

Date 9 August 1980

ETHICAL REVIEW COMMITTEE, ICDDR,B.

000

Principal Investigator Stan D'Souza Trainee Investigator (if any) _____
 Application No. 80-035 Supporting Agency (if Non-ICDDR,B) UNFPA
 Title of Study Demographic Surveillance System, Matlab Project status:
 () New Study
 (x) Continuation with change
 () No change (do not fill out rest of form)

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

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

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

Stan D'Souza
Principal Investigator

Trainee


80-035
Received
20-8-80

DMONO

SECTION I - RESEARCH PROTOCOL

- 1) Title: Demographic Surveillance System, Matlab
- 2) Principal Investigator: Dr. Stan D'Souza
Other Interested Investigators
- 3) Starting Date: 1 October 1980
- 4) Completion Date: 30 September 1984
- 5) Total Direct Cost: US \$ 1,430,618
- 6) Scientific Program Head:

This protocol has been approved by the Community Services Research Working Group.

Signature of Scientific Program Head: 
Date: 11.8.80

7) Abstract Summary:

The protocol articulates the purposes, rationale and costs of the Matlab field surveillance program - an invaluable institutional resource of the ICDDR,B. Specific hypotheses and analytical work are not proposed under this protocol. This will be addressed by interested investigators under other protocols, pilot protocols or limited study protocols that require the basic demographic data collected under the purview of this protocol. It is hoped that these other analytical studies would fulfill ICDDR,B's contractual research obligations under a current UNFPA grant.

8) Reviews:

- (a) Ethical Review Committee: _____
- (b) Research Review Committee: _____
- (c) Director: _____
- (d) BMRC: _____

ABSTRACT SUMMARY

1. The population for the DSS of necessity includes all people living in the study area, since a census approach has been adopted.
2. The only potential risk is invasion of privacy.
3. Subjects are fully informed of kinds of information needed, of their right to refuse to participate, and of the confidentiality of their responses.
4. All individuals in the DSS area have an identifying number; this is linked to the respondent through the census code books. Only staff of Statistics section and DSS in Matlab and investigators working under approved protocols have access to these books. Material is published only in aggregate; there will be no possibility of identifying individuals from published data.
5. Although the DSS involves some invasion of privacy - as for example information about marital status - the nature of the demographic data collection is that no information will be collected which is unknown to the near neighbours of the respondent.

Potential studies mentioned by this protocol, such as the one involving questions about socioeconomic variables, will be covered by separate protocols; issues of confidentiality in those studies will be covered in the appropriate protocol.
6. The DSS involves frequent short interviews conducted in the subject's home to determine changes in status.
7. There is no immediate benefit from DSS to the individual subject, but the benefit to society at large of continuing this collection of basic demographic information is immeasurable.
8. Study involves continuation of DSS records only.

STATEMENT ABOUT CONFIDENTIALITY

Verbal consent will be obtained annually from at least one adult subject in each household - those who will be answering the questions. Implied consent will be assumed for other family members. (See Appendix 6).

Identifying information (name, census number) appears on the questionnaire forms (see appendix I). Because it is necessary to link events using this information it cannot be deleted. However, the staff who have access to these questionnaires is trained and aware of their confidential nature.

After the data is linked, all analysis is done using aggregate information. There is no way individuals can be identified.

SECTION II - RESEARCH PLAN

A. INTRODUCTION

1. Objective:

The long-range goal of the Matlab demographic surveillance systems is to obtain reliable information on demographic and selected other characteristics of the Matlab study population and to monitor changes of these characteristics over time. This document rationalizes the operations of an invaluable ICDDR,B institutional resource, essential for the conduct of a broad range of field research. The specific objectives would be to facilitate and support demographic/health field research as articulated in the UNFPA project specific grant to ICDDR,B.

2. Background:

Matlab: Beginning in 1963 the CRL has operated a demographic surveillance system in selected villages within and adjacent to Matlab thana, Comilla district. The system consists of periodic censuses of the study population with intervening registration of vital events: births, deaths, and migrations. In 1966, a census was conducted in the Matlab Demographic Surveillance Area (DSA*) covering a population of 110,000 residing in 132 villages (OTA*). The DSA was doubled in 1968 with the addition of another 101 adjacent villages (NTA). At the last census (1974), the population of the total DSA was 264,000 residing in 233 villages. In October 1978, the study area was reduced to 159 villages containing an estimated 1974 population 160,000. All of these retained villages are within Matlab thana.

Over the past decade, the Matlab Demographic Surveillance System (DSS) has generated an enormous volume of unusually reliable data. Censuses of the population are available in 1966 (OTA), 1968 (NTA), 1970 (OTA), and 1974 (entire DSA). Vital events have been registered since 1966 in the OTA and since 1968 in the NTA. Beginning in January 1975, the continuous registration of marital unions and dissolutions was introduced. Depending upon the census, selected socioeconomic information are available on all households. An update of registered events was undertaken in 1978, aiming for an estimate of the 1 January 1979 population. Field checking of this

*It is recommended that DSA be used in the future to describe the Matlab field study area. Former terms, such as the vaccine trial area (VTA), old or new trial area (O/NTA), and contraceptive distribution project area (CDP) imply an unnecessarily restricted operation of the DSA.

updated census is underway in 1980. Also in progress at this time is the checking, cleaning, and editing of all registered events in the DSA for computer linkage to the census record. A copy of the field forms used in the DSA is attached in Appendix 1.

A comprehensive review of the scientific output from the DSS is beyond the scope of this protocol. Research products include, among others, studies on: cholera and other infectious disease epidemiology; vaccine efficacy; effectiveness of oral therapy and selected antimicrobials; nutrition status and growth and development; beliefs in food/feeding/health; social relationships and community structure; biosocial determinants and correlates of fertility mortality, migration and marriage.

3. Rationale:

The DSS constitute one of the most valuable institutional resources of the ICDDR,B, vital for the conduct of certain types of field research in diarrhoeal diseases, nutrition, population and health care. This protocol ensures the continuing operation of this resource for all relevant scientific field studies and, in addition, is required for the ICDDR,B to fulfill its contractual research obligations under a project specific UNFPA Grant (RAS/78/P29) to ICDDR,B.

Seven broad areas, in which the system possesses distinct comparative advantages, have been identified. These are:

- a) The Matlab surveillance system is necessary for health, nutrition and demographic research which requires an accurate count of the population. Such demographic information is essential for computation of rates. Vital and other rates are essential for field research particularly for the assessment of the impact of various programmatic or technologic interventions (e.g. vaccine, oral therapy, contraceptives).
- b) The Matlab surveillance system provides accurate sampling frames for sample surveys or indepth studies.
- c) Because the DSS has been operational since 1966, the precise age of most children under age 14 is known with accuracy in most of the DSA. Precise age data strengthen selected research in nutrition, population and infectious diseases.
- d) Because of the continuous relationship of the ICDDR,B with the Matlab population, including the provision of health and diarrhoeal disease services, some studies requiring client cooperation may be more easily conducted in this, as compared to other areas.

- e) The longitudinal nature of the surveillance system facilitates prospective research designs, including the documentation of time trends.
- f) The demographic data may reflect (not represent) national statistics and thus may be useful for national planning purposes.
- g) The DSA may be employed as a field training area in epidemiological, population, nutrition and health care research.

Four limitations of the system are:

- a) This demographic surveillance system of the ICDDR,B is an expensive research instrument operated by an institution which enjoys a high level of autonomy. It does not necessarily represent a replicable model for others who may require surveillance systems for other purposes.
- b) The DSS provides reliable measurements of outcome variables (such as births and deaths) but contains little information on antecedent biosocial causes or processes responsible for the observed outcomes. Except where study designs take this into account, only inferences may be made about the determinants of the observed outcomes.
- c) The data collection of the surveillance systems is hierarchal and dependent upon close supervision. There is insufficient community participation in the data collection or in the use of the information generated.
- d) Past intervention research, current health services, and multiple, concurrent research designs are only several of the factors that may "contaminate" the study design of any individual study in the DSA, sometimes affecting the research design by an unquantifiable bias.

ECIFIC AIMS*

e specific aims listed under this protocol do not relate to specific pothesis or analytical work. These would be addressed by interested

investigators under other protocols, pilot protocols or other analytical study plans according to ICDDR,B procedures. In most cases the aims of these other analytical studies would be fulfilling our contractual research obligations under the UNFPA grant. For the purposes of this protocol, the immediate objectives of the UNFPA project document may be considered:

1. To develop a demographic field site which can be used for training of program planners, researchers and implementors of national programs.
2. To apply the demographic program toward the assessment of the effectiveness, safety and acceptability of MCH-FP technologies (contraception, oral therapy, nutrition and immunization) to be used within the context of national programs in the region.
3. To undertake research on the measurement and determinants of fertility and mortality within one specific field site of the region. This research should help facilitate the formulation of more effective program strategies both in Bangladesh and beyond.
4. To seek modalities for the utilization throughout the region of research results for policy and planning purposes.
5. To share the results of the Matlab DSS with other interested agencies within Bangladesh and throughout the region.

C. METHODS AND PROCEDURES

Section 1: Data Collection

The operations of the DSS involve three branches primarily. The Demographic Surveillance Program of the Matlab Field Station headed by a Field Research Officer (Grade I), is responsible for the field operation and collection of the surveillance data. The Dacca Data Management Branch is responsible, for editing, processing, and initial tabulations of the demographic field data. The newly created Computer Branch will be responsible for the computerization of data on the IBM Systems 34 of the ICDDR,B.

The current data collection system under the Demographic Surveillance Program of the Matlab Field Station is a three-tier system. Detection of vital events are the primarily responsibility of 110 female village workers (FVW). 80 FVWs undertake the primary detection of the vital events in half of the surveillance area as part of their work in providing village based MCH-FP services. Each of the FVWs covers

approximately 200 households and visits each family fortnightly. In the remaining half of the Matlab study area, 30 FVWs covering approximately 500 households each undertake only demographic surveillance work. These workers visit each household weekly. All FVWs have at least a seventh grade education. These workers enquire about births, deaths, migrations, and marriages and record these events in register book. The work of FVW's is redone and rechecked by 12/16 male field assistants (FA's) who, accompanied by the FVW's visit each household monthly* to check on the completeness of the registration and to record vital events on standard registration forms. The area covered by a FA is called a field unit and contains about 16,000 people (2,800 households). The work of FA's is again checked by 3 or 4 senior field assistants (SFA's) who visit each household at least three times annually. All of these workers are supervised by the Demographic Surveillance Field Research Officer (Grade I), who along with 2 Assistant Supervisors randomly check on the quality and completeness of the field work.

The completed registration forms are checked in Matlab and the events are recorded in the Matlab copy of the census volume. The recorded forms are then transferred to the Data Management Branch in Dacca for transcription onto IBM cards. Because of time and manpower constraints, the events are not recorded in the Dacca copy of the census volume. Although there have been lapses recently, vital event cards are sorted and preliminary demographic information is usually reported annually. In the future, field data may be transferred directly into the computer linked into family and individual records.

Section 2: Proposed Modifications

Census Update: In 1978 an effort was made to update the surveillance population through January 1, 1979 by considering and updating the 1974 census and the intervening vital events. The computer work has been completed, and in 1980 field checking will be undertaken to obtain the best possible estimate of the January 1, 1979 population. As in previous censuses the present update may include selected socioeconomic information.

Annual Reporting: A system of regular reporting annually of the Matlab demographic system has been developed by the Data Management Branch. Appendix 2 contains a listing of all such reports. Future annual demographic reports will become facilitated by the introduction of an IBM Systems 34 that is under installation.

*The monthly schedule of FA's may be abridged or lengthened depending upon scientific, cost, and logistical factors, but every effort would be made to maintain quality.

Streamlining of Registration Forms: To ensure the continuing usefulness of the data collected on the Matlab registration forms a continuing process of review of current information obtained as well as proposed future information obtained in the registration forms would be undertaken. Since the demographic data serve multiple functions, the redesign of registration forms would be undertaken in consultation with the CSRWG and other relevant scientists.

Confidentiality: A system of safeguard the confidentiality of the information obtained from the study population has been operating and will be continued.

Editing and Linking Past Data: An institutional agreement has been set up with the Johns Hopkins University aimed at editing and linking data collected since 1966. Ground rules for this agreement follow standard procedures used by the ICDDR,B for research cooperation with other international scientific organizations. A copy is attached in Appendix 3.

UNFPA Research Commitments: In Appendix 4, the research commitments under the UNFPA grant (RAS/78/P29) are detailed. Where specific research products are called for, interested investigators of the CSRWG will submit other protocols, pilot protocols or limited studies to undertake the work according to the regulations of the ICDDR,B. A list of protocols and studies presently being undertaken is given in Appendix 5.

SIGNIFICANCE

The DSS is an invaluable institutional resource of the ICDDR,B. It provides a unique base for scientific research not possible in many rural areas of less developed countries. In the DSA, three large-scale programs will depend upon the DSS in 1980 and beyond. These are the oral therapy field trial, future cholera vaccine field trial, and evaluation of other health/diarrhoea interventions. The DSS is being funded by a specific project grant from the UNFPA.

FACILITIES REQUIRED

1. Office Space: The DSS requires 1 large room in the ICDDR,B portion of the Matlab rural health centre. Processing, storage, and analysis of the DSA data are undertaken in the Data Management Branch and the Computer Branch in Dacca.
2. Laboratory Space: None
3. Hospital Resources: None

4. Animal Resources: None
5. Logistic Support: In Matlab, the full-time support of 2 speedboats is required for supervisory work. Messenger and carrier services from Dacca Administration to Matlab are needed to transport surveillance data and supplies.
6. Equipment: 4 small hand calculators are needed at the Field Station, and data processing facilities including the computer are required in the Data Management and Computer Branches, Dacca. 4 Microbuses and 2 speedboats have been purchased to replace old CRL transport. Details have been recorded in the budget under the heading "equipment".
7. Other Requirements: Surveillance workers currently dispense sucrose-electrolyte oral therapy packets for diarrhoea during their daily rounds in about 35 Matlab villages. The entire DSS population, of course, receive Matlab-based diarrhoea treatment.

F. COLLABORATIVE ARRANGEMENTS

Arrangements have been developed with Johns Hopkins University for data management, as noted in Appendix 3. Other possible cooperative arrangements, not finalized, may be developed with other international groups.

SECTION III - BUDGET

A. DETAILED BUDGET

PERSONNEL SERVICES

<u>Position</u>	<u>% Effort</u>	<u>No. Days</u>	<u>Annual Salary</u>	<u>PROJECT REQUIREMENTS</u>	
				<u>TAKA</u>	<u>DOLLARS</u>
1 Principal Investigator	10	26	\$ 36,000	-	3,600
2 Sr. National Scientist	100	260	100,632	201,264	-
2 Jr. National Scientist	100	260	77,948	155,896	-
<u>Field Surveillance Branch</u>					
1 Field Research Officer Gr. I	100	260	48,776	48,776	-
2 Field Research Officer Gr. II	100	260	32,383	64,766	-
6 Sr. Health Assistants	100	260	27,105	162,630	-
17 Health Assistants	100	260	22,529	382,993	-
30 FW	100	260	9,000	270,000	-
80 FW	25	65	9,000	180,000	-
<u>Data Management Branch</u>					
1 Branch Head	30	78	77,948	23,384	-
2 Statistical Officer Gr. I	50	130	48,776	48,776	-
2 Statistical Officer Gr. II	50	130	32,383	32,383	-
2 DPA	40	104	27,105	21,684	-
2 Coding Assistants	50	130	22,529	22,529	-
<u>Computer Services</u>					
3 Programmer	80	208	48,776	177,063	-
1 Computer Operator Gr. I	50	130	48,776	24,388	-
1 Computer Operator Gr. II	50	130	32,383	16,192	-
2 DET Gr. I	40	104	27,105	21,684	-
2 DET Gr. II	40	104	22,529	18,023	-
			Sub Total:	1,872,431	3,600
				=====	=====

SUPPLIES AND MATERIALS

<u>Item</u>		
Oral therapy packets	161,045	-
Stationary	341,000	-
Punch cards, tapes, discs, disketts	-	7,000
Sub Total:	502,045	7,000
	=====	=====

EQUIPMENT

	<u>PROJECT REQUIREMENTS</u>	
	<u>TAKA</u>	<u>DOLLARS</u>
IBM System 34 and accessories	-	150,000
4 Microbus	-	50,000
2 Speedboat	-	12,000
Calculator printing type	-	300
1 Electric typewriter	-	1,200
3 Manual typewriters	-	1,050
4 Air conditioners	-	2,000
3 Cabinets for file	6,200	-
Furniture (office)	93,000	-
Sub Total:	99,200	216,550

4. PATIENT HOSPITALIZATION

None

5. OUTPATIENT CARE

None

6. ICDDR,B TRANSPORT

Dacca (5,000 miles)	7,000	
Dacca-Matlab-Dacca 150 trips (@ Tk.355 per trip)	53,250	
Matlab-Dacca-Matlab 20 trips	7,100	
Matlab car (4,000 miles)	8,120	
Matlab speedboat (2 boats 6 hrs daily)	594,471	
Matlab country boat (26 boats 12 months) (48 " " 6 " ")	210,000	
Sub Total:	879,941	

7. TRAVEL AND TRANSPORTATION OF PERSONS

None

Local Travel

None

PROJECT REQUIREMENTS
TAKA DOLLARS

International Travel

International staff travel
Bangladesh-Europe-North America
3 Regional Asia trips

2,800
4,500

Sub Total:

7,300
=====

8. TRANSPORTATION OF THINGS

None

9. RENT, COMMUNICATIONS & UTILITIES

Premises rental

38,750

10. PRINTING AND REPRODUCTION

Report and printing cost

62,000

11. OTHER CONTRACTUAL SERVICES

Computer charges (150 hrs)

150,000

12. CONSTRUCTION, RENOVATION, ALTERATIONS

None

13. MISCELLANEOUS COMPONENTS

Operation and maintenance of equipment
Equipment spares
Sundry

108,500
62,000
116,250

Sub Total:

286,750
=====

B. BUDGET SUMMARY

<u>Category</u>	<u>FY 80</u>		<u>FY 81</u>		<u>FY 82</u>		<u>FY 83</u>	
	<u>Taka</u>	<u>Dollar</u>	<u>Taka</u>	<u>Dollar</u>	<u>Taka</u>	<u>Dollar</u>	<u>Taka</u>	<u>Dollar</u>
1. Personnel	1,872,431	3,600	2,059,674	3,960	2,265,642	4,356	2,492,206	4,792
2. Supplies	502,045	7,000	552,250	7,700	607,475	8,470	668,222	9,317
3. Equipment	99,200	216,550	-	-	-	-	-	-
4. Hospitalization	-	-	-	-	-	-	-	-
5. Outpatients	-	-	-	-	-	-	-	-
6. ICDDR,B Transport	879,941	-	967,935	-	1,064,729	-	1,171,201	-
7. Travel Persons	-	7,300	-	8,030	-	8,833	-	9,716
8. Transportation Things	-	-	-	-	-	-	-	-
9. Rent/Communication	38,750	-	42,625	-	46,888	-	51,576	-
10. Printing/Reproduction	62,000	-	68,200	-	75,020	-	82,522	-
11. Contractual Service	150,000	-	165,000	-	181,500	-	199,650	-
12. Construction	-	-	-	-	-	-	-	-
13. Miscellaneous	286,750	-	315,425	-	346,968	-	381,664	-
TOTAL	<u>3,891,117</u>	<u>234,450</u>	<u>4,171,109</u>	<u>19,690</u>	<u>4,588,222</u>	<u>21,659</u>	<u>5,047,041</u>	<u>23,825</u>
TOTAL \$	483,167		286,239		314,863		346,349	

Total 4 years \$ 1,430,618

BIRTH REPORT

ICDDR,B/MATLAB

Village

Code

Study No.

Sl. No.

Name of New Born

Date: Day

Month

Year

1

Single birth

2

Twin birth

3

Triplet birth

Result

Sex

Result

Sex

1

Miscarriage induced

M

(< 7 m)

1

Miscarriage induced

M

(< 7 m)

2

Miscarriage-spontaneous

(< 7 m)

2

Miscarriage-spontaneous

(< 7 m)

3

Still birth

F

3

Still birth

F

4

Live birth

Unk

4

Live birth

Unk

Census No. '74/79

Census No. '74/79

Information on Mother :

Name

Age

Type of age

Census

Birth

M-In

Date M-In

VTS No. '68/'70/74

Census No. '74/79

Information on Father :

Name

Age

Type of age

Census

Birth

M-In

Date M-In

VTS No. '68/70/74

Census No. '74/79

No. of previous pregnancy to mother

(Exclude this birth)

No. of living children

Total

Sons

No. of children born alive now dead

Total

Sons

No. of children born dead

Total

Place of birth

Village

P. O.

Thana

Code

Usual Residence of Mother :

Village

P. O.

Thana

Code

Remarks :

Reported by :

Date

Date entered : Field

Matlab

DEATH REPORT

C R L

Card (1)
(2-4)

Sl. No.

Study No. (5-8)

Name of deceased : _____ Identification (13-14)

Date of death : Day (9-10) Month (11-12) Year (13-14)

Age : Years (15-16) Months (17-18) Days (19-20) Sex (21)

Type of age : (22-30) Date of M-In _____ Date of Birth _____

VTS No : '68/'70 _____ Census No. '74 _____

Mother's VTS No. '68/'70 _____ Census No. '74 (If any) _____

Marital status at the time of death (31)

Never married Married Widowed Separated Divorced (32-33) (34-35)

Education at death Occupation at death

Events and symptoms leading up to death (36-37):

Smallpox	<input type="text" value="01"/>	Diarrhea : Acute	<input type="text" value="07"/>	Chronic	<input type="text" value="08"/>
Measles	<input type="text" value="02"/>	Dysentery : Acute	<input type="text" value="09"/>	Chronic	<input type="text" value="10"/>
Tetanus	<input type="text" value="03"/>	Childbirth	<input type="text" value="11"/>		
Drowning	<input type="text" value="04"/>	Jaundice	<input type="text" value="12"/>		
Murder	<input type="text" value="05"/>	Space for future use			
Suicide	<input type="text" value="06"/>				
Other not covered above	<input type="text" value="13"/>				

Symptoms Leading up to death _____

Usual Residence : _____ Code (38)
Village P. O. Thana

Place of death : _____ Code (39)
Village P. O. Thana

Type of Doctor consulted (40) : Licensed Allopath Allopath Quack

Homoeopath Kaviraj Other Doctor not consulted

Remarks : _____

Reported by : _____ Date : _____

Date entered in field census vol. Date entered in Matlab census vol. Date entered in Dacca census vol.

**MIGRATION IN REPORT
ICDDR,B/MATLAB**

No. Village Card Study No. Identification
 Date of movement : Day Month Year Event : Moved In
 Whole family Partial family

Total No.	VTS No.	Census No.	Name	Age	Sex	Remarks (Type of age)
	1968/1970	1974 or after				
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						

Reason for movement : _____

Where From : Vill/Thana HQ/Sub-Divn/Dt. Town/City P.O. Thana District

Remarks : _____

Reported by _____ Date _____

Date entered : Field Matlab

Marital Status Registration Form
ICDDR,B/MATLAB

SI. No. Village Event Study No.
 Date of event : Day Month Year Code

Information (Male Partner)

Name _____ V. T. S. No. '68/'70/74 _____ Census No. '74/79 _____
 Age Type of age : Census M-In Date M-In
 Marital status prior to this event :
 Never married 1 Married 2 Widowed 3 Divorced 4
 If the prior status was married, widowed or divorced,
 then specify the duration of that status in months
 Education Occupation
 Usual Residence (Male Partner) :
 Village : _____ P. O. _____ Dist. _____ Code H. F. No. of Current Residence

Information (Female Partner) :

Name _____ V. T. S.No. '68/'70/74 _____ Census No. '74/79 _____
 Age Type of age : Census M-In Date M-In
 Marital status prior to this event :
 Never married 1 Married 2 Widowed 3 Divorced 4
 If the prior status was married, widowed or divorced.
 then specify the duration of that status in months Education
 H/F. No. of current residence
 Residence of female partner prior to this event
 Village _____ P. O. _____ Dist. _____ Code _____
 Residence status Both within V. T. S. Only female partner within V. T. S.
 Remarks : _____
 Reported by _____ Date _____ Only male partner within V. T. S.

APPENDIX 2

Reports of DSS Activities

1. Demographic Surveillance System - Matlab. Volume One. Methods and Procedures. March 1978. 28p. ICDDR,B Scientific Report No. 9.
2. Demographic Surveillance System - Matlab. Volume Two. Census 1974 by Lado T. Ruzicka, A.K.M. Alauddin Chowdhury. March 1978. 48p. ICDDR,B Scientific Report No. 10.
3. Demographic Surveillance System - Matlab. Volume Three. Vital events and migration, 1975 by Lado T. Ruzicka, A.K.M. Alauddin Chowdhury. March 1978. 45p. ICDDR,B Scientific Report No. 11.
4. Demographic Surveillance System - Matlab. Volume Four. Vital events and migration, 1975 by Lado T. Ruzicka, A.K.M. Alauddin Chowdhury. March 1978. 48p. ICDDR,B Scientific Report No. 12.
5. Demographic Surveillance System - Matlab. Volume Five. Vital events and migration, and marriages - 1976 by Lado T. Ruzicka, A.K.M. Alauddin Chowdhury. March 1978. 55p. ICDDR,B Scientific Report No. 13.
6. Demographic Surveillance System - Matlab. Volume Six. Vital events and migration 1977 by Aporn Samad, Kashem Sheikh, A.M. Sarder, Stanley Becker and Lincoln C. Chen. February 1979. 65p. ICDDR,B Scientific Report No. 18.

APPENDIX 3

Agreement for Collaboration
between
International Centre for Diarrhoeal Disease Research, Bangladesh
and
The Johns Hopkins University Population Center

December 1, 1979

Agreement for Collaboration Between the
International Centre for Diarrhoeal Disease Research, Bangladesh
and The Population Center of the Johns Hopkins University

- Area of research collaboration: Demographic research, specifically the provision by Johns Hopkins of assistance in the preparation, documentation, and management of the Demographic Surveillance System files. (See annexes 1 and 2)
- Duration: For a period of two years from the above date with the expectation that by amendment the agreement will be extended after that period.
- Coordination: For ICDDR,B - Dr. W.B. Greenough III
For JHU Population Center - Dr. J.F. Kantner III

1. Basis for agreement

There has been a history of collaboration between ICDDR,B (formerly the Cholera Research Laboratory) and The Johns Hopkins University. This agreement seeks to clarify that relationship and provide a modality for its continuation. This document outlines certain collaborative activities and provides for the addition of other projects or activities by mutual agreement and subject to the terms and provisions outlined below.

2. The International Centre for Diarrhoeal Disease Research, Bangladesh (ICDDR,B)

The International Centre for Diarrhoeal Disease Research, Bangladesh (the Centre) was established in Dacca, Bangladesh on the institutional foundation developed by the Cholera Research Laboratory in its 18 years of existence under an Ordinance promulgated on December 6, 1978.

The Centre was chartered as an independent, international, nonprofit institution under the laws of Bangladesh by Presidential Ordinance, and is governed by an international Board of Trustees with a majority membership from developing countries.

The aims and objectives of the Centre according to the Charter are as follows:

- a. To function as an institution to undertake and promote study, research, and dissemination of knowledge in diarrhoeal diseases and directly related subjects of nutrition and fertility, with a view to developing improved methods of health care and for the prevention and control of diarrhoeal diseases and improvement of public health programs with special relevance to developing countries.

- b. To provide facilities for training to Bangladeshi and other nationals in areas of the Centre's competence in collaboration with national and international institutions.

The Centre is governed by an independent Board of Trustees selected as specified in the Charter. The Trustees will formulate policy and review the progress of the programmes of the Centre. The Centre's policies and programmes are implemented through the Director.

The Director is responsible for administrative, legal, and fiscal management, staff appointments, scientific coordination and management, physical plant development, and institutional development, including negotiation of external resources.

The Centre's scientific programme is organized into six working groups, each focused on a problem area related to diarrhoea. These groups conceive and implement the specific research and training protocols through which the overall goals of the Centre are approached. There are five research working groups. The Transmission Group focuses on how the agents which cause diarrhoea are spread and in what ways transmission may be interrupted. The Host Defense Group seeks to understand better resistance to diarrhoea-causing microbes by the body. The Pathogenesis and Therapy Group aims to elucidate mechanisms of illness and how best to treat diarrhoea. The Nutrition Group seeks to identify ways by which diarrhoea interferes with nutrition and how poor nutrition enhances susceptibility to illness. The Community Services Research Group examines ways in which established technologies can swiftly and efficiently be brought to bear to the benefit of people and communities, and is responsible for demographic research.

The Training, Extension and Communication Group translates the Centre's commitment to propagate proven technologies and strategies to national and other groups involved in diarrhoea control and health care services in developing countries.

ICDDR,B collaborative protocols with other institutions are reviewed by a Scientific Review Committee as well as an Ethical Review Committee. Authorship accreditation recognises joint participation from ICDDR,B and collaborating institutions.

An Ethical Review Committee, at present named the Review Board on the Use of Human Subjects, is responsible for review of all protocols generated by the Centre's scientists and other collaborating individuals and groups. The majority of Committee members are from outside the ICDDR,B. When indicated, the Committee invites consultants for reviewing particular protocols representing a field that needs external input not available within the Committee. No work in the Centre involving human subjects may be undertaken without the

approval of the Committee. This Committee operates under strict guidelines and procedures which are consistent with those of WHO and have been certified as meeting the standards required by the United States Department of Health, Education and Welfare.

3. The Johns Hopkins University Population Center

The Population Center is part of the Johns Hopkins School of Hygiene and Public Health for administrative purposes but is responsible to a Board headed by the Provost of the University for its programs and scientific activities. The Center maintains an Information Unit, a Data Processing Unit, an Electromicroscopy facility, and a mathematical and statistical consulting service. Also part of the Center is the Population Information Program which produces Population Reports and operates and manages a computer based information retrieval system, Popinform/Popline.

The Population Center receives its major funding from the National Institute of Child Health and Human Development (NICHD) of the U.S. Department of HEW and from the U.S. Agency for International Development (USAID). NICHD grant funding supports the Center's core facilities; USAID, through contracts for specific activities, is the source of funds for the JHU contribution to the activities described in Annexes 1 and 2 of this document.

As a University-wide organization, the Center can serve as a route of access to University faculty and facilities relevant to population research. It could also facilitate the exchange of faculty, students, and other employees between the two institutions should that appear to be of mutual interest.

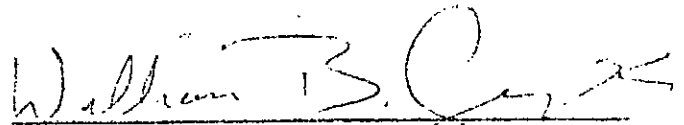
4. Proposed research collaboration for 1980-81

Data deriving from the operation of the Demographic Surveillance System (DSS) have great potential for the analysis of population trends and interrelationship in an agrarian society. To further work with these data it is proposed to send a Hopkins employee on deputation to ICDDR,B for the purpose of assisting in the successful transfer of data files from JHU to ICDDR,B and the development and installation of appropriate software systems (See Annex 1). In connection with further work on the DSS, certain activities for which the larger computer installation at JHU are needed will be carried out (See Annex 2).

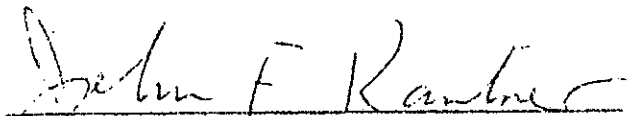
Costs and obligation

U.S.A.I.D. contract funds are available to cover the costs of providing a computer analyst and the work on the DSS that is to be performed in Baltimore plus some travel money. On its part, ICDDR,B will make available staff and facilities necessary for field activities required to follow up on problems identified in the course of data editing. In addition, when necessary, ICDDR,B will provide housing and ground transportation for persons, other than the resident advisor, who are in Dacca on business relevant to this agreement.

With respect to the Resident Advisor, it is agreed that as a person on deputation to ICDDR,B he will be covered as are regular employees of the Centre by the general provisions of the agreement between ICDDR,B and the Government of Bangladesh.



William B. Greenough III
Director, ICDDR,B



John F. Kantner III
Director, Hopkins Population Center

ICDDR,B LIBRARY
DHAKA 1212

Annex 1: Computer Analyst

JHU with USAID funds is seeking to hire a computer analyst who would work in Dacca on deputation to ICDDR,B responsible to the Director, to organize, coordinate and control the operation of IBM System 34 Computer and to arrange appropriate linkages with higher level computer systems of the Bangladesh Bureau of Statistics, Engineering University and other organizations.

This person will be in charge of the computer system and will schedule jobs, allocate resources in data processing, communicate with users departments, maintain a system library, arrange training programmes and devise effective procedures for security.

Choice of an appropriate individual will be mutually agreed to by ICDDR,B and JHU. Until a resident advisor for this purpose is located and on board, it is anticipated that JHU will endeavor to supply short term consultation regarding problems associated with the operation of the Centre's newly acquired computer and with the relationship of the Centre to the computer environment in Dacca.

Annex 2: The D.S.S. Project

Principal Investigators: Dr. S. D'Souza (ICDDR,B), Dr. Z. Sykes (JHU)

Data stemming from the D.S.S., Matlab, now constitutes an ICDDR,B resource unique in the Third World for the analysis of demographic trends and inter-relationships. Due to historical circumstances and the lack of adequate computer facilities in Dacca, computerized management of the data has been done at Hopkins.

ICDDR,B management of the data set has become an urgent priority of the Center. The purchase of the IBM-34 will go some way in this direction. The presence of higher level computer facilities in Dacca (IBM-370) at the Bangladesh University of Engineering and Technology) should make total transfer of a "cleaned" data set to Dacca possible within a "time bound" transition period. The purpose of the ICDDR,B-JHU collaborative DSS project has this main objective.

Funded by USAID, JHU will produce:

- (a) the original data (censuses, births, deaths, migrants)
- (b) the current edited version of each data file (these will come eventually from the consolidated file);
- (c) the current consolidated file, a source for retrospective studies and for special study files (this is now known locally as "yeti");
- (d) a Doomsday book, containing all records we have ever had, and organized as the consolidated file;
- (e) a current population file, for use as a sampling frame and as an index to the consolidated file;
- (f) study files, such as infant mortality or birth interval records; and
- (g) other relevant files.

The above mentioned current consolidated file will be capable of yielding:

- (a) merged information for checking consistency of individual records;
- (b) standard summaries over time (a census may be taken as of any point in time);

(c) linked records, both for retrospective studies and for the design of prospective studies; and

(d) a sampling frame for the design of other retrospective or prospective studies in the future.

In addition, with ICDDR,B approval, JHU will document the data files for other users and provide data summaries to approved research projects (at cost).

ICDDR,B will conduct relevant surveys and enumeration checks in order to validate, maintain, and otherwise contribute to the data base.

JHU will provide a computer analyst who will act as a liaison person between the two institutions and who will move towards the main objective of transferring to ICDDR,B the management and use of the DSS data.

Tentative Timetable:

1st Year: JHU will provide:

1. monograph for the period preceding the 1974 census
2. special study tapes, in particular SES and pregnancy history to be sent to ICDDR,B
3. current population register for reduced area as of 1978 if feasible

ICDDR,B will supply corrections as feasible.

2nd Year: Transfer of corrected data tapes and files from JHU to ICDDR,B.

APPENDIX 4

Research and Assessment Commitments Under UNFPA Grant

<u>Activity</u>	<u>Starting Date</u>	<u>Duration</u>
Assessment MCH-FP programme		
a. Study contraceptive methods	Month 3	24 months
b. Assess oral therapy	Month 6	24 months
c. Study intensively nutrition component of illness	Month 12	24 Months
d. Assess early basic immunization for testing tetanus, DPR, measles, polio, BGG	Month 7	12 Months
e. Study nutritional effects of of these vaccines	Month 13	12 Months
f. Study schedule/dose needed of DPT	Month 13	12 Months
g. Nutritional assessment		
1) Feeding practices during illness	Month 4	12 Months
2) Antenatal, postnatal nutrition education	Month 4	12 Months
3) Pilot work on growth chart	Month 6	24 Months
4) Community food rehabilitation	Month 25	24 Months
Research		
a. Assessing fertility/mortality impact of services	Month 3	Ongoing
b. Monitoring nutritional impact of services	Month 3	Ongoing

<u>Activity</u>	<u>Starting Date</u>	<u>Duration</u>
c. Policy and programme implications of medical and socioeconomic causes of fertility and mortality	Month 4	24 Months
d. Impact of role of women and sex bias on health and fertility	Month 25	24 Months
e. Indepth studies of community organization	Month 25	24 Months

APPENDIX 5

- Aziz KMA: Sex socialization and philosophies of life in relation to fertility behaviour.
- Becker S, AKMA Chowdhury: Birth interval dynamics.
- Becker S, S Mahmud: Effects of reporting errors in retrospective survey data on indirect estimation of fertility and mortality.
- Becker S: Seasonality of fertility & mortality in Matlab.
- Chowdhury AKMA: Interactions between maternal nutrition, morbidity and reproductive process.
- D'Souza S, LC Chen: Sex biases of mortality differentials in rural Bangladesh*
- D'Souza S, K Sheikh: Measles in Matlab*
- D'Souza S, A Bhuiya, Mizanur Rahman" Mortality and socio-economic status*
- Phillips J, Makhlisur Rahman, P Claquin: Community health services. Family Planning Project, Matlab.
- Phillips J, Makhlisur Rahman, W Stinson: Fertility impact of family planning in a MCH-FP project in Matlab*
- Rahman Makhlisur, LC Chen, J Chakraborty, et al: Reduction of neonatal mortality by immunization of non-pregnant women and women during pregnancy with aluminium-absorbed tetanus toxoid.
- Rahman Makhlisur, LC Chen, J Chakraborty, et al: Factors related to acceptance of tetanus immunization among pregnant women in a maternal-child health program in rural Bangladesh.
- Shahid N: Complication of measles*
- Sheikh K, S Becker: Socioeconomic status and fertility*
- Yunus M, J Chakraborty: Oral Therapy Field Trial.
- Zimicki S: Risk of child mortality after hospitalization at Matlab Treatment Centre*

*Addenda or pilot protocol

APPENDIX 6

VERBAL CONSENT STATEMENT

The International Centre for Diarrhoeal Disease Research, Bangladesh, formerly the Cholera Research Laboratory, is planning to continue its demographic surveillance study for this next year. We are collecting information about births, deaths, migrations and changes in marital status. Everyone in the study area is asked to participate and the study will continue as it has in the past; workers will come at regular intervals to your house and in a short interview ask you about the events mentioned above. You will not be paid. All answers you give will be treated as confidential.

We request your continued participation in the study. You may at any time refuse to answer questions or ask that workers stop visiting your house. If you have any questions we will try to answer them.

Do you have any questions now?

Do you agree to continue to participate, giving us information about yourself and your family during the next year?

স্বাস্থ্যক অধ্যয়ন পত্ৰ

আনুজাতিক উদ্বোধন গবেষণাকেন্দ্ৰ, বায়নাৰদেহ (ভূতপূৰ্ব কনোৱা গৱেষণাগাৰ) গৰ বৰ্তমান জনসংখ্যা ও তদন্তকাৰ্য্য গৱেষণা কাৰ্য্য আগায়েতে চাৰিখে খাবাৰ জন্য পৰিকল্পনা নিৰ্ধাৰে। এই গৱেষণাৰ জন্য আয়াৰা জন্ম, মৃত্যু, আৰুজন, বিহাৰাজয়ন ও বিবাহ পৰিকল্পনা খাৰজীয়া জন্য পৰিকল্পনা কৰিহেদি। অৰ এনাকাৰ পৰিকল্পনা এই গৱেষণা কাৰ্য্য সহযোগিতা প্ৰদানৰ জন্য অনুৰোধ কৰা হৈহাৰে। জন্য পৰিকল্পনাৰ কাজ আৰুৰ মৰ্ত্য চাৰিখে। আনুজাতিক উদ্বোধন গৱেষণাকেন্দ্ৰৰ কৰ্মীয়া জন্য পৰিকল্পনাৰ জন্য প্ৰতিষ্ঠা আৰুৰ বৰ্তীয়া গিয়া কিছু প্ৰশ্ন কৰিব। আৰুৰ এই সহযোগিতাৰ জন্য একান প্ৰাৰ্থনিক হেতু হৈহাৰ। আৰুৰদৰ খাৰজীয়া উত্তৰ হাৰাৰ মৰ্ত্য হৈহাৰ।

এই গৱেষণাকাজ আৰুৰদৰ সৰ্বকালীন সহযোগিতা কাৰ্য্যনা কৰিহেদি। আৰুৰ হে একান প্ৰশ্ন আৰুৰদৰ অৰুৰাজা প্ৰকাৰ কৰিহেদি আৰুৰ বা বৰ্তীয়া হৈহেদি আৰুৰদৰ কৰ্মীয়া আৰুৰ নিৰুৰ কৰিহেদি আৰুৰ। আৰুৰ একান প্ৰশ্ন আৰুৰ আৰুৰ জাৰুৰ উত্তৰ হৈহেদি কৰিব। আৰুৰ কি একান একান প্ৰশ্ন আৰুৰ?

আগায়েতে আৰুৰ এৰ, আৰুৰ পৰিবাৰৰ সদস্যদৰ সৰুৰক জন্য প্ৰদান কৰে আৰুৰ, আৰুৰদৰ এই গৱেষণাৰ কাজ সহযোগিতা প্ৰদান সৰুৰ আৰুৰ কি?