

ETHICAL REVIEW COMMITTEE, ICDDR,B.

Principal Investigator Md. Giashuddin/N. Jaham

Trainee Investigator (if any) _____

Application No. 83-023(P)

Supporting Agency (if Non-ICDDR,B) _____

Title of Study The Community Health

Project status:

Services Project, Matlab (Morbidity

New Study

Surveillance)

Continuation with change

No change (do not fill out rest of form)

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

1. Source of Population:

(a) Ill subjects Yes No

(b) Non-ill subjects Yes No

(c) Minors or persons under guardianship Yes No

2. Does the study involve:

(a) Physical risks to the subjects Yes No

(b) Social Risks Yes No

(c) Psychological risks to subjects Yes No

(d) Discomfort to subjects Yes No

(e) Invasion of privacy Yes No

(f) Disclosure of information damaging to subject or others Yes No

3. Does the study involve:

(a) Use of records, (hospital, medical, death, birth or other) Yes No

(b) Use of fetal tissue or abortus Yes No

(c) Use of organs or body fluids Yes No

4. Are subjects clearly informed about:

(a) Nature and purposes of study Yes No

(b) Procedures to be followed including alternatives used Yes No *NA*

(c) Physical risks Yes No *NA*

(d) Sensitive questions Yes No *NA*

(e) Benefits to be derived Yes No

(f) Right to refuse to participate or to withdraw from study Yes No

(g) Confidential handling of data Yes No

(h) Compensation &/or treatment where there are risks or privacy is involved in any particular procedure Yes No *NA*

5. Will signed consent form be required:

(a) From subjects Yes No

(b) From parent or guardian (if subjects are minors) Yes No

6. Will precautions be taken to protect anonymity of subjects Yes No

7. Check documents being submitted herewith to Committee:

— Umbrella proposal - Initially submit 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.

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

Ullah / Jaham
Principal Investigator

SECTION 1: RESEARCH PROTOCOL

83-023(P)
14.6.83

Title: The Community Health Services Project, Matlab (Morbidity Surveillance).

Principal Investigator: Md. Giasuddin/Sasrin Jahan

Co-investigators: Susan Zimicki, Md. Yunus

Starting date of Morbidity Surveillance Component: 1 May 1983

Completion date: 1 July 1983

Total additional cost: US \$604.50

Scientific Program Head:

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

Agg. Program Head: K. M. S. Aziz

Date: 2/6/83

Abstract Summary:

This protocol describes in detail the morbidity surveillance system referred to in the MCH Component of protocol No. 80-042 "The Community Health Services Project, Matlab." Under the MCH package morbidity and mortality in the under five population was to be reduced by controlling diarrhoeal diseases and controlling immunizable diseases (measles, whooping cough, tetanus and diphtheria) and to reduce maternal by reducing the risks associated with pregnancy and delivery. This study is designed to field test a surveillance system which, if implemented will monitor disease trends and provide data useful in planning health interventions. This pilot study primarily to test the questionnaire and training program for CHWs and the usefulness of the aggregate tabulations. The system will monitor 5 diseases in the under 5 age group: diarrhoea, blood dysentery, measles, whooping cough and lower respiratory tract infections. At the end of the field test, recommendations will be made on revisions of the data collection system, if needed, and the feasibility of using the system throughout the Matlab study area will be assessed.

Review:

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

SECTION II - RESEARCH PLAN

A. INTRODUCTION

1. Objectives:

The objective of this protocol is to establish the methodology for the collection and analysis of morbidity data collected for the Matlab MCH-FP Project. This document is a limited study that further develops data collection systems for areas already identified under the MCH Component of the Matlab CHSP protocol. The information bank originating from this study will be used in the analysis of service activities designed under the Community Health Services Project (CHSP), Matlab. It presents a detailed description of a pilot program to test a Morbidity Surveillance System needed for the MCH component of the CHSP Project. It should be viewed as an addendum to the CHSP protocol.

2. Background:

The purpose of the Maternal and Child Health (MCH) component of the Community Health Services Project is to test the hypothesis that MCH services are more effective when implemented jointly than when implemented separately (1).

The MCH protocol provides detailed information on the need to assess the importance and feasibility of control of selected maternal and child health problems. It presents the rationale for selection of each element of the program, the strategy to be followed for implementation of the program, the requisite data collection for MCH evaluation and the analysis plan (2). Tetanus, diphtheria, whooping cough and measles are preventable diseases. In Matlab, tetanus neonatorum is the leading cause of neonatal death (3). Diarrhoea, measles and respiratory illnesses are major causes of death in the 1-4 years old population (4). Decreasing the morbidity and mortality of these illnesses were chosen as one of the objective of the MCH project. The specific aims of the protocol include:

- "to decrease the incidence of measles in the 0-5 years of age group by 50 percent..... in blocks A and C....
- to decrease the death rate of respiratory disease....
- to decrease the incidence of diphtheria, whooping cough and tetanus by 50 percent.... in blocks A and C....
- to decrease the maternal mortality by 25 percent....

- to address the following issues in the field of MCH:

- i) what modification in the pattern of morbidity and mortality of diseases have the implemented interventions brought?
- ii) what is the role of each strategy and intervention in the observed change?
- iii) is there any synergistic effect of interventions?
- iv) what are the operational problems associated with the strategies implemented?"

Part 2 of the Methods and Procedures, "Surveillance and Data Collection," identifies the need for routine data to be collected on a fortnightly basis so that the information can be used for monitoring the operational aspects of the programme and for data analysis (p.17). Information on measles, respiratory diseases, diarrhoeal diseases and maternal morbidity was to be collected by the CHWs. Under the existing system, some data on measles and diarrhoea morbidity have been collected.

Currently, data on measles morbidity are collected on children under 5 in all study blocks. For diarrhoeal diseases, only episodes that are associated with oral rehydration solution packets usage are reported and no information is available on age-specific diarrhoea morbidity. There is no system for identifying whooping cough cases or other cases of lower respiratory tract illnesses. Thus, under the present system there is no effective means of measuring the impact of immunization and primary care programs on the target population of children. There is a need to up-grade morbidity by using a uniform system that collects information illness episodes in children under the age of 5, including the number of episodes of diarrhoea and severe respiratory illness each child experiences. Such data can be collected through a community-based morbidity surveillance program and can be expanded to include diseases related to maternal mortality.

Morbidity surveillance is useful in ascertaining the health status of the study population, in determining the occurrence and spread of diseases in order to control them, and where immunization programs have been implemented, in determining the effectiveness and safety of the vaccines administered to the population (4,5,6). The three components of the system are data collection, analysis and response (5). The data collection should be continuous. Analysis should be directed toward describing the distribution and dynamics of disease in the population (7). Analysis must then result in a response that further controls the diseases being monitored (5).

The important characteristics of the surveillance system are that is practical, frequent, uniform and subject to rapid analysis (7). It therefore utilizes existing community sources of reporting. Service providers are an accepted source of surveillance information (8). In developing countries, trained village workers are a useful reporting mechanism (5,9).

During the initial phase, data collection is the crucial part of the system since appropriate data are needed to expedite the review process. In Matlab, because Community Health Workers (CHWs) make routine visits to families and in some areas provide MCH services they are the obvious choice of reporters for the system. To detect changes in the dynamics of diseases in the community, data must be collected from the entire community. And if surveillance is being used to assess the effectiveness of immunization programs data collection must be sufficiently sensitive to detect early changes in the frequency of immunizable diseases and rare events (6). It must be capable of identifying residual reservoirs of infection as well as of tracing vaccine failures (6). Finally, the information must be readily accessible and should be collected by means of a non-computerized system that allows for aggregation and frequent scrutiny of the data. (However, should the opportunity arise, computerization of the surveillance data after initial review would facilitate analyses designed to identify groups in need of special preventive activities and to link illness episodes.)

Once the data collection system is established the surveillance program if analyzed frequently and used effectively can detect disease out-breaks early in their occurrence, thereby permitting health officials to anticipate health service needs and institute effective control measures. We conclude therefore, that the data collection process for the MCH program be subject to field testing in Matlab. The test will aid in designing a practical, uniform method of data collection of morbidity service statistics. One village in each of the 4 blocks and at least one village from the comparison area should be used in the study. Appropriate training of CHWs in uniform interviewing techniques should be piloted. The trial should be of sufficient duration to permit 2 of the three aspects of surveillance, data collection and rapid analysis to be tested. It is not always feasible to field test the third component of the system since subtle changes in disease trends may not be detectable with such a small sample. The pilot study should be limited therefore to not less than 6 weeks and a maximum of 3 months. The five diseases selected for monitoring are all leading causes of death in the population under 5 years of age in Matlab and are diseases for which health intervention activities can be planned.

3. Rationale:

The current system used to collect morbidity data in Matlab does not allow for aggregation and scrutiny of the data on a fortnightly basis and is limited in scope. A more detailed system, is needed to meet the research and service needs of the Matlab CHS-MCH project. The system will provide information useful in planning health services, therefore, ultimately will help lead to improved health for the residents of Matlab. A limited study designed to field test the data collection component of the system should be done before the system is instituted community-wide.

B. SPECIFIC AIMS

1. The limited study will pilot a morbidity surveillance system for measles, diarrhoea, blood dysentery, whooping cough and lower respiratory tract illness (LRTI) in the population under 5 years of age; the system, when expanded to the entire Matlab area, will provide incidence rates for those diseases, will be used in planning health intervention strategies and will be used to evaluate the current childhood immunization program for its ability to reduce morbidity and mortality.
2. The training materials and data collection forms developed for the field test will be revised, if needed, for use by the Matlab Community Health Services Project.
3. Worker ratios in the comparison area will be indirectly assessed.

C. METHODS AND PROCEDURES

1. Data Collection:

Data collection and review will be based on a 3 level system:

- Community Health Workers on fortnightly visits will inquire about illnesses that have occurred during the previous 2 weeks;
- Designated persons will summarize the data collected by the CHWs and record it on a morbidity surveillance form;
- Each month the Matlab Medical Officer will review the data for its quality (discrepancies, missing reports), and for unusual trends. He will provide incidence rates monthly.

Details are as follows:

- 1.1 CHWs will be given training on identifying illnesses and recording the data. A decision tree will be used to determine if reported illnesses meet whooping cough or LRTI (see Appendix A).

A case of measles will be defined as a rash-originating on the face and/or neck, preceded by 3 or more days of high fever and cough.

A case of diarrhoea will be defined as 3 or more loose, watery stools in one day or the mother's perception of diarrhoea. A new episode of diarrhoea will be designated by 3 or more consecutive days of normal stools followed by diarrhoea.

A case of blood dysentery will be defined as a loose stools with at least one bloody episode and two of the followings: tenesmus, abdominal cramps, fever or in-infants, crying with defecation. New episodes will have the same diagnostic criteria as those for diarrhoea.

A case of whooping cough will be defined as an illness with cough confirmed by a family member to be associated with a "whoop", or for infants an illness with prolonged cough followed by vomiting or a blue spell, or the presence of subconjunctival hemorrhage after coughing.

A case of LRTI will be defined as an illness characterized by high fever and cough and one of the following: rapid respirations, nasal flaring, rib or substernal retractions, or chest discomfort.

2. Based on the interview the CHW will code the type of illness (for diarrhoea and dysentery whether it is a new illness), in her morbidity surveillance record book. (See Appendix A for the forms and codes.) Any questionable cases should be discussed with one of the medical officers at the sub-center meetings.

Designated persons will collect the data on a uniform summary sheets and will be responsible for its accuracy (see Appendix B for a sample form). They will give the sheets to the Surveillance Medical Officer.

1. The Surveillance Medical Officer, after reviewing the data, will discuss with the CHWs and other Medical Officers any cases that need additional clarification, will identify patients in need of medical services, and will update epidemiologic graphs and charts kept on each disease entity. If necessary, he will also present his findings at the Matlab staff meetings.
2. The Surveillance Medical Officer upon discussion with the staff and interested scientists will decide if additional surveillance activities are needed. These activities will include collecting more detailed information on illness reported through the system or expanding the system to include other disease entities or a broader age range to be surveyed.

2. Data Analysis:

Data analysis will be based on techniques appropriate for conducting surveillance. It will be straight forward and consist of calculating incidence rates for the diseases under study and a description of any changes in disease trends occurring in the community. Preliminary analysis of aggregate data can be performed without the computer.

3. Records Books:

Each CHW will maintain a morbidity surveillance record book that will list for each village, the current census number and registration number of each mother, and the current census number, sex, date of birth for each person under surveillance. Fortnightly entries will be made on the type of illnesses and whether the person was hospitalized or died. (See Appendix B for a sample of the forms).

Aggregate records will be kept by the Surveillance Medical Officer.

4. Services:

The Surveillance Medical Officer will have ultimate responsibility for assuring all children in need of treatment have been advised to seek help. The MCH staff will revise and or plan health intervention strategies as the need arises.

5. Field Test:

The surveillance system will be field tested in 5 villages in the treatment and comparison areas in which cross sectional data about the diseases of interest were collected in 1981 (10). This information and data from the diarrhoea incidence surveillance carried out during the ORS field trial (11) can be compared with data from this pilot study. For surveillance record books and training materials will be revised, if needed, after the tests.

D. SIGNIFICANCE

This surveillance system is one of the instruments needed to measure the impact of integrated family planning - maternal and child health services on morbidity and mortality.

It will also be a useful tool for determining health service needs.

E. FACILITIES REQUIRED - None

F. COLLABORATIVE ARRANGEMENTS

Diane Rowley, Medical Epidemiologist from the Center for Disease Control will serve as consultant for the study.

REFERENCES

1. Phillips JF, Rahman M, Claquin P. The Community Health Services Project, Matlab Document ICDDR,B Protocol No. 80-042.
2. Phillips JF. The Community Health Services Project, Matlab - The MCH Component Document. ICDDR,B Addendum to Protocol No. 80-042.
3. Chen LC, Rahman M, Sarder AM. Epidemiology and Causes of Death Among Children in a Rural Area of Bangladesh. International Journal of Epidemiology 9: 25-33, 1980.
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5. Foege W, Hogan RC, Newton LH. Surveillance Projects for Selected Diseases. International Journal of Epidemiology 5: 29-37, 1976.
6. Miller DL. Monitoring Communicable Disease: Vaccination Programmes. International Journal of Epidemiology 5: 45-50, 1976.
7. Last JM ed. Public Health and Preventive Medicine. Chapter 2. Epidemiology Appleton-Century-Crofts, New York 1980.
8. Abramson JH. Survey Methods in Community Medicine: An Introduction to Epidemiological and Evaluative Studies. Edinburg Livingstone, 1979.
9. Gupta KB, Waha BNS. Morbidity in Rural Children. Indian Journal of Pediatrics 47: 297-301, 1980
10. D'Souza S, et al. Five Village Study in Matlab, ICDDR,B.
11. Yunus M, Chakraborty JY. Oral Therapy Field Trial, ICDDR,B, 1978.

ABSTRACT SUMMARY - PARTICULAR ITEMS

1. The protocol is a limited study designed to pilot a morbidity surveillance system referred to in an existing protocol. No changes in the composition of the study population are proposed.
- 2&3. Data will be collected by interview only. No serious risks to the study population are involved.
4. Confidential records of illness episodes will be maintained for service and research in CHW work books.
5. At the time of first visit informed consent will be obtained from the legal guardian, or parents of the children.
6. Once in a fortnight the ICDDR,B community health service worker will visit each family of her area to inquire about illness in children under 5 years of age. The duration of the discussion will depend on the nature of the illness. In no case, however, will the discussion take more than 15 minutes.
7. The surveillance system will assist in evaluating the effectiveness of control measures administered to children and mothers involved in the MCH project. The Matlab community will benefit from the reduction in maternal and child morbidity and mortality.
8. The study will use morbidity statistics data and Matlab demographic surveillance data.

SECTION III - BUDGET

1. Personnel

Dr. Giashuddin	207 x 3 months	Taka 3,100
Dr. Md. Yunus*	52 x 3 months	-
Dr. Nasreen Jahan*	52 x 3 months	-
Ms. Susan Zimicki*	52 x 3 months	-
Coder	100% x 3 months	" 6,000

2. Supplies and Materials

Graph paper and miscellaneous office supplies (stationery, pencils, rulers)	" 500
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3. Equipment

Calclater @ \$50.00 each (1)	" 1,250
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4. Transport

a. Dhaka-Matlab-Dhaka, 4 trips @ Tk. 400/-	" 1,600
b. Extra country boats may be needed for CHWs in the comparison area @ Tk.20/- per day.	" <u>1,000</u>

Total cost in Takas: 13,450

Conversion \$1 = Tk. 22.25 \$ 604.50

* As part of workload budgeted under Matlab Field Station, MCH-FP and DSS protocols.

Appendix A

**Matlab Morbidity Surveillance
Training Manual**

Prepared by: Diane L. Rowley, M.D.
Medical Epidemiologist
Field Services Division
Centers for Disease Control
Atlanta GA. U.S.A.

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OBJECTIVES

At the completion of this Module, the reader should be able to:

1. Describe the symptoms of diarrhoea, blood dysentery, measles, whooping cough, lower respiratory tract infection.
2. Give the surveillance definition for each disease.
3. Understand how to use the decision tree in deciding whether to report an illness.
4. Know how to use the coding system and the surveillance form.

I. INTRODUCTION

Surveillance is a system for gathering information about illnesses in the community. It is used to find out how many people in the community are sick and who needs to be treated. In Matlab we are especially interested in conducting surveillance on children under 5 years old. Children in this age group suffer from frequent episodes of diarrhoea, from blood dysentery, from measles, from whooping cough and from respiratory illnesses. We want to find out how many children are getting sick from these illnesses.

This surveillance program will gather information from the parents of the children. Every 2 weeks during her usual visit to a bari, the Community Health Worker will ask if any children under 5 have been sick with diarrhoea, or blood dysentery, or measles, or whooping cough or a respiratory illness. She will then indicate in her surveillance record book who has been sick. To do surveillance properly the CHW must have certain skills:

- she must understand each disease and know how to recognise it.
- she must know what questions to ask parents to confirm the history the parents give.
- she must know to refer seriously ill children for health care.

For the surveillance system to work each disease has a definition that describes the symptoms the child must have before he will be reported in the system. This manual will describe each disease and give the definition to be used in the surveillance program.

II. DIARRHOEA

Diarrhoea is a common illness that is usually easy to recognize. It causes an increased number of stools per day and a loose, watery consistency to the stools. It is caused by numerous bacteria and viruses.

Some children may have frequent episodes of diarrhoea. For some children, the diarrhoea may continue everyday for several days. Other children may have diarrhoea for one or 2 days, normal stools for 3 or more days, then have a second episode of diarrhoea. It is important to determine if a child is having one long episode of diarrhoea or many frequent episodes. Sometimes when working with babies and young children only the mother can determine if the child has diarrhoea. For surveillance purposes, DIARRHOEA will be defined as 3 or more loose stools in one day or the mother's report of diarrhoea. A NEW EPISODE OF DIARRHOEA will be determined by 3 or more days of normal stools between days of diarrhoea.

III. BLOOD DYSENTERY

Blood dysentery is an illness that usually causes fever, abdominal cramps and rectal pain with bowel movements as well as blood in the stool. It is usually caused by an organism that enters the body after eating contaminated food or after contact with someone with unwashed hands after defecation. Children with blood dysentery can become dehydrated very quickly and usually need oral rehydration solution. Severely dehydrated children may also need intravenous fluids. The children may become dehydrated very

quickly. Some may die within 48 hours of getting sick. It is important to encourage parents to use oral rehydration solution or to get severely to the hospital quickly for intravenous therapy.

For surveillance purposes, BLOOD DYSENTERY will be defined as loose stools with at least one episode of blood, with fever or one of the following:

- abdominal pain
- or cramping or pain when passing the stool.
- or rectal pain.

IV. MEASLES

Measles is a very contagious illness that causes fever, cough, eye irritation as well as rash. In the first 3 days of illness, the symptoms are high fever, cough, runny nose, and eye irritation. After 3 or 4 days of fever the children develop rash. The rash always appears first on the face or neck, then spreads down the rest of the body. The rash is usually most obvious on the face. It begins to fade 3 or 4 days after it appears. In uncomplicated cases of measles, the fever and eye irritation usually disappear before the rash disappears (See Table I). The cough may continue even after the rash disappears. Sometimes there is peeling of the skin as the rash disappears.

Table I: Measles

Day 1	Day 2	Day 3	Day 4	Day 5	Day 6
Fever	→				
Eye irritation	→				
Cough	→				
		Rash appears on face	→ Rash spreads downward	→ Rash begins to fade	
Complications	→				
Diarrhoea	→				
			Fever continues	→	
			Eye irritation continues	→	
			Pneumonia	→	
			Middle ear infection	→	

Uncomplicated measles usually lasts 7 to 10 days. Some children get very ill and have severe complications. Diarrhoea is a common problem. The diarrhoea may start when the fever starts and continue up to one month. These children are more likely to develop malnutrition. Children with vitamin A deficiency may have problems with dry eyes, ulcers in the eye, or blindness. Pneumonia and middle ear infections are other common complications. Parents should be encouraged to seek medical help quickly if their children have severe complications.

Measles is a disease a child usually has only one time. It occurs most commonly in December thru April. There are many different rashes so it is important to make sure the rash is due to measles.

For surveillance purposes, MEASLES will be defined as 3 or more days of fever and cough followed by rash that begins on the face or neck and spreads downward to the rest of the body.

V. WHOOPIING COUGH

Whooping cough is an easily recognized illness in children over 9 months of age. The children develop a cold that turns into frequent bouts of prolonged intense coughing. The coughing episode may end with a loud whoop. Coughing episodes are more likely to occur at night, after exercise, or when eating or drinking. Children under 9 months of age may not have a whoop. They have prolonged cough may then vomit or turn blue or stop breathing. The coughing can be so severe that it causes their eyes to become bloody or swollen. For children any age, the severe cough may last up to 4 or 6 weeks. Even after that time, some children may have a lingering cough (Table II). Whooping cough occurs most often after the monsoon, from September to December.

Table II - Whooping Cough

Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9
Cold, dry cough-----								
Severe prolonged cough, with whoop-----								
(Infants have severe cough with vomiting, blue spell, and/or red eyes)								
						Mild cough which----->		
						may linger		

Whooping cough can also have severe complications such as pneumonia. Some children get so short of breath that they may develop convulsions. Young babies may die because they cannot breathe properly. Children may become malnourished or dehydrated because the coughing prevents them from eating or drinking properly. We don't know if diarrhoea is a complication of whooping cough.

For surveillance purposes, WHOOPING COUGH will be defined as an illness with episodes of prolonged, severe cough with a whoop, or for infants, episodes of prolonged, severe cough followed by vomiting, or a blue spell, or red eyes.

VI. LOWER RESPIRATORY TRACT INFECTIONS

Children may have many illnesses that are associated with cough, fever and runny nose. We want to record only the most severe illnesses that are associated with difficulty breathing and infections in the lungs. These children tend to have high fever, rapid breathing with flaring of the nostrils, or rib retractions.

For surveillance LOWER RESPIRATORY TRACT INFECTION (LRTI) will be defined as a respiratory illness with cough and fever, rapid breathing or chest discomforts or nasal flaring or rib retractions.

VII. DECISION TREES

When conducting surveillance, it is important that illnesses be reported only if they satisfy the written definition. All CHW's must use the same method of deciding if an illness should be reported. When working with several illnesses at once, the most efficient method to use is to follow guidelines that suggest what questions to ask and in what order to ask them. If the answer to a series of questions is yes, then the illness usually satisfies the written definition.

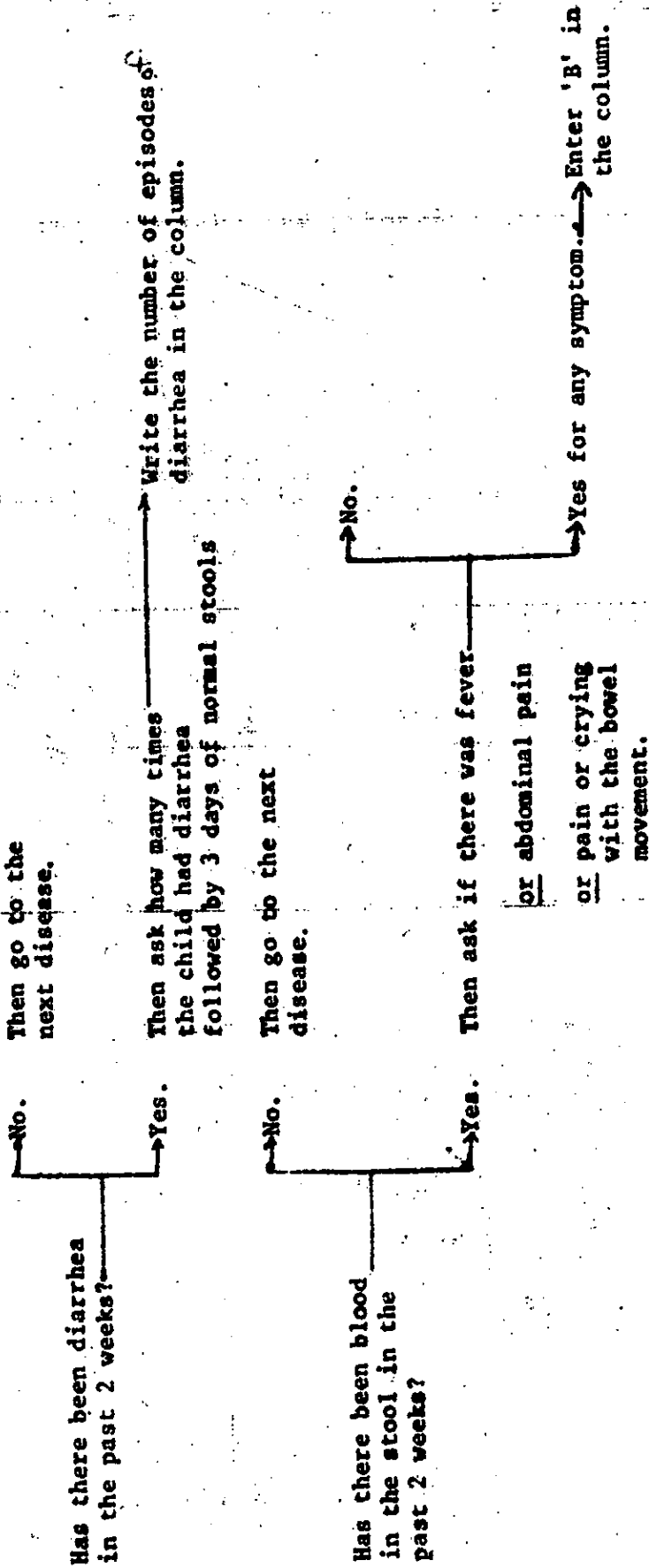
The guidelines are a series of questions. The questions are written so that each one can be answered as yes or no. After an answer, the next question is asked or instructions are given. The person using the questions reads up or down to find the instructions that correspond to the answer. Since there are usually branches (answers) to each question and each answer leads you further out in one direction, the guidelines are called decision trees. The appendix has a short decision tree for each of the diseases included in the surveillance system. When using the guidelines follow the arrows at the end of each answer to find out what to do next. Occasionally it is difficult to decide if illness should be reported. If that happens, then the case should be discussed with one of the Medical Officers.

Each CHW has a surveillance book that has the children under 5 years old listed by village. The individual number, registration number, sex, date of birth should be listed with the name. The names of new children should be added at the end of the village list. The remaining columns on each page are divided into fortnightly visits. The CHW enters the date of her visit at the top of the column. Each time a CHW finds a sick child with an illness that satisfies one of the definitions, she codes that illness in her record book. She should code any illness satisfying the surveillance definition that occurred during the past 2 weeks. If a child has been to the hospital in the past 2 weeks and has returned home or if a child is in the hospital on the day that she visits, she should enter the hospital code.

Some children may have more than one illness or may be sick for more than 2 weeks. If a child has more than one illness, then both should be recorded. For example, a girl may have measles and diarrhoea at the same time or she may have had measles one week and diarrhoea the next week. For either situation both illnesses should be recorded in the column for that visit.

DECISION TREE FOR CHWs

These are the questions you should ask if you find that a child has been sick:



Then go to the next disease.

→ No.

3. Has there been measles in the past 2 weeks?

→ Yes.

Then ask if the rash started on the face or neck and spread to the body.

→ No. Then go to the next disease.

→ Yes. Then ask if there was fever and cough or cold before the rash.

→ No. Then go to the next disease

→ Yes. Then enter 'M' in the column

Then go to the next disease.

→ No.

4. Have there been severe bouts of cough with each attack?

→ Yes.

For babies:
Ask if there was vomiting or blue spells or redness in the eyes.

→ No. Then go to the next disease.

→ Yes. Then enter C in the column.

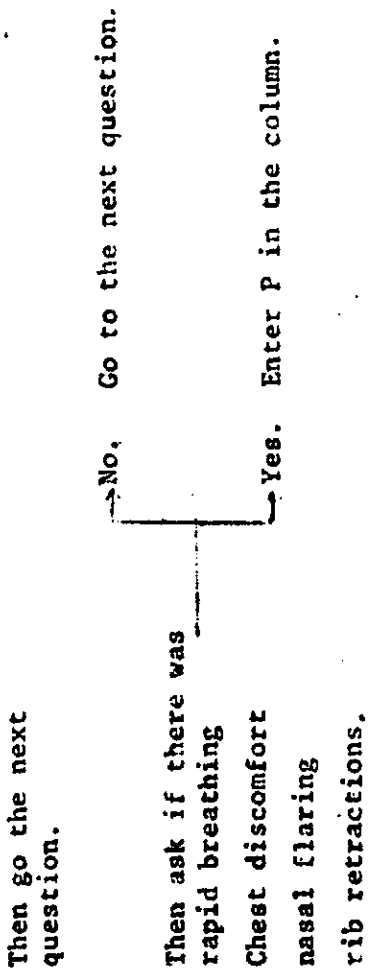
→ No. Then go to the next disease.

For older children:

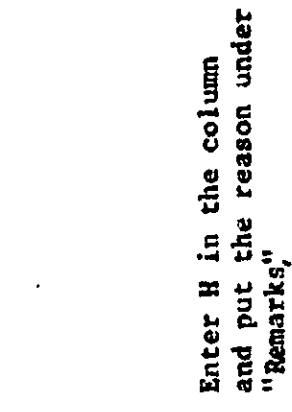
Ask if there were repeated bouts of cough ending in whoop.

→ Yes.

→ Yes. Then enter C in the column.



5. Has there been fever with cough?



6. Has any child been hospitalized in the past 2 weeks?

পাঠ্যক্রমের জন্য অনুব মংলায়
মার্জিতকৃত প্রস্তাবনা

১। পঠ ২ মণ্ডলের মধ্যে
আপনার কোন খেলা-খেড়ের
কি গাঢ়না পায়খান
হয়েছিল ?

বা হলে পরের অনুব/লোন মংলায়
কি হলে খিলায় কন, মাফদায়ে ০ পিন
বাফি-পা কঁবার কি গাঢ়না পায়খান
হয়েছিল ?

এইভাবে গাঢ়না পায়খান বা
আপন অনুব হওয়ার মংলা
ফলে নিশুন।

২। পঠ ২ মণ্ডলের মধ্যে
আপনার কোন খেলা-খেড়ের
পায়খানার মাফে কি কোন
রকম রকম শিখিয়েছিল ?

বা হলে পরের অনুব চলে যান।

হ্যা হলে খিলায় কন -

- ক) কন পিন কি ?
- খ) খেটে বাবা পিন কি ?
- গ) পায়খানার রক্তার মণ্ড
- ঘ) বাবা বা কনট হত কি ?
- ং) পায়খানার মণ্ড বাফা
বাফাটি রক্ত বা লেট
পিত কি ?

ওটার কোনটাই না থাকলে পরের
অনুবে চলে যান।

ওটার যে কোন একটি থাকে তবে
'B' নিশুন।

৩। গত ২ মাসের মধ্যে
আপনার কোন খেজ-খেয়ের
কি মূল্য হতেছিল?

না হলে পরের অঙ্গুণে
চলে যান।

হ্যাঁ হলে খিজেলা করুন গোটা
কি প্রথমে মূব, মাথা ও
খাড়া মূব হতে পরে পরের
হতেছিল কি?

না

হ্যাঁ হলে গোটা
উঠান ৩ দিন
বাসে কি ছুর,
মর্দি-কাপি হতেছিল?

না হলে পরের অঙ্গুণে
চলে যান।

হ্যাঁ হলে-নির্দিষ্ট করে M।
লিখুন।

৪। গত ২ মাসের মধ্যে
আপনার কোন খেজ-খেয়ের
কি কাপি হতেছিল?

না হলে পরবর্তী অঙ্গুণে
চলে যান।

হ্যাঁ হলে-খিজেলা করুন-
প্রত্যেকবার কাপি মূব হলে,
তা কি একটানা অনেককন
চমত?

না হলে পরের অঙ্গুণে
চলে যান।

হ্যাঁ হলে-(কোট খেজ-
খেয়ের) কাপির সাথে
বসি ছিল কি?
বা কাপতে কাপতে খেজ-
খেয়ে বসি হতে যেত কি?
বা কাপতে কাপতে কাপে
হলে উঠে নান হতে যেত
কি? বা কাপ মূব হতে
যেত কি?

না হলে পরের অঙ্গুণে চলে যান।

হ্যাঁ হলে নির্দিষ্ট করে C।
লিখুন।

হ্যাঁ হলে (কোট খেজ-
খেয়ের)

না হলে পরের অঙ্গুণে চলে যান।

হ্যাঁ হলে নির্দিষ্ট করে O।
লিখুন।

-একসাথে অনেক বা
মূব বেশী কাপি হতে
বিত্রাট মূব করে
কাপি হতে হত কি?
বা কাপির সাথে অনেককন
কই মিতে থাকত কি?

০১ গত ২ নম্বরের মধ্যে জাপান
কোন কোন-কোনো-কোনো
নামের দ্বারা অভিহিত কি ?

→ বা যখন গরের প্রবেশ চলে যান।

→ ইয়া যখন বিজ্ঞান-বিদ্যায়-
কোন-কোনো-কোনো-কোনো
বা গণ-কেন্দ্র কি ?
বা কুর-কুর বা জাপান-
কুর-কুর কি ?
বা কালের-বা-কালি-কালি-
বিজ্ঞান-কেন্দ্র কি ?
বা বিজ্ঞান-কেন্দ্র-নয়-
কালি-কালি-কালি-কালি-
কি ?

→ ইয়া যখন P. P. সিংহ

→ বা যখন গরের প্রবেশ চলে যান।

০১ গত ২ নম্বরের মধ্যে কোন
কোন-কোনো-কোনো-কোনো
নামের দ্বারা অভিহিত কি ?

→ বা

→ ইয়া যখন H. P. সিংহ
নামের দ্বারা অভিহিত কি ?

→

VIII. CODES

1 or 2 or 3 = Enter the number of episodes of diarrhea

B = Blood Dysentery

M = Measles

C = Whooping cough

P = Respiratory tract illness/Pneumonia

H = Hospitalized at the time of the visit or in the
2 weeks preceding the visit.

D = Died

A = Absent

" " = No illness.

Appendix B-2

PORT

Period: From _____ To _____

Pneumonia	Deaths	Hospitalized	Absent	Remarks

LCDDR, B HEALTH SERVICES PROJ

MATLAB STATION

CHILDHOOD MORBIDITY SURVEILLANCE

Block: _____

Sl. No.	Village Code	Name of C.H.W.	Diarrhea/ <i>epidemics</i>	Blood Dysentery	Measles	Whooping Cough
1.			1 2 3			
2.						
3.						
4.						
5.						
6.						
7.						
8.						
9.						
10.						
11.						
12.						
13.						
14.						
Total, this period						
Total, previous periods						

The Community Health Services Project, Matlab
(Morbidity Surveillance)

CONSENT FORM

You know that, International Centre for Diarrhoeal Disease Research, Bangladesh (Cholera Hospital), Matlab is collecting information on birth, death, marriage, divorce, etc., for many years. Now we are going to collect information about the children under-5 years of age. With this, there is no risk or hazard to your children. We are going to give treatment for your sick children in the Matlab clinic through referral forms. Besides that, with this information, in future, it will be possible to improve diagnostic, curative and preventive measures for common diseases of under-5 children. Concerning all information strict confidentiality will be maintained. If you do not wish to provide information, you may refuse our questions. If you co-operate with us we will be very glad.

সম্মতি পত্র

আপনারা জানেন যে, আকর্ষণীয় উদ্যোগ সাধনা-
কেন্দ্র, বাংলাদেশ (হলেয়া শঙ্করাতাল), মতলব, টিগাত এনেছ
সহঃ চেয়ারম্যান, মৃত্যু, বিয়ে, জলাকি ও অন্যান্য বিষয়ে
শ্রম্য উপগ্রহ করছে। এবারে আঙ্গুরা পাঁচ বছরের কম
বয়সের ছেলেকেদের বোণার উন্নয় উপগ্রহের অন্য কিছু
প্রস্তু করতে চাই। এতে আপনার ছেলেকেদের যোন মূল্য
অধুর্বিদ্যা হওয়ায় আশংকা নেই। বড় অধুর্বিদ্যা ছেলে-
ছেলেদের প্রবন্ধপত্রের মাধ্যমে মতলব সিনিটিক চিকিৎসা
ব্যয়সা করা হয়। তাছাড়া এ সময়ক উন্নয়র জাহায়ে
অধিষ্ঠিত ছোট ছেলেকেদের সহজে করে বোণ নির্ধারন
বোণার চিকিৎসা ও প্রতিরোধ পদ্ধতি উদ্ভাবন করা সম্ভব
হবে। আপনার সকল উন্নয়র তাপনীয়া বৃদ্ধা করা উচিত।
আপনি ইচ্ছে করলে আঙ্গুরের প্রঞ্জের উত্তর দানে বিবৃত
থাকতে পারেন। আর আপনি আঙ্গুরের হাতে অপর্যাণীক
করলে বিশেষ আনন্দিত হবে।