO TO SECTION III]

1026d. Describe the problems that still bother you? _____

1026e. Did you have complications from any of your previous pregnancies?

Yes 1
No 2

1026f. Describe any complications which have occurred in other pregnancies.

SECTION III. MATERNAL ANTHROPOMETRIC MEASURES

Weight: _____ kg

Height: _____ cm

Arm Circumference: _____ cm

SECOND PRENATAL INTERVIEW

Date: ___/___/___ Interviewer: _____

Study ID #: _____ USS Household ID: _____

Respondent's name: _____

Address: _____

Age: _____ LMP: _____ EDD: _____
dy mo yr dy mo yr

List persons present during interview: _____



SECTION I: MATERNAL WEIGHT, HEIGHT, ARM CIRCUMFERENCE

I want to take your weight and arm circumference today.

Weight: _____ kg

Arm Circumference: _____ cm



Section II: Maternal Information

I want to ask you just a few more questions if you don't mind.

2001. Has anyone joined the household since my first visit because of your pregnancy?

- Yes 1
- No 2[GO TO Q2

2001a If yes, who was this?

- Mother 1
- Mother-in-Law . . . 2
- Sister 3
- Sister-in-Law 4
- Other (specify) . . . 5

2001b. How long ago did this person arrive?
_____ Days
_____ Weeks

2001c. Where did she come from?

Lives in other section
of Dhaka 1
From Village outside
of Dhaka 2

Name of village and Thana

2002. Do you know where you will deliver your baby?

Marital home 1
Hospital/clinic 2
(name _____)
Parent's home 3
Location _____
Other relative's home 4
(relationship _____)
Location _____
Other _____ . . 5
Don't know 6

2003. Who will assist you at the time of delivery?

Relative 1
(relation _____
trained _____ untrained _____)
Dai 2
trained _____ untrained _____
or don't know _____
Doctor, nurse, midwife 3
Self 4
Other 5
Don't know 6

SECTION III: SMOKE EXPOSURE, EATING DURING PREGNANCY

2004a. Have you ever smoked cigarettes?

Yes 1
No 2[GO TO Q2005a]

- 2004b. Have you ever smoked any cigarettes during this pregnancy?
- Yes 1
 No 2 [GO TO Q2005a]
- 2004c. How many cigarettes have you smoked per day (or week) during this pregnancy?
- _____ cigs per day/week
- 2005a. Does anyone in this household smoke _____ cigarettes?
- Yes 1
 No 2 [GO TO Q2006]
- 2005b. Counting all the people who smoke in this household, how many hours per day are you near them when they are smoking?
- _____ hrs near cig smoke
- 2005c. How many hours per day do you spend cooking, or working near a burning stove in the cooking area?
- _____ hrs near cook smoke
2006. Is your cooking area inside or outside?
- Inside 1
 Outside 2
- 2006a. Does the cooking area fill up with smoke when someone is cooking?
- Yes 1
 No 2 [GO TO Q2007]
- 2006b. Do your eyes ever burn from smoke while you are near the stove(s)?
- Yes 1
 No 2
- 2006c. Do you ever have trouble catching a breath while you are near the stove(s)?
- Yes 1
 No 2

- 2007. What kind of fuel do you use most of the time in your cooking stove(s)?
 - Gas 1
 - Kerosene 2
 - Firewood, leaves, twigs . . . 3
 - Cow-dung 4
 - Garbage 5
 - Other _____ . . 6

- 2008a. Do you think pregnant women should take usual, more than usual, or less than usual amount of food?
 - Usual amount 1 [GO TO Q2009]
 - More than usual 2
 - Less than usual 3
 - Don't know 4 [GO TO Q2009]

- 2008b. Why do you think that?

- 2009. Does your husband believe that pregnant women should take the usual, more than usual, or less than usual amount of food?
 - Usual amount 1
 - More than usual 2
 - Less than usual 3
 - Don't know 4

- 2010. Does your mother-in-law believe that pregnant women should take the usual, more than usual, or less than usual amount of food?
 - Usual amount 1
 - More than usual 2
 - Less than usual 3
 - Don't know 4

- 2011. Have you actually been eating the usual amount, more than usual, or less than usual amount of food during this pregnancy?
 - Usual amount 1
 - More than usual 2
 - Less than usual 3

- 2012. Do you eat with your husband, or after your husband has finished eating?
 - Eat with husband 1
 - Eat after husband 2

2013.

Are you able to eat enough to keep hunger away?

Yes, usually 1

Sometimes 2

No, not usually 3

2014.

Are you able to take a snack between meals when you are hungry?

Yes, usually 1

Sometimes 2

No, not usually 3

2015.

How many times per week/month have you eaten fish (meat,...) since you became pregnant?

Fish _____ wk/mo

Meat _____ wk/mo

Milk/eggs _____ wk/mo

Dal _____ wk

Vegetables _____ wk

Yellow Fruit _____ wk

Bread _____ wk

Rice _____ wk

FIRST POSTPARTUM INTERVIEW

Date: ___/___/___ Interviewer: _____

Study ID #: _____ USS Household ID: _____

Respondent's name: _____

Address: _____

Age: _____ LMP: _____ EDD: _____
dy mo yr dy mo yr

List persons present during interview: _____

I'll be asking you questions today about your delivery, your health during pregnancy, and your health since the delivery.

Section I: Infant Outcome

3001. When was your baby delivered?
_____ time _____ day

3002. Was it a boy or a girl?
Boy 1
Girl 2

3003. How is the baby? Can I see him/her?
Alive 1 [GO TO Q3007]
Dead 2

3004. Was the baby born alive? That is, did the baby show any signs of life, like crying or taking a breath?
Yes 1
No 2 [GO TO S/III]

3005. When did the baby die?
_____ time _____ day

3006. Had you put the child to your breast before he/she died?
Yes 1
No 2[GO TO S/III]

3007. How soon after birth?
< 1 hr after birth . . 1
1-4 hrs after birth . . 2
5-12 hrs after birth . 3
13-24 hrs after birth 4
> 24 hrs after birth . 5

[SKIP TO SECTION III]

3008a. How would you describe your baby's health in general? Would say he/she is in excellent, good, fair, or poor health?
Excellent 1
Good 2
Fair 3
Poor 4

3008b. Is the baby sucking well?
Yes 1
No 2

3008c. Is the baby alert and active? . . .
Yes 1
No 2

3008d. Does the baby's stool and urine look normal
Yes 1
No 2

3008e. Does the baby have a fever?
Yes 1
No 2

Section II. Breastfeeding

3009. Have you given your son/daughter any breastmilk yet?

- Yes 1
- Not yet 2 [GO TO S/III]
- Will not breastfeed . 3 [GO TO S/III]

3010. When did you first give him/her breastmilk?

- < 1 hr after birth . . 1
- 1-4 hrs after birth . . 2
- 5-12 hrs after birth . 3
- 13-24 hrs after birth 4
- > 24 hrs after birth . 5

3011. Have you fed him/her anything besides breastmilk? [PROBE FOR: sugar water, mustard oil, cows milk].

- Sugar water 1
- Mustard oil 2
- Cows milk 3
- Other _____ 4

Section III: Maternal Anthropometry and Health

Now I would like to take your weight and your arm size, then I want to ask you some questions about your health and also about the delivery.

Maternal weight: _____ kg
Maternal Arm Circumference: _____ cm

Now I will ask you some questions about your health during this pregnancy, and since your delivery.

3012. How would you describe your health today?

- Excellent 1
- Good 2
- Fair/but normal . . . 3
- Fair/but not well . . 4
- Poor 5

3013. Are you having any problems which you are concerned about, or which you have sought treatment for?

Yes 1
No 2[GO TO S/IV]

3014a. Can you describe the problem?

3014b. Who did you discuss this with?

3014c. Did you receive any treatment?
Yes 1
No 2

Describe any treatment received, and who prescribed it

Section IV. Description of Labor, Delivery, and Immediate Post Partum

Now, I'd like you to tell me in your own words what happened just before you delivered, and during the delivery.

3015a. When did you first tell someone that you were starting to have labor pains? [PROBE FOR: Whether at first contraction, after close contractions, after water broke, after felt urge to push, how much time after pain started].

3015b. Who did you tell?

3015c. What did that person say to you?

- 3015d. What did that person do?

- 3016a. Where did you stay while you were having these pains before delivery?

- 3016b. Was anyone with you during this time?
Yes 1
No 2
- 3016c. Who?

- 3017. Did you receive any treatment during this time? (PROBE FOR: any foods taken, medicines, examinations by birth attendant or relatives)? What was the purpose of this treatment? Who gave it to you?

- 3018. Were there any problems with the delivery [PROBE FOR: bleeding, malpresentation, obstructed labor, maternal fever or exhaustion]?

- 3019. Were there any special treatments given during the delivery [PROBE FOR: examinations, medicines, foods, emergency help called]?

- 3020. Since the delivery, have there been any problems [PROBE FOR: bleeding, maternal fever, alertness]?

3021.

Since the delivery, what kind of treatments have you receive [PROBE FOR: special foods, medicines, behaviors, care such as stitching or bandaging to stop bleeding]?

Section V. Delivery Practices

Now I will ask you specific questions about the delivery to make sure that I understand how everything was for you.

3022.

Where was your baby delivered?

- Marital home 1
- Hospital/clinic 2
(name _____)
- Parent's home 3
(Dhaka _____ Village _____)
- Other relative's home 4
Relation _____
(Dhaka _____ Village _____)
- Other 5

3023a.

Were you transferred to another location to deliver after your labor had started?

- Yes 1
- No 2[GO TO Q3024a]

3023b.

Where did you start your delivery?

3023c.

Where were you transferred to?

3024a.

Who was the main person who delivered the baby?

- Relative 1

- Untrained dai 2
- Trained birth attendant . . . 3
- Doctor,nurse,midwife 4
- Self 5
- Other 6

Name and address of principal person for delivery

3024b.

Did anyone else participate in the delivery (e.g. was anyone called in to cut the cord, or for complications)?

- Yes 1
- No 2[GO TO 3025A]

3024c.

Who was this (name/address/qualifications)

3024c.

Why was this person called?

3025a.

Who cut the umbilical cord?

- Primary person who delivered baby . . . 1
- Other 2
- (specify _____)

3025b. What was used to cut the umbilical cord?

- Razor blade 1
- Knife 2
- Bamboo 3
- Thread 4
- Other _____ 5

3025c. Was the [cutting instrument] sterilized or cleaned?

- Yes 1
- No 2

3025d. How was the [cutting instrument] sterilized or cleaned?

3025e. Where did the [cutting instrument] come from?

- Already had at home 1
- Bought in market especially for delivery 2
- Delivery provider . . 3
- Came with delivery kit 4
- Bought by family . . 5
- Other _____ 6

3026a. What was used to tie the cord?

- Cloth strips already in house 1
- Thread already in house 2
- Ties/thread bought especially for the delivery 3
- Ties/thread brought by delivery provider . . 4
- Other _____ 5

3026b. Were the ties/thread sterilized or cleaned?

- Yes 1
- No 2

3026c. How were they sterilized or cleaned?

3027. What was put on the umbilical cord stump after cutting?

3028a. What item did you lie on for delivery?

- Clean cloth 1
- Clean plastic 2
- Clean mat 3
- Clean straw 4
- Bare floor 5
- Unwashed cloth . . . 6
- Other _____ 7

3028b. Where did the item you laid on for delivery come from?

- Already in house,
prepared especially
for delivery 1
- Already in house,
found when labor
started 2
- Bought especially
for delivery 3
- Delivery provider
supplied 4
- Other _____ 5

3029a. Did the [delivery provider] wash her hands before the delivery?

- Yes 1
- No 2[GO TO Q3030A]

3029b. What did she use to wash her hands?

3029c.

Where did the (soap or disinfectant) come from?

- Already in house . . . 1
- Bought especially . . . 2
- Provider supplied . . . 3
- Other 4 .
- No soap/disinfectant used 5

3030a.

Did the [delivery provider] put her fingers inside of you during labor?

- Yes 1
- No 2[GO TO 3031a]

3030b.

How many separate times did she examine you this way?

_____ times

3030c.

Can you explain why she did this?

3030d.

When she first examined you inside with her fingers, was this before or after your water broke?

- Before water broke . . . 1
- After water broke . . . 2

3030e.

Can you explain why she did this?

3030f.

Did she put her fingers inside of you after delivery?

- Yes 1
- No 2

3030g.

Can you explain why she did this?

3031a.

Did the [delivery provider] make any other examinations or checks of your condition during labor or since delivery?

- Yes 1
- No 2[GO TO 3032a]

3031b.

Can you describe what she did?

3032a.

How long were you pushing before the baby came out?

Half an hour 1

Half hour to one

hour 2

More than one hour 3

(specify how long _____)

3033a.

How long after your water broke did the delivery occur?

Less than 12 hours . 1

12 to 24 hours 2

>24 hours (#: _____) 3

3033b.

Did this seem like the normal amount of time, or was it too long, or unusually short?

Normal time 1

Longer than usual . . 2

Shorter than usual . 3

3034.

Do you think that your labor and delivery was normal? [DO NOT PROBE FOR ANSWERS, RECORD ONLY WHAT IS VOLUNTEERED].

Yes, no problem 1

Too long 2

Water broke too early 3

Too much pain 4

Too much bleeding 5

Baby in wrong position . . . 6

(What position: _____)

Afterbirth did

not come quickly 7

Tearing of perineum 8

Convulsions 9

Other _____ . . 10

3035a. Did you have any of the following during your labor or delivery?

Took too long
Yes.....1
No.....2

3035b. Water broke too early
Yes 1
No 2

3035c. Too much pain
Yes 1
No 2

3035c. Too much bleeding
Yes 1
No 2

3035d. Afterbirth did not come quickly
Yes 1
No 2

3036. What position did the baby come out in?

Head first 1
Feet first 2
Shoulder first 3
Other _____ 4

3037. Was the umbilical cord wrapped around the baby's neck?

Yes 1
No 2

3038a. Did you receive any special treatments for the problems described above?

Yes 1
No 2[GO TO 3041a]

3038b. Were you referred to another place for any emergency care or treatment?

Yes 1
No 2

3038c.

Who treated you?

3039d.

Where did you go?

3039e.

What treatment did you receive?

3040.

How much did you spend?

Section VI

Now I want to ask you about specific problems which might have required special treatment.

A. HYPERTENSION

3041a.

Was your blood pressure ever checked during your pregnancy?

Yes.....1

No.....2[GO TO Q3042a]

3041b.

Do you know what your blood pressure was when it was checked?

Normal.....1

Low.....2

High.....3

RECORD ACTUAL READING IF KNOWN: _____)

B. CONVULSIONS

3042a.

Did you ever have convulsions before, during or after delivery

Yes.....1

No.....2[GO TO Q3043a]

3042b.

When did you have these convulsions?

Before delivery.....1

During labor/delivery...2
After delivery.....3

3042c.

Did you take any steps to seek treatment for the convulsions?

Yes.....1
No.....2[GO TO Q3043a]

3042d.

Who treated you?

3042e.

Where did you go?

3042f.

What treatment did you receive?

3042g.

How much did you spend?

C. Vaginal Bleeding

3043a.

Did you have vaginal bleeding during your pregnancy?

Yes 1
No 2[GO TO Q3044a]

3043b.

When during your pregnancy did the bleeding occur?

First 3 months 1
Second 3 months 2
Last 3 months 3
Throughout pregnancy . . . 4
Last month of preg only . . 5

3043c.

How much did you bleed?

Like the heaviest
days of menstruation....1
More than just spotted
but not heavy.....2
Spotted only.....3

3043d.

What did the bleeding look like? Was it bright red, dark red, clotted, or thin and liquid-like?

- Bright red and thin 1
- Bright red and clotted 2
- Dark red and thin 3
- Dark red and clotted 4
- Other _____ .. 5

3043e.

How many separate episodes during your pregnancy did you notice bleeding?

_____ times

3043f.

How many days altogether during your pregnancy did you have vaginal bleeding?

_____ days

3043g.

Did you ever have to stay in bed or curtail activities because of bleeding?

- Yes.....1
- No.....2[GO TO Q3043i]

3043h.

How many days did you stay in bed, or couldn't do normal activities because of bleeding?

_____ days

3043i.

Did you take any steps to seek treatment for vaginal bleeding?

- Yes 1
- No 2[GO TO Q3050a]

3043j.

Who treated you?

3043k.

Where did you go?

3043l.

What treatment did you receive?

3043m.

How much did you spend?

3044a. Do you think you bled more than normal during labor, delivery or postpartum?

Yes 1
No 2[GO TO Q3045a]

3044b. When during your labor, delivery or postpartum did bleed more than normal?

During labor 1
Postpartum 2
During labor
and postpartum . . . 3
Other _____ 4

3044c. What did the bleeding look like? Was it bright red, dark red, clotted, or thin and liquid-like?

Bright red and thin 1
Bright red and clotted 2
Dark red and thin 3
Dark red and clotted 4
Other _____ . . 5

3044d. Why do you think that your bleeding was more than normal? [PROBE FOR: how frequently rags or sari changed].

3044e. Have you sought, or did you receive, any special treatment for the bleeding?

Yes 1
No 2[GO TO Q3045a]

3044f. Who treated you?

3044g. Where did you go?

3044h. What treatment did you receive?

3044i. How much did you spend?

D. Placenta

3045a. How long after the birth was it when the placenta came out?

- Within 1/2 hour 1
- >1/2 but <2hours 2
- >2 hrs (how long: _____) . . 3

3045b. Were there any special measures taken to help the afterbirth come out?

- Yes 1
- No 2[GO TO Q3046a]

3045c. Who treated you?

3045d. Where did you go?

3045e. What measures were taken?

3045f. How much did you spend?

E. Consciousness/weakness

3046a. After the delivery, were you conscious of what was going on around you?

- Yes 1
- No 2

3046b. Were you easy to awaken after the delivery?

- Yes 1
- No 2

[IF RESPONDENT WAS CONSCIOUS AND EASY TO AWAKEN, GO TO Q3047a]

3046c. Were any special measures taken because of low consciousness?

- Yes 1
- No 2[GO TO Q3047a]

- 3046d. Who treated you?

- 3046e. Where did you go?

- 3046f. What treatment did you receive?

- 3046g. How much did you spend?

- 3047a. Since the delivery, have you fainted?
Yes 1
No 2[GO TO S/VII]
- 3047b. Have you sought treatment for feeling faint?
Yes 1
No 2[GO TO S/VII]
- 3047c. Who treated you?

- 3047d. Where did you go?

- 3047e. What treatment did you receive?

- 3047f. How much did you spend?

Section VII

Thank you for spending so much time telling us about yourself and your baby. We will come back after about ten days to see how you and the baby are doing.

SECOND POSTPARTUM INTERVIEW

Date: ___/___/___ Interviewer: _____

Study ID #: _____ USS Household ID: _____

Respondent's name: _____

Address: _____

Age: _____ LMP: _____ EDD: _____
dy mo yr dy mo yr

List persons present during interview: _____



SECTION I. POSTPARTUM HEALTH

I'd like to know more about how your own health has been since we last talked about two weeks ago as well as a bit more about your health during pregnancy.

4001a. How would you describe your health today?
Excellent 1
Good 2
Fair/but normal . . . 3
Fair/but not well . . 4
Poor 5

4001b. Are you having any problems which you are concerned about, or which you have sought treatment for?
Yes 1
No 2[GO TO Q4002A]

4001c. Can you describe the problem?

4001d. Who did you discuss this with?

4001e.

Did you receive any treatment?

Yes 1

No 2

Describe any treatment received, and who prescribed it

4001f.

Do you think these problems are normal for this many days after delivery?

Yes, normal 1

No, abnormal 2

A. WEAKNESS/FAINT

4002a.

Since the delivery, have you felt weak or faint?

Yes 1

No 2[GO TO Q4003a]

4002b.

How many days altogether have you felt weak or faint?

_____ days

4002c.

Have you sought treatment for weakness, or feeling faint?

Yes 1

No 2[GO TO Q4003a]

4002d.

Who treated you?

4002e.

Where did you go?

4002f.

What treatment did you receive?

4002g.

How much did you spend?

B. Vomiting

4003a.

Did you vomit during your pregnancy?

Yes 1

No 2[GO TO Q4004a]

3003b.

When during your pregnancy did you vomit?

First 3 months 1

Second 3 months 2

Last 3 months 3

Throughout pregnancy 4

4003c.

How many times per day (or week) did you vomit?

_____ times per day/week

4003d.

How many days during your pregnancy did you feel sickness from vomiting?

_____ days

4003e.

Were you able to eat during these days when you felt sickness from vomiting?

Yes 1

No 2

4003f.

Do you feel like your health deteriorate because you felt sickness from vomiting?

Yes.....1

No.....2

4003g.

Did you ever have to stay in bed or curtail activities because of sickness from vomiting?

Yes 1

No 2[GO TO Q4003i]

4003h.

How many days did you stay in bed, or couldn't do normal activities, because of sickness from vomiting?

_____ days

4003i. Did you take any steps to seek treatment for sickness from vomiting?

Yes 1

No 2[GO TO Q4004a]

4003j. Who treated you?

4003k. Where did you go?

4003l. What treatment did you receive?

4003m. How much did you spend?

C. Water Retention

4004a. Did your face swell up during your pregnancy?

Yes 1

No 2[GO TO Q4005a]

4004b. When during your pregnancy did your face swell?

First 3 months 1

Second 3 months 2

Last 3 months 3

Throughout pregnancy . . . 4

Last month of preg only . . 5

4005a. Did your feet or legs swell up during your pregnancy?

Yes 1[GO TO 4005b]

No 2

[GO TO Q4006a IF FACE SWELLED BUT NOT LEGS, GO TO Q4007a IF NO SWELLING IN FACE OR LEGS]

4005b. When during your pregnancy did your feet or legs swell?

- First 3 months 1
- Second 3 months 2
- Last 3 months 3
- Throughout pregnancy . . . 4
- Last month of preg only . . 5

4005c. Did the swelling go away if you elevated your feet?

- Yes 1
- No 2

4005d. Would the swelling go away after sleeping at night?

- Yes 1
- No 2

4006a. Did you ever have to stay in bed or curtail activities because of the swelling in your face or your legs?

- Yes 1
- No 2[GO TO Q4006c]

4006b. How many days did you stay in bed, or couldn't do normal activities, because of swelling?
_____ days

4006c. Did you take any steps to seek treatment for swelling of your face or legs?

- Yes 1
- No 2[GO TO Q4007a]

4006d. Who treated you?

4006e. Where did you go?

4006f. What treatment did you receive?

4006g. How much did you spend?

D. Headaches

4007a. Did you have headaches during your pregnancy?

- Yes 1 .
- No 2[GO TO Q4008a]

4007b. When during your pregnancy did the headaches occur?

- First 3 months 1
- Second 3 months 2
- Last 3 months 3
- Throughout pregnancy . . . 4
- Last month of preg only . . 5

4007c. How often did the headaches occur?

- Almost never 1
- A few times a week 2
- Usually every day . 3
- Other _____ 4

4007d. Did you ever have to stay in bed or curtail activities because of headaches?

- Yes 1
- No 2[GO TO Q4007f]

4007e. How many days did you stay in bed, or couldn't do normal activities because of headaches?

_____ days

4007f. Did you take any steps to seek treatment for headaches?

- Yes 1
- No 2[GO TO Q4008a]

4007g. Who treated you?

4007h. Where did you go?

4007i. What treatment did you receive?

4007j.

How much did you spend?

4007k.

Did you ever have headaches before you became pregnant?

Yes, was the same during pregnancy 1

Yes was worse during pregnancy 2

No, do not normally have headaches . . . 3

4007l.

Do you still have headaches since delivery?

Yes, it is the same as during pregnancy . . 1

Yes, but it was worse during pregnancy . . 2

No 3

E. Dizzy Spells

4008a.

Did you have dizzy spells during your pregnancy?

Yes 1

No 2[GO TO Q4009a]

4008b.

When during your pregnancy did the dizzy spells occur?

First 3 months 1

Second 3 months 2

Last 3 months 3

Throughout pregnancy . . . 4

Last month of preg only . . 5

4008c.

Did you ever have to stay in bed or curtail activities because of dizzy spells?

Yes 1

No 2[GO TO Q4008e]

4008d.

How many days did you stay in bed, or couldn't do normal activities because of dizzy spells?

_____ days

- 4008e. Did you take any steps to seek treatment for dizzy spells?
 Yes 1
 No 2[GO TO Q4009a]
- 4008f. Who treated you?

- 4008g. Where did you go?

- 4008h. What treatment did you receive?

- 4008i. How much did you spend?

F. Visual problems

Did you noticed any of the following problems with your vision during your pregnancy?

- 4009a. Night blindness
 Yes 1
 No 2
- 4009b. Fuzzy vision
 Yes 1
 No 2
- 4009c. Seeing double
 Yes 1
 No 2

[IF NO VISUAL PROBLEMS, GO TO Q4010a]

4009d. Did you have any of these problems before pregnancy?

Yes, it was the same 1

Yes, but it was
different 2
(specify _____)

No 3

4009e. Have you sought treatment for any of these visual problems?

Yes 1

No 2[GO TO Q4010a]

4009f. Who treated you?

4009g. Where did you go?

4009h. What treatment did you receive?

4009i. How much did you spend?

G. Fever

4010a. Have you had a fever since your delivery?

Yes 1

No 2[GO TO Q4011a]

4010b. Do you still have a fever?

Yes 1

No 2

4010c. How many days altogether have you had (did you have) a fever?

_____ days

4010d.

Have you felt (did you feel) chills, or shaking with the fever?

Yes 1

No 2

4010e.

Since the delivery, have you had to go to bed, or curtail your activities, because of sickness from the fever?

Yes 1

No 2[GO TO Q4010g]

4010f.

How many days have you had to stay in bed or curtail your activities because of the fever?

_____ days

4010g.

Did you seek treatment for the fever?

Yes 1

No 2[GO TO Q4011a]

4010h.

Who treated you?

4010i.

Where did you go?

4010j.

What treatment did you receive?

4010k.

How much did you spend?

H. Abdomen

4011a.

Since the delivery, have you felt tenderness or pain in your lower abdomen?

Yes 1

No 2[GO TO Q4012a]

4011b.

Do you still have this tenderness in your abdomen?

Yes 1

No 2

- 4011c. How many days altogether have you had (did you have) a tenderness in your abdomen?
 _____ days
- 4011d. Did/do you feel the pain all the time, or only when you press on your abdomen?
 All the time 1
 Only when pressing 2
- 4011e. Did/does your abdomen feel warm and hard when you touch it?
 Yes, warm and hard 1
 No 2
- 4011f. Since the delivery, have you had to go to bed, or curtail your activities because of the pain in your abdomen?
 Yes 1
 No 2[GO TO Q4011h]
- 4011g. How many days have you had to stay in bed or curtail your activities because of the pain in your abdomen?
 _____ days
- 4011h. Did you seek any treatment for the abdominal pain or tenderness?
 Yes 1
 No 2[GO TO Q4012a]
- 4011i. Who treated you?

- 4011j. Where did you go?

- 4011k. What treatment did you receive?

- 4011l. How much did you spend?

I. Vaginal Discharge

4012a. During pregnancy, many women will have some vaginal discharge. Did you have vaginal discharge during this pregnancy?

- Yes 1
- No 2[GO TO Q4013a]

4012b. Which of the following descriptions of this discharge best describes what you had during pregnancy?

- Brownish or yellowish . . . 1
- Thick and white 2
- Thick and jelly-like 3
- Greenish 4
- Other _____ . . 5

4012c. Did the discharge during your pregnancy smell bad or not?

- Bad odor 1
- No odor 2

4012d. Did you feel itchy during the time you had this discharge?

- Yes 1
- No 2

4012e. Did you ever have to stay in bed or curtail activities because of the discharge or related discomfort?

- Yes 1
- No 2[GO TO Q4012g]

4012f. How many days did you stay in bed, or couldn't do normal activities because of the discharge or related discomfort?

_____ days

4012g. Did you take any steps to seek treatment for the discharge?

Yes.....1

No.....2[GO TO Q4013a]

4012h. Who treated you?

4012i. Where did you go?

4012j. What treatment did you receive?

4012k. How much did you spend?

4012l. Did you have vaginal discharge prior to pregnancy?

Yes 1

No 2

4012m. How did your vaginal discharge during pregnancy compare with that prior to pregnancy?

Was the same 1

Was different 2

(describe the difference)

J. URINARY TRACT INFECTION

4013a. Did you have any problems with your urine or with urinating during your pregnancy?

Yes 1

No 2[GO TO Q4014a]

4013b.

Which of the following best describes the problems you have had with your urine during the pregnancy?

- Burning or pain when urinating 1
- Difficulty holding or controlling urine 2
- Frequent urination but no pain 3
- Dark colored urine . 4
- Foul odor of urine . 5
- Other _____ 6

4013c.

Was there fever?

- Yes 1
- No 2

4013d.

Did you ever have to stay in bed or curtail activities because of the problems with your urine?

- Yes 1
- No 2[GO TO Q4013f]

4013e.

How many days did you stay in bed, or couldn't do normal activities because of the urine problems or related discomfort?

_____ days

4013f.

Did you take any steps to seek treatment for the problems?

- Yes 1
- No 2[GO TO Q4014a]

4013g.

Who treated you?

4013h.

Where did you go?

4013i.

What treatment did you receive?

- 4013j. How much did you spend?

- 4013k. Did you have urinary problems prior to pregnancy?
Yes 1
No 2
- 4013l. How did your urinary problems during pregnancy compare with those prior to pregnancy?
Was the same 1
Was different 2
(describe the difference)
- 4013m. Do you still have urinary problems?
Yes, the same as during pregnancy 1
yes, different than during pregnancy . 2
(describe)
No 3

K. Diarrhea

- 4014a. During this pregnancy, did you become sick with diarrhea (stomach cramps and loose stools)?
Yes 1
No 2[GO TO Q4015a]
- 4014b. How many different times were you sick with diarrhea?
_____ times

[IF MORE THAN ONCE, FOLLOWING QUESTIONS APPLY ONLY TO THE WORST EPISODE]

- 4014c. How many days did the diarrhea sickness last?
_____ days

- 4014d. When was this sickness?
 _____ days/weeks/mos ago
- 4014e. Did you visit a hospital or clinic for this sickness?
 Yes 1
 No 2[GO TO Q4014h]
- 4014f. What hospital or clinic did you visit?

- 4014g. Did you stay in the hospital or clinic overnight for
 treatment?
 Yes 1
 No 2
- 4014h. Did you use any medicines during this sickness?
 Yes 1
 No 2[GO TO 4015a]
- 4014i. What kind of medicines?

- 4014j. Where did you get those medicines from?
 Pharmacy/store 1
 Government health worker 2
 Traditional healer 3
 Hospital/clinic 4
 Other _____ 5
- 4014k. Did you lose your appetite during this sickness?
 Yes, completely 1
 Only for some foods 2
 Not at all 3
- 4014l. Do you think you lost weight during this sickness?
 Yes 1
 No 2

L. Pain in legs

4015a. Since the delivery, have you had pain in one or both of your legs?

- Yes 1
- No 2[GO TO Q4016a]

4015b. Are you still having pain in one or both of your legs?

- Yes 1
- No 2

4015c. How many days altogether have you been feeling (did you feel) pain in one or both of your legs since the delivery?

_____ days

4015d. Was/is just one, or both of your legs, painful?

- One leg 1
- Both legs 2

4015e. Where was/is the pain in your leg(s)?

- Calf only 1
- Thigh only 2
- Calf and thigh 3

4015f. Was/is it difficult for you to walk because of the pain?

- Yes 1
- No 2

4015g. Were/are your leg(s) swollen?

- Yes 1
- No 2

4015h. Were/are your leg(s) tender or painful to touch?

- Yes 1
- No 2

4015i. Were/are your leg(s) warm at the site of the pain?
Yes 1
No 2

4015j. Since the delivery, have you had to stay in bed or curtail activities because of the problems with pain in your legs?
Yes 1
No 2[GO TO Q4015I]

4015k. How many days did you stay in bed, or couldn't do normal activities because of the problems with pain in your legs?
_____ days

4015l. Have you sought treatment because of the pain in your legs?
Yes 1
No 2[GO TO Q4016a]

4015m. Who treated you?

4015n. Where did you go?

4015o. What treatment did you receive?

4015p. How much did you spend?

M. Bleeding Postpartum

4016a. How many days altogether have you been bleeding (did you bleed) since the delivery?
_____ days

4016b. Are you still having some bleeding?
Yes 1
No 2[GO TO Q4017a]

4016c. What does the bleeding look like? Is it bright red, dark red, clotted, or thin and liquid-like?

- Bright red and thin 1
- Bright red and clotted 2
- Dark red and thin 3
- Dark red and clotted 4
- Other _____ .. 5

4016d. Have you had to go to bed because of sickness from bleeding since the delivery?

- Yes 1
- No 2[GO TO Q4016f]

4016e. How many days have you had to stay in bed, or curtail your activities because of bleeding after delivery?

_____ days

4016f. Have you sought, or did you receive, any special treatment for the bleeding?

- Yes 1
- No 2[GO TO Q4017a]

4016g. Who treated you?

4016h. Where did you go?

4016i. What treatment did you receive?

4016j. How much did you spend?

N. Perineal Tear

4017a. Did you tear in your perineal area during the delivery?

- Yes 1
- No 2[GO TO Q4018a]

4017b.

Can you describe the tear? [PROBE FOR: size, stitches received, painful, still bleeding from tear, painful when having bowel movement, tore into rectal area].

4017c.

Have you had to go to bed or curtail your activities because of the tear?

Yes.....1

No.....2[GO TO Q4017e]

4017d.

How many days have you stayed in bed or not done normal activities because of the perineal tear?

4017e.

Have you sought any treatment for the tear?

Yes 1

No 2[GO TO Q4018a]

4017f.

Who treated you?

4017g.

Where did you go?

4017h.

What treatment did you receive?

4017i.

How much did you spend?

O. FISTULA

4018a.

Are you having any problems with leaking urine?

Yes 1

No 2

4018b.

Are you having any problems with leaking feces?

Yes 1

No 2

[IF NO PROBLEM WITH LEAKING, GO TO Q4019a]

4018c. Have you had to go to bed or curtail your activities because of the leaking?
Yes 1
No 2[GO TO Q4018e]

4018d. How many days have you stayed in bed or not done normal activities because of the perineal tear?

4018e. Have you sought any treatment for the leaking?

Yes 1
No 2[GO TO Q4019a]

4018f. Who treated you?

4018g. Where did you go?

4018h. What treatment did you receive?

4018i. How much did you spend?

P. Diabetes

4019a. Have you ever been told by a doctor or nurse that you are diabetic?

Yes 1
No 2[GO TO 4020a]

4019b. How long have you had diabetes?
_____ months/years

Q. Heart Disease

4020a. Have you ever been told by a doctor or nurse that you have a weak heart?

Yes 1
No 2[GO TO Q4021]

4020b.

When did a doctor or nurse tell you that your had a weak heart?

_____ months/years ago

4020c.

Can you describe what the problem is with your heart?

SECTION II

4021a.

Have you done any of the following activities either yesterday or today?

Cook

Yes 1

No 2

4021b.

Clean house

Yes 1

No 2

4021c.

Bathe yourself

Yes 1

No 2

4021d.

Wash clothing

Yes 1

No 2

4021e.

Wash your baby

Yes 1

No 2

4021f.

Lift heavy items (e.g. carry water)

Yes 1

No 2

4022a.

Who lives in your house now who is able to help you?

Mother in law 1

Mother 2

Sister in law 3

Sister 4

Daughter (age _____) 5

Other _____ . . 6

SECTION III. ANTENATAL CARE UTILIZATION

I'd like to know about any health care or advice you received during your pregnancy from the people in your community, your family, friends, and from doctors or nurses.

50a. During this pregnancy, did you ever go to a hospital or clinic for a pregnancy check-up?

- Yes 1
- No 2 [GO TO Q51]

50b. Where did you go?

50c. How many months pregnant were you when you first went?

_____ mos

50d. How many times altogether did you go?

_____ times

50e. How soon before delivery did you last go?

_____ weeks

50f. Did you go because you thought something was wrong with your own health or the baby's?

- Yes 1
- No 2 [GO TO Q51]

50g. What were you worried about?

51a. During this pregnancy, did anyone ever tell you about, or encourage you to go to a hospital or clinic for a pregnancy check-up?

- Yes 1
- No 2 [GO TO Q52]

51b. Who told you about antenatal care?

[IF Q50=NO, GO TO Q53]

During any of your pregnancy health care check-up visits, did anyone talk with you about the following issues?

Warning/risk symptoms to watch
for during pregnancy Yes . 1
. No . 2

Signs of complications
during labor to watch for . Yes . 1
. No . 2

The importance of using
a safe delivery kit Yes . 1
. No . 2

How to use
a safe delivery kit Yes . 1
. No . 2

Eating nutritious foods and weight
gain during pregnancy . . . Yes . 1
. No . 2

Importance of delivering
the baby in a clinic Yes . 1
. No . 2

Importance of delivering the baby
with a trained attendant . . Yes . 1
. No . 2

Importance of breastfeeding the baby
during the first few days (i.e. colostrum),
and not supplementing the feed with sugar
water or cows milk Yes . 1
. No . 2

Your general health condition
(i.e. vaginal bleeding,
dizziness, swelling, abdominal pain,
vomiting, headache) Yes . 1
. No . 2

Use of birth control
after pregnancy Yes . 1
. No . 2

52b.

During any of your pregnancy check-up visits, did the doctor or nurse do any of the following?

Touched and felt
around abdomen Yes . 1
. No . 2

Touched and felt
around the vagina Yes . 1
. No . 2

Examined face, legs, and feet
for swelling Yes . 1
. No . 2

Took blood pressure Yes . 1
. No . 2

Took blood sample Yes . 1
. No . 2

Took urine sample Yes . 1
. No . 2

Measured weight Yes . 1
. No . 2

Measured height Yes . 1
. No . 2

Measured arm size Yes . 1
. No . 2

Gave tetanus injection Yes . 1
. No . 2

Gave vitamins Yes . 1
. No . 2

Gave iron tablets Yes . 1
. No . 2

Gave safe delivery kit Yes . 1
. No . 2

53a. While you were pregnant, did a home visitor or health worker come to your house to give advice or treatment?

Yes 1

No 2 [GO TO Q54]

53b. Where was this person from?

53c. How many times did she come during your pregnancy?

_____ times

53d. What advice or treatment did she give?

54a. Did anyone else come to your house to give advice or treatment? [PROBE FOR: TBA, dai, kobiraj, fakir, private doctor, pharmacist, homeopath, nurse].

Yes 1

No 2 [GO TO Q55]

54b. Who was this?

54c. How many times did any other people come to your house?

_____ times

54d. What advice or treatment did they give?

55a. During this pregnancy, did you ever go outside of your home for advice or treatment from a TBA, dai, fakir, pharmacist, or kobiraj?

Yes 1

No 2 [GO TO Q56]

55b. Where did you go?

55c. Who did you see?

- 55d. How many months pregnant were you when first went for a check-up like this?
_____ mos
- 55e. How many times altogether during this pregnancy did you go for a check-up like this?
_____ times
- 55f. What kind of advice or treatment did you get?

- 56a. During this pregnancy, did you ever take any iron tablets?
Yes 1
No 2 [GO TO Q57]
- 56b. How often did you take the iron tablets?
_____ times per day/week
- 56c. How long did you take the iron tablets for?
_____ days/weeks/mos
- 56d. Where did you get the iron tablets from?

- 57a. During this pregnancy, did you receive an injection to prevent tetanus?
Yes, once 1
Yes, two times 2
No 3 [GO TO Q57C]
- 57b. Where/who did you receive the tetanus injection from?

[IF PRIMIGRAVIDA, DO NOT ASK Q57C, GO TO Q58]

- 57c. Have you received at least two injections for tetanus before this pregnancy?
Yes 1
No 2

58a. Did you receive any other injections during this pregnancy?

Yes 1

No 2 [GO TO Q59]

58b. What kind of injection (for what purpose)?

58c. From where/whom did you receive the injection? _____

SECTION IV. CHOICE OF DELIVERY CARE PROVIDER

I want to ask you now about your opinion on the different places and Dhaka to deliver baby, and the different people who assist women in delivering babies. There are no right or wrong answers to any of these questions; just whatever your opinion is.

26. Can you explain reasons that some women think it is better to deliver in their homes rather than a hospital?

27. Are there any problems or risks associated with going away from home to deliver the baby?

28. Can you explain reasons that some women would prefer to delivery in a hospital or clinic?

29. Are there any problems or risks associated with staying at home to deliver the baby?

30. How many different women do you know of who will deliver babies in a woman's own home?

_____ women

What are the names of each of these women you know about (if name unknown, specify some identifying information). COMPLETE CHART BELOW.

	1	2	3	4
How far is this person from your home?	_____	_____	_____	_____
Easy walk 1				
< 7 tk rickshaw 2				
>= 7 tk rickshaw 3	_____	_____	_____	_____
How do you know this person?				
Related 1				
Not relative, but know personally 2				
Delivered me before 3				
Know someone who she delivered 4				
Never met, only heard of 5	_____	_____	_____	_____
Do they bring their own supplies?				
Always 1				
Sometimes 2				
Rarely/never 3	_____	_____	_____	_____
(specify supplies they bring)				
Do they expect supplies to be provided by the family?				
Always 1				
Sometimes 2				
Rarely/never 3	_____	_____	_____	_____
(specify supplies they expect the family to provide)				

Are they skilled in normal delivery?

- Always 1
- Sometimes 2
- Rarely/never 3

Are they skilled in complicated delivery?

- Always 1
- Sometimes 2
- Rarely/never 3

Do they always come when called?

- Always 1
- Sometimes 2
- Rarely/never 3

Do they make a home visit during pregnancy if needed?

- Always 1
- Sometimes 2
- Rarely/never 3

Do they provide treatment during pregnancy?

- Always 1
- Sometimes 2
- Rarely/never 3

Are they powerful against bad spirits?

- Always 1
- Sometimes 2
- Rarely/never 3

Are they expensive?

- Always 1
- Sometimes 2
- Rarely/never 3

Are they affordable, charging what the family can pay?

Always	1	_____	_____	_____	_____
Sometimes	2				
Rarely/never	3				

Do they have a good reputation as a person?

Yes	1	_____	_____	_____	_____
No	2				

Do they have a good reputation as a skilled dai?

Yes	1	_____	_____	_____	_____
No	2				

Where does their skill come from?

Training	1	_____	_____	_____	_____
Experience	2				
Spiritually given	3				
Not skilled at all	4				
Other	5				

31. How many different facilities (clinics, hospitals) do you know about where women can deliver their babies?

_____ facilities

What are the names of each of these places you know about (if name unknown, specify some identifying information). COMPLETE CHART BELOW.

	1	2	3	4
	_____	_____	_____	_____

How far is this place from your home?

Easy walk	1	_____	_____	_____	_____
< 7 taka rickshaw	2				
>= 7 taka rickshaw	3				

How do you know of this place?

- Used facility for non-maternity services 1
- Used facility for antenatal services 2
- Delivered there before 3
- Relative works there 4
- Knows someone who works there 5
- Knows someone who delivered there 6
- Know that complicated deliveries are handled there 7
- Just heard of the place, but never been there 8

Are needed supplies given free?

- Always 1
- Sometimes 2
- Rarely/never 3

Must supplies be bought from the facility?

- Always 1
- Sometimes 2
- Rarely/never 3

Must supplies be bought from outside the facility?

- Always 1
- Sometimes 2
- Rarely/never 3

Are they skilled in normal deliveries?

- Always 1
- Sometimes 2
- Rarely/never 3

Are they skilled in complicated deliveries?

- Always 1
- Sometimes 2
- Rarely/never 3

Can a caesarean section be done at the facility?

- Always 1
- Sometimes 2
- Rarely/never 3

Is it easy to get admitted for a normal delivery?

- Always 1
- Sometimes 2
- Rarely/never 3

Is it easy to get admitted for a complicated delivery?

- Always 1
- Sometimes 2
- Rarely/never 3

Does the center give good quality care to women with normal deliveries?

- Always 1
- Sometimes 2
- Rarely/never 3

Does the center given good quality care to women with complicated deliveries?

- Always 1
- Sometimes 2
- Rarely/never 3

Does the center have a bad reputation for doing normal deliveries?

Yes 1
No 2 _____

Does the center have a bad reputation for doing complicated deliveries?

Yes 1
No 2 _____

Is it expensive to deliver there?

Yes 1
No 2 _____

What is the "official" cost?

What is the "unofficial" cost?

[IF WOMAN CHOSE TO DELIVER IN THE HOSPITAL OR CLINIC, GO TO Q35]

32. Why did you decide to deliver you baby at home and not at a center? [FIRST JUST RECORD WHAT ANSWERS ARE VOLUNTEERED, THEN PROBE: "Would you say that one of the reasons you chose to deliver at home was that you just preferred to?", "Would you say that one reason was that..." etc.]

Self Response

Prompted

Just preferred to deliver at home

Yes 1
No 2 _____

Afraid of scissors

Yes 1
No 2 _____

No privacy at a center

Yes 1
No 2

Men see you at a center

Yes 1
No 2

Have delivered at home before
and it was no problem

Yes 1
No 2

Centers too far away/none nearby

Yes 1
No 2

Centers too costly/cannot afford

Yes 1
No 2

No transportation to center

Yes 1
No 2

Nobody to accompany me to center

Yes 1
No 2

Nobody to care for children at home

Yes 1
No 2

Centers are bad because
people there "exchange babies"

Yes 1
No 2

Centers are bad because people
there use scissors unnecessarily

Yes 1
No 2

Know someone who had a bad
experience delivering at a center

Yes 1
No 2

Don't know about any centers

Yes 1
No 2

33. Why did you choose the person that you chose to deliver your baby? [FIRST JUST
RECORD WHAT ANSWERS ARE VOLUNTEERED, THEN PROBE: "Would you say
that one of the reasons you chose that person was that your family suggested that
person?", "Would you say that one reason was that..." etc.]

Self Response

Prompted

Family suggested the person

Yes 1
No 2

[IF YES] Who suggested that person, and what is their relation to you?

Neighbor suggested the person

Yes 1
No 2

Person chosen lived/worked
the closest to me

Yes 1
No 2

Person chosen has delivered other babies, and everything went well

Yes 1
No 2

Person chosen has a good reputation among my relatives and friends

Yes 1
No 2

Person chosen has a good reputation among home health visitors and clinic/center staff

Yes 1
No 2

I felt that the person who delivered me was more skilled than others I knew about

Yes 1
No 2

I know and trust the person who delivered me

Yes 1
No 2

The person chosen has a good manner

Yes 1
No 2

The baby was coming and there was no one else who could come to help at that time

Yes 1
No 2

34a. How much did you pay the person who delivered you?

_____ taka for main attendant
_____ taka for assistant

34b. How much did you pay for supplies for the delivery?

_____ taka

34c. How much did you pay for medicine for the delivery?

35. Why did you decide to deliver your baby at a center (clinic/hospital) and not at home?
[FIRST JUST RECORD WHAT ANSWERS ARE VOLUNTEERED, THEN PROBE:
"Would you say that one of the reasons you chose a center was that you thought it was
the best care available?", "Would you say that one reason was that..." etc.]

Self Response

Prompted

Thought I would get the
best care available

Yes 1
No 2

Was told that I was high risk and
should deliver in a center

Yes 1
No 2

[IF YES] Who told you that you were high risk? _____

Was afraid of complications
(but not actually warned)

Yes 1
No 2

Had delivered at a center
before and liked it

Yes 1
No 2

Received antenatal care at the center I delivered at, and was encouraged to come back for delivery

Yes 1
No 2

Received antenatal care at another center, and was referred to this center for delivery

Yes 1
No 2

Just preferred to come to a center

Yes 1
No 2

The center has more privacy than my own house

Yes 1
No 2

Nobody at my home to help me with the delivery

Yes 1
No 2

A relative told me to come to a center for delivery

Yes 1
No 2

[IF YES] Who and what relation to you? _____

Why did they tell you this? _____

A dai told me to come to a center for delivery?

- Yes 1
- No 2

[IF YES] Why did she tell you this? _____

I cannot deliver at home because of my religion

- Yes 1
- No 2

36a. What is the name of the center you delivered in? _____

36b. Why did you choose this center instead of any other center?

Self Response

Prompted

It was the closest to my house

- Yes 1
- No 2

I had been there before to deliver and liked it

- Yes 1
- No 2

The cost is lower than at others

- Yes 1
- No 2

I received antenatal care there

- Yes 1
- No 2

Someone recommended it to me

- Yes 1
- No 2

37a. How much did you pay to the person doing the delivery at the center?

_____ taka for main attendant

_____ taka for assistant(s)

37b. How much did you pay for supplies needed for the delivery?

_____ taka

37c. How much did you pay for medicines needed for the delivery?

_____ taka

38. When you were considered who and where you would deliver your baby, who gave you advice about this?

Husband

Yes 1

No 2

[IF YES] What advice did he give you? _____

Mother

Yes 1

No 2

[IF YES] What advice did she give you? _____

Father

Yes 1

No 2

[IF YES] What advice did he give you? _____

Sister

Yes 1

No 2

[IF YES] What advice did she give you? _____

Older brother

Yes 1
No 2

[IF YES] What advice did he give you? _____

Mother in law

Yes 1
No 2

[IF YES] What advice did she give you? _____

Father in law

Yes 1
No 2

[IF YES] What advice did he give you? _____

Sister in law

Yes 1
No 2

[IF YES] What advice did she give you? _____

Brother in law

Yes 1
No 2

[IF YES] What advice did he give you? _____

Other relative

Yes 1
No 2

[IF YES] Who and what advice did he/she give you? _____

Older brother

- Yes 1
- No 2

[IF YES] What advice did he give you? _____

Mother in law

- Yes 1
- No 2

[IF YES] What advice did she give you? _____

Father in law

- Yes 1
- No 2

[IF YES] What advice did he give you? _____

Sister in law

- Yes 1
- No 2

[IF YES] What advice did she give you? _____

Brother in law

- Yes 1
- No 2

[IF YES] What advice did he give you? _____

Other relative

- Yes 1
- No 2

[IF YES] Who and what advice did he/she give you? _____

J. Injury Due to Violence

I'd like to ask you some questions about whether you have been physically hurt by people who are close to you. I understand that these, like many questions we've been asking today, are very private events. I will not ask you to tell me the details of any event, or anything about the person who hurt you. My main concern is for your health, and the health of your baby.

48a. Has anyone in this household ever threatened to hit you, shove you, or throw things at you?

- Yes 1
- No 2

48b. Has anyone in this household ever hit you, shoved you, or thrown things at you?

- Yes 1
- No 2 [GO TO Q50]

49a. During this pregnancy, have you become physically injured after someone in this household hit, shoved, or threw something at you?

- Yes 1
- No 2

[IF MORE THAN ONE INJURY, RECORD ANSWERS FOR EACH INJURY]

49b. Can you describe to me what kind of injury you received?

49c. How long did the injury last? _____

49d. When did the injury occur?

_____ months ago



INTERVIEW FOR HOME DELIVERY PROVIDER

I.			
1. NAME	_____		
2. ADDRESS	_____		
3. AGE	_____		
II.			
4. DO YOU CONDUCT DELIVERIES FOR WOMEN WHO ARE NOT FAMILY MEMBERS?		Y N	
5. HOW MANY DELIVERIES HAVE YOU CONDUCTED OVER THE PAST ONE MONTH?	_____		
5A. HOW MANY DELIVERIES HAVE YOU CONDUCTED OVER THE PAST YEAR?	_____		
5B. HOW MANY BABIES DO YOU THINK YOU HAVE DELIVERED IN YOUR LIFE TIME?	_____		
5C. DO YOU KNOW ANY WOMEN NOW WHO ARE PREGNANT AND WHO EXPECT YOU TO DELIVER THEIR BABY?		Y N	
6. DID YOU EVER RECEIVE STRUCTURED TRAINING ABOUT DELIVERIES? (IF NO, SKIP TO # 8)		Y N	
[REDACTED]		[REDACTED]	[REDACTED]
IF YES:			
6A. WHO PROVIDED THE TRAINING? 1=GOVERNMENT 2=NGO 3=HOSPITAL 4=OTHER _____ (NAME OF ORGANIZATION/PLACE) _____			
6B. HOW LONG WAS THE TRAINING FOR?	_____		
6C. WHEN WAS THE TRAINING?	_____		
6D. DID YOU RECEIVE A CERTIFICATE? IF YES: CERTIFICATE VERIFIED CERTIFICATE NOT AVAILABLE		Y N Y N	
6E. DID YOU RECEIVE ANY TRAINING OTHER THAN THAT WE JUST DESCRIBED? IF YES: DESCRIBE		Y N	
7. DURING YOUR TRAINING ON DELIVERY WHICH OF THE FOLLOWING WERE USED?		Y N	
7A. PICTURES OF WOMEN, THEIR BODIES, DELIVERY		Y N	
7B. MODEL OF A WOMAN'S PELVIS		Y N	
7C. MODEL BABIES		Y N	
7D. PRACTICE REAL DELIVERIES WITH A TRAINER PRESENT			

<p>III.</p> <p>8. DO WOMEN TELL YOU BEFORE THE LABOR THAT THEY WILL WANT YOU TO CONDUCT THE DELIVERY? IF YES, WHEN:</p> <p>1=DIFFERENT FOR EACH WOMAN 2=WHEN THE WOMAN FINDS SHE IS PREGNANT 3=___ MONTHS BEFORE DELIVERY 4=WHEN LABOR STARTS (ANSWERS FROM KEY INFORMANT INTERVIEWS)</p>		
<p>9. DO YOU EVER GO TO SEE THE WOMAN BEFORE HER LABOR PAIN STARTS?(IF NO, SKIP TO # 11)</p> <p>_____</p> <p>IF YES, WHY? (CIRCLE ALL THAT APPLY)</p> <p>1=SHE CALLS BECAUSE OF A PROBLEM 2=I GO TO SEE HER HEALTH (EVEN THOUGH SHE DID NOT SAY SHE HAS A PROBLEM) 3=OTHER _____</p>	<p>Y N</p> <p>_____</p>	<p>_____</p>
<p>WHEN YOU VISIT THE WOMAN BEFORE DELIVERY:</p>	<p>Y N</p>	
<p>10. DO YOU ASK HER QUESTIONS? IF YES, WHAT?</p>	<p>Y N</p>	
<p>10A. DO YOU EXAMINE HER? IF YES, HOW DO YOU EXAMINE HER, WHAT DO YOU CHECK FOR?</p>	<p>Y N</p>	
<p>10B. HAVE YOU EVER HAD CASES WHERE YOU DECIDED THAT YOU WILL NOT DO THE DELIVERY? IF YES, WHAT TYPE OF CASES, AND WHAT DID YOU TELL THE WOMAN?</p> <p>_____</p>	<p>Y N</p> <p>_____</p>	<p>_____</p>
<p>WHEN YOU GO TO CONDUCT THE DELIVERY:</p>	<p>Y N</p>	
<p>11. DO YOU TAKE ANY ITEMS WITH YOU FOR THE DELIVERY? IF YES, WHAT?</p>	<p>Y N</p>	
<p>11A. DO YOU ASK THE FAMILY TO HAVE ANY ITEMS AVAILABLE (OR TO PURCHASE ITEMS)? IF YES, WHAT?</p>	<p>Y N</p>	
<p>12. WHEN YOU FIRST ARRIVE AT THE HOUSE FOR THE DELIVERY, WHAT DO YOU DO?</p>		

19. AS A PART OF OUR STUDY, WE WOULD LIKE TO SEE A DEMONSTRATION OF HOW YOU DO A DELIVERY. HERE IS THE BABY, WITH THE UMBILICAL CORD ATTACHED. SUPPOSE YOU ARE CALLED BECAUSE I AM IN LABOR. CAN YOU SHOW ME WHAT YOU DO? TELL ME AS YOU WOULD USE THEM, WHAT SUPPLIES YOU WOULD BRING WITH YOU OR ASK THE FAMILY TO PROVIDE.

DESCRIPTION OF STEPS:

CHECKLIST: NOTE IF THE PROVIDER DOES ANY OF THE FOLLOWING:

PALPATE ABDOMEN

CHECK PERINEUM

STERILIZE ITEMS

WASH HANDS WITH SOAP

LIE MOTHER ON CLEAN CLOTH

CLEAN PERINEUM (OR ASK MOTHER TO)

TIE CORD AT LEAST TWO FINGERS ABOVE

DOUBLE TIE

TRIPLE TIE

CUT WITH STERILE BLADE

CLEAN BABY NOSE AND MOUTH

MESSAGE FUNDUS IF EXCESS BLEEDING

WAIT FOR PLACENTA TO COME OUT NATURALLY

PUT BABY TO MOTHERS BREAST

IF NOT COVERED PREVIOUSLY, PROBE FOR THE FOLLOWING:

14. CAN YOU DESCRIBE ANY EXAMINATION THAT YOU DO OF THE MOTHER?

14A. DO YOU NORMALLY EXAMINE HER ABDOMEN?

IF YES

HOW OFTEN DO YOU DO THIS BEFORE THE BABY IS BORN? WHAT DO YOU CHECK FOR?

HOW OFTEN DO YOU DO THIS AFTER THE BABY IS BORN?
WHAT DO YOU CHECK FOR?

14B. DO YOU NORMALLY EXAMINE HER PERINEAL AREA?

IF YES

HOW OFTEN DO YOU DO THIS BEFORE THE BABY IS BORN? WHAT DO YOU CHECK FOR?

AFTER THE BABY IS BORN?

WHAT DO YOU CHECK FOR?

14C. DO YOU NORMALLY CONDUCT A VAGINAL EXAM?

IF YES,

HOW OFTEN DO YOU DO THIS BEFORE THE BABY IS BORN? WHAT DO YOU CHECK FOR?

AFTER THE BABY IS BORN?

WHAT DO YOU CHECK FOR?

15. I WILL MENTION SOME ITEMS. YOU TELL ME IF YOU USE THESE ITEMS FOR DELIVERY ALWAYS, SOMETIMES, ALMOST NEVER. ALSO TELL ME IF YOU SUPPLY THEM OR IF THE FAMILY SUPPLIES THEM.				
1=ALWAYS 2=SOMETIMES 3=RARELY	CODE	OLD/ NEW	STERI LE	FAM/ SELF
SCISSOR				
BAR SOAP				
RAZOR BLADE (OLD/NEW)				
BOILING WATER				
HOT WATER				
PIECE OF CLEAN CLOTH (OLD/NEW)				
PIECE OF CLEAN PLASTIC (OLD/NEW)				
STRIPS OF CLEAN CLOTH				
THREAD (OLD/NEW)				
BAMBOO SLIVER				
KNIFE				
ALCOHOL				
DETOL				
OIL				
INJECTIONS (WHAT?)				
TABLETS (WHAT?)				
TEA/HERBAL DRINK				
GLOVES				
OTHER:				

LASTLY I WANT TO ASK YOU SOME QUESTIONS ABOUT
COMPLICATED DELIVERIES THAT MANY WOMEN WHO DELIVER
BABIES MAY COME ACROSS

16. HAVE YOU EVER ATTENDED A DELIVERY WHERE THE
BABY DID NOT COME HEAD FIRST?

Y N

16A. IF YES, WHAT DID YOU DO?

16B. HOW DID YOU KNOW THAT THE BABY WAS NOT COMING
HEAD FIRST?

17. HAVE YOU EVER ATTENDED A DELIVERY WHERE THE
LABOR TOOK TOO LONG?

Y N

17A. IF YES, WHAT DID YOU DO?

17B. HOW DO YOU DECIDE IF LABOR IS TAKING TOO LONG?

17C. IS THERE A DIFFERENCE IN NORMAL LABOR TIME FOR A
WOMAN HAVING HER FIRST BABY FROM A WOMAN HAVING
HER SECOND OR MORE BABY?

NORMAL LABOR TIME FIRST BABY: _____

NORMAL LABOR TIME 2+BABY: _____

18. HAVE YOU EVER ATTENDED A DELIVERY WHERE THERE
WAS TOO MUCH BLEEDING?

Y N

18A. IF YES, WHAT DID YOU DO?

18B. HOW DID YOU DECIDE THAT THERE WAS TOO MUCH
BLEEDING?

19. HAVE YOU EVER ATTENDED A DELIVERY WHERE THE
PERINEUM OF THE MOTHER TORE?

Y N

19A. IF YES, WHAT DID YOU DO?

<p>20. HAVE YOU EVER ATTENDED A DELIVERY WHERE THE MOTHER HAD CONVULSIONS? 20A. IF YES, WHAT DID YOU DO?</p>	Y N	
<p>21. HAVE YOU EVER ATTENDED A DELIVERY WHERE THE MOTHER LOSS CONSCIOUSNESS? 21A. IF YES, WHAT DID YOU DO?</p>	Y N	

ABSTRACT SUMMARY

The study population will be pregnant women from the urban slum areas of Dhaka. The selected areas are those which were selected using a multistage cluster sampling frame for the Urban Surveillance System of the Urban Health Extension Project.

There is no physical risk involved in this study as it relies on household interviews for information gathering. The questions which are being asked regarding morbidity and the thoughts which relate to choice of delivery service provider. The interviews will take place in the home of the subject. The antenatal interviews and visits (at six and seven months pregnancy) will take approximately 15 minutes each. The post partum interviews (at 72 hours and two weeks post partum) will each take approximately 1 hour.

If a serious illness is suspected during the antenatal visits the subject will be advised to go to the nearest health facility which offers Maternity Care. A collaborative agreement has been reached with Dr. Anwara Begum, the Head of Obstetric and Gynecology at Mitford Hospital regarding the women in the study post partum. Should there be post partum morbidity which is emergent, the subject will be referred to Mitford hospital for inpatient treatment. Dr. Anwara will notify her staff that the patient is in the study so particular attention will be given. Should the post partum morbidity be non-emergent, an agreement has been made that the women will be referred to the outpatient clinic on prearranged days so that a female staff physician who will be assigned to the study patients (for uniform physical information gathering) will be present. The study will bear the cost of transport if the household cannot afford this, and of medicines (relating to post partum morbidity) which are not available at the outpatient clinic. Inpatient treatment is free at Mitford Hospital.

The information from the questionnaires or from the hospital might pose a social risk, especially if the woman being interviewed has views which vary from normally accepted views. In addition, there might be some risk should embarrassing morbidity (ie. of reproductive tract) be discussed. Every effort will be made to minimize the risk of others learning of the responses of the interviewee. The subject will be informed of her right to refuse to answer any question, and of the procedures being taken to minimize risk of identification of respondents with their answers. The questionnaires will be number coded, without names, and the names and addresses which link with the questionnaire will be locked in the UHEP office under the supervision of the principal investigator. Interviewers will be trained regarding the sensitivity of issues relating to reproductive health and will also be cautioned regarding confidentiality. Every effort will be made during the interview to ensure that the interviewer and the subject are alone.

When the woman agrees to go to the hospital for outpatient (non-emergent) treatment, the hospital standards will be adhered to for hospital records, and the standards described above will be adhered to for any clinical information (verification of morbidity) utilized

for the study purposes.

In addition to the above, dais who deliver the subject mothers will be interviewed. The interviews discuss general delivery practices, not the specific delivery involved in the study, so the risk of loss of confidentiality for the women who delivered are minimal. The same precautions as those used for the mother, regarding confidentiality will be used for the dai information.

As the majority of women who will be interviewed will be illiterate, a verbal consent will be requested. A copy of the consent form will be left with the woman in case she desires to show it to someone at any time.

The results of this study will document the extent to which maternal morbidity, particularly illnesses relating to the delivery process, is a problem in the urban slum population of Dhaka. In addition, information pertaining to why choices are made regarding utilization of health facilities will be collected. The two sets of information together will provide a sound basis from which recommendations can be made for improving appropriate utilization of maternity services and delivery service providers, and for training or program changes which may be indicated to improve the quality and utilization of services and personnel.

COMMITTEE ON HUMAN RESEARCH CONSENT FORM

The Johns Hopkins University
School of Hygiene and Public Health

Title of Research Project:

Maternal Morbidity and Choice of Delivery Service Provider in the
Urban Slums of Dhaka, Bangladesh

Explanation of Research Project:

The Urban Health Extension Project, at ICDDR,B (the Cholera Hospital) is trying to learn more about the birth practices in the urban slum areas. This is being done in affiliation with the Johns Hopkins School of Public Health, in the United States.

Dais are used most often in the deliveries of women here, so for the study we want to talk with dais, like yourself, and learn from you how you conduct deliveries, what items you use, and how you manage the difficult cases.

This information will help us to understand what the women are used to during the time of delivery, and what types of services they prefer.

If you agree to talk with us I would like to ask you some questions now. This will take about one hour.

I am aware that some of the issues about childbirth are sensitive, thus, every effort will be made to ensure that your answers are confidential. Your name is not on this questionnaire. Your name and address and your questionnaire number are kept locked at our office so that no one else will know who answered the questions on this paper. So, although there are risks that some of your answers will be disclosed to others, we are making every effort to keep all of your answers confidential.

Your participation in this research project is completely voluntary. You have the right to withdraw from the research study at any time. Even if you do not want to join the study, or if you withdraw from the study, you will still receive the same quality of medical care available to you at ICDDR, B. Your decision also will not jeopardize your employment at Not Applicable. You should ask the principal investigator listed below any questions you may have about this research study. You may ask him/her questions in the future if you do not understand something that is being done. The investigators (or doctors) will share with you any new findings that may develop while you are participating in this study.

If you want to talk to anyone about this research study because you think you have not been treated fairly or think you have been hurt by joining the study, or you have any other questions about the study, you should call the principal investigator, NANCY FRONCZAK at 600171-8/2224 Ext. or the Urban Health Extension Project at 600003. Either the principal investigator or the people in the IRB office will answer your questions and/or help you find medical care if you feel you have suffered an injury. The Johns Hopkins University, The Johns Hopkins Hospital, and the Federal Government do not have any program to provide compensation to you if you experience injury or other bad effects which are not the fault of the investigators.

If you agree to participate in this study please sign your name below.

Subject's signature
(including children, when applicable)

Signature of Parent or Guardian (when applicable)

Witness to Consent Procedures*

Signature of Investigator

Date

**NOT VALID WITHOUT THE
COMMITTEE OR IRB STAMP
OF CERTIFICATION**

Void One Year From Above Date
CHR No. _____

*Optional unless subject is illiterate, or unable to sign

Note: Signed copies of this consent form must be a) retained on file by the Principal Investigator; b) given to the participant and c) put in the patient's medical record (when applicable).

প্রকল্প: ঢাকার বসিতে মাতৃ অসুস্থতা এবং প্রসবকালীন সেবা প্রদানকারী
নিবর্তন।

মৌখিক সম্মতি পত্র

আরবান হেলথ একসটেশন প্রজেক্ট, আন্তর্জাতিক উদরাময় গবেষণা কেন্দ্র (কলেজ হাসপাতাল) বসিত এলাকায় প্রসবের সময় সেবা সাহায্য সম্পর্কে আরও বেশী জানার চেষ্টা করছে। জনস্বাস্থ্য উন্নয়ন কেন্দ্র, জনস্বাস্থ্য বিদ্যালয়, আমেরিকার সাথে সংযুক্তভাবে এই গবেষণাটি হচ্ছে।

দাইরা বেশীরভাগ ক্ষেত্রে, এখানকার মহিলাদের প্রসব করান। তাই, এই গবেষণার জন্য আমরা আপনার মত কিছুর দাইয়ের সাথে কথা বলতে চাই এবং কিভাবে আপনি প্রসব করান, কি কি জিনিস আপনি ব্যবহার করেন এবং কিভাবে আপনি কণ্টক প্রসব করান তা আপনার কাছ থেকে আমরা শিখতে চাই।

এই তথ্যগুলি আমাদেরকে বুঝতে সাহায্য করবে, মহিলারা প্রসবের সময় কি ধরনের সেবা পেতে অড্যুস্ত এবং কি ধরনের সেবা তারা পছন্দ করে।

আপনি যদি আমাদের সাথে কথা বলতে সম্মত হন তবে, আমি আপনাকে এখন কিছুর প্রশ্ন করব। এতে প্রায় ১ ঘন্টা সময় লাগবে।

আমি জানি, প্রসব সংক্রান্ত অনেক প্রশ্নই হবে একান্ত ব্যক্তিগত। সেজন্য আপনার উত্তরগুলো গোপন রাখার জন্য সমস্ত পদক্ষেপ নেওয়া হবে। এই প্রশ্নমালায় আপনার নাম নাই। আপনার নাম, ঠিকানা ও প্রশ্নমালায় দেওয়া নম্বর আমাদের অফিসে তালাবন্ধ রাখা হবে, যাতে অন্য কেউ জানতে না পারে, এই কারণে দেওয়া উত্তরগুলো কে দিয়েছিল। সুতরাং যদিও আপনার কিছুর কিছুর উত্তর অন্যেরা জানতে পারার ঝুঁকি আছে। আমরা আপনার সব উত্তর গোপন রাখার জন্য সমস্ত পদক্ষেপ নিচ্ছি।

এই গবেষণায় আপনি অংশ গ্রহণ করেন কি না তা পুরোপুরি আপনার ইচ্ছার উপর নির্ভর করছে। যে কোন সময় এই গবেষণায় অংশ গ্রহণ বন্ধ করার অধিকার আপনার আছে। আপনি যদি এই গবেষণায় অংশ গ্রহণ না করেন অথবা অংশ গ্রহণ বন্ধ করেন তবুও কলেরা হাসপাতালের একই মানের সদাসহ্য সেবা আপনি পাবেন। আপনি নিচে মাম দেওয়া গবেষককে এই গবেষণা সম্পর্কে যে কোন প্রশ্ন করবেন। যদি আপনি কোন কিছু না বুঝতে পারেন তবে উবিসহ্যেও তাকে আপনি প্রশ্ন করতে পারেন। এই গবেষণা খেলে যদি কোন মতামত কিছু পাওয়া যায় তবে গবেষক তা আপনাকে জানাবে।

আপনি যদি মনে করেন আপনার সাথে ভালো ব্যবহার করা হয়নি বা যদি মনে করেন আপনি কোন আঘাত পেয়েছেন অথবা আপনার যদি গবেষণাটি সম্পর্কে কোন প্রশ্ন থাকে, কারও সাথে কথা বলতে চান; তবে আপনি মূল গবেষক ম্যারিস ফ্রান্সিসের সাথে ৬০০১৭৯-৮/২২২৪ নম্বরে যোগাযোগ করুন। আরবাম হেলথ একস্টেনশন প্রজেক্ট - ৬০০০০৩ নম্বরেও যোগাযোগ করতে পারেন। হয় মূল গবেষক অথবা IRI)-এর ব্যক্তিবর্গ আপনার প্রশ্নের উত্তর দেবে অথবা/এবং আপনাকে সদাসহ্য সেবা নিতে সাহায্য করবে যদি আপনি মনে করেন আপনি কোন আঘাত পেয়েছেন। যদি মূল গবেষকের ডুলের কারণে আপনি আঘাত না পেয়ে থাকেন জন্স হপ্‌কিন্স বিশ্ববিদ্যালয় বা হাসপাতাল বা সরকারের কোন প্রকল্প নাই যা আপনাকে ক্ষতিপূরণ দিবে।

আপনি যদি গবেষণাটিতে অংশ গ্রহণ করতে সম্মত থাকেন তবে, দয়া করে
নিচে সই করুন।

অংশগ্রহণকারীর সই

অভিভাবকের বা পিতামাতার সই
(স্বাক্ষর প্রয়োজ্য)

সম্মতি প্রদানের সাক্ষী

গবেষকের সই

তারিখ

কমিটি বা আই আর বি-র
সত্যায়ন স্বাক্ষরিত বৈধ।

উপরের তারিখ থেকে ১ বছর
পর্যন্ত বৈধ

COMMITTEE ON HUMAN RESEARCH CONSENT FORM

The Johns Hopkins University
School of Hygiene and Public Health

Title of Research Project:

Maternal Morbidity and Choice of Delivery Service Provider in the
Urban Slums of Dhaka, Bangladesh.

Explanation of Research Project:

The Urban Health Extension Project, at the Cholera Hospital is conducting a special study on women who have babies delivered in Dhaka. This study is being conducted in affiliation with the Johns Hopkins School of Public Health, in the United States.

The purpose of the study is to find out more about women in Dhaka who are having babies, and to find out more about the health of the mother and the baby after delivery. We want to do this by asking you some questions before as well as after your delivery. The questions will be about your health during this pregnancy and delivery, and about your health as well as that of your baby after the delivery.

We want to speak with women like yourself so that we can better understand health problems which women face as a result of pregnancy and also so that we can better understand what you think about delivery services which are now available for you. With this information from you and from other women like yourself, we will be in a better position to make recommendations to improve the health of women in Dhaka. We want the recommendations to be practical and to meet your needs, which is why we are asking your cooperation in talking with us and answering our questions. To understand as completely as possible we will be visiting you several times to see your health, to ask you questions, and to see your baby's health.

If you agree to participate in the study, today I would like to ask you a few questions about your household and your history of pregnancy. This will take about fifteen minutes. I would also like to measure your weight, your height, and your arm size now so that we understand better the nutrition of pregnant women.

I will come back after one month to check your weight again, and also to ask a few more questions. (That will be a quick visit, maybe ten minutes).

Then, we will discuss a system for your family to let us know when the delivery takes place. I will visit you as soon after the delivery as possible to see how your health is, and that of the baby. Then I will visit once more at about two weeks after the delivery to see how your recovery was after delivery. Those visits after delivery will take longer, probably approximately ninety minutes each, as we will be asking questions about your health, your delivery, and your baby's health. If you do have a sickness after delivery, doctors at Salimullah Medical College Hospital (Mitford) have agreed to treat you for no cost, if we refer you there.

We are aware that when we ask questions about labor and delivery, and your health, some of these questions are very personal, thus, every effort will be made to ensure that the answers are confidential. Your name is not on this questionnaire. Your name and address and your questionnaire number are kept locked at our office so that no one else will know who answered the questions during this or following visits. So, although there are risks that some of your answers will be disclosed to others, we are making every effort to keep all of your answers confidential.

Your participation in this research project is completely voluntary. You have the right to withdraw from the research study at any time. Even if you do not want to join the study, or if you withdraw from the study, you will still receive the same quality of medical care available to you at ICDDR,B. Your decision also will not jeopardize your employment at Not Applicable. You should ask the principal investigator listed below any questions you may have about this research study. You may ask him/her questions in the future if you do not understand something that is being done. The investigators (or doctors) will share with you any new findings that may develop while you are participating in this study.

If you want to talk to anyone about this research study because you think you have not been treated fairly or think you have been hurt by joining the study, or you have any other questions about the study, you should call the principal investigator, NANCY FRONCZAK at 600171-8/2224/Ext. or the Urban Health Extension Project at 600003. Either the principal investigator or the people in the IRB office will answer your questions and/or help you find medical care if you feel you have suffered an injury. The Johns Hopkins University, The Johns Hopkins Hospital, and the Federal Government do not have any program to provide compensation to you if you experience injury or other bad effects which are not the fault of the investigators.

If you agree to participate in this study please sign your name below.

Subject's signature
(including children, when applicable)

Signature of Parent or Guardian (when applicable)

Witness to Consent Procedures*

Signature of Investigator

Date

**NOT VALID WITHOUT THE
COMMITTEE OR IRB STAMP
OF CERTIFICATION**

Void One Year From Above Date
CHR No. _____

*Optional unless subject is illiterate, or unable to sign

Note: Signed copies of this consent form must be a) retained on file by the Principal Investigator; b) given to the participant and c) put in the patient's medical record (when applicable).

গবেষণা প্রকল্পের নাম:

ঢাকার বস্তি এলাকায় মাতৃ অসুস্থতা এবং প্রসবকালীন সেবা প্রদানকারী নিৰ্বাচন।

মৌখিক সম্মতি পত্র:

আরবান হেলথ একস্টেনশন প্রজেক্ট আন্তর্জাতিক উদরাময় গবেষণা কেন্দ্র (কলেরা হাসপাতালে), যে সব মহিলারা ঢাকায় সন্তান প্রসব করেছে, তাদের উপর একটা বিশেষ গবেষণা করছে। জনস হপ্‌কিন্স জনস্বাস্থ্য বিদ্যালয় আমেরিকার সাথে সংযুক্তভাবে এই গবেষণাটি করা হচ্ছে।

এই গবেষণার উদ্দেশ্য হচ্ছে, ঢাকার প্রসূতি মায়েদের সম্পর্কে এবং তাদের প্রসব পরবর্তী স্বাস্থ্য এবং শিশুটির স্বাস্থ্য সম্পর্কে আরও বেশী জানা। আপনার প্রসবের পূর্বে এবং পরে কিছু প্রশ্ন করে আমরা এই কাজ করতে চাই। প্রশ্নগুলো হবে আপনার এবারের গর্ভাবস্থায় এবং প্রসবের সময় আপনার স্বাস্থ্য কেমন ছিল ও প্রসবের পর আপনার ও আপনার শিশুর স্বাস্থ্য কেমন আছে, সে সম্পর্কে।

আমরা আপনার মত কিছু মহিলার সাথে কথা বলে আরও ভালো করে বুঝতে চাই গর্ভাবস্থার ফলে মহিলারা কি ধরনের স্বাস্থ্য সংক্রান্ত অসুবিধার সম্মুখীন হন এবং বর্তমানে প্রসবের যে সমস্ত সুযোগ-সুবিধা আছে, সে সম্পর্কে আপনি কি চিন্তা করেন। আপনার কাছ থেকে এবং অন্যান্য মহিলার কাছ থেকে পাওয়া তথ্যের ভিত্তিতে আমরা আরও ভালোভাবে, ঢাকায় মহিলাদের স্বাস্থ্য সেবার উন্নয়ন সম্পর্কে সুপারিশ করতে পারব। আমরা চাই যে, সুপারিশগুলি বাস্তবভিত্তিক হবে ও আপনাদের প্রয়োজন পূরণ করবে। এইজন্য আমাদের প্রশ্নের উত্তর দিয়ে ও আমাদের সাথে কথা বলে সহযোগিতা করার জন্য আপনাকে অনুরোধ করছি। যতটা সম্পূর্ণভাবে সম্ভব, বোঝার জন্য এবং আপনার স্বাস্থ্য, আপনার সন্তানের স্বাস্থ্য সম্পর্কে জানার জন্য আপনাদেরকে আমরা প্রশ্ন করব। এজন্য আপনাদের কাছে আমাদেরকে কয়েকবার আসতে হবে।

আপনি এই গবেষণায় অংশ গ্রহণ করতে সম্মত হলে, আজকে আপনার পরিবার এবং আপনার গর্ভধারণের ইতিহাস সম্পর্কে আমি কিছু প্রশ্ন করতে চাই। এতে ১৫ মিনিটের মত সময় লাগবে। এখন আপনার ওজন, উচ্চতা এবং বাহুর মাপ নিয়ে একজন গর্ভবতী মহিলার পুষ্টির অবস্থা সম্পর্কে আমরা আরও ভালোভাবে বুঝতে চাই।

একমাস পরে আমি আবার আসব, এসে আপনার ওজন বাড়ছে কি না দেখব এবং আরও কয়েকটা প্রশ্ন করব (এতে ১০ মিনিটের মত সময় লাগবে)।

তারপর, আপনার সন্তান প্রসব হলে আপনারা কিভাবে আমাদেরকে জানাতে পারবেন সে সম্পর্কে আপনার পরিবারের সাথে আলোচনা করব। আপনার সন্তান হওয়ার পর, আপনারা আমাদেরকে জানালেই, আপনার ও আপনার সন্তানের স্বাস্থ্যের অবস্থা দেখার জন্য, যত তাড়াতাড়ি সম্ভব আমি আবার আসব। সন্তান প্রসবের পর আপনার শরীর কেমন আছে দেখার জন্য দুই সপ্তাহ পর আমি আবার আসব। প্রতিবার আরও বেশীকণ সময় লাগবে (এক একবার ৯০ মিনিটের মত) কারণ তখন আপনার স্বাস্থ্য, প্রসব ও আপনার সন্তানের স্বাস্থ্য সম্পর্কে প্রশ্ন করব। আপনি যদি সন্তান প্রসবের পর অসুস্থ থাকেন তবে সলিমুল্লাহ মেডিকেল কলেজ হাসপাতালে (মিটফোর্ড) আপনাকে পাঠালে সেখানকার চিকিৎসকরা বিনা খরচে আপনার চিকিৎসা করতে সম্মত আছেন।

আমরা জানি যে আপনার প্রসব এবং স্বাস্থ্য সম্পর্কে প্রশ্ন করলে, তার কিছু কিছু প্রশ্ন হবে আপনার একান্ত ব্যক্তিগত। সেজন্য আপনার উত্তরগুলো গোপন রাখার জন্য সমস্ত পদক্ষেপ নেওয়া হবে। এই প্রশ্নমালায় আপনার নাম নাই তার বদলে আমরা একটা নম্বর দিয়েছি। আপনার নাম, ঠিকানা ও প্রশ্নমালায় দেওয়া নম্বর আমাদের অফিসে তালাবন্ধ করে রাখা হবে, যাতে অন্য কেউ জানতে না পারে প্রশ্নের উত্তরগুলো কে দিয়েছিল। সুতরাং যদিও আপনার কিছু কিছু উত্তর অন্যেরা জানতে পারার ঝুঁকি আছে, আমরা আপনার সব উত্তর গোপন রাখার জন্য সমস্ত পদক্ষেপ নিচ্ছি।

এই গবেষণায় আপনি অংশ গ্রহণ করবেন কি না তা পুরোপুরি আপনার ইচ্ছার উপর নির্ভর করছে। যে কোন সময় এই গবেষণায় অংশ গ্রহণ বন্ধ করার অধিকার আপনার আছে। আপনি যদি এই গবেষণায় অংশ গ্রহণ না করেন অথবা অংশ গ্রহণ বন্ধ করেন তবুও কলেরা হাসপাতালের একই মানের স্বাস্থ্য সেবা আপনি পাবেন। আপনি নিচে নাম দেওয়া গবেষককে এই গবেষণা সম্পর্কে যে কোন প্রশ্ন করবেন। যদি আপনি কোন কিছু না বুঝতে পারেন তবে উবিষ্যতেও তাকে আপনি প্রশ্ন করতে পারেন। এই গবেষণা থেকে যদি কোন মতুন কিছু পাওয়া যায় তবে গবেষক তা আপনাকে জানাবে।

আপনি যদি মনে করেন আপনার সাথে ডাঙো ব্যবহার করা হয়নি বা যদি মনে করেন আপনি এই গবেষণায় অংশ গ্রহণের ফলে কোন আঘাত পেয়েছেন অথবা আপনার যদি গবেষণাটি সম্বন্ধে কোন প্রশ্ন থাকে, কারণ সাথে কথা বলতে চান; তবে আপনি মূল গবেষক ন্যান্সি ফ্রান্সিসের সাথে ৬০০১৭১-৮/২২২৪ নম্বরে যোগাযোগ করুন। আরবান হেল্থ এক্সটেনশন প্রজেক্ট - ৬০০০০৩ নম্বরেও যোগাযোগ করতে পারেন। হয় মূল গবেষক অথবা অফিসের ব্যক্তিবর্গ আপনার প্রশ্নের উত্তর দেবে অথবা/এবং আপনাকে স্বাস্থ্য সেবা নিতে সাহায্য করবে যদি আপনি মনে করেন আপনি কোন আঘাত পেয়েছেন। যদি গবেষকদের ডাঙের কারণে আপনি আঘাত না পেয়ে থাকেন জন্স হপকিন্স বিশ্ববিদ্যালয় বা হাসপাতাল বা সরকারের কোন প্রকল্প নাই যা আপনাকে ক্ষতিপূরণ দিবে।

আপনি যদি গবেষণাটিতে অংশ গ্রহণ করতে সম্মত থাকেন তবে, দয়া করে
নিচে সই করুন।

অংশগ্রহণকারীর সই

অভিভাবকের বা পিতামাতার সই
(যখন প্রযোজ্য)

সম্মতি প্রদানের সাক্ষী

গবেষকের সই

তারিখ

কমিটি বা আই আর বি-র
সত্যায়ন ব্যতীত বৈধ নয়।

উপরের তারিখ থেকে ১ বছর
পর্যন্ত বৈধ _____