Attachment 1.

Date 5-6-88

Submitted 22-06-88
26

ETHICAL REVIEW COMMITTEE, ICDDR,B.

Principal Investigator C. Alady N. Fauveau

Trainee Investigator (if any)

Application No. 88-015 (Revised)

Supporting Agency (if Non-ICDDR,B)

Title of Study IDENTIFICATION OF FACTORS ASSOCIATED WITH THE UTILIZATION OF NURSE MIDWIVES IN THE MATLAB MCH-FP TREATMENT AREA

Project status:
(X) New Study
( ) Continuation with change
( ) No change (do not fill out rest of form)

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

1. Source of Population:
   (a) Ill subjects — Yes (No)
   (b) Non-ill subjects — (Yes) No
   (c) Minors or persons under guardianship — Yes (No)
2. Does the study involve:
   (a) Physical risks to the subjects — Yes (No)
   (b) Social Risks — Yes (No)
   (c) Psychological risks to subjects — (Yes) No
   (d) Discomfort to subjects — Yes (No)
   (e) Invasion of privacy — (Yes) No
   (f) Disclosure of information damaging to subject or others — Yes (No)
3. Does the study involve:
   (a) Use of records, (hospital, medical, death, birth or other) — (Yes) No
   (b) Use of fetal tissue or abortus — Yes (No)
   (c) Use of organs or body fluids — Yes (No)
4. Are subjects clearly informed about:
   (a) Nature and purposes of study — (Yes) No
   (b) Procedures to be followed including alternatives used — (Yes) No
   (c) Physical risks — (Yes) No
   (d) Sensitive questions — (Yes) No
   (e) Benefits to be derived — (Yes) No
   (f) Right to refuse to participate or to withdraw from study — (Yes) No
   (g) Confidential handling of data — (Yes) No
   (h) Compensation &/or treatment where there are risks or privacy is involved in any particular procedure — NA Yes No
5. Will signed consent form be required:
   (a) From subjects — (Yes) No
   (b) From parent or guardian (if subjects are minors) — NA Yes No
6. Will precautions be taken to protect anonymity of subjects — (Yes) No
7. Check documents being submitted herewith to Committee:
   ___ Umbrella proposal - Initially submit an overview (all other requirements will be submitted with individual studies).
   ✓ Protocol (Required)
   ✓ Abstract Summary (Required)
   ✓ Statement given or read to subjects on nature of study, risks, types of questions to be asked, and right to refuse to participate or withdraw (Required)
   ✓ Informed consent form for subjects
   ___ Informed consent form for parent or guardian
   ✓ Procedure for maintaining confidentiality
   ✓ Questionnaire or interview schedule *

* If the final instrument is not completed prior to review, the following information should be included in the abstract summary
1. A description of the areas to be covered in the questionnaire or interview which could be considered either sensitive or which would constitute an invasion of privacy.
2. Examples of the type of specific questions to be asked in the sensitive areas.
3. An indication as to when the questionnaire will be presented to the Cttee. for review.

(PTO)

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

C. Alady N. Fauveau

Principal Investigators

Trainee

SECTION - I : RESEARCH PROTOCOL

1. Title: Identification of factors associated with the utilization of nurse midwives in the Matlab MCH-FP treatment area.

2. Principal Investigators: W.G. Hlady, V.A. Fauveau

   Co-Investigators: J. Chakraborty, M. Yunus, S.A. Khan
   H. Begum

   Consulant: S. Zeitlyn -

3. Starting Date:

4. Completion Date: (6 month duration)

5. Total Project Cost: US $ 3,010

6. Scientific Programme Head:

   This protocol has been approved by the Epidemiology Department and the Community Medicine Division

   Signature of the Scientific Programme Head: A. Ahmed

   Date: 22nd June 85

7. Abstract Summary

The health impact of the Matlab Maternity Care Project will be dependent upon increasing utilization of the services of professionally trained nurse midwives. A case-control study is proposed to identify factors associated with the utilization of the midwives. Women who utilized Project services and a random sample of women who did not will be interviewed. Results will be used to help design and target outreach activities, and to structure maternity care services in a manner which will be most effective to increase their utilization and decrease maternal morbidity and mortality.

8. Reviews:

   i) Ethical Review Committee: _____

   ii) Research Review Committee: _____

   iii) Director: _____

SECTION - II : RESEARCH PLAN

A. INTRODUCTION

1. Objective: To identify factors associated with the utilization of professional nurse midwives in the Matlab MCH-FP project area so that the current professional maternity care services may be promoted and modified in a way to maximize utilization and reduce maternal morbidity and mortality.

2. Background: According to World Health Organization estimates (1), each year at least half a million women die from causes related to pregnancy and childbirth. Over 99% of these maternal deaths take place in developing countries which account for 86% of the world's births. Nearly half of all maternal deaths (230,000 in 1983) take place in South Asia: in India, Bangladesh and Pakistan.

Yet, while considerable progress has been made in formulating and implementing strategies for child survival, the issue of maternal health has remained relatively neglected. In Bangladesh, the overall maternal mortality ratio has been estimated at 6 per thousand live-births in 1983 (2,3,4). In the Matlab Comparison Area, served only by the national health programme, maternal mortality ratios averaged 5.8 per 1000 live-births over the years 1976 to 1985 (5). In the Matlab MCH-FP area, served by a comprehensive MCH-FP programme since 1978, they averaged 5.2 per 1000 live-births

in the last 10 years, with only a very recent trend downwards (4 per 1000 in 1985). In any case, those ratios are still more than one hundred times higher than those found in developed countries, and few health programmes so far have included definite plans to specifically address problems relating to maternal mortality in rural Bangladesh (6,7).

The Contraceptive Distribution Project (CDP, 1975-1977), followed by the Matlab Family Planning and Health Services Project (FPHSP, 1978-1984) (8) aimed at reducing the number of pregnancies and improving maternal health through birth spacing. In fact, they did achieve consistent results in reducing fertility, but the overall risks associated with pregnancy and child birth were not significantly reduced (5), suggesting that an alternative approach had to be explored.

Causes of High Maternal Mortality and Programme Responses

A recently completed analysis of data on maternal mortality in Matlab over the last 10 years showed some of the reasons for the persistently high maternal mortality. 77% of all maternal deaths were related to direct obstetrical complications, and five direct obstetric causes of maternal mortality emerged from the analysis. They are, in order of importance: post-partum haemorrhage, induced abortion, complications of toxaemia, post-partum sepsis and obstructed labour.

The distribution of maternal deaths over time (abortion excluded), clearly showed a peak of deaths during labour and during the first two days following delivery; 43% of all

maternal deaths were concentrated in this period. This is the basis for a focus on systematic attendance by trained midwives with home deliveries, for some of the causes of deaths occurring in the three days are preventable or manageable (9). A large majority of women (80%) did not have access to modern medical facilities prior to death.

Traditional Birth Attendants (TBAs)

Almost all births in the Matlab area occur at home and are attended by traditional birth attendants (TBAs or "dais"). A total of 497 TBAs, identified in the Matlab MCH-FP Area, were individually interviewed during the end of 1982. The interviews provided some useful information about knowledge, attitude, and practices of the TBAs in Matlab, and most of this information is confirmed by other studies on TBAs in Bangladesh (10-21). In general, most TBA's are illiterate, their knowledge is extremely limited, their practices are unsafe and may be harmful, and they do not refer complicated cases for medical care.

Ninety-one per cent of the Matlab area TBAs felt that the community attitude was extremely favourable towards their work. Therefore, 51% of them saw no need for additional training; 57% of them felt that their work load was decreasing because of the growing number of TBAs.

Typically, the TBA is aged more than 50 years (67%), she is a muslim (78%), illiterate (no formal schooling) (93%), and a widow (56%). She has had more than 5 children and her husband was (or is) a small farmer.

For 32% of respondents, attending births was a family profession. But for another 65%, they themselves opted to be a TBA. They had been working as TBAs for an average of 16 years (at the time of interview) and had never received any formal training (99.5%). More than half of them acquired their skills through self-practice, the others learned from another TBA. Since they had had no training, they could not assess the benefits of training or supervision.

Most TBAs (two-thirds) attend births in their own village, and 15% cover also two or three adjacent villages. Seventy-five per cent (75%) of them attend "any" woman, the remaining only attend their relatives. Even if they did not keep records of births attended, 35% of them estimated that they had attended less than 50 deliveries (at the time of interview), and another 11% estimated that they had attended more than 100. Two-thirds of them recalled that they received a compensation for their services, most often in the form of a piece of cloth or a sari.

Most TBAs (80%) are called by the family at the start of labour, and half of them ask for a piece of cotton cloth and mustard oil as the only materials needed, and only 10% ask the mother to put on a clean sari and to lie down on a clean mat. Less than one-third of TBAs wash their hands with soap. They cut the cord themselves, and immediately after delivery of the placenta, but only 42% use a new razor blade. The others used a bamboo split (38%) or an old blade (20%). They did not apply any anti-septic medicine on the cord (except one per cent of

them who use "dettol") but instead used "burnt earth" (20%) or "cow dung" (20%). Two-thirds of them never prescribe any drug during delivery, 11% use holy water ("pani para"). Most of the deliveries are done in a squatting position, the TBA kneeling behind the mother.

Most TBAs (75%) also care for mothers in the days following delivery by giving hot compresses, hot water to drink and feeding advice (restrictions); 54% said they care for the new-borns by preventing cold (24%), by encouraging early breast feeding (17%), or by dressing the cord (9%). 82% would give equal care to female and male babies, the others tend to favour male new-borns. The first breast feed is encouraged right after the delivery-purifying bath by 78% of the TBAs, but 83% would advise to give the new-borns some honey and mustard oil if the first breast feed is delayed, while 25% would recommend not to give colostrum to the new-born.

In November and December 1986, a refresher training session was offered to all Traditional Birth Attendants living in the project area : 120 (24%) responded and came in small groups to the subcentre to have discussions with the Community Health Workers (CHWs), and orientation on the use of the new Safe Delivery Kit which was introduced to reduce the incidence of neonatal tetanus and obstetrical sepsis. A follow-up study to evaluate the impact of this training on the practice of TBA's has not yet been done, though it is estimated that 4-5% of maternal deaths may be averted through the use of the safe delivery kits and improved management of prolonged and

obstructed labor.

The training of TBA's is an integral part of the current national strategy for improving maternal health. The Government plans to provide at least one trained TBA to each of the 64,000 villages in Bangladesh. Over 24,000 TBA's have already received training through the Government's TBA Training Project (H. Akhter, personal communication).

The Maternity Care Project

Based upon previous experience and the results of the TBA survey mentioned above, the Matlab Maternity Care Project was proposed as a pilot project to test the strategy of utilizing the services of professional nurse midwives to improve the quality of maternity care in the Matlab MCH-FP area by working cooperatively with TBAs and CHWs. This strategy is expected to have a greater, more immediate impact upon maternal health than the training of TBAs alone. The midwives are graduates of a four-year degree program. They differ from TBAs in that their experience has been under medical direction, in hospital settings; they are younger, may be single or childless, and they are newcomers in the community.

In February 1987, a set of specific recommendations for management of obstetric complications at the field level, and a comprehensive approach to maternity care was proposed, built upon a careful analysis of the potentialities offered by the existing MCH-FP structure and staff. The objectives of this approach are:

a. further reducing maternal mortality,

b. reducing perinatal mortality, and

c. improving the quality of maternity care.

The principle is to enhance in quantity and in quality, the contact between health workers and pregnant women during pregnancy, during labour and delivery, and after delivery.

Trained midwives are posted in decentralized clinics. Expected to be the backbone of the system, they are encouraged to attend as many home deliveries as possible, and are equipped with a limited number of essential drugs and supplies. The availability of the midwives' services is communicated to each pregnant woman identified by the CHWs. Utilization of the midwives is voluntary and free of charge.

The midwives have three areas of responsibility :

1. They perform home antenatal visits at least once with the CHWs whenever pregnant women have been identified; provide advice and care for mild problems, and motivate for referral for complications or high risk pregnancies. CHWs provide tetanus toxoid immunization, iron and folic acid supplementation and safe delivery kits.

2. They attend home deliveries with CHWs and TBAs. For normal deliveries they take this opportunity to encourage TBAs to follow hygienic practices and avoid potentially harmful ones. Should complications arise, they respond with the equipment and drugs available in their kit, or organize referral to Matlab.

3. They perform postnatal visits, where they make sure

both mother and newborn are doing well. They respond to complications either by intervening on the spot or by referring.

Implementation of the Matlab Maternal Care Project began in April 1987 with coverage of half of the MCH-FP project area, which was randomly chosen (blocks C and D, population 48,000). The other half of the project area (blocks A and B) is now termed the control area. There are currently two professional nurse-midwives posted at each of two sub-centres, serving a population of nearly 24,000 in each block. Approximately 800 pregnancies are expected to occur yearly in each block. The blocks are adjacent, but separated by a river.

As of September 1987, the midwives have monitored 600 pregnancies, attended 70 deliveries and performed 182 postpartum visits. They have referred 12 patients to Matlab and then to the nearby District Hospital at Chandpur, and there have been no maternal deaths in their patients. It is hoped that obstetric capabilities may be upgraded at both the subcentres and in Matlab so that fewer long-distance referrals will be necessary in the future.

The ultimate goal is to have all pregnancies screened and all births attended by trained personnel, at home or in a specialized facility for those at higher risk. According to unpublished estimates based upon an analysis of ten years of maternal mortality in Matlab (V. Fauveau, personal communication), a reasonable expectation would be to avert one-quarter to one-third of all maternal deaths (and a similar proportion of perinatal deaths) in addition to the

benefits expected from other components of the MCH-FP programme, such as family planning (22,23).

3. Rationale

1. Knowledge of perceptual, demographic, and social factors associated with the utilization of professional midwives in the Maternity Care Project may be useful to design interventions which will be most effective in reducing maternal morbidity and mortality by maximizing utilization of trained personnel.

2. Effective application of the strategy of introducing trained midwives to provide maternity care in Matlab may serve as a model for similar programmes elsewhere in rural Bangladesh which may complement the current national strategy of training TBA's.

B. SPECIFIC AIMS

The results of research from Bangladesh and other areas of the developing world suggest that the following factors may be associated with the utilization trained midwives (10,12,17,24,25):

1. perceived quality of care
2. income/economic status
3. perceived risks
4. proximity to caregiver
5. duration of marriage
6. maternal age
7. cost of services

8. parity

9. maternal and paternal education

10. religion/beliefs

11. husband's perception of quality of care, risks and advantages.

12. social status

The relative importance of each of these factors, and the basis for differences in perception will be evaluated by a case-control study design. The results will be used to identify groups at whom special outreach activities may be directed, special concerns and misconceptions which need to be addressed, and practices which may be modified to achieve greater acceptance of professionally trained midwives by the community. This study will not be an evaluation of the effectiveness of the Matlab Maternity Care Project, nor is it designed to compare pregnancy outcomes.

C. METHODS:

Location

The study will be carried out in blocks C and D of the Matlab MCH-FP intervention area of Matlab upazilla, Chandpur district. This is a rural area of Bangladesh, approximately 70 km southeast of Dhaka. The area has been under intense demographic surveillance since 1966, and Community Health Workers visit all married women aged 15-44 years every two weeks to provide services and to record information on maternal and child health. The Matlab Maternity Care Project of ICDDR,B has been providing the services of professional

midwives to the area since early 1987. The study area has a population of 48,000, in which approximately 1600 pregnancies are expected to occur each year.

Research Design

This will be a case-control study. The study period will be of 6 months duration, and will commence as soon as possible after final clearance and funding are obtained. Cases will be any woman who delivered a child (alive or stillbirth) with a professional midwife in attendance between April 1, 1987 and March 31, 1988. Controls will be any woman who delivered a child without a professional midwife in attendance during the the same time period. In the event of maternal death, maternal information will be obtained from the female relatives. Subjects lost to follow-up due to out-migration will not be included in the sampling frame.

Three sources of data will be utilized:

a. MCH-FP Record Keeping System (RKS) data: RKS data are routinely obtained by CHWs who visit every married woman of child bearing age (15-44 years) every two weeks (Appendix I). These data will be used to identify cases and controls and to provide information on the number of pregnancies and their outcomes, and the use of various contraceptive methods.

b. Midwife Record Card: A data collection form has been designed and coded for computer entry (Appendix II). This form has been completed by the midwives for each pregnancy attended and will be used to verify cases and to provide information on patient contacts during the antenatal period for both cases

and controls.

c. Maternal Survey data: After pre-testing of the questionaire, detailed information regarding additional factors which may influence the choice of maternity care provider (see above) will be obtained by interviews of cases and controls, after obtaining consent. Prior research has shown that recall for childbirth-related events is remarkably good among Bangladeshi women (10,17). Questionaires (Appendix III) will be administered by three trained female senior health assistants over a period of 6-8 weeks.

In summary, cases and controls will be initially identified by the RKS records, which will also provide information on past obstetric history. Information on prenatal care and verification of case status will be obtained from the Midwife Record Cards. Following the sampling procedure described below, additional verification of case/control status and information on additional factors (see Specific Aims, above) will be obtained by interview.

Sample Size and Sampling Procedure

Between April and September 1987, professional midwives attended 70 deliveries in the study area. It is estimated that approximately 200 deliveries will have been attended by midwives by March 31, 1988, since they are attending an increasing number of deliveries each month. All cases identified by both the RKS and Midwife Record Cards will be interviewed. An equal number of controls, randomly selected by use of a random number table, will also be interviewed.

Assuming a 15% non-response rate for both cases and controls, approximately 170 completed questionaires will be available from each group. The smallest detectable relative risks (RR) with this sample size are shown below for varying levels of the proportion "exposed" among the control group (Pc); with the probability of a type I error being .05 and a .10 probability of a type II error (power = 90%) (26):

Pc	RR
.10	1.76
.20	1.22
.40	1.03
.50	1.05
.60	1.14
.80	1.90
.90	3.50

Data Analysis

Chi-squared analysis of the data will be used to compare the prevalence of individual factors among cases and controls, and odds ratios with 95% confidence intervals will be calculated (responses to open-ended questions will be reviewed and categorized for analysis). The relative predictive value of the discriminating factors will be assessd by multiple logistic regression analysis.

Quality Control

All records will be reviewed for completeness and logical consistency by the principal investigators prior to computer entry.

Validity of the data will be assessed by correlating information from the three data sources. Special inquiries

by CHWs will be made in cases of discrepency, and final determinations will be made by the principal investigators.

Confidentiality

All existing and new information will be held strictly confidential. Study subjects will be identified by numerical code only in all data sets used for analysis.

Schedule

1st month: Training of interviewers, testing of questionaire, collection of sampling frame and selection of sample.

2nd - 3rd month: Interviews of cases and controls.

4th - 6th month: Data entry, analysis, and write-up.

D. Significance of Expected Findings

Already, it is clear that the Project midwives are underutilized, and important answers as to why this is so can only be obtained by the proposed study. Study results will be used to increase the utilization of midwives by improving acceptability to pregnant women, especially those at highest risk. For example, if proximity to the midwives is a strong predictor of their utilization, increasing the density of the distribution of midwives may be indicated. Misconceptions of the role of midwives or the benefits of maternity care could be addressed by educational efforts, aimed especially at those identified as the primary decision makers. And disagreeable practices or procedures could be modified to increase acceptance.

The Matlab Maternity Care Project is a pilot project which is being developed as a model. By identifying factors which affect utilization, this study will help to develop the model to its maximum effectiveness, and may assist in the implementation of similar programmes elsewhere in Bangladesh if the strategy is proved effective and feasible by studies based upon long-term experience. The methodology employed here may also be used to increase the utilization of health care services in other settings.

E. Facilities Required:

ICDDR,B - Dhaka
- Matlab Field Station
- MCH-FP Treatment Subcentres

F. Collaborative Arrangement

None required.

REFERENCES

1. WHO Safe Motherhood Conference, Nairobi, Feb 10-13, 1987.

2. Alauddin M. Maternal mortality in rural Bangladesh: the Tangail district. Stud Fam Plann 1986;17,(1) 13-21.

3. Khan R, Jahan FA, Begum SF. Maternal mortality in rural Bangladesh: The Jamalpur District. Stud Fam Plann 1986;17(1) 7-12

4. Khan AR, Jahan FA, Begum SF, Jalil K. Maternal mortality in rural Bangladesh. World Health Forum. 1985;6:325-8

5. Koenig MA, Fauveau V, Chowdhury, AI, Chakraborty J, Khan MA. Maternal mortality in Matlab, Bangladesh. Stud Fam Plann 1988; 19 (2): 69-80

6. Chen LC, Gesche MC, Ahmed S, Chowdhury AI, Mosley WH. Maternal mortality in rural Bangladesh. Stud Fam Plann 1974; 5,(11):334-341.

7. Lindpainter LS. Maternity-related mortality in Matlab Thana, Bangladesh, Dhaka, International Centre for Diarrhoeal Disease Research, Bangladesh. 1982 (unpublished paper)

8. Bhatia S, Mosley WH, Faruque ASG and Chakraborty J. The Matlab Family Planning Health Services Project. Stud Fam Plann 1980;1,4:153-140.

9. Fauveau VA, et al. Causes of maternal mortality in rural Bangladesh. Bull WHO 1988 (in press).

10. Blanchet T. Meanings and rituals of birth in rural Bangladesh. Dhaka, The University Press 1984, 163 p.

11. Bhatia S, Chakraborty J, Faruque ASG. Indigenous birth practices in rural Bangladesh and their implications for a Maternal and Child Health programme. Dhaka, International Centre for Diarrhoeal Disease Research, Bangladesh. 1979:1-18 (Scientific Report No. 26)

12. Bhatia S. Traditional childbirth practices: implications for a rural MCH program. Stud Fam Plann, 1981;12:66-74.

13. Islam MS, Shahid NS, Haque ME. Belief and practice related to food preference and food avoidance during pregnancy and after childbirth in Matlab, Bangladesh. Dhaka, International Centre for Diarrhoeal Disease Research, Bangladesh 1983;1-13

14. Islam MS, Shahid NS, Haque ME, Mostafa G. Characteristics and practices of traditional birth attendants in Matlab, Bangladesh. J Prev Soc Med 1984;3(2):23-31

15. Islam MS, Haque ME, Mostafa G, Shahid NS. Customs related to childbirth. Paper presented in the 11th Annual Bangladesh Science Conference, Rajsahi, 2-6 March 1986:1-6

16. Leedam E. Traditional birth attendants. Int J Gyn Obstetr 1985;23:249-72

17. Maloney C, Aziz KMA, Sarker PC. Some beliefs concerning pregnancy and childbirth in Bangladesh. South Asian Anthropologist 1981;2(2):61-70

18. Maloney C, Aziz KMA, Sarker PC. Beliefs and fertility in Bangladesh. Dhaka, International Centre for Diarrhoeal Disease Research, Bangladesh. 1981:366p

19. Pratinidhi AK, Shrotri AN, Shah U, Chavan HH. Birth attendants and perinatal mortality. World Health Forum 1985 6:115-7

20. Rahman S. The effect of traditional birth attendants and tetanus toxoid in reduction of neo-natal mortality. J Trop Pediatr 1982;28:163-5

21. Rizvi N. Food avoidances during post-partum period among muslim women in Bangladesh. Shishu Diganta (Dhaka UNICEF) 1976:25-29

22. Fortney JA. The importance of family planning in reducing maternal mortality Stud Fam Planning. 1987;18(2):109-14

23. Trussell J, Pebley AR. The potential impact of changes in fertility on infant, child and maternal mortality.. Stud Fam Plann 1984;15:267-80

24. Lamb WH, et al. Changes in maternal and child mortality rates in three isolated Gambian villages over ten years. Lancet 1984;8409(2):912-914.

25. Gupta K. Qualified personnel or traditional midwives? Women's choice in rural India. Int Nurs Rev 1978;25(6):175-181.

26. Schlesselman JJ. Case-control studies: design, conduct, analysis. Oxford University Press, New York. 1982:pp152-154.

27. Fauveau V and Chakraborty J. Maternity Care in Matlab: present status and possible interventions. ICDDR,B special publication No. 26 Dhaka. January 1988; 53 pages.

ABSTRACT SUMMARY

This is a case-control study of women who have recently had a pregnancy outcome (live birth or stillbirth, not spontaneous or induced misscarriage) to identify the factors which may have been associated with their utilization of maternity care provider where the option of a professional nurse midwife for antenatal, delivery, and postnatal care was available. Knowledge of such factors will allow modification of services to increase utilization and effectiveness.

Professional nurse midwives have been introduced to one half of the Matlab MCH-FP treatment area as part of an effort to improve maternity care and decrease the high rate of maternal mortality. Improved maternity care will also decrease perinatal mortality. The subjects of the study will be selected from the population of women who had a live birth or still birth in this area between April 1, 1987 and March 31, 1988.

The method of study involves the use of existing MCH-FP records, and a questionaire which will be completed by an interview with a female interviewer, following informed consent. No use of organs, tissues, or body fluids will be required. There are no physical, social, or legal risks. If recall of a pregancy outcome is psychologically stressful, the subject may refuse to participate, or terminate the interview at any time. The experience of other researchers in Bangladesh suggests that this is very unlikely.

All information will be kept strictly confidential, and only numerical codes will be used to identify individuals in all

MATLAB MIDWIFE UTILIZATION STUDY

DETAILS OF BUDGET (in U.S.$)

3100 LOCAL SALARIES

DESIGNATION	LEVEL	POSITIONS	MAN-MONTHS	RATE/MONTH	AMOUNT
Manager H.S.	NOB	1	2	*	*
Medical officers	NOA	2	2	*	*
Research asst.	GS3	3	9	140	1260
				SUBTOTAL	1260

3200 INTERNATIONAL STAFF

Pncpl. investigators	P	2	4	*	*

3300 CONSULTANTS		1	600	600

3800 OTHER COSTS

Service charges (2 porters/boatmen @ Tk1400/month)	300

4800 INTERDEPARTMENTAL SERVICES

4801 Computer time	100
4802 Transport Dhaka	100
4804 Water transport Matlab	400
4806 Xerox	200
4815 Medical illustration	50
SUBTOTAL	850
TOTAL DIRECT COST	3010

databases and analyses.

The purpose of the study and the nature of the questionaire will be explained before obtaining signed consent to interview. The interview will take place in the subject's home and will require approximately 30 minutes to complete.

By participating in the study, the subject will be contributing to the development of more effective maternity care services in her community, which will result in decreased risks associated with pregnancy and childbirth for all women in the area, as well as improved infant survival by decreasing the risk of perinatal death.

CONSENT FORMS FOR POTENTIAL PARTICIPANTS

We are doing a study to identify factors associated with the utilization of maternity care providers, that is, those who provide care during pregnancy and childbirth. We would like to ask you some questions about your last pregnancy. The interview will take about thirty minutes, and all information you give will be held strictly confidential. Your cooperation will help us to provide services which may decrease the risks associated with pregnancy and childbirth, as well as improve infant survival in your community.

You have a right to refuse to participate or to terminate the interview at any time. If you do so, the usual health care services provided to you will not be affected in any way.

I fully understand the methods and purpose of this study and agree to paticipate.

Date:_____ Signature:_____

L.T.I._____

মৌখিক সম্মতি পত্র

প্রসূতি পরিচর্য্যা প্রদানকারি কর্মী কোন কোন ক্ষেত্রে সেবা গ্রহনকারীদের নিকট গ্রহনযোগ্য সেই সকল কাজগুলি চিহ্নিত করার জন্য আমরা একটি গবেষণা কার্য্যএন্স হাতে নিতে যাইতেছি । এই গবেষণা কর্মের লক্ষ্যণীয় দিকগুলি হলো প্রসব কালীন ও প্রসবোত্তর সেবা । এই জন্য আপনাকে আপনার গত প্রসব সম্পর্কে আমরা কিছু প্রশ্ন করিতে চাই । এই প্রশ্ন-পত্রটি পূরণ করিতে ত্রিশ মিনিটের মত সময় লাগিবে । প্রশ্নের সকল উত্তরেরই গোপণীয়তা রক্ষা করা হইবে । উক্ত কাজে আপনার সহায়তা, মায়েদের গর্ভকালীন সময়ে পুরুষের অসুবিধা দুর করা এবং আপনার এলাকাতে শিশুদের জীবন রক্ষা করার জন্য সহায়ক হইবে ।

আপনি ইচ্ছা করিলে এই প্রশ্ন পত্রের উত্তর দানে বিরতও থাকিতে পারেন ইহাতে আপনার স্বাস্থ্য সেবা পাওয়ার ক্ষেত্রে কোন বাধার সৃষ্টি হইবে না।

APPENDIX III

Matlab Maternity Care Survey Questionaire

(To be pre-tested. Final version will be provided to the RRC)

1. Study number |__|__|__|

2. RID |__|__|__|__|__|__|__|__|__|__|

3. CID |__|__|__|__|__|__|__|__|__|

4. Name of mother or respondent _____

5. Study pregnancy outcome date |__|__|-|__|__|-|__|__|
m m d d y y

6. Study pregnancy outcome: 1=Live Birth 2=Still Birth |__|

7. Date of interview |__|__|-|__|__|-|__|__|
m m d d y y

8. Interviewer |__|

9. Respondent: 1=self (subject) |__|
2=mother-in-law
3=sister-in-law
4=other relative :_____

10. Where did the birth take place? 1=same village in which you are now living
2=husband's village (if different from #1)
3=father's village
4=another village (if different from 1, 2, 3)
5= subcentre clinic
6= Matlab ICDDR,B hospital
7= Chandpur
8=other hospital specify |__|

village name_____ village code |__|__|__| if DSS

11. Who did you call first when labor began? (specify relationship)

_____ |__|__|

12. Who decided whom to call first to deliver the baby?

(specify relationship)_____ |__|__|

13. Who was called first to deliver the baby? (specify relationship)

_____ |__|__|

Why did you call that particular person?

_____ |__|__|

How many babies do you think she has delivered? |__|__|__|

14. Who delivered (caught) the baby? (specify relationship)

_____ |__|__|

If different than person first called, why?_____

_____

_____ |__|__|

If not an ICDDR,B midwife, why?_____

_____

_____ |__|__|

15. Where there any problems during labor? 1=yes 2=no 3=don't know |__|

If yes, what was the problem(s)?_____

_____ |__|__|

If yes, what was done? _____

_____ |__|__|

16. Where there any problems after delivery? 1=yes 2=no 3=don't know |__|

If yes, what was the problem(s)_____

_____ |__|__|

If yes, what was done? _____

_____ |__|__|

17. Have you had another baby since that time? 1=yes 2=no |__|

If yes, who delivered the last baby? (specify relationship)

_____ |__|__|

18. Was this your first delivery? 1=yes 2=no |__|

* if "yes", skip to question 23 *

19. Who delivered your previous baby? (specify relationship, if any)

_____ |__|__|

20. Have you ever delivered with the help of any of the following persons?

1=yes
2=no
3=don't know

qualified midwife	|__|
MBBS	|__|
nurse	|__|
FWV/LFPV	|__|
CHW	|__|

21. Have you ever delivered in a clinic? 1=yes 2=no |__|

22. Have you ever delivered in a hospital? 1=yes 2=no |__|

23. Have any of your (or your husband's) relatives ever died in childbirth? 1=yes 2=no |__|

24. Which of the following qualities do you consider important if someone is to deliver your baby? 1=important 2=not important

must have given birth to a child	|__|
should be polite	|__|
honor family customs	|__|
should be able to handle complications	|__|
should have a clean appearance	|__|
come in time whenever called	|__|
should be ever married herself	|__|
must be a skilled person	|__|
must be an older woman	|__|
must be a relative	|__|
must be living close to your home	

25. How many years were you married at the time you had your baby? |__|__|

26. What is your husband's primary occupation?_____ |__|

27. Does he do any other work for cash or kind? 1=yes 2=no |__|

28. How many decimels of land does your husband own? |__|__|__|__|

29. How many decimels of land does your husband rent? |__|__|__|__|

30. What is the construction of the house? (direct observation by interviewer)

Roof: straw=1 tin=2 wood=3 concrete=4 other=5 |__|

Walls: brick=1 tin=2 bamboo=3 kancha(mud)=4 other=5 |__|

Floor: pucca(brick/concrete)=1 kancha(mud)=2 other=3 |__|

Electricity: 1=yes 2=no |__|

Number of sleeping rooms: |__|

Fixed latrine: 1=yes 2=no |__|__|

31. Which of the following do you possess? radio=1
television=2
wristwatch=4
electric fan=8
domestic animal=16 (How many)
boat=32
bicycle=64
cot=128
almirah=256
(enter total) |__|__|__|

32. How many days worth of food do you have stored in the house? |__|__|

33. How many years of school did you complete? (do not include madrasha) |__|__|

34. How many years of school did your husband complete? |__|__|

|__|

35. For Muslim: a) Did you attend madrasha? 1=yes 2=no |__|

b) Did your husband attend madrasha? 1=yes 2=no 3=don't know |__|

c) Do you wear a burka when you go out for visits?
1=yes, always 2=no, never 3=yes, sometimes |__|

36. Have you visited the ICDDR,B subcentre or Matlab for any of the following reasons during the past year? 1=yes 2=no

treatment for your illness	
ante-natal care	
family planning	
other reasons; specify	

মাতৃমংগল শিশুকল্যাণ ও পরিবার পরিকল্পনা কার্য্যএকক
মতলব

গর্ভকালীন, গর্ভখালাস ও গর্ভোত্তর সেবা সংক্রান্ত তথ্য সংগ্রহের
প্রশ্নপত্র

১। ষ্টাডি নম্বর /_/_/

২। RID /_/_/_/_/_/_/_/_/_/_/

৩। CID /_/_/_/_/_/_/_/_/_/_/

৪। নাম /_/_/

বয়স /_/

ধর্ম

বর্তমানে জীবিত সন্তানের সংখ্যা /_/_/

মোট গর্ভের সংখ্যা /_/_/

৫। ষ্টাডি সম্পর্কীয় গর্ভ খালাসের তারিখ _____ /_/_/ - /_/_/ - /_/_/
m m d d y y

৬। ষ্টাডি সম্পর্কীয় গর্ভ খালাসের ফলাফল /_/

জীবিত প্রসব - ১

মৃত প্রসব - ২

৭। তথ্য সংগ্রহের তারিখ - /_/_/ - /_/_/ - /_/_/
m m d d y y

৮। তথ্য সংগ্রহকারীর (কোড নং) ১, ২, ৩.... /_/

৯। ষ্টাডি সম্পর্কীয় গর্ভের জন্য কতবার প্রসব পূর্ব সেবা দেওয়া হইয়াছে /_/
(Follow-up ফরম থেকে লিখিতে হবে ০, ২, ৩....)

১০। উত্তর দাত্রী - নিজে (ষ্টাডি মা) ১ /_/_/

শ্বাশুড়ী ২

জ্যা ৩

অন্য কেউ ৪ _____
সম্পর্ক লিখুন

পৃঃ------/২

১। উক্ত প্রসব কোথায় হইয়াছিল ?

নিজ গ্রামে (এখন যেখানে বাস করেন) ১
স্বামীর গ্রামে (যদি নিজ গ্রাম হইতে ভিন্ন হয়) ২
পিতার গ্রামে - ৩
অন্য গ্রামে (যদি ১, ২ ও ৩ হইতে ভিন্ন হয়) ৪
সাব-সেণ্টার ক্লিনিক - ৫
মতলব ক্লিনিক - ৬
চাঁদপুর - ৭
অন্য কোথাও - ৮ _____ /_/
(বিস্তারিত লিখুন)

যে গ্রামে প্রসব হইয়াছে সেই গ্রামের নাম _____ /_/_/_/_/_/
গ্রামের কোড _____

২। প্রসব ব্যথা আরম্ভ হওয়ার সংগে সংগে প্রথমে কাহাকে ডাকা হইয়াছিল ? /_/_/_/
(সম্পর্ক লিখুন) _____

দ্বিতীয় পর্য্যায়ে কাউকে ডাকা হইয়াছে কি না, ডাকা হইলে সম্পর্ক লিখুন _____ /_/_/_/
(না হইলে 00)

দ্বিতীয় পর্য্যায়ে কাউকে ডাকা হইলে কেন ডাকা হইয়াছিল ? _____ /_/_/_/

৩। প্রসবের জন্য প্রথম কাহাকে ডাকিতে হইবে
ইহা কে মতামত স্থির করিয়া ছিলেন ? _____ /_/_/_/
(সম্পর্ক লিখুন)

৪। বাচ্চা ধরার জন্য কাহাকে প্রথম ডাকা হইয়াছিল ? _____ /_/_/_/
(সম্পর্ক লিখুন)

উনাকে প্রথম কেন ডাকা হইল ? _____ /_/_/_/
_____

পৃঃ _____/৩

১৫। কে বাচ্চা হওয়ার সময় ধরিয়াছে ?

নির্দিষ্ট করে লিখুন _____

(আত্মীয়া হইলে সম্পর্ক লিখুন)

বাচ্চা ধরার জন্য যাহাকে প্রথম ডাকা হইয়াছিল উনি না হয়ে যদি অন্য কেহ ধরেন, তবে কেন ? _____

যদি উনি আই,সি,ডি,ডি,আর,বি'র মিডওয়াইফ না হন, তবে কেন ? _____

১৬। প্রসবের সময় কি কোন অসুবিধা হইয়াছিল ?

হ্যাঁ - ১
না - ২
জানি না - ৩

যদি উত্তর হ্যাঁ হয় তবে কি কি অসুবিধা হইয়াছিল ? _____

যদি উত্তর হ্যাঁ হয় তবে অসুবিধার জন্য কি করা হইয়াছিল ? _____

১৭। প্রসবের পরে কি কোন অসুবিধা হইয়াছিল ?

হ্যাঁ - ১
না - ২
জানি না - ৩

উত্তর হ্যাঁ হইলে, কি কি অসুবিধা হইয়াছিল ?

উত্তর হ্যাঁ হইলে, কি ব্যবস্থা নেওয়া হইয়াছিল ?

পৃঃ----------/৪

১৮। শ্ট্যাডি সম্পর্কীয় বাচ্চা হওয়ার পর কি উক্ত মায়ের আর কোন প্রসব হইয়াছে ?

হ্যাঁ - ১
না - ২

উত্তর যদি হ্যাঁ হয় তবে উক্ত প্রসব কে করাইয়াছিল ? _____

(আত্মীয় হইলে সম্পর্ক লিখুন)

কেন উনাকে ডাকা হইয়াছিল ? _____

১৯। শ্ট্যাডি সম্পর্কীয় প্রসবই কি শ্ট্যাডি মার জীবনের প্রথম প্রসব ?

হ্যাঁ - ১
না - ২

উত্তর হ্যাঁ হইলে ২৪ নং প্রশ্নে চলে যান।

উত্তর না হইলে ২০, ২১, ২২ ও ২৩ নং প্রশ্ন করুন ?

২০। শ্ট্যাডি সম্পর্কীয় প্রসবের পূর্ববর্তী প্রসব কে করাইয়াছিল ?

নির্দিষ্ট করে লিখুন _____

(আত্মীয় হইলে সম্পর্ক লিখুন)

২১। শ্রীমতী মা কি কখনও পূর্ব্ববর্তী প্রসবগুলিতে সাহায্য করার জন্য উল্লেখিত কোন ব্যক্তিকে কখনও ডাকিয়াছেন ?

হ্যাঁ - ১
না - ২
জানি না - ৩

হ্যাঁ হলে -

প্রশিক্ষণ প্রাপ্ত মিডওয়াইফ
এম,বি,বি,এস, ডাক্তার
ট্রেইন নার্স
পরিবার কল্যাণ পরিদর্শিকা
গ্রাম্য স্বাস্থ্য কর্মী

২২। কখনও কি ক্লিনিকে বা হাসপাতালে শ্রীমতী মার কোন সন্তান প্রসব হইয়াছে ?

হ্যাঁ - ১
না - ২

২৩। আপনার জানা মতে শ্রীমতী মার কোন আত্মীয় (পিতার সম্পর্কীয়দের বা স্বামীর সম্পর্কীয়দের মধ্যে) কি কোন মা সন্তান প্রসবের সময় মারা গিয়াছে ?

হ্যাঁ - ১
না - ২
বলতে পারি না - ৩

পৃঃ---------/৬

৪। আপনার প্রসবের সময় ধরনিকে ডাকিতে তাহার কোন কোন গুণাবলীর দিকে নজর দিবেন ?

	উত্তর দাত্রী নিজে সতস্পূর্তভাবে বলিবেন এবং তাহা এস্যানুয়ে নম্বরের মাধ্যমে লিখিতে হইবে। যেমন-প্রথম যাহা বলিবে তাহা ১ পরেরটি ২ ইত্যাদি।	প্রশ্নকারী পড়ে শুনাবেন এবং যা যে গুণাবলী প্রয়োজনীয় বলে মনে করেন তাহাতে কোড লিখিবেন। প্রয়োজনীয়-১ প্রয়োজনীয় নয় -২ কোন মতামত দেন নাই-৩	উত্তর দাত্রীর মতে উল্লেখিত গুণাবলী সম্পন্না কে ? দাই - ১, মিডওয়াইফ - ২, উভয়ই - ৩, কেহ না - ৪।
যাহার ছেলে-মেয়ে হইয়াছে।			
নম্র ও ভদ্র			
যিনি স্থানীয় প্রাচীন আচার অনুষ্ঠানের প্রতি শ্রদ্ধাশীল।			
যিনি কোন অসুবিধা হইলে সামলাইতে পারিবে বলিয়া মনে করেন।			
যিনি দেখিতে পরিস্কার-পরিচ্ছন্ন।			
যাহাকে যে কোন সময় ডাকিলে আসিবে।			
যিনি বিবাহিত জীবন যাপন করিয়াছেন।			
যিনি এই বিষয়ে অভিজ্ঞ।			
যিনি গর্ভ খালাস সম্বন্ধে বিশেষ প্রশিক্ষণ নিয়াছেন।			
যিনি বয়স্কা।			
যিনি আত্মীয়া হন।			
যিনি বাড়ীর সব চেয়ে নিকটে থাকেন।			

২৫। বিবাহের কত বৎসর পর আপনার এই স্টাটাস সম্মান হইয়াছিল?_____ /__/__/

২৬। আপনার স্বামীর প্রধান পেশা কি? _____ /__/__/

২৭। আপনার স্বামীর প্রধান পেশা ব্যতীত কি আর কোন আয় করেন যাহার জন্য তিনি আর্থিক বা দ্রব্য আকারে কোন পারিশ্রমিক পান? /__/

হ্যাঁ	-	১
না	-	২

২৮। আপনার পরিবারের কত শতাংশ চাষের জমি আছে? _____শতাংশ। /__/__/__/__/

না থাকলে 0000

২৯। আপনার পরিবারের কতটুকু বর্গা জমি আছে? _____শতাংশ

না থাকলে 0000

৩০। ঘর কি দিয়া তৈরী?

চাল - খড়-১, টিন-২, পাকা-৩, অন্যান্য-৪

বেড়া - ইট - ১, টিন-২, বাঁশ -৩, মাটির - ৪
পাটসুলা -৫, অন্যান্য- ৬

মেঝে - পাকা-১, কাঁচা-২, অন্যান্য - ৩

ঘর বিদ্যুতায়িত কি না?

হ্যাঁ - ১
না - ২

ঘরে কয়টি কোটা আছে? _____

নিজের কোন নির্দিষ্ট তৈরী পায়খানা আছে কি না?

হ্যাঁ - ১
না - ২

৩১। নিম্নোক্ত কোন জিনিস নিজের মালিকানায় আছে কি না?

রেডিও - ১
টেলিভিশন - ২
ঘড়ি - ৪
ইলেকট্রিক ফ্যান - ৮
গৃহ পালিত পশু (গরু) - ১৬
সংখ্যা _____
নৌকা - ৩২
সাইকেল - ৬৪
চৌকি - ১২৮
আলমিরা - ২৫৬
(যেগুলি আছে তাহার বর্ণিত নম্বরের যোগফল লিখিতে হইবে)

পৃঃ---------/৮

৩২। আপনার ঘরে কত দিনের পরিমিত খাওয়ার মওজুত আছে ?____ /__/__/

৩৩। আপনি কোন ক্লাশ পর্য্যন্ত লেখাপড়া করিয়াছেন ? /__/__/
(মওসুব বাদে)_____

৩৪। আপনার স্বামী কতটুকু লেখাপড়া করিয়াছেন ?_____ /__/__/

৩৫। শুধু মুসলমান পরিবারের জন্য -

আপনি কি মওসুবে লেখাপড়া করিয়াছেন ? /__/

হ্যাঁ - ১
না - ২

আপনার স্বামী কি মাদ্রাসা লেখাপড়া করিয়াছেন ? /__/

হ্যাঁ - ১
না - ২
জানি না- ৩

আপনি কি বাড়ী হইতে কোথাও বাহিরে গেলে বোরকা ব্যবহার করেন ? /__/

হ্যাঁ - (সব সময়) - ১
হ্যাঁ - (কখনও কখনও) - ২
না - (কখনও না) - ৩

পৃঃ--------/৯

৩৬। আপনি কি নিম্নোক্ত কারণগুলির জন্য কখনও আই,সি,ডি,ডি,আর,বি'র হাসপাতাল / ক্লিনিকে গিয়াছেন ?

না - ২
হ্যাঁ - ১

হ্যাঁ হলে -

আপনার রোগের চিকিৎসার জন্য ____

আপনার কোন বাচ্চার চিকিৎসার জন্য ____

গর্ভকালীন সেবা গ্রহনের জন্য ____

পরিবার পরিকল্পনার ব্যবস্থার জন্য ____

অন্য কারণে _____ ____
(বিস্তারিত লিখুন)

BANGLADESH FERTILITY RESEARCH PROGRAMME
PLOT NO.22/10, BLOCK-B, MOHAMMADPUR HOUSING ESTATE, DHAKA.
Phone : 327588, 310792, 313034 Cable : BAFEREP DHAKA.

5 July 1988

Chairman
Research Review Committee
ICDDR, B
Dhaka.

Subject : Critical Analysis of the Research Protocol Entitled "Identification of factors Associated with the Utilization of Nurse Midwives in the Matlab MCH-FP Treatment Area"

Dear Sir:

Please find enclosed my critical review of the above proposal. I have based my comments on the handout I presented on Ist June at the IPH auditorium.

It has been a pleasure reviewing the modified proposal. It looks quite good now. A few minor additions may make it more complete.

Look forward to seeing you tomorrow.

With best regards,

Sincerely yours,

Halida Akhter

Halida Hanum Akhter
Director

YHA/ka

88-015 (Revised)

CRITICAL ANALYSIS OF THE PROTOCOL ENTITLED "IDENTIFICATION OF FACTORS ASSOCIATED WITH THE UTILIZATION OF MIDWIVES IN THE MATLAB MCH-FP TREATMENT AREA"

Prepared by :
Dr. Halida Hanum Akhter HA
Director, BFRP

ADEQUACY OF BACKGROUND INFORMATION

The summary of the background characteristics and practices of TBAs is informative. Although the last paragraph of the section does give an idea about the importance of TBA training in the current national strategy, this picture is very sketchy. A more clear description of the present role of TBAs in the national context and the impact of providing trained TBAs as a part of the national MCH based FP program would be more relevant.

RATIONALE

The rationale is well defined and well stated.

EXPERIMENTAL DESIGN

Since the proposal aims to study the factors responsible for utilization versus non utilization of the services of Nurse-Midwife, the proposed study design seems adequate. This also eliminates the need for more specific definition of 'Controls'.

SIGNIFICANCE OF EXPECTED FINDINGS

The Matlab Maternity Care Project is a pilot project. If proved to be successful, this model could be implemented in other parts of the country. The GOB has already completed the training of 24,000 TBAs and would complete the training of the rest 40,000 in near future. This would make available an alternate cadre of Maternity Care providers. Development of some means for incorporating the services of this group of providers together with the Nurse Midwife's services would make this project more feasible and cost effective.

88-015 (Revised)

3

INTERNATIONAL CENTRE FOR
DIARRHOEAL DISEASE
RESEARCH, BANGLADESH

Phone: 600171-78
Telex: 65612 ICDD BJ
Cable: Cholera Dhaka
G P O Box 128 Dhaka -2 Bangladesh.

M E M O R A N D U M

6 July, 1988

TO : Chairman,
Research Review Committee

FROM : Diana R. Silimperi, MD
Director, UVP

SUBJECT : Second Review of Research Protocol No. 88-015 (Revised) now entitled, "Identification of Factors Associated with the Utilization of Nurse Mid-Wives in the Matlab MCH-FP Treatment Area."
Principal Investigator: Dr. Gary Hlady

Based on the previous discussion held at the first review of this protocol, this reviewer finds that the indicated changes have been addressed, specifically those noted in my review of June 1, 1988. In particular, the questionnaire has been significantly improved with the addition of several questions addressing maternal perceptions, more information regarding socio-economic and educational background, and specification of relationship between mother and person called to deliver her infant. The only issue not more fully addressed in this revised protocol is that regarding the relationship of the maternity care project to ongoing government efforts in this area. Also, eleboration of the potential use of this information by government and other organizations providing maternal health care would be useful.

One also wonders if one addition to this protocol might be considered which would give more in-depth information regarding maternal perception of nurse mid-wives vis-a-vis traditional birth attendants. By its nature, such a survey questionnaire is limited in the detail and scope of questions it can address. However, it might be useful to consider developing another part of this project to do in-depth individual interviews or small groups with different sub-sets of mothers (sub-sets based upon findings from the large survey). If one takes the information from this questionnaire and looks at the next stage of implementation, clearly it would be useful to know if certain types of mothers or certain attitudes of mothers could be combined into a high-risk mother profile (high-risk meaning those most likely to reject nurse mid-wives and/or most likely to

accept TBA's over modern health care providers). This reviewer recognizes that the questionnaire will begin to collect some of this information, but wonders if the investigators might also consider some type of in-depth interview process to supplement the current protocol.

SUMMARY

This reviewer finds the revised protocol acceptable and, hence, would recommend that it be passed for implementation.

88-016D

(4)

INTERNATIONAL CENTRE FOR DIARRHOEAL DISEASE RESEARCH, BANGLADESH

Memorandum

TO : Chairman, RRC

DATE: 31.05.88

FROM : Dr. A.H. Baqui (Mabaqui)

SUBJ : Review of protocol, entitled: " Identification of factors associated with the choice of maternity care provider in the Matlab MCH-FP area " by Dr.Hlady et al .

Thank you very much for asking me to review the above protocol. The objective of the protocol is to identify factors that influence the choice of maternity care providers in the Matlab MCH-FP project area. The ultimate objective is to reduce the maternal morbidity and mortality redesigning and promoting the maternity care program as required.

Though, I am now working in the field of diarrhoeal disease epidemiology and not in the MCH-FP area, I may not be uptodate in Matlab MCH-FP program. But, Matlab MCH-FP program is one area where I worked in the past and I still have active interest in that program. For the last one year, I have been feeling rather uncomfortable, because I have a feeling that the Matlab MCH-FP program is expanding without developing enough mechanism to evaluate the additional components. For that reason, I was happy to see this protocol. I belive, the work is very much relevant and one should welcome any such effort.

I don't have any major problem with this protocol, only few minor comments. They are as follows :

1) Second para of the objective is not very clear. Could be restated.

2) In page 8, under specific aims, the investigators listed 12 factors that they want to examine. I belive, few additional factors, e.g. child spacing, family structure (extended vs. nuclear) could be important.

3) With the amount of additional inputs (two midwives to attend 1600 deliveries including antenatal check-ups in a year) how much one may expect ?

4) The sample size calculation is valid, when one is dealing with one risk factor. But for multiple risk factor analyses, you will have to adjust for or will have to use multiple regressession analyses. For that kind of situation, the sample size calculation is different and you usually need a larger sample size. I understand, it would not be possible for you to increase the number of cases. The alternative may be to take more than one control per case.

With regards.

INTERNATIONAL CENTRE FOR
DIARRHOEAL DISEASE RESEARCH, BANGLADESH

Memorandum

Dated: 27 06 / 1988.

TO : Dr~~s~~ A.H.Baqui/Dr.Diana R.Silimperi/
Dr.Halida Hanum Akhter(BFRP)

FROM : Chairman, Research Review Committee:

SUBJECT : Critical Analysis of Research Protocol

... Enclosed please find a protocol entitled "Identification of factors associated with the utilization of nurse midwives in the Matlab MCH-FP treatment area"

by Drs W.G.Hlady & Vincent Fauveau No. 88-015(Revised)
Please make a critical review of the research protocol. In doing so, please follow the 'Guidelines for Research Protocol Review', a copy
... of which is enclosed. Please write a brief critical analysis item by item as per the guidelines. Please submit the written critical analysis
(RC Sectt.) to me*by 12:00 noon on Tuesday, the 5th July 1988.
The same protocol will be similarly reviewed by two other scientists.

A Research Review Committee meeting will be held on Wednesday, the 6th July 1988 at 12:00 noon in the ICDDR,B Training Lecture Hall
One of the critical reviewers will introduce his or her analysis of the protocol and open the discussion. Other critical reviewers will have their input at this moment. I am also circulating the protocol to the Library (to enable any investigator or branch heads to review it) and to the Director and Scientific Associate Directors. Having taken into consideration the three critical reviews and the points brought up by Investigators in the meeting, the Research Review Committee will determine what action should be taken. The Committee may approve the protocol for implementation, it may be returned to the Investigator for revisions or it may be rejected.

Please note that the protocol should have the format as per the enclosed
... 'Format for preparation of protocols'.

Please return the protocol along with your written critical analysis.

Attachments: as stated. (3)

June 20, 1988

Drs. Gary Hlady/Vincent Fauveau

Dr. Ivan Ciznar
Acting Chairman, Research Review Committee

Protocol No.88-015 entitled "Identification of factors associated with choice of maternity care provider in the Matlab MCH-FP treatment area."

This is to inform you that the Research Review Committee met on Wednesday, the 1st June 1988, to consider your protocol referred to above.

You are advised to modify the protocol in the light of the reviewers' comments and the comments of Dr.M.Badrud Duza. You are advised to take the help of Dr.Duza in modifying the protocol. The revised version of the protocol be submitted to RRC for consideration.

CC: Acting Head, Community Medicine Division
Dr.M.Badrud Duza, Associate Director, PSED
Director

88-015 (4)

INTERNATIONAL CENTRE FOR
DIARRHOEAL DISEASE
RESEARCH, BANGLADESH

Phone: 600171-78
Telex: 65612 ICDD BJ
Cable: Cholera Dhaka
G P O Box 128 Dhaka -2 Bangladesh.

M E M O R A N D U M

1 June, 1988

TO : Chairman,
Research Review Committee

FROM : Diana R. Silimperi, MD DRS
Director, UVP

SUBJECT : Review of Research Protocol entitled, "Identification of Factors Associated with the Choice of Maternity Care Providers in the Matlab MCH-FP Treatment Area. Principal Investigator: Dr. Gary Hlady

I. SUMMARY

This protocol is very well written and appropriately follows the ICDDR,B format. The objectives of the protocol are very straight forward and quite important in terms of gaining information which can be used to practically improve the Matlab Maternity Care Project.

II. RESEARCH PLAN

Introduction:

The introduction is quite thorough and appropriately addresses international and national research on the subject. In particular, some of the statistics are quite interesting and present the problem in the context of Bangladesh.

One significant question relates to a statement on page 4 regarding the 5 direct obstetric causes of maternal mortality. This reviewer's impression was that post-partum sepsis was in fact included under an "infectious disease" cause of death in the maternal mortality analysis previously performed by the Project.

The distribution of maternal deaths over time is clearly critical information which needs to be utilized in the creation of methods to improve the impact of the maternal care program.

On page 6, the frequency of visits of CHWs are obviously important and was not clearly stated in the background data (for both ante-natal and post-natal visits).

On page 7, paragraph 1, regarding the block division within the MCH-FP Project area, are the blocks contiguous? What type of geographic separation exists between the blocks and has consideration of been given to the "ripple effect" between intervention and non-intervention areas?

III. RATIONAL AND AIMS

The rationale and specific aims of the protocol are very clearly stated. The investigators plainly say that the study is not an evaluation of the effectiveness of the Matlab Maternal Care Project, but specifically seeks to identify factors influencing choice maternity care providers which can then be used to identify appropriate new outreach activities within the Matlab Maternal Care Project.

IV. METHODS

Once again, the research design is quite solid with no major flaws. However, a few questions arise. Given the intensity of the surveillance of mothers within the MCH-FP intervention area, are these mothers representative of the average Bangladesh mother? In other words, the results may be quite useful for Matlab, but are they applicable to the average rural mother? Secondly, this reviewer wonders if by including information from mothers (or information from their families) who have died in childbirth will bias the results, especially because the source data changes from direct interviews to secondary responses.

This reviewer understands from the larger cause of maternal death paper produced by the project that there was, in fact, some trend differences, but in essence no significant difference, in the use of health facilities prior to death (at least in 1985). Is there more recent data available that would indicate significant rather than trend differences between the use of TBs and modern physicians prior to death?

V. CASE AND CONTROL SELECTION

Regarding case and control selection, obviously a subject lost to follow-up cannot be included in the sample frame. This reviewer wonders, however, what is the estimated percentage who will simply refuse to participate in the project, even though they may be available?

VI. SAMPLE SIZE AND PROCEDURES

This reviewer would appreciate a little more detail on the selection of the controls. Is there any attempt to match cases and controls for any set of variables, for example, age or educational level?

VII. QUALITY CONTROL

This reviewer is not clear whether the validity checks are equally applied to the controls as they are for the cases. If the 3 data sources noted will be used to validate the data and yet the controls are women who deliver child without professional midwives or attendants, how will they have midwives record cards or the other RKS information base? And finally, who will make the "special inquiries" referred to on page 12 vis-a-vis "discrepancies"?

VIII. SIGNIFICANCE:

Significance of expected findings - very clearly written.

IX BUDGET:

Realistic.

Miscellaneous: Other Sections - no additional comments.

Questionnaire and Appendices: Will Bangla forms be available? Obviously, accurate translation is crucial. This reviewer has some concerns regarding terminology which needs to be "translated" into lay language. Finally, the questionnaires seem to be missing some key areas. Perhaps the investigators might cover more questions related to maternal ideas regarding TB or midwife functions which may shed light as to why they are not using such facilities. Most of the questions are centered on finding information as to what occurred at the time of delivery, but are less oriented to determining maternal attitudes which may influence their choice and behavior.

Finally, the MCH-FP record keeping system looks quite complicated and this reviewer wonders whether such a system is accurately and consistently maintained and who provides the quality checks in the system?

CONCLUSION

In summary, I think this is protocol with very practical potential and I would strongly recommend that it be passed for I am sure that the questions raised by this reviewer can be answered by the investigators at the time of presentation.

88-015

BANGLADESH FERTILITY RESEARCH PROGRAMME
3/7, Asad Avenue (2nd & 3rd Floor), Mohammadpur, Dhaka-1207, G. P. O. Box 279
Phone : 327588, 310792, 313034 Cable : BAFEREP DHAKA.

31 May 1988

The Chairman
Research Review Committee
ICDDR, B
Mohakhali
Dhaka.

Subject : Critical Analysis of Research Protocol

Dear Sir :

With reference to your letter dated 23.5.1988 please find enclosed my comments on the protocol No.88-05 entitled "Identification of factors associated with the choice of maternity care provider in the Matlab MCH-FP treatment area" by Dr. Gary Hlady.

Many thanks for sending the protocol for my review. I plan to attend the research review committee meeting on June Ist.

Look forward to meeting you on Ist June, 1988. With best regards,

Sincerely yours,

Halida Akhter

Halida Hanum Akhter
Director

MR/ka

88-015

CRITICAL ANALYSIS OF THE PROTOCOL ENTITLED "IDENTIFICATION OF FACTORS ASSOCIATED WITH WITH THE CHOICE OF MATERNITY CARE PROVIDER IN THE MATLAB MCH-FP TREATMENT AREA"

Prepared by :
Dr. Halida Hanum Akhter
Director, BFRP

DESCRPTION :

In Bangladesh maternal mortality and morbidity is unacceptably high. Majority of maternal deaths are related to direct obstetrical complications indicating lack of availability and utilization of maternity care during pregnancy, labor and after delivery. Since majority of births occur at home and are attended by TBAs, the health impact will be dependent upon increasing utilization of the services of these maternity care providers.

In Matlab area almost all deliveries are conducted at home by the TBAs who are mostly illiterate with very limited knowledge. Their unsafe and harmful practices and unwillingness to refer complicated cases lead to higher morbidity and mortality of mothers in the area. In order to improve quality of maternity care services of trained midwives were utilized in Matlab MCH-FP area by working in close cooperation with TBAs and CHWs.

In order to identify factors influencing the choice of maternity care providers a case control study of 6 month duration is proposed. Women who utilised the services of the professional nurse midwives during the child birth will be considered as 'cases' and random sample of an equal number of women who delivered a child without the attendance of a professional nurse midwife will be considered as controls. Cases and controls

What is system of maternity care in community ?

will be primarily identified by the MCH-FP record-keeping system (RKS) during April 1987 & March 31, 1988. Other information will be obtained from midwife record card and through interview of the sampled women.

Identification of perceptual, demographic and social factors as determinants of choice of maternal care provider will be useful in designing effective interventions to maximise utilization of trained personnel and will help design target outreach activities with ultimate objective of reducing maternal mortality and morbidity.

2. ADEQUACY OF BACKGROUND INFORMATION :

The background information adequately deals with the extent of causes of maternal mortality in Bangladesh specifically in Matlab area. It clearly describes the Matlab maternity care project and role of professional nurse midwives in the project area. However, the information on TBA is inadequate. The proposal does not discuss the role of TBA in the national program context, nor is there any mention of the program for the TBA training which is an integral part of the National MCH based FP program. Govt. has plans for training 64,000 TBAs so as to provide one trained TBA per village. Already over 24,000 TBAs have been trained and additional 40,000 will be trained under the TBA Training Project.

Although the list of reference covers most of the studies related to TBA, very little effort was made to summarise their educational background, knowledge and practices. There is no mention of their prior training although mention has been made of the refreshers course given to them.

In the section on TBA it is mentioned that 497 TBAs identified in Matlab MCH-FP area were interviewed in 1982 (no mention if they had received any training). In 1986, November-December a refreshers training was offered to those living in the project area. Of these 120 responded and came in small groups to the sub-center to discuss with CHWs and to obtain orientation on the use of new safe delivery kit. We do not have any idea of the status of TBA's knowledge and practice after refreshers course, which is expected to improve.

There is no information on the strategy of utilizing these refresher trained TBAs along with CHWs. Contrastingly we get a very thorough picture of the midwives, their utilization strategies and approaches. Their involvement with TBA, CHWs as well as their responsibilities are well defined. The organized effort made for the introduction of the midwives in the Matlab Maternity Care Project area are clear. One factor is clear that the midwives are not working indpendently; they work with TBA &CHW taking their assistance as well as providing supervisory support to them.

3. CRITIQUE OF RESEARCH PLAN :

3.1 Rationale

The rationale section did not attempt to give any justification for the study in the Bangladesh context. The four points mentioned in the proposal do not follow a uniform style of narration. In case of the first rationale, sufficient background information to support

this assumption has not been provided nor the statement clarifies itself. The second point in the section is more like a statement of a hypothesis and does not provide justification for studying various factors influencing choice of maternity care providers. Background information necessary to develop or suggest a choice model is inadequate.

The third point properly states the possible benefit and policy implications of the study. Finally, the fourth point appears to me a very ambitious statement which is far outside the scope of this study. In a country where over 85% of the women never go to school, women with 16 years of schooling and additional professional clinical training is a rare commodity. In the socio-cultural context, use of such a professional Nurse midwife is something which would not appear in the dream of the national program in next 50 years, let alone utilizing the cader to provide maternity care in the vast rural Bangladesh. It needs a separate study to explore the feasibility of such a model to be implemented in the national context.

3.2 Aims are well defined and appear logical.

3.3 Approach to the problem is valid and likely to yield results. However, usefulness of this results is doubtful. The usefulness depends upon the capacity of the national program to use a highly professional group ofwomen. The institutional production rate of the cader is even lower than that of physicians in the country. Even if the nurse midwives are found more effective (which is very likely) implicational capacity is almost nil.

3.4 The experimental design appears adequate.

However, I have the following comments and concerns.

a) The cases are women delivered in the presence of the midwives. The controls are the women delivered in the absence of midwives. However, we do not know if the controls are delivered by TBAs, relatives, any other person or none.

b) This issue of less well-defined controls will bring other types of providers into the assessment of maternity care providers and will complicate analysis.

c) My general feeling is that the study plans to compare apples and oranges. The TBAs and midwives are not comparable due to the vast differences in their education, socio-economic and demographic characteristics.

d) Issues of confounding. If impact of deliveries attended by midwives is compared with deliveries attended by TBAs, there will be problem in attributing the improvement of outcome (if any) to the midwives because the latter do not work alone. They always provide their cares along with TBAs and CHWs.

CONCLUDING REMARKS :

The primary objective of the study is identification of factors associated with the choice of the women of their maternity care providers in the MCH-FP project area. However, the 3 major areas of responsibility of the midwives

as stated in the proposal show that the CHWs identify pregnant women in the project area and the midwives, together with CHWs and TBAs perform home visits, attend home deliveries and perform post natal visits. However, nowhere in the proposal is there any mention of whether these services are provided on request or demand of the pregnant women or their family members. In fact, it appears that it is the responsibility of the workers including the midwives and dais to deliver these services at the women's home. Now, the point naturally arises that there is very little opportunity for women or their family members to make an informed choice of the providers for their overall maternity care.

Finally, based on the above review, it appears more logical to make an assessment of the impact of midwives care since they are additional input to the delivery system. The best methodology could be comparision of the pregnancy outcome of the deliveries conducted before and after introduction of midwives in the project area, since other inputs remained fairly constant.