

Principal Investigator Sushila Leitch Trainee Investigator (if any) _____
 Identification No. 93-029 (Review) Supporting Agency (if Non-ICDDR,B) _____
 Title of Study Women Health: Exploring the Cultural Barriers, Determinants of Women's Health Status in Rural Bangladesh Project status:
 New Study
 Continuation with change
 No change (do not fill out rest of form)

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

Source of Population:		5. Will signed consent form be required:	
(a) All subjects	Yes No	(a) From subjects	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
(b) Non-ill subjects	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	(b) From parent or guardian (if subjects are minors)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
(c) Minors or persons under guardianship	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	6. Will precautions be taken to protect anonymity of subjects	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Does the study involve:		7. Check documents being submitted herewith to Committee:	
(a) Physical risks to the subjects	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Umbrella proposal - Initially submit an overview (all other requirements will be submitted with individual studies).	
(b) Social Risks	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Protocol (Required)	<input checked="" type="checkbox"/>
(c) Psychological risks to subjects	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Abstract Summary (Required)	<input checked="" type="checkbox"/>
(d) Discomfort to subjects	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	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)	<input checked="" type="checkbox"/>
(e) Invasion of privacy	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Informed consent form for subjects	<input checked="" type="checkbox"/>
(f) Disclosure of information damaging to subject or others	Yes <input type="checkbox"/> No <input type="checkbox"/>	Informed consent form for parent or guardian	<input checked="" type="checkbox"/>
Does the study involve:		Procedure for maintaining confidentiality	<input checked="" type="checkbox"/>
(a) Use of records, (hospital, medical, death, birth or other)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Questionnaire or interview schedule *	<input checked="" type="checkbox"/>
(b) Use of fetal tissue or abortus	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	* If the final instrument is not completed prior to review, the following information should be included in the abstract summary:	
(c) Use of organs or body fluids	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	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.	
Are subjects clearly informed about:		2. Examples of the type of specific questions to be asked in the sensitive areas.	
(a) Nature and purposes of study	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	3. An indication as to when the questionnaire will be presented to the Cttee. for review.	
(b) Procedures to be followed including alternatives used	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		
(c) Physical risks	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		
(d) Sensitive questions	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		
(e) Benefits to be derived	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
(f) Right to refuse to participate or to withdraw from study	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
(g) Confidential handling of data	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
(h) Compensation &/or treatment where there are risks or privacy is involved in any particular procedure	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA		

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

Sushila Leitch Principal Investigator _____ Trainee _____

**Women and Health: Exploring the Socio-Cultural Barriers and
Determinants of Women's Health Status in Rural Bangladesh.**

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3. TITLE OF PROJECT : Women and Health: Exploring the
Socio-Cultural Barriers and
Determinants of Women's Health
Status in Rural Bangladesh.
4. STARTING DATE : As soon as possible
5. COMPLETION DATE : May 1995.
6. TOTAL BUDGET : Canadian \$ 200,000
7. FUNDING SOURCE : IDRC
8. HEAD OF PROGRAMME : Dr. Bradley Sack, Associate
Director CHD

This protocol has been approved by the Community Health Division

Signature of the Division Head, CHD : _____

Date : _____

ABSTRACT

Female mortality in Bangladesh is relatively high. This anthropological study will use a variety of qualitative and quantitative methods to investigate socio-cultural as well as structural barriers to better health in rural Bangladesh. The special focus on pregnant women, TBAs, school teachers, mothers and children may identify potential barriers and agents of change. Recommendations for acceptable interventions for women's health and maternal care during pregnancy and for weighing and care of neonates will be developed. The active promotion of health and health seeking behaviour requires an integrated approach involving the whole community. Schools are one vehicle for change and health promotion. Questions remain, however, about how extensive coverage of the population can be achieved when the school population represents such a small minority of school age children. Female education is strongly associated with the subsequent survival of children (Cleland, 1987) and with health service utilisation (Zeitlyn, 1992). As the reasons for this association are not fully understood the study investigates the mechanisms that link girls' school experience with the subsequent survival of their children. The Bangladesh Government is committed to providing primary health care and primary school education for all. In order to promote health for all effectively women's active participation is required. This study will provide useful information and data for health and education policy makers.

APPROVAL COMMITTEES

Research Review Committee :Date.....

Ethical Review Committee :Date.....

Director :Date.....

9 AIMS OF THE PROJECT

(a) General Aim

The aim of this study is to understand the socio-cultural barriers to women's and children's health status in rural Bangladesh. The ultimate goal is to help design effective policies to increase rural Bangladeshi women's participation in and utilization of available health care resources.

(b) Specific Aims

The specific objectives of this study are as follows:

- (i) To identify modifiable barriers to the equitable use of health services by women and girls.
- (ii) To identify ways participation in health activities could be increased.
- (iii) To identify cultural and behavioural determinants of maternal and neo-natal morbidity.
- (iv) To investigate the ethno-physiology of pregnancy and reproduction.
- (v) To develop strategies for the effective use of primary schools to promote health.
- (vi) To identify replicable pathways linking female education with child survival.
- (vii) To investigate the socio-cultural barriers to weighing neonates and help develop recommendations for strategies to involve mothers and their close kin in weighing their own babies.
- (viii) To investigate women's perceptions of their own health and health needs.
- (ix) To strengthen ICDDRB's institutional capacity to conduct anthropological research.

(c) SIGNIFICANCE

Female mortality in Bangladesh is relatively high. One way to address this problem is to increase women's knowledge of and access to health services. In order to do this socio-cultural as well as structural barriers need to be identified and strategies to actively involve women in using and managing services have to be evolved. The special focus on pregnant women, TBAs and school teachers and children may identify potential barriers and agents of change. It could help to develop recommendations for acceptable interventions for women's health and maternal care during pregnancy and for weighing and care of neonates after birth. The active promotion of health and health seeking behaviour requires an integrated approach involving the whole community. Schools are one vehicle for change and health promotion.

Questions remain, however, about how extensive coverage of the population can be achieved when the school population represents such a small and unrepresentative minority of school age children. Female education is strongly associated with the subsequent survival of children (Cleland, 1987). Studies in Bangladesh have shown, for example, that maternal education is associated with immunisation compliance (Zeitlyn, 1992). As the reasons for this association are not fully understood this study may provide insight into the mechanisms that link girls' school experience with the subsequent survival of their future children. This may enable us to structure programmes to be more accessible to women without education and to make the school curriculum more effective in promoting health. The Bangladesh Government is committed to providing basic primary health care and primary school education for all. It is now acknowledged that in order to promote health for all effectively women's active participation is required. This study will provide useful information and data for health and education policy makers.

(10) ETHICAL IMPLICATIONS

The proposed studies will not involve any bio-medical measurements, tests, or collection of samples of body substances. Informed consent will be obtained from all respondents and strict confidentiality will be maintained.

(11) BACKGROUND

The ICDDR,B's Matlab Maternal and Child care and Family Planning Programme has been in place since 1987. The maternity care component has the goal of reducing maternal and child mortality. A modest reduction in mortality was achieved by posting midwives in the sub-centres who attend some home deliveries and train CHWs and TBAs to identify and refer high risk women (Fauveau, Koenig, Wojtyniak and Chakraborty, 1988). The ICDDR,B's Maternal and Child Health services have also succeeded in reducing infant and child mortality but mortality might be further reduced if women's access and timely use of services for themselves and their children could be increased. Interventions are more likely to be effective if they are developed and accepted by those they are intended for. Community participation strategies require an understanding of existing social organisation and the way changes are perceived and responded to. The rural community in our study area, as in other parts of Bangladesh, is not an homogeneous, undifferentiated, cohesive unit but is stratified by class, age (Aziz and Maloney, 1985), gender, kinship (Aziz, 1979), educational status and religion. Literacy rates are low and effective communication and development must take into account the existing hierarchy of authority and communication channels. We need to know more about decision making and opinion making processes at the community and household levels. We need to know more about existing community resources and the web of social relations that surround institutions such as schools.

Anthropologists operate on the assumption that social phenomena should be observed and understood in their social context. Functionalist anthropologists tended to explain the existence and persistence of social structure in terms of the ways the various parts of the social system in a given locality fit so that each part was seen to function to maintain the whole (Maloney, Aziz, Sarkar, 1981). One problem with this approach is that it sometimes fails to take into account change. Twentieth century ethnographers have for this reason frequently been accused of a deep synchronic bias and working as if in a "timeless present". In our study we shall attempt "not to do away with the synchronic ethnographic frame, but to exploit fully the historical within it." (Marcus GE and Fischer MMJ, 1986). We shall attempt to deal with changes in women's health beliefs and practices by considering them in an ethnographic frame work that does not ignore the historical perspective. We will do this by trying to understand and record the way Matlab people themselves conceive of the changes that are taking place.

It has been suggested that access to health facilities and use of resources is linked to social and economic status (Koenig, 1991). If this is so how does this process occur and what are the barriers to service utilisation in a context where services are free? This is a key question because not only is it inequitable that women are under represented in the patient population but their lack of mobility and autonomy also represent a barrier to prompt treatment

seeking for children. In diseases such as ARI speedy treatment seeking is vital but despite this many of the children who died from ARI in the treatment area since our programme was initiated received no treatment prior to death, although treatment is freely available and promoted.

The common causes of death in infancy, such as acute respiratory infection, low birth weight, diarrhoea and malnutrition are tied to broader social and economic conditions that determine overall health status. The determinants of health and disease are multi faceted and social, cultural and behavioural factors play a part in the aetiology, transmission and prevention and promotion of a healthy life style. Nutrition may be one of the main pathways linking socio-economic factors with health, nevertheless the relationship is complex and economic factors alone do not determine nutritional status or health. Evidence suggests that women and girls consistently meet less of their nutritional requirements than men or boys Abdullah and Wheeler, 1985, Chen, 1981, Bhuiya 1986. Bhuiya makes the point that although nutritional status is a pathway linking socio-economic status with mortality the relationship is different for boys and girls. He showed that the decline in the proportion of malnourishment seen with increased economic status was greater for boys so that girls were relatively more disadvantaged in wealthier homes. The age distribution of malnutrition also suggests unequal nutritional intake within the household with the youngest members meeting proportionally less of their nutritional needs than older members.

Studies from elsewhere in the world have demonstrated that nutrition during pregnancy is especially important when nutritional status is generally poor. In such situations increased food intake can prevent prenatal malnutrition and low birth weight (Chowdhury, 1987). Islam surveyed 531 pregnant women in Matlab and found that 66% favoured decreasing their diet during pregnancy, 14% favoured an increase and 20% noted no change in their diet. This paper lists foods avoided or preferred by pregnant women (Shafiqul Islam, 1991). Goodburn (1993) describes how women in her study mentioned, among other things, the avoidance of fish and milk. Some studies describe how consumption of specific foods is linked to specific conditions; pineapples, for example, were believed to cause abortion, duck eggs to cause asthma to the unborn child etc. (Maloney, Aziz and Sarkar 1981, Goodburn, 1993). Islam by contrast found that pregnant women in his area expressed a preference for pineapple. In general authors seem to agree that pregnancy is regarded as a "hot" state during which foods regarded as heating should be avoided. Heating foods include many protein foods such as meat, some fish and pulses.

Most authors agree, however, that food restrictions are less strictly observed in pregnancy than during the postpartum period (Rizvi, 1976, Ebdon, 1993). Studies which record lists of food avoidances do not necessarily tell us much about actual behaviour or the impact these avoidances might have on nutritional status.

Nor do they help us to understand the logic or motives underlying the avoidances. For example a prohibition on meat may have little impact in a community where women usually eat meat once only or twice in a year, one study of six village populations found that 29% of villagers ate meat only once a year and only 7% ate it more than once a week (UBINIG, 1988). Blanchet (1993) reports that meat and eggs were such rare items of diet that there was no butchers shop or store selling eggs at the local market.

Some anthropological studies attempt to do more than simply list foods to be avoided and try to explain the rationale behind health behaviour and how these relate to social organisation. They start with the assumption that health beliefs are closely connected and related to people's broader world view (Maloney, Aziz and Sarkar 1981). One example of this kind of study is that of Blanchet (1991) "An anthropological study of maternal nutrition and birth practices in Nasirnagar", undertaken for Save the Children USA. This report finds that, poverty resulting in food shortage at the household level must be seen as the first cause of maternal undernourishment. Nevertheless, the author describes certain practices which may exacerbate this condition in pregnant women and the mothers of young children. One of these is the idea that these states are considered especially vulnerable to spiritual attack and thus require greater seclusion. Maloney, Aziz and Sarkar (1981) also make many references to women using amulets and resorting to other spiritual forms of protection during pregnancy.

Others also document the importance of spiritual dangers for pregnant women (Goodburn;1993). These ideas make it harder to persuade pregnant women to attend antenatal sessions, and should be borne in mind by programme planners wishing to focus on first pregnancies. Blanchet makes the point that young women in wealthier, extended households may be more restricted than their poorer counterparts in nuclear households. They may have to observe an eating order that places them last after all the others in the household have eaten. They may have less autonomy and be under the authority of a mother-in-law or other senior kinswoman. Furthermore, the status of such a household may also demand stricter observance of seclusion. She suggests that new wives are particularly secluded during the first pregnancy.

Pregnant and lactating women are not recognized as needing more or better food. She makes the same observation as Zeitlyn and Islam (1988) that during the fast of ramazan pregnant women fasted in her village. She suggests that symptoms which western medicine associate with anaemia are often seen as women's specific problems. Rather than eating more she says, a healthy pregnant woman is advised to eat less than her fill so as to leave space for the baby inside and not be hampered in her movements and her work by her big size. Further she makes the interesting observation that a pregnant woman should never force herself to eat food for which she has no appetite or desire. To do so she says may lead to "shutika" (postpartum diarrhoea). She observed that it was common for women to continue breastfeeding during pregnancy.

An interesting unpublished report is Ebdon's "Anthropological Perspectives of an MCH-FP Programme in Rural Bangladesh and its Relationship With the Local Culture and Community: Summary report April 1993." (This forms part of the author's doctoral thesis). She makes observations on diet during pregnancy and how women relate dietary intake to perceptions of birth weight. The findings of this study remind us that even in one small community, beliefs are not always uniform or homogeneous. Like Blanchet, the author finds the belief that pregnant women should eat less to produce a smaller baby and ease delivery.

Ebdon also notes, however, that some people expressed the view that not eating would lead to a large baby because there would be more space for it to develop in the stomach. She says that it is believed that the womb and the stomach are the same and that because food and the foetus share the same space the mother should eat more food to have a small baby. Although she heard this point of view, she says that she observed no one following it. The idea that eating more may reduce the size of the baby is recorded elsewhere in the sub-continent (Nichter, 1989). Ebdon says that some women blamed the local NGO for giving them the advice to eat more, saying that this had led to a difficult delivery.

Low birth weight:

More research on actual nutritional practices during pregnancy involving observation as well as recall might contribute to understanding the causes of low birth-weight and maternal perceptions of the relationship between birth-weight and diet. Studies from elsewhere in the world suggest that smoking is related to low birth weight, in Bangladesh it is possible that exposure to smoky stoves while cooking could also influence birth weight. There may be other aspects of the pregnant woman's environment, and behaviour, apart from nutrition, that also influence the birth weight of her child and thus deserve further investigation. Blanchet observed that pregnant women often continue to breastfeed. Huffman (1980) found that 50% of the women in her study who became pregnant continued to breastfeed till the sixth month of pregnancy. Other studies suggest that lactating pregnant women may be deficient by as much as 30% of their requirements (Chowdhury, 1993).

The issue of seclusion is crucial if any health activities and programmes are being designed. Pregnancy is not a state that is publicly proclaimed, for fear of spiritual attack and for reasons of modesty and shame. A woman is more likely to say she is "unwell" or use some other euphemism than to announce her pregnancy. The public reluctance to discuss pregnancy is illustrated by the fact that a popular women's magazine that illustrated the stages of foetal development was recently censored. In Matlab women express the belief that even the onset of labour should not be public knowledge and fear that to mention that labour has started will prolong its duration (Zeitlyn, unpublished). Furthermore, it is the youngest women of child bearing age who experience the highest mortality (Fauveau and Blanchet, 1989), Their analysis shows that

18% of deaths to women of child bearing age in the Matlab area between 1976 and 1986 were attributable to violence or injury. They suggest that violent deaths during pregnancy and complications of induced abortion among unmarried women deserve special attention. Changes in general attitudes to pregnancy care and ensuring that all pregnancies are wanted would facilitate improved maternal nutrition.

POSTPARTUM

Rizvi (1976) gives a particularly clear account of postpartum restrictions and the rationale that underlies them. Whereas pregnancy is regarded as a "hot" state the newly delivered mother is believed to be in a "cool" state and should thus eat foods with heating and drying qualities. Her body is in a wet "raw" (kancha) condition that requires drying and healing foods. Cooling things including cold water should be strictly avoided. Rizvi (1976) observes how strongly these postpartum rules are adhered to and describes how the woman will be prohibited from drinking unboiled water but may be given tea or boiled water. She observes that boiling water has nothing to do with the germ theory but is believed to make it less cooling and "kancha". The water restrictions are followed, she maintains, for the first 40-45 days. Islam (1991) also stresses the healing qualities of the foods that respondents cited for the postpartum period; black pepper, cumin, coriander, boiled water, clarified butter and flattened rice are all listed as healing in effect. Rizvi also mentions turmeric.

On the first day after delivery, Rizvi says, rice is prohibited because of its "heavy," "wet" quality which may slow the healing process. In later days she would be allowed fried rice and ginger but fish and green leafy vegetables would be restricted. After the initial 40-45 day period, "jioi" machh are preferred but she points out these are expensive compared to the small fish which are avoided. "Jioi Machh" are also mentioned by Islam (1991) These are fish which are kept alive in a little pot till they are needed and are good for those who are thought to "lack blood" or are recovering from an illness.

Different studies find that restrictions last for different periods. Rizvi quotes 40-45 days and Goodburn (1993) found that Hindu women were said to observe restrictions for a month whereas Muslims observed them for only seven days. Blanchet (1993) reports 5-9 days in the area she worked and says:

"...postpartum food proscriptions severely restrict the mother's diet. In the house of seclusion where she lies for five to nine days, she should eat and drink little. She should eat "dry" foods and, once a day rice with a large quantity of fried turmeric and onions. Fish, meat, eggs, normal torcari with chilies, most vegetables are believed to be inappropriate or dangerous" ..

Goodburn reports that meat, fish, leafy vegetables, bananas with seeds, pumpkin leaves, leafy vegetables and eggs were cited in her focus group discussions as being foods to be avoided. Beef and hilsha fish were said to dry up the milk and might cause shutika

(postpartum diarrhoea).

The birth weight of a baby is strongly associated with its chances of survival (Kramer, MS, 1987) and with later growth and development of the child (Khan M.U. and Curlin G.T., 1979). For this reason maternal morbidity and nutrition and the effects these may have on the foetus and the new-born are important factors that the programme is starting to address. Although birth weight is known to be an important determinant of neonatal and infant mortality birth weights of infants born at home are not routinely ascertained. Some reluctance in the community is reported, although the reasons are not fully understood. Mothers of neo-natal infants are unwilling to allow them to be weighed or to take them to treatment centres. As with pregnancy neo-natal problems may be attributed to evil spirits and for this reason Maloney Aziz and Sarkar (1981) report "If a new born "becomes possessed by a Jin"..an amulet is used." For these reasons little data are available to investigate the relationship between maternal morbidity, pre-pregnancy height and weight or maternal weight gain to birth weight. Without this data effective interventions to prevent adverse pregnancy outcomes cannot be designed.

In Bangladesh, as in many other developing countries, women and children seem to be especially disadvantaged in terms of access to and use of health care resources. Data on maternal and infant mortality and morbidity reflect this inequity. Lincoln Chen suggests that childhood mortality should be seen as the result of "sequential insults accumulated over time". Although health interventions have been tested and data has been gathered for over twenty years in the ICDDR,B's Matlab area, little has been done either to understand the effects that social interventions may have on health or the social impact of health interventions on the community. Relatively little participative or qualitative research has been undertaken in this area and little attention has been given to the users' perspective. For this reason it is important that a new research strategy should be tried. Matlab provides a unique setting to undertake such a study using an anthropological approach.

The Matlab programme, despite numerous successes still raises some questions. Although it has been suggested that ICDDR,B's Community Health Workers in Matlab act as "agents of change" (Simmons R, et al, 1988) we do not know how the presence of these workers has influenced the status of women in general in the Matlab area. Relatively little is known about how they or the services they offer are perceived by the community. Aziz and Maloney (1985) make the point that female seclusion is not always viewed by women as a constraint rather it is a sign of status. Despite some studies (Bhatiya et al 1980) of traditional birth attendants little has been done to measure the impact of training TBAs or to see whether this has changed their status in the eyes of the community. If changes in women's status have taken place how are they viewed by the community? Higher female than male mortality from birth through the child bearing years has been well documented (D'Souza

and Chen, 1980) and we also know that more men and boys are treated than women and girls for diarrhoea and ARI within ICDDR,B's treatment centre. In general women and girls are underrepresented in the patient population of ICDDR,B and other Bangladeshi and South Asian treatment centres (UN ACC\SCN Symposium Report, 1990 and Zeitlyn, 1993). This disparity is not a new phenomenon but has been documented since the late 19th. Century (Kynch, 1987).

We should not assume that ICDDR,B's programmes operate in a health care vacuum. Medicine in the sub-continent dates back to at least the third millennium B.C. (Poonam Bala, 1991). Most scholars accept that Asian medical systems are intrinsically dynamic and like the societies and cultures within which they are embedded are and always have been continually evolving (Leslie C and Young A 1992). From historical accounts it is evident that practitioners of many disciplines, such as Unani and Ayurveda, have operated and co-existed for centuries. Ideas about training or using indigenous practitioners to practice or collaborate with the health authorities are not new and date back to the middle of the 19th Century (Poonam Bala, 1991). Since the early 1980s researchers have urged the training and use of TBA's in the Matlab MCH programme (Bhatiya et al 1980). Thus kobiraj and traditional birth attendants have been on the receiving end of many attempts at "training" and incorporation. Despite this indigenous practitioners still retain their separate identities and are still well patronised in Matlab (Maloney, Aziz and Sarkar, 1981).

Health systems are not separate from other aspects of society and changes in health care and the health status of the population have taken place in the context of other events. Many economic and political, demographic, agricultural and technological changes have taken place in the country within the past twenty years. Within the Chandpur area the local economy, crop patterns, infrastructure and its road and communication system have been influenced by the Chandpur irrigation scheme. Markets have expanded and improved road systems have led to a growth in transport related employment (Bangladesh Unnayan Parishad, 1982). The population have experienced the effects of two major famines in 1943 and 1974 and a major flood in 1988. These provide a backdrop for the interventions which have taken place within ICDDR,B's treatment area. All these changes have occurred within living memory and one way of understanding the impact these have had is to ask those who are old enough to recall their experiences and to understand the way these have influenced social practices and beliefs.

How have these major events influenced the way health and health care are regarded? How do people in the research area regard the health impacts that have been achieved? Are they aware of declining infant, child and maternal mortality rates? Are parents less fatalistic about their children's health and more active in seeking treatment? Is the gender differential in mortality influenced by contact with the ICDDR,B's services? Has health education on specific diseases such as diarrhoea and acute respiratory infection (ARI) changed ideas and understanding about the etiology of these

diseases and their management? Ideas about health and health seeking behaviours are not immune from other social influences. What is the relative importance of access to schooling, the media or health education in changing ideas?

Why are services in the treatment area still under used? What social barriers and constraints exist and how can these be overcome? Various explanations have been put forward for poor utilization of services by women and girls. It is suggested, for example, that in a context where resources are scarce and where female economic contributions are undervalued people may be reluctant to spend money on treatment for girls or women. In Matlab treatment area, however, the treatment provided is free but services are nevertheless under used by women. Another explanation relates to cultural norms of purdah and seclusion of women from the public sphere which makes people reluctant to allow women to go to hospitals or public treatment centres. This explanation is not totally satisfactory as it is evident that most of those who accompany and care for patients during their hospital stay are women of child bearing age. Furthermore as Aziz (1979) observes young married women make very frequent visits to their parental homes which does not suggest total seclusion or immobility. Some authors note a fear of being examined by male doctors (Aziz and Maloney, 1985).

We need to know more about the potential of the primary school as a channel for health education, by finding out how community members regard school and teachers and the ways teachers relate to parents and other community members. This part of the study has direct implications for the use of schools and modification of the curriculum to effectively promote health messages it may also provide insight into the relationship between maternal education and child survival by revealing the pathways or mechanisms that link schooling for girls with the subsequent survival of their children. Lindenbaum's study in Matlab lead her to suggest that mothers who been to school had different ideas about hygiene and that this was reflected in their hygiene practices.

The primary school curriculum contains many health messages, but we do not how these are understood or to what extent they are communicated to others in the community. Teaching methods and the school environment may facilitate or hinder the practical implementation of such messages. The existence of well maintained tube wells and latrines, for example, may convey a stronger educational message than texts alone. The majority of primary schools have no such facilities. School text books contain references to kinship roles and relationships. Girls who have been to school may have different ideas about the mother's role in child care and health seeking than their counterparts. The study of a primary school will reveal how such messages are understood and whether they are translated into actions. The relationship between the school and the community as well as the internal organisation of a school and how this structures the pupils' school experience will be documented. To what extent are school children involved

in caring for younger siblings ? Are the messages learnt at school communicated to parents and siblings? How do school going children compare with non-school going counterparts in the health knowledge and practices? The existence of BRAC schools in the area may also have changed peoples expectations about schooling and it is hoped that this study may be usefully compared with studies which BRAC is proposing to undertake of its primary schools.

In the context of rural Bangladesh such a comprehensive study cannot be effectively undertaken without an anthropological approach. The ICDDR,B is justifiably proud of its demographic surveillance system which provides high quality demographic data that is used for scientific research and policy formation. Demographers and statisticians within the Population Science and Extension Division have for many years made an important contribution to the work of the centre. Other branches of social science such as anthropology and sociology, however, have not been so well utilized. Anthropology has a contribution to make in understanding the social impact and the changing meaning of disease and health. These are important areas if health interventions and education messages are to be effective. In the past strategies have focused on supply constraints rather than client or community demand for services (Chen, 1986).

The IDRC Health and Community Programme Statement states that "Culture has a distinct influence on the construction of the illness experience: in the way people explain, cope with and manage disease, which in turn is reflected in differences in utilization of health technologies and services". In Bangladesh, the application of anthropology to health problems is, with some exceptions (KMA Aziz, Blanchet, 1989, Lindenbaum, 1987, Rizvi, 1976 and Zeitlyn and Islam, 1991) relatively new. This joint collaboration will strengthen the contribution of anthropology to the future and ongoing research of the ICDDR,B and build better links with departments of anthropology within Bangladeshi Universities.

This proposal has a strong ethnographic basis and at the same time provides an opportunity for inter-disciplinary collaboration. It will provide a chance for Bangladeshi post-graduate MSc. anthropologists to work in an applied multi-disciplinary context. A series of seminars on anthropological field work methodology will be conducted and the trainee anthropologists will participate and contribute to these. Outside speakers and anthropologists from other national institutions will also be invited to contribute and participate. An important aspect of this exercise is to develop the capacity of young Bangladeshi anthropologists to conduct anthropological research in the applied health context.

METHODOLOGY

This is an anthropological study that will employ a range of qualitative and quantitative methodologies which are outlined below. The sample size and exact methodology may differ according to the research questions. In general respondents will be selected on a random basis using existing records. Thus women in the treatment area from the Matlab Record Keeping System, TBAs and village practitioners will be selected from the lists kept and regularly updated in Matlab.

1. Literature Review :

Part of the co-investigators' induction to the project will involve each in conducting a literature review on one aspect of the work. Before the field work begins an extensive review of the literature relating to the socio-cultural barriers and determinants of women's health in developing countries, including rural Bangladesh will be conducted. These reviews will focus on : (i) utilisation of health services, (ii) pregnancy and low birth weight, (iii) women's ideas about their personal health, hygiene and sanitation needs and (iv) primary schools.

2. Using Existing Data:

Using all treatment records from the MCH field and treatment centres for one year we will compare the treatment patterns for male and female patients at all levels of the health service delivery system. Are Health Workers more likely to refer boys than girls to the treatment centre? Or are parents more likely to refuse referral in the case of girl children? At the field level are Health Workers called on more by the parents of boys than girls? Do their treatment patterns differ? Once they reach the treatment centre are treatment patterns such as length of stay different for males and females and if so how? The cases of women and girls who utilise services will be compared with the general population to identify differentiating characteristics of users and non-users. Are women who have been to school more likely than those who have not to use services? Are there are other significant differences between users and non-users?

Records from the Demographic Surveillance System will be used to select women in different stages of pregnancy from a representative sample of socio-economic groups for interview and observation.

Lists of TBAs maintained in Matlab will be used to make a random selection of trained and untrained TBAs for interview and lists of local practitioners could also be used in this way.

3. Survey :

A survey of schools in the Matlab area to ascertain the numbers of schools, the numbers of boys and girls enrolled, the numbers of male and female teachers and the facilities in each. (There are 22

unions in Matlab and it is estimated that there are 33 primary schools.) Reference to existing government records and DSS data will also be made. From this list one school will be selected for the participant observation phase and others will be randomly selected for structured observations.

4. Field methods:

The researchers will conduct research using qualitative methodologies such as participant observation, key-informant interviews, semi-structured in depth interviews, focus group discussions, body mapping, and other participative research techniques some of which will be described in detail here:

I. **Participant observation** of six to eight weeks in the initial stages will mean that the researchers will attempt to live in the community in the bari of a key informant such as a TBA, a pregnant mother, a village doctor or a school teacher. This is a strategy that will facilitate all the other methods of data collecting by enabling the researchers to establish close rapport with informants. It reduces the problem of reactivity so that it is easier to observe normal behaviour in the daily life and work of the household, classroom or community. The anthropologist who becomes an unobtrusive part of the school community, for example, has a unique chance to observe social interactions and behaviour that would not be captured through survey methodology. This will enable us to observe in detail classroom and playground behaviour and the school environment. The participant observation phase helps us to build close rapport, formulate the correct questions and helps us to understand the community perspective. It also helps to ensure the validity of the data gathered and the interpretation of these findings. Subjects such as menstruation or birth practices are highly sensitive issues which village-women may be reluctant to discuss with strangers. As indicated in the time chart in the appendix it is anticipated that the participant observation phase will take place in the fourth and fifth months of the study. On the basis of these results we will develop the instruments for conducting the next phase of the study using the methods described below.

II. **Focussed observation** : This would involve observation of specific behaviours for set periods of time at different times of the day. These would be conducted with a small group of pregnant women to observe daily work patterns and environment. It would compare observed behaviour with recall and thus enable us to validate our questionnaire instruments. Observations of pregnant women will begin in the sixth month of the study and will continue. It is anticipated that 12 women will be selected for routine observation. They will be chosen to represent different economic and parity status. Observations might also be conducted in

classrooms to focus on specific behaviours or interactions identified in the participant observation phase and to compare different primary schools. The specific areas of observation might, for example include hygiene behaviours such as hand washing. Check lists for focussed observation will be prepared and one example is provided in Appendix:

III. Key informant interviews : Key informants are individuals who are knowledgeable about particular domains of culture and are able to communicate this. Thus an experienced TBA, for example, is a woman with knowledge about birth practices and beliefs surrounding pregnancy and birth in her community. Similarly a village doctor, a traditional healer, a government official, a village leader, a school teacher or the owner of a tea shop might all be people with special or extensive knowledge about the community, the school or about women's health. Older key informants will be asked to recall and compare past and present circumstances. Thus TBAs, for example, may be asked to describe the changes they have observed in treatment seeking behaviour during pregnancy and school teachers to compare attitudes to girls' education in the past and present. It is anticipated that these will be conducted during the participant observation phase and in the course of the fieldwork up to the 14th month. These interviews will provide detailed in depth information that will help to interpret and understand the results of observation and structured survey interviews. Check lists of questions will be developed in the course of the participant observation phase. An example of one such check list is provided here:

IV. Interviewing is the most widely used method of data collection in social anthropology. We shall use a range of interview techniques from the informal and unstructured to structured. Informal interviews are usually conducted in the course of participant observation. Unstructured interviews are based on a clear plan but allow the respondent to express themselves in their own terms. This method will be used to interview 60 pregnant women each month throughout the duration of their pregnancy about their diet and work patterns and investigate beliefs and socio-economic constraints within the household that influence individual decisions on diet, work and health seeking behaviour. These will be matched and compared with 60 non pregnant neighbours. A comparison of self-perceived reproductive morbidity and a clinical assessment will be made. By collecting data for a year it is hoped to relate diet and behavioural practices to seasonality and the agricultural cycle. These case studies would provide a basis to formulate hypotheses that could be later tested in a larger study.

This method will be used to interview teachers, parents, children and other members of the community about the role of the school in

the community. Structured interviews, in which all respondents are asked to respond to the same set of questions such as might be used in the KAP survey of the population of the fifth year class in one primary school (estimated to be around 250 with an estimated population of 50 in the fifth year class) and their non-school going counterparts of the same age and vicinity. In this way we will compare the knowledge, attitudes and health related practices of school going and non-school going children of fifth grade age group to identify key differences. The questions would relate to Nutrition knowledge, intra-household food distribution hygiene behaviours such as hand washing, sanitation, EPI. It might also probe differences in ideas about the role of mothers in health promotion between school and non-school going children by asking an open question such as "How can mothers keep their children healthy?" The KAP survey instrument would be formulated on the basis of pilot in-depth interviews with children and teachers, the question frame work would be grounded in the participant observation and indepth interview results and would be carefully pre-tested. This method might also be used to compare women who use services with those who do not. Other stimuli might also be used in the course of structured interviews such as showing women photographs of low birth weight and normal birth weight infants and asking them to rank them according to health to asses perceptions of infant size and health.

V. **Focus group** interviews involve interviewing groups of similar people together to allow for spontaneous focussed discussion of the topics. This technique is especially useful for investigating social norms and attitudes. It will be used with community leaders to help understand the barriers to women's mobility and use of health services and it is anticipated that 12 groups of eight male community leaders will be selected and eight groups of eight female community leaders. The groups will be divided between older and younger participants and will asked to identify changes in womens mobility and health seeking behaviour. Focus groups have been widely used for social marketing and product design, they might also be appropriate for investigating women's ideas on sanitary needs and users and non-users perceptions of health service facilities.

VI. **The "Body mapping "** technique (MacCormack, C., 1985). Body maps are diagrams representing part or all of the body that are drawn by women as a way of enabling them to visualise and describe their concept of physiological processes and structures. This could be used with TBA's and pregnant women in the course of key informant interviews to explore the ethno-physiology of pregnancy and foetal development.

This proposal has a strong ethnographic basis and at the same time provides an opportunity for inter-disciplinary collaboration. It

provides a chance for Bangladeshi post-graduate anthropologists to work in an applied multi-disciplinary context. A series of seminars on anthropological field work methodology will be conducted and the researchers will participate and contribute to these. Outside speakers and anthropologists from other national institutions will also be invited to contribute and participate. An important aspect of this exercise is to develop the capacity of young Bangladeshi anthropologists to conduct anthropological research in the applied health context. This will require support from anthropologists outside the centre.

DATA ANALYSIS

Data from the participant observation phase of the field work will be qualitative and descriptive in nature, relating to relatively small numbers of individuals. Transcripts of interviews and focus group discussions will be entered on the PC for textual analysis. The advantage of using several qualitative methods is that we can cross-check data for validity. The analytic result of this kind of qualitative data is to introduce a large number of variables that convey the contextual conditions and multi causal nature of complex social problems: The data on diet and work from the larger sample of women will require some quantitative analysis. As will the KAP and other survey data. Various statistical tests will be conducted to validate results and substantiate conclusions reached.

Limitations: Because of its qualitative nature this study will focus on relatively small numbers of people. The findings may therefore not be fully generalizable to the entire rural Bangladesh.

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Appendix A

Check List For Focussed Observation:

Name of primary school.....

Date of observation/_/_/_/_/_/_/_/_

Name of observer.....

Time of observation From.....To.....

Was school in session /_/ yes=1 no=2

Were children in yard /_/ yes=1 no=2

Place.....(Schoolyard).....

Latrines /_/ 1=yes 2=no

If yes how many /_/

What type of latrine.....

What is condition of latrines.....

.....

.....

Are they in working order /_/ yes=1, no=2

Are they clean /_/ yes=1, no=2

Do they show signs of use /_/ yes=1, no=2

Are there separate facilities for staff and children /_/

Are there separate facilities for girls and boys /_/ yes=1, no=2

Are there facilities for hand wwashing close to latrines /_/

If yes decribe.....

.....

.....

If no where do children urinate.....

If no where do children defecate.....

Is there a tube well on or near school premises /_/

Do teachers use it /_/

If yes for what purposes.....

Do children use it /_/

If yes for what purposes.....

washing hands/_/

drinking /_/

Is tube well water collected and stored for drinking /_/

If yes who collects it /_/

How is it stored.....

.....

If yes is container covered /_/

Are glasses cups used /_/

If no tube well is present:

is drinking water available /_/

Where is this water from.....

How is it stored.....

Is the container covered /_/

Are glasses\cups used

Where is drinking water stored.

Appendix: B
Key Informant Interview Check List
Head teachers for example:

- (1) How many pupils in the school
- (2) Ratio of boys and girls at different stages
- (3) How many teachers in the school
- (4) ratio of male and female teachers
- (5) What are his main responsibilities
- (6) If health is not mentioned-What is the role of health education
- (7) How long has he held this post
- (8) What changes has he seen in: curriculum
- (9) What changes has he seen in the child population
- (10) Has the ratio of boys and girls changed
- (11) What changes has he seen in the community
- (12) Why do parents want to send their children to school?
- (13) How does he select children
- (14) Does he ever reject children because he does not have space
- (15) What advice does he give these parents
- (16) How should parents prepare their children for school
- (17) Has he heard of the BRAC schools
- (18) If yes How does his school compare
- (19) What changes or improvements would he like to see in his school
- (20) How could the school be better used to promote health

BUDGET	%	IDRC Contribution		TOTAL	Recipient Contribution *		
		YEAR-1	YEAR-2 (6 mths)		YEAR-1	YEAR-2 (6 mths)	TOTAL
1. PERSONNEL							
R.B. Sack, Assoc. Director, CHD	5	0	0	0	8,700	4,568	13,268
KNA AZIZ							
Social Scientist	35	8,215	4,519	12,734			
SUSHILA ZEITLYN							
PI, Anthropologist	60	42,180	22,200	65,380			
RESEARCH OFFICERS (4)	100	18,192	10,005	28,197			
ABBAS BRUIYAN							
Demographer	5	762	629	1,391			
Typist GS-3	100	2,844	1,696	4,540			
		72,193	40,049	112,242	8,700	4,568	13,268
2. TRAVEL							
Dhaka land transport		500	500	1,000			
Dhaka-Matlab-Dhaka land transport		2,000	1,000	3,000			
Matlab water transport		2,500	2,500	5,000			
		5,000	4,000	9,000			
3. EQUIPMENT AND SUPPLIES							
Stationary Office		1,500	1,500	3,000			
Non-stock items		2,000		2,000			
Ethnographic software		500		500			
PC for Matlab field site		2,500		2,500			
Printer		1,500		1,500			
PC Lap top (note book)		1,500		1,500			
Tape recorder		400		400			
Chair, table, file cabinet etc.		537		537			
		10,437	1,500	11,937			
4. DATA PROCESSING							
Data Management Officer (1)	25	1,200	990	2,190			
5. TRAINING							
Travel, honorariums for participants from national institutions, visual aids.			6,180	6,180			
6. CONSULTANTS							
		0	0	0			
7. DISSEMINATION OF RESULTS							
Dissemination of materials etc.			4,120	4,120			
8. OTHER							
Printing Publication			2,000	2,000			
Repair and maintenance		200	300	500			
Postage/communication		500	500	1,000			
Books and Journals		1,000		1,000			
Xerox Medical Illustrations		1,000	1,000	2,000			
		2,700	1,800	6,500			
A. TOTAL DIRECT COST		91,530	60,639	152,169			
B. IN-DIRECT COST (6% OF (A))		5,492	3,639	9,131	22,881	15,160	38,041
C. TOTAL PROJECT COST (A+B) US \$		97,022	64,278	161,300	31,582	19,728	51,311
Exchange rate US\$= CND 1.24 CND		120,300	79,700	200,000	0	0	0

* Recipient contribution may be revised if necessary

বাংলাদেশৰ সন্নী বন্যাকাৰ্য মহিলাদেৱ স্ৰাস্ত্ৰৰ অৰম্ভা নিকসন ৩
শ্ৰেণীভুক্ত জাৰাজিক ৭০০, সাংস্কৃতিক প্ৰতিবন্ধকতা সমূহ অনুসন্ধান।

গ্ৰাম-বাংলা মহিলা ৩ কিলোমীদেৱ স্ৰাস্ত্ৰৰ অৰম্ভা ৩ শ্ৰেণীভুক্ত
জাৰাজিক ৭০০ সাংস্কৃতিক অনুসন্ধান সমূহ নিৰ্বাচন কৰা এই সবেসনাৰ উদ্দেশ্য,
এই সবেসনাৰ আনুষ্ঠানিক উদ্দেশ্য সবেসনা কেন্দ্ৰ, বাংলাদেশ কৰ্তৃক
পৰিচালিত হব। এই সবেসনাৰ অন্তৰ্ভুক্ত বিষয় সমূহ হৈছে: ১) স্ৰাস্ত্ৰৰ
কাৰ্যক্ষমতাৰ ব্যৱহাৰ; ২) সৰ্বস্বত্ব ৩ কল্মেৰ সমূহ স্ৰাস্ত্ৰৰিক উন্নয়ন
কৰ্ম উন্নয়নৰ সম্ভাৱন; ৩) মহিলাদেৱ নিকসন স্ৰাস্ত্ৰ ৭০০ স্ৰাস্ত্ৰ
নিৰ্বাচন; ৪) স্ৰাস্ত্ৰ উন্নয়নে প্ৰাথমিক বিদ্যালয় সমূহেৰ অৱদান; ৭০০
৫) স্ৰাস্ত্ৰেৰ নিৰ্বাচন নিৰ্বাচন ৭০০ আৱৰ্কে বাঁচিয়ে ৰাখাৰ দিক সমূহ
নিৰ্বাচন ৭০০ ৭০০ৰ পুন: প্ৰাণ।

এই সবেসনা চলাকালীন সময়ে সৰ্বস্বত্ব বন্যাকাৰ্য গ্ৰামে ব্যৱসায়কাৰী
মহিলা, প্ৰথমতানে সাহায্যকাৰী হিৰণী, সন্নীচিকিৎসক ৭০০ প্ৰাথমিক বিদ্যালয়েৰ
নিকট থেকে তথ্য সংগ্ৰহ কৰা হব। তথ্য সংগ্ৰহেৰ জন্য স্ৰাস্ত্ৰৰিক প্ৰশ্ননকাৰী
আপনাৰ আৱশ্যমুনে উপস্থিত হওঁ সৰ্বস্বত্ব কৰবেন ৭০০ সৰ্বস্বত্বৰ
অৰ্থেৰ কাঠামো নিকট দেখালাৱেৰ জন্য অনুৰোধ কৰবেন। আপনি
জান ৰাখুন যে, এই সবেসনাৰ তথ্য প্ৰদানকাৰীৰ পৰিচয় সোপন
হাৰা হব।

এই সবেসনাৰ অংশ প্ৰশ্ননৰ মনে আপনাৰ ব্যৱসায়িক
জান সবেসনা থেকে প্ৰাপ্ত জ্ঞান দেখাৰ মহিলা ৩ কিলোমীদেৱ
স্ৰাস্ত্ৰ ৩ নিৰ্বাচন কাৰ্যক্ষমতা সঠিক কালে লাগবে বনে
আপনা কৰা যাব। আপনাৰ মনে কৰি এই
সবেসনাৰ যাবা অংশপ্ৰশ্নন কৰবেন তাদেৰ
কিছুটা অনুৰোধ হতে পারে। আপনাকে
জানা হৈ যে, প্ৰশ্ন ৭০০ উত্তৰেৰ
জন্য যে সময়ে লাগবে ৭০০
এই সবেসনাৰ কিছু
দৃষ্টিভঙ্গীৰ সূচনা আৱৰ্ণ
হয়ত আপনাৰ
জন্য কিছুটা
অৱশ্যিক
কৰতে
পারে।

এই সবেসনা কালেৰ
জন্য আপনাৰেৰ কাছ থেকে
কিছু তথ্য সংগ্ৰহ
কৰ্তে
হাই। আপনি
ৰাজী থাকলে
এই সবেসনাৰ
অংশপ্ৰশ্নন
কৰতে
পাৰেন
অথবা
সবেসনা
চলাকালীন
সময়েও
আপনি
ইহাৰ
অংশপ্ৰশ্নন
থেকে
বিত্ত
থাকে
পাৰেন।
আপনি
চাইলে
এই
সবেসনাৰ
অংশ
প্ৰশ্নন
নাও
কৰতে
পাৰেন।
এই
সবেসনাৰ
কাছে
অংশ
প্ৰশ্নন
প্ৰত্যাশা
কৰলে
বা
অংশ
প্ৰশ্নন
না
কৰলে
আনুষ্ঠানিক
উদ্দেশ্য
সবেসনা
কেন্দ্ৰ
থেকে
প্ৰদত্ত
চিকিৎসা
সেৱা
থেকে
বঞ্চিত
হবেন
না।
আপনি
এই
সবেসনাৰ
অংশ
প্ৰশ্নন
ৰাজী
থাকলে
নীচেৰ
খালি
অংশ
আপনাৰ
স্ৰাস্ত্ৰ
দিন
অথবা
বাস
হাৰেৰ
বৃদ্ধাশুণীৰ
ছাস-
দিন।
এই
সবেসনাৰ
অংশ-
প্ৰশ্নন
জন্য
আপনাকে
ইন্য
বাদ।

অংশপ্ৰশ্ননকাৰীৰ
স্ৰাস্ত্ৰ
তাৰিখ: _____

স্বাক্ষৰ
সবেসনাৰ
স্ৰাস্ত্ৰ
তাৰিখ: _____

অংশপ্ৰশ্ননকাৰীৰ
স্ৰাস্ত্ৰ/বৃদ্ধাশুণীৰ
ছাস।
(কিলোমীদেৱ
সবেসনাৰ
অংশ
অধিকাৰকেৰে
স্ৰাস্ত্ৰ
অথবা
বৃদ্ধাশুণীৰ
ছাস)
তাৰিখ: _____