

ETHICAL REVIEW COMMITTEE, ICDDR,B.

Principal Investigator DR. M.U. KHAN Trainee Investigator (if any) \_\_\_\_\_

Application No. 82-028(P) Supporting Agency (if Non-ICDDR,B) \_\_\_\_\_

Title of Study Role of indexes' neighbours' and relatives' visits in the spread of cholera Project status:  New Study  Continuation with change  No change (do not fill out rest of form)

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

- 1. Source of Population:
  - (a) Ill subjects  Yes  No
  - (b) Non-ill subjects  Yes  No
  - (c) Minors or persons under guardianship  Yes  No
- 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  Yes  No

- 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 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. *NA*
- 2. Examples of the type of specific questions to be asked in the sensitive areas. *NA*
- 3. An indication as to when the questionnaire will be presented to the Cttee. for review.

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

M.U. Khan  
Principal Investigator

\_\_\_\_\_  
Trainee

Rec. 5.7.82

SECTION I - RESEARCH PROTOCOL

1. Title : Limited study protocol on "Role of index cases, neighbour's and relative's visits in the spread of cholera".
2. Principal Investigator : Dr. Moslemuddin Khan
- Co-Investigators : Dr. A.R. Samadi  
Mr. Matiur Rahman Khan  
Mr. Belayet Hossain
3. Starting Date : August 1, 1982
4. Completion Date : November 30, 1984
5. Total Direct Cost : US \$ 2,831.00  
(incremental cost)

6. Scientific Program Head :

This protocol has been approved by the Disease Transmission  
Working Group.

Signature of Scientific Program Head : A. Samadi

Date : 15/6/1982

7. Abstract Summary :

This study intends to document the role of visits of index cases, before development of cholera, and neighbours and relatives of index cases who go to see a cholera affected neighbour or relative, in the spread of cholera in areas where no direct or visible linkage of spread exists. It is customary in Bangladesh to visit a neighbour or a relative when sick. Whether those visits can

spread cholera or whether visits to cholera affected houses should be discouraged have not been documented. We therefore, would like to study 30 cholera cases as a limited study in the rural areas prospectively. We would document travel of the patients prior to illness and visits of neighbours/other people after onset of cholera and obtain rectal swab from all diarrhoeal patients who visited the patients during illness. We would document the food or drink consumed and water and latrine used by the sick persons and visitors. Three visits during the following 2 weeks will be made to each house, R.S. and water will be cultured and tested for antibiotic sensitivity pattern to document the exact type of strain from the subsequent cases if any and transmitted by the visitors from one place to another place. If this study provides indication then a larger study will be undertaken involving both urban and rural area. This study will enable us to document whether the visits of neighbours and relatives have any role in the spread and outbreaks of cholera in Bangladesh.

8. Reviews :

- a. Ethical Review Committee : \_\_\_\_\_
- b. Research Review Committee : \_\_\_\_\_
- c. Director : \_\_\_\_\_
- d. BMRC : \_\_\_\_\_
- e. Controller/Administrator : \_\_\_\_\_

SECTION II - RESEARCH PLAN

A. INTRODUCTION

1. Objectives :

The objective of this study is to document the role of visits of neighbours, friends and relatives of cholera patients in the transmission and outbreak of cholera and to delineate whether the isolated outbreaks of cholera have any linkage at all.

2. Background :

The vehicles of spread of cholera have been documented by many investigators all over the world. John Snow first proved that water was the vehicle of transmission(1). Then many investigators have shown the paths of spread. In India Benjamine and Mathew had shown that irrigation canals were the routes of spread(2). Mosley found that shrimps were the vehicle in Philippines(3). Infected boatmen were incriminated by Khan M et al(4) to spread cholera from Barisal to Dacca through water routes. Mosley later found that brickfield labourers carried cholera to Dacca. Bart traced an El Tor cholera of Dacca to Chittagong(5). The patient travelled to Dacca by railways. Sea food was the vehicle of spread in Italy(6) and Malaysia(7) and also in

USA. Cholera of Portugal was transmitted through imported bottled water(8) and of Bahrain through feeding bottles(9). We have also seen that during epidemic charitable feeding centres spread cholera to consumers of food(10).

In spite of all these documentations investigators are often confronted with situations where vehicles are not possible to trace. Water connections may explain cholera in areas connected with rivers and canal. Roads, railways, air routes can transmit it between connected places. But in Bangladesh, (may be also in some other countries) new cases appear one after another in places apparently not connected with any traffic, either land, water or air. One of the many paradoxes of cholera is that it can spread very fast(11). Spira et al found uptake of V. cholerae by water hyacinth which might transmit cholera from one place to another(12). But how does it spread can not be revealed in many instances. We may postulate that in some instances neighbours and relatives who pays a courtesy visit to the sick patients, which is an existing custom in Bangladesh, may play a significant role in its spread in odd directions. Also the neighbours and relatives perform the burial rituals in cases of death from all causes. In many situations we do not know the

exact roles of the visits of the neighbours and relatives in its spread. In Bangladesh where there are few routes of travel it may be one of the important mode of spread. In some instances when some dies of any reason the food is supplied by relatives and neighbours for 3 days. It is not known whether the utensils used by the patients transmit diarrhoea from the diseased house to neighbour's or relative's houses. Thirdly whether control of visitors to cholera patients be discouraged is not precisely known. Therefore, it is essential to explore the role of visitors in the spread of cholera. We would like to study the role of visitors, either friends, neighbours or relatives in the transmission of cholera & diarrhoea in Bangladesh situation.

3. Rationale :

Cholera has multiple known routes of spread. Nevertheless, in many instances mode of spread can not be explained and whether there is any linkage between isolated epidemics is not known. No one can answer with justification whether a friend, neighbour, or a visitor to a diarrhoea/cholera affected family should be allowed. This study may show another route of transmission in addition to known routes and answer whether visitors to a cholera affected house transmit cholera to the unaffected areas.

B. SPECIFIC AIMS

1. Cholera appears all around during epidemics. We want to see whether cholera appears at one spot and then transmitted by visitors to the surrounding unaffected areas.
2. If visitors role is established we would like to examine how and to what extent they carry it from patients' house to their own environment.
3. We would like to explore, whether isolated outbreaks have linkages during intra-epidemic period.

C. METHODS OF PROCEDURE

A person will be considered as a visitor if he visits a cholera case in his home when he is sick; takes some sort of food or drink in the affected family and or bathes in the same source of water as used by the index; but normally does not live in the same compound(bari). Neighbours are those living in the same compound but not eating and living together. They may or may not use the same water and sanitation facilities. A person who is blood related or related through matrimony but does not live in the same compound as the index will be considered as relative.

Although children are common victims(13) visitors are more likely in cases of adults. Age of study cases should be from 20 years and over. There is seasonality of cholera epidemics(14). Nevertheless, we would study cases both during epidemic and inter-epidemic period. Thirty cholera cases and their families along with the visitors families will be studied.

Selection of cases :

Thirty confirmed cholera patients, living within 10 miles from the hospital, and aged 20 and over, will be selected for study. Both sexes will be included. They will be interviewed by a trained Health Assistant. If they are within 10 miles from centre they will be recruited in the study obtaining their consent. Every day 1-2 such cases will be taken up for study if available according to specification. All the cases will be from acute cholera cases admitted within last 24 hours. Stool will be cultured and sensitivity test performed. The patients, or the attendants in case of unconscious cases will be interviewed about travel to relative's or neighbour's houses within the last 7 days before onset of illness; and whether there was any case of death from diarrhoea and or vomiting within last 7 days and whether he stayed overnight or took any food or drink and bath in the same water will be recorded.

Interview of relative's family : In cases of having visited a diarrhoea family by an index case those families would be visited for further information on disease, death or hospitalization.

R.S. for recent or present diarrhoea cases from relative's houses and water will be obtained for culture. Information about diarrhoeal illness of other visitor to the family if any will be collected. They will be visited if there is a known diarrhoea case or death from diarrhoea there.

Visits to home of index cases : In either cases of negative or positive travel report the houses of the index patients will be visited on the same day if possible and history of any visit by neighbours or relatives within last 24 hours of stay of patient at home will be obtained. Rectal swabs from the affected family members and all current and most recent diarrhoeal cases in neighbours would be obtained and whether they visited the patients house will be recorded. The duration of stay of relatives and neighbours and food and drink consumed will be noted. The water and food used by the patients if available will be obtained for culture. Sensitivity tests of the strains will be done if found positive. On third, 7th and 14th days the family of the hospitalized patient, his neighbours and relatives who had visited him during his illness at home will be revisited to look for development of

new cases. If any one of the visitors get diarrhoea within 7 days of visit his RS would be obtained for culture and further visiting history obtained. History of visits by relatives during his illness will also be obtained. Their duration of stay, food and water used will be noted. All the relatives who had visited him and had developed diarrhoea will get their stool cultured. In case of positive yield sensitivity test will be done. The F.As will leave instruction that if any of the neighbours or relatives develop diarrhoea within 7 days of visit he should be taken to hospital or informed to the local in-charge of the study. Procedures will be repeated in case of positive yield. Positive subsequent or previous cases having linkages by visits will be spotted on a map. When and how did they come to each others house will be also recorded. Places of defecation just prior and during illness and the places of washing and bathing of the patients and visiting neighbours or relatives will be recorded to find if there is any linkage with latrine and water. Transport of prepared food, sweet or drink or milk from cholera effected family to neighbour will also be recorded.

After finishing one or two new cases the team will visit 4 old case families and will take history about the development of new diarrhoea among the visitors relatives and neighbours as has been

described in the former paragraph. Good contacts will be maintained with the local village practitioners to obtain information about acute diarrhoeal illness or deaths he had treated. If such cases are available similar history and specimen for culture will be obtained if related. The dates of attending hospital (ICDDR,B) if any will be obtained. Special attempts will be made to trace linkage between cases occurring during epidemic and inter-epidemic period. Active cases available will be treated or sent to hospital.

Analysis : The data will be punched and computerised. Taking the hospitalized cases as base sources both retrospective and prospective tracing of links through visits, food, drink, or close contact will be analysed. Spot maps for index and related cases will be made to show how cases from one spot was transmitted to other spots. The significance will be tested using  $\chi^2$  tests or Yates correction test where necessary.

#### SIGNIFICANCE

All the routes of transmission of cholera is not yet known. If the visitors are found to be a significant transmitter of cholera between neighbours and relatives' families it can be easily controlled without spending money. We may also find linkages between isolated outbreaks

of cholera which are not yet explained.

E. FACILITIES REQUIRED

No new facilities are needed. We have transport facilities in Matlab. We have trained and devoted staff to do the field work and also we have a base laboratory in Matlab. However, we will have to use 2 female helpers for this study.

F. COLLABORATIVE ARRANGEMENT

No collaboration is needed with any other institution. The ICDDR,B has the competence of getting the study done with its existing staff.

SECTION III - BUDGET

A. DETAILED BUDGET

<u>1. PERSONNEL SERVICES</u>		<u>Project Requirements</u>	
<u>Name</u>	<u>Time</u>		<u>Taka</u>
Dr. M.U. Khan	20%		
Dr. A.R. Samadi	5%		
Md. M.R. Khan	20%		
Md. Belayet Hossain	10%		
2 Health Assts - Matlab	100%		
2 Female helpers	100%	2x750x3 =	4500
<u>2. SUPPLIES</u>			
Stool culture for V.C. 30x15x11 (including sensitivity tests)			4950
Water culture 30 x 10 x 7.50			2250
Food culture 30 x 2 x 15			900
M.V. Tablet 1 tin			100
ORS packet 30 x 10 x 2			600
Candy and Balloons			500
Paper, pens, pencils			500
Forms preparation			<u>1000</u>
		Sub Total	10800
<u>3. EQUIPMENTS</u>			
Nil			
<u>4. PATIENT HOSPITALIZATION</u>			
Nil			
<u>5. OUT PATIENT CARE</u>			
Nil			

	<u>Project Requirements</u>
	<u>Taka</u>
6. <u>TRANSPORT</u>	
Matlab Trip 9 x 350	3150
Matlab Field 4hr x 100 x 90	<u>36000</u>
Sub Total	39150
7. <u>TRAVEL AND TRANSPORTATION OF PERSONS</u>	
Nil	
8. <u>TRANSPORATION OF THINGS</u>	
Nil	
9. <u>RENT, COMMUNICATION</u>	
Country boat and Rickshaw	2000
10. <u>PRINTING AND REPRODUCTION</u>	3000
11. <u>OTHER SERVICES</u>	
Nil	
12. <u>CONSTRUCTION, RENOVATION</u>	
Nil	

B. BUDGET SUMMARY

	<u>Taka</u>
1. Personnel Services	4,500
2. Supplies and Materials	10,800
3. Equipments	-
4. Patient Hospitalization	-
5. Outpatient Care	-
6. Transport	39,150
7. Travel & Transport	-
8. Transportation of things	-
9. Rent communication (boat & rickshaw)	2,000
10. Printing and Publication	3,000
11. Other Contractual Service	-
12. Construction and Renovation	-
	<hr/>
	Tk. 59,450

US\$ 2,831.00

@ Tk. 21.00

ABSTRACT SUMMARY

Although a few routes of transmission of cholera are known many of the routes of spread of cholera can not be explained with the existing knowledge. Visit to see a seek neighbour or relative is a tradition in Bangladesh. Washing and burial of dead bodies are done by neighbours and relatives. Cholera being highly infectious in nature, this study aims to examine the role of visits in the transmission of cholera in the neighbourhood or at distant places of rural areas. Thirty cases of cholera from Matlab rural hospital will be extensively studied by taking history of travel of hospitalized cases and of the neighbours and relatives to cholera cases and visiting them 3 to 4 times. Stool, water and food (if available) will be cultured and sensitivity tests of Vibrios will be done if available. History of travel, visit, culture results and diarrhoea will be correlated. If significant relation is obtained specific recommendation will be useful in controlling spread without spending money. This study may also show linkages between isolated outbreaks which are not yet explained.

1. Subject population : Patients of both sexes aged 20 or over will be subjects who are sick with cholera/diarrhoea only. They will be hospitalized for treatment. Those who are sick with diarrhoea and staying at home will be treated with ORS.

2. Potential risk : There is no risk of any kind. All subjects being purging, stool will be easily available. If stool is not available at the time of requirement rectal swab will be obtained using a sterile and soft swab stick. We will have to have only stool or rectal swab. There is no other material which can substitute these two.
  
3. Protection against risk : There is no risk at all. However, smooth and sterile cotton swab will be used and samples collected maintaining privacy. This will not hurt the patients in any way.
  
4. Confidentiality : Diarrhoea or cholera when severe remains no more confidential. The culture results of stool is always expressed by number and not by name. The history and culture result will be kept confidential and kept with the supervising officers only and it will not be disclosed to anyone.
  
5. Consent :
  - a. Signed consent will be obtained from all adult patients.
  - b. Information will not be with-held from the subjects.
  - c. There is no potential risk. However, for all subjects treatment will be provided in the hospital when admitted or in the house when not admitted.

6. Place and time of interview : The patients hospitalized will be interviewed in the hospital. The mild or moderate contact cases who are not hospitalized will be interviewed in their own houses. The time taken will not exceed 30 minutes in any case.
  
7. The benefit : The subjects will be benefited by free treatment which is almost 100% effective. The neighbours and relatives with diarrhoea will also receive treatment at their own home during visit of team. If significant result is obtained the result can be applied in controlling spread of cholera by the P.H. department as one of the national control measures without spending money.
  
8. Use of records and samples : The study requires to see the hospital chart and culture report of either stool or rectal swab from diarrhoeal patients which will benefit the patient in receiving proper treatment. In addition, domestic water and food samples will also be required for culture.

## REFERENCES

1. Snow, J., On the mode of communication of cholera. Second edition, London 1855, as in "Cholera" by Pollitzer, R. (1955).
- 2a. Mathew, R.M., (1949), Epidemiology of cholera in Madraj Province (India) as in "cholera" by Pollitzer, R. (1955).
- 2b. Benzamine, E. (1949), Cholera in Bombay Province(India) as in "Cholera" by Pollitzer, R, (1959).
3. Juseph, P.R., Tamayo, J.F., Mosley, W.H., Alvero, M.G., Dizon, J.J. and Henderson, D.A. Studies of cholera El Tor in Philippines: Bull WHO 33: 637-643, 1965.
4. Khan, M.U., Mosley, W.H. Role of boatman in the transmission of cholera. East Pak. Med. journal 11: 61-65, 1967.
5. Bart, K.J., Huq, Z., Khan, M., Mosley, W.H., et al; Seroepidemiological studies during a simultaneous epid. of infection with El Tor Ogawa and classical Inaba, V. cholerae. J. Inf. Dis. 121 Suppl; 121:17-24, May 1970.
6. Bain, W.B., Mazzotti, M., Greco, D., Isso, E., Zampieri, A., Angioni, G., Gioria, M.D., Gangarosa, E.J., Pocchiari, F. Epidemiology of cholera in Italy 1973. Lancet 2: 1370-1374, December 7, 1974.

7. Dutt, A.K., Syed Alwi and T. Velauthan. A Shellfish-borne cholera outbreak in Malayasia. Trans. Roy. Soc. Trop.Med.Hyg. V. 65 # 6, p. 815-18, 1971.
8. Blake, P.A., Rosenberg, M.L., Costa, J.B., Ferreira, P.S., Guimaraes, C.L. and Gangarosa, E.J., Cholera in Portugal 1974. Am. J. Epid. V: 105, No. 4, pp 337-343.
9. Gunn, R.A. et al. Bottle feeding as a risk factor in cholera in infants. Lancet, 2: 730-732 (1979).
10. Khan, M.U., Curlin, G.T., Urban cholera study, 1974 and 1975, Dacca. Sc. report no. 7, Cholera Research Laboratory, December 1977.
11. MacKey, D.M. Cholera: The present world situation. Trans.Roy.Soc. Trop. Med. Hyg. V: 73, 1979; pp 1-2.
12. Spira, W.M., Huq, A., Ahmed, Q.S., and Saeed, Y. Uptake of Vibrio cholerae biotype El Tor from contaminated water by water Hyacinth. J. Applied and environmental Microbiol, V: 42; 3, pp. 550-552.
13. Khan, M.U., Alam, A.K.M.J., Rahman, A,S,M.M, Ten years review of the age and sex of cholera patients. Scientific report no. 14, Cholera Research Laboratory, Bangladesh, May, 1978
14. Khan, M.U., Curlin, G.T. Urban cholera study 1974 and 1975, Dacca. Scientific report no. 7, Cholera Research Laboratory, December, 1977.

VISITOR'S AND NEIGHBOUR'S ROLE

QUESTIONNAIRES FOR INDEX CASES

Serial No.....VTS No.....Hospital No..  
 Father's Name .....Vill.....Bari of .....  
 Date of Admin.....Date of Interview.....Distanc

Sl. No.	Members of Family	Age	Sex	Relation with index	D.	
					1	
1.						
Index						
2.						
3.						
4.						
5.						
6.						
7.						
8.						
9.						
10.						

Date of onset .....Time of onset.....Am/Pr

Did you take any meal from Hotels/Restaurant/Hawkers prior 7 days of onset ?

If yes give - Date .....Time.....Items.....Place

Where did you take bath dr

Where did you defecate

What is your sou

Who came to s

Sl. No
1
5
10

VISITOR'S AND NEIGHBOUR'S ROLE  
VISITS OF INDEX 7 DAYS PRIOR ONSET

Visited relative's/friend's house : Yes/No: Specify :

Relationship and Address :

Was there any function there ? If yes - Specify :

How long before your diarrhoea you visited them: Days/Hours: \_\_\_\_\_

How long did you stay there ? Days/Hours/before onset : \_\_\_\_\_

Did you eat/drink anything there ? Food/Drink/Both: Specify Food: \_\_\_\_\_

Sources of their drinking water: Pond/Canal/River/T.W./D.W. : \_\_\_\_\_

Did you take a bath there ? Yes/No: Specify place: Pond/Canal/River

/Dug Well/Tube Well/Others:

Is their latrine connected with bathing/drinking water source ?

Yes/No: Specify:

Was there any diarrhoeal death in your relative's house in last 2 weeks ?

Yes/No: Give Name, Age, Sex and Date of Death: \_\_\_\_\_

What is the exact relationship of the dead person with you ? \_\_\_\_\_

Was the deceased hospitalized (Matlab, ICDDR,B) ? Yes/No: Give Date: \_\_\_\_\_

Was there anyone having diarrhoea in your relative's/friend's house when you visited ? Yes/No: Give Name, Age, Sex and Date : \_\_\_\_\_

Was he hospitalized in Matlab (ICDDR,B) ? Yes/No: Give Date: \_\_\_\_\_

Was there any celebration or function there ? Yes/No: Specify : \_\_\_\_\_

Have you assisted your diarrhoeal (or dead) relative in cleaning clothes or body ? washing, taking from one place to another ? Specify:

Did you touch him by hand ? Yes/No: Specify:

VISITOR'S AND NEIGHBOUR'S ROLE

QUESTIONS TO THE HOUSEWIFE OF INDEX FAMILY

What is your relationship with the index case ? \_\_\_\_\_

When was the index ill first ? Days back : \_\_\_\_\_

Is there any diarrhoea case in your house now ? Yes/No: Give Name, Age and Sex :  
\_\_\_\_\_ Date and time of onset : \_\_\_\_\_

Did anyone else of the family get diarrhoea ? Date and time of onset : \_\_\_\_\_

Who had come to see the index when ill ? (Compare with last question of Form No. 1).  
\_\_\_\_\_

How long did they stay in your house ? (Tally with Form No. 1): \_\_\_\_\_

What did they eat in your house ? (Tally with Form No. 1) : \_\_\_\_\_

Did anyone develop diarrhoeal disease later ? Yes/No: Give Name, Age and Sex: \_\_\_\_\_  
\_\_\_\_\_ Date/Time : \_\_\_\_\_

Was there any diarrhoea death in the neighbourhood before illness of the index ?

Specify : \_\_\_\_\_

Was there any death from diarrhoea in the neighbourhood after illness of index ?

Specify : \_\_\_\_\_

Did you stay in any house with the patient while going to hospital ? Yes/No:

Specify : \_\_\_\_\_

Was the index treated before taking to Matlab Hospital ? Yes/No: Specify : \_\_\_\_\_

Did anybody bring prepared food to your house prior illness of index ?

Yes/No : Specify : \_\_\_\_\_

RS/Water/Food are to be obtained from all members for culture.

Complete Form No. 1 & 7.

VISITOR'S AND NEIGHBOUR'S ROLE

NEIGHBOUR'S WHO VISITED THE INDEX AND DEVELOPED DIARRHOEA

What is your relationship with the index ?

On what date of his illness you went to visit him ?

Did you assist him in cleaning/changing cloth/taking to bath room ?

Yes/No: Specify :

How long did you stay in the index's house ? Days/Hours :

What did you eat/drink in his house ? Specify - Food/Drink/Both :

Do you use the same water source for drinking/washing/cooking as the index ?

Yes/No : Specify :

Did you share the same food/drink as the index ? Yes/No: Specify :

How long after visit you got diarrhoea ? Days/Hours :

Did anybody bring prepared food to your house from the index's house ?

Yes/No : Specify :

Is there other member in your family having diarrhoea ? Yes/No : Specify :

Do any of your neighbour's have diarrhoea ? Yes/No : Specify :

RS taken from following diarrhoeal members : Date : \_\_\_\_\_

No.	Name	Age	Sex	Onset	Duration
1.					
2.					
3.					
4.					
5.					
RS of neighbour:					

Water Samples taken from : TW/DW/Pond/Canal/River/Jar .....

Food Samples taken from : Pt's left over/Fresh Food/Old Food .....

\* Use Form 7 for culture record.

VISITOR'S AND NEIGHBOUR'S ROLE: QUESTION TO RELATIVESRELATIVE'S/NEIGHBOUR'S FAMILY WITH DIARRHOEAVISITED BY INDEX PRIOR ONSET

- What is your relationship with the index case ? Specify :
- On what date the index come to visit you ? Specify :
- How long did he stay in your house ? Days/Hours :
- What did he eat/drink in your house ? Specify :
- What is the source of your drinking water ?
- Where do you take bath and wash ?
- What is the type of latrine you use ?
- Does any water source has connection with latrine? Yes/No: Specify:
- Who had diarrhoea in your house before and after:  
visit of index ? Specify :
- Any one died of diarrhoeal illness in your house : before or after  
the visit of index ? Specify :
- Who had treated your diarrhoea first ? Specify :
- Did anyone bring prepared food for your house in last week ? Yes/No: Specify:
- Is there any member in your family having diarrhoeas ? Yes/No: Specify:
- Is there any diarrhoea case in your neighbour or relative ? Yes/No: Specify:

A. RS taken from the following diarrhoea members : Date :

No.	Name	Age	Sex	Onset	Duration
1.					
2.					
3.					
4.					
5.					
Their neighbour/relative:					

B. Water Samples taken from :

C. Food Samples taken from :

\* Use Form No. 7 for record

VISITOR'S AND NEIGHBOUR'S ROLENEIGHBOUR OF THE SAME COMPOUND WHO DID NOT VISIT BUT HAD DIARRHOEA

Name : \_\_\_\_\_ Age: \_\_\_\_\_ Sex: \_\_\_\_\_ House of : \_\_\_\_\_

Onset of your diarrhoea - Date/Time : \_\_\_\_\_

Nature of your diarrhoea : Watery/Loose/with mucous/with blood.

Do you have vomiting ? Yes/No :

Any other member of your family - had/is having diarrhoea ? Specify : \_\_\_\_\_

Any other neighbour had diarrhoea ? Yes/No : Specify : \_\_\_\_\_

Anyone died of diarrhoea in last 14 days ? Specify : \_\_\_\_\_

Did you go to see/help him ? Specify : \_\_\_\_\_

Do you know the index ? Yes/No:

Did you go to visit him when he was ill ? Yes/No:

Do you use the same source of water for drinking ? Yes/No:

Do you use the same source for bathing and washing ? Yes/No:

Does the water of the index family flow towards your use points ?

Is the latrine of the index family linked with any of your water sources ?

Specify : \_\_\_\_\_

RS Taken from the following members with diarrhoea :

Sl. No.	Name	Age	Sex	Contact of
1.				
2.				
3.				
4.				
5.				

VISITORS AND NEIGHBOUR'S ROLE :

STOOL/RECTAL SWAB CULTURE RESULT :

Index No.

Family No.

Sl. No.	Date RS Collected	Reference Form No.	Sl. No.	Diarrhoea		Result
				+	-	
1.						
2.						
3.						
4.						
5.						
6.						
7.						
8.						
9.						
10.						

WATER CULTURE RESULT

Sources	Reference Form No.	U s a g e s				Result
		Drink	Bathe	Wash	Other	
Pond						
Canal						
River						
Domestic Storage						
Tube Well						
Dug Well						
Other: Mention						

CONSENT FORM

e affected with/a member of your family is affected with  
rrhoea. This disease can spread to other members of your  
neighbours or to your relative's house. You might also  
from your neighbourhood or relative's house. We would like  
about the travel you, your ward or your neighbours or  
ad recently taken. For the convenience of your treatment  
precaution of other members of your neighbourhood and  
ve's family we would like to examine your stool/rectal swab.  
history and culture result will not be disclosed to other  
arm you in any way. Your treatment will not be denied even  
ot participate in this study. Please sign your name/put  
agree with our proposal.

behalf of my dependent agree to cooperate with this study.

Signature/LTI of :

Mr/Mrs. \_\_\_\_\_

Pt. No. \_\_\_\_\_

Date \_\_\_\_\_

সম্মতি পত্র

আমনি/আমনার পরিবারের কেউ কেউ হলেও বা-  
 উদাহরণ্যে কারিগর আক্রান্ত হয়েছেন, এই হেতু আমনার-  
 পরিবারের অন্য কেউ, প্রতিবেশী বা আত্মীয় পরিজনদের-  
 মধ্যে- সংক্রামিত হতে পারে, আমনি নিজে ও আত্মীয়-  
 পরিজন বা প্রতিবেশীর মধ্যে আক্রান্ত হতে পারেন।  
 আমন এই হেতুগত বিষয়ে আমনাকে কিছু জিজ্ঞাসাবাদ-  
 করা, হলে- আমনি জরুরিদের মধ্যে- কোথাও  
 বেড়াতে- গিয়েছিলেন কি-না? বা আমনকে বাড়ীতে-  
 আত্মীয় বা প্রতিবেশী-সহায়ে কি-না যেতাদি-  
 সহায়তা- আমনার পরিবারের সকল সদস্যদের- সামান্য-  
 দায়খান বা দায়খানার- ব্যয়কে কাঠি দিয়ে সামান্য কল  
 নিয়ে পরীক্ষা করা হবে, এই সম্বন্ধে উদ্ভূত, পরীক্ষার-  
 ফলাফল আমন বুঝা হবে।

আমনি এই সন্বন্ধে অক্ষয় প্রহর হেতু ও  
 এই কোন সম্বন্ধে অক্ষয় প্রহর বিবৃত হতে পারেন,  
 বিবৃত হলে ও আমনকে চিকিৎসা হতে বাধ্য হবেন।  
 অক্ষয় প্রহর যদি আমনি সম্মত থাকেন- তবে হলে  
 অনুপ্রস্থপূর্বক- সম্মতিপত্র- স্বাক্ষর (চিহ্নসহ) করুন।

আমনি এই সন্বন্ধে অসহযোগিতা করে।

স্বাক্ষর (চিহ্নসহ) \_\_\_\_\_  
 ঠিকানা \_\_\_\_\_  
 মোবাইল নং \_\_\_\_\_  
 তারিখ \_\_\_\_\_