INTERNATIONAL CENTRE FOR DIARRHOEAL DISEASE RESEARCH, BANGLADESH
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CENTRE
FOR HEALTH AND
POPULATION RESEARCH

PHSD
2000

Memorandum

6 June 2000

To : Dr. K. Zaman
Public Health Sciences Division

From: Professor Mahmudur Rahman
Chairman, Ethical Review Committee (ERC)

Sub : Protocol # 2000-013

Thank you for your memo of 5th June 2000 with a modified copy of your protocol no. 2000-013 entitled "Epidemiology and surveillance of multidrug resistant *Mycobacterium tuberculosis* and assessment of directly observed therapy short course (DOTS) programme in selected areas of Bangladesh" (revised title). I am pleased to inform you that the protocol is hereby approved upon your appropriate addressing of the issues raised by the Committee in its meeting held on 31st May 2000.

Thanking you and wishing you success in running the said study.

cc: Chairman, Research Review Committee
Division Director, PHSD

CENTRE FOR HEALTH AND POPULATION RESEARCH
Mail : ICDDR,B, GPO Box 128, Dhaka-1000, Bangladesh
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CENTRE
FOR HEALTH AND
POPULATION RESEARCH

Memorandum

June 5, 2000

TO : Professor Mahmudur Rahman
Chairman, Ethical Review Committee (ERC)

FROM : Dr. K. Zaman Kzaman
PI, Protocol # 2000-13

SUBJECT : Revised protocol #2000-013 for approval

Attached please find a revised version of the protocol entitled " Epidemiology and surveillance of multidrug resistant *Mycobacterium tuberculosis* and assessment of directly observed therapy short course (DOTS) programme in selected areas of Bangladesh". We have addressed all the comments raised by ERC in our protocol. Kindly find below our responses to those comments: .

Responses to comments:

1. The number 2 objective has been re-written as objective number 1 (page 5).

2.. The objective # 3 has been revised (page 5). Details about the rapid diagnostic methods have been given on pages 11-12.

3. As suggested we have modified the study title as "Epidemiology and surveillance of multidrug resistant *Mycobacterium tuberculosis* and assessment of directly observed therapy short course (DOTS) programme in selected areas of Bangladesh".

4. The item #2 (c) has been marked as "yes" on the face sheet.

The revised protocol may kindly be approved.

Thank you.
cc: Division Director, PHSD
Head, CHP, PHSD
Encl: as stated

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CENTRE
FOR HEALTH AND
POPULATION RESEARCH

Memorandum

17 May 2000

To : Dr. K. Zaman
Public Health Sciences Division

From : David A. Sack, M. D.
Chairman, Research Review Committee

Sub : Protocol # 2000-013

Thank you for protocol # 2000-013 entitled "Surveillance of multidrug resistance tuberculosis and development of cost effective tuberculosis control strategies in Bangladesh" which the Research Review Committee reviewed in its meeting held on 15th May 2000. The Committee was impressed with the importance of the project. The Committee, however, after thorough review and discussion on the protocol, made the following observations:

(a) DOTS compliance and non-compliance at the family level should be looked at.

(b) hypothesis no. 2 should be revised.

(c) strategy for selection of control should be revised – control should be selected from the community rather than the clinic.

(d) terminology such as primary case, secondary case, clinical failure, index, associated cases used in the protocol should be defined in a separate section.

You are, therefore, advised to revise the protocol further to incorporate the above observation and **resubmit** a modified copy of the protocol for consideration of the Chair.

Thank you.

cc: Division Director
Public Health Sciences Division

Attachment I

Date: 5|6|2000

APPROVED COPY

(FACE SHEET) ETHICAL REVIEW COMMITTEE, ICDDR,B.

Principal Investigator: Dr. K. Zaman

Trainee Investigator (if any): _____

Application No. 2000-13

Supporting Agency (if Non-ICDDR,B) _____

Title of Study: Epidemiology and surveillance of multidrug resistant Mycobacterium tuberculosis and assessment of directly observed therapy short course (DOTS) programme in selected areas of Bangladesh

Project Status: _____

[✓] New Study

[ ] Continuation with change

[ ] No change (do not fill out rest of the 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) Minor or persons under guardianship — (Yes) No

2. Does the Study Involve:
   - (a) Physical risk to the subjects — (Yes) No
   - (b) Social risk — 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 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 the study — (Yes) No
   - (b) Procedures to be followed including alternatives used — (Yes) No
   - (c) Physical risk — (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 parents or guardian (if subjects are minor) — (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 with 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. Example 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 Committee 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.

Kzaman

Principal Investigator

Trainee

ICDDRB: Centre for Health & Population Research **RRC APPLICATION FORM**

RESEARCH PROTOCOL

Protocol No.: 2000-13

FOR OFFICE USE ONLY

RRC Approval: Yes/ No Date:

ERC Approval: Yes/No Date:

AEEC Approval: Yes/No Date:

Project Title: Epidemiology and surveillance of multidrug resistant Mycobacterium tuberculosis and assessment of directly observed therapy short course (DOTS) programme in selected areas of Bangladesh

Theme: *(Check all that apply)*

- ☐ Nutrition
- ☒ Emerging and Re-emerging Infectious Diseases
- ☐ Population Dynamics
- ☐ Reproductive Health
- ☐ Vaccine evaluation
- ☐ Environmental Health
- ☐ Health Services
- ☐ Child Health
- ☐ Clinical Case Management
- ☐ Social and Behavioural Sciences

Key words: Infectious diseases, Tuberculosis, Multidrug resistance, DOTS, Epidemiology, Bangladesh

Principal Investigator: K. Zaman **Division:** PHSD **Phone:** 8811751-60 Ext. 2246

Address: Child Health Programme
Public Health Sciences Division,ICDDR,B

Email: kzaman@icddrb.org

Co-Principal Investigator(s): - Abdullah Hel Baqui
- Zeaur Rahim

Co-Investigator(s): Shams El Arifeen, Md. Yunus, J. Chakraborty, Anisur Rahman,Sayera Banu, Nazma Begum, Prof. Lars Ake Persson, Prof. V.I. Mathan, Prof. R.E. Black, Prof. R.E. Chaisson, Prof. R. Gilman, Pierpaola de Colombani, Jahanara Begum

Student Investigator/Intern:

Collaborating Institute(s): Government of Bangladesh, World Health Organization, Universidad Peruana Cayetano Heredia, Peru; PRISMA, Peru, Tuberculosis Research Centre, Madras, Johns Hopkins University

Population: Inclusion of special groups *(Check all that apply)*:

Gender
- ☒ Male
- ☒ Females

Age
- ☒ 0 – 5 years
- ☒ 5 – 9 years
- ☒ 10 – 19 years
- ☒ 20 +
- ☒ > 65

- ☐ Pregnant Women
- ☐ Fetuses
- ☐ Prisoners
- ☐ Destitutes
- ☐ Service providers
- ☐ Cognitively Impaired
- ☐ CSW
- ☐ Others (specify _____)
- ☐ Animal

Project / study Site *(Check all the apply)*:

- ☐ Dhaka Hospital
- ☐ Matlab Hospital
- ☒ Matlab DSS area
- ☐ Matlab non-DSS area
- ☐ Mirzapur
- ☒ Dhaka Community
- ☐ Chakaria
- ☐ Abhoynagar
- ☐ Mirsarai
- ☐ Patyia
- ☐ Other areas in Bangladesh _____
- ☐ Outside Bangladesh
  name of country: _____
- ☐ Multi centre trial
  (Name other countries involved)
  _____

Type of Study *(Check all that apply)*:

- [x] Case Control study
- [ ] Community based trial / intervention
- [ ] Program Project (Umbrella)
- [ ] Secondary Data Analysis
- [ ] Clinical Trial (Hospital/Clinic)
- [x] Family follow-up study
- [ ] Cross sectional survey
- [x] Longitudinal Study (cohort or follow-up)
- [ ] Record Review
- [ ] Prophylactic trial
- [x] Surveillance / monitoring
- [ ] Others

Targeted Population *(Check all that apply)*:

- [x] No ethnic selection (Bangladeshi)
- [x] Bangalee
- [ ] Tribal groups
- [ ] Expatriates
- [ ] Immigrants
- [ ] Refugee

Consent Process *(Check all that apply)*:

- [ ] Written
- [ ] Oral
- [ ] None
- [x] Bengali language
- [x] English language

Proposed Sample size:

Total sample size: _____ ☐

Sub-group _____ ☐ Surveillance of a population of about 110,000 ☐

_____ ☐ Test of multidrug resistance 1500 ☐

Determination of Risk: Does the Research Involve *(Check all that apply)*:

- [ ] Human exposure to radioactive agents?
- [ ] Fetal tissue or abortus?
- [ ] Investigational new device? (specify_____)
- [ ] Existing data available from Co-investigator
- [ ] Human exposure to infectious agents?
- [ ] Investigational new drug
- [ ] Existing data available via public archives/source
- [x] Pathological or diagnostic clinical specimen only
- [ ] Observation of public behavior
- [ ] New treatment regime

Yes/No

- [x] ☐ Is the information recorded in such a manner that subjects can be identified from information provided directly or through identifiers linked to the subjects?
- ☐ [x] Does the research deal with sensitive aspects of the subject's behavior; sexual behavior, alcohol use or illegal conduct such as drug use?

Could the information recorded about the individual if it became known outside of the research:

- ☐ [x] a. place the subject at risk of criminal or civil liability?
- ☐ [x] b. damage the subject's financial standing, reputation or employability; social rejection, lead to stigma, divorce etc.

Do you consider this research *(Check one)*:

- [ ] greater than minimal risk
- [ ] no risk
- [x] no more than minimal risk
- [ ] only part of the diagnostic test

Minimal Risk is "a risk where the probability and magnitude of harm or discomfort anticipated in the proposed research are not greater in and of themselves than those ordinarily encountered in daily life or during the performance of routine physical, psychological examinations or tests. For example, the risk of drawing a small amount of blood from a healthy individual for research purposes is no greater than the risk of doing so as a part of routine physical examination".

Yes/No

☐ ☐ Is the proposal funded?

If yes, sponsor Name: Yes, USAID

Is the proposal being submitted for funding ?

☐ ☐ If yes, name of funding agency: _____

Do any of the participating investigators and/or their immediate families have an equity relationship (e.g. stockholder) with the sponsor of the project or manufacturer and/or owner of the test product or device to be studied or serve as a consultant to any of the above?

IF YES, submit a written statement of disclosure to the Director.

Dates of Proposed Period of Support

(Day, Month, Year - DD/MM/YY)

Beginning date: As soon as review process is completed.

End date: 3 years from starting.

Cost Required for the Budget Period ($)

a.	*Ist Year*	*2nd Year*	*3rd Year*	*Other years*
	202,495	235,064	140,046	

b. ***Direct Cost :*** 462,084 ***Total Cost :*** 577,604

Approval of the Project by the Division Director of the Applicant

The above-mentioned project has been discussed and reviewed at the Division level as well by the external reviewers. The protocol has been revised according to the reviewer's comments and is approved.

LARS ÅKE PERSSON		5/5/2000
Name of the Division Director	Signature	Date of Approval

Certification by the Principal Investigator

I certify that the statements herein are true, complete and accurate to the best of my knowledge. I am aware that any false, fictitious, or fraudulent statements or claims may subject me to criminal, civil, or administrative penalties. I agree to accept responsibility for the scientific conduct of the project and to provide the required progress reports if a grant is awarded as a result of this application.

Signature of PI Kzaman

Date: May 2, 2000

Name of Contact Person (if applicable)

_____

Table of Contents

PROJECT SUMMARY: Describe in concise terms, the hypothesis, objectives, and the relevant background of the project. Describe concisely the experimental design and research methods for achieving the objectives. This description will serve as a succinct and precise and accurate description of the proposed research is required. This summary must be understandable and interpretable when removed from the main application. **(TYPE TEXT WITHIN THE SPACE PROVIDED).**

Principal Investigator K. Zaman

Project Name Epidemiology and surveillance of multidrug resistant Mycobacterium tuberculosis and assessment of directly observed therapy short course (DOTS) programme in selected areas of Bangladesh

Total Budget Beginning Date Ending Date

In Bangladesh, tuberculosis (TB) is considered a major public health problem. However, there is scarcity of epidemiological data. A recent analysis of global burden of TB revealed that Bangladesh rank as the fourth highest among 212 countries in 1997. An increasing levels of drug resistance TB has been reported and this level is expected to rise further. Better understanding of the magnitude of the problem of TB in Bangladesh and its drug susceptibility patterns are key elements for its effective control.

This study is planned to understand the epidemiology of tuberculosis, its drug susceptibility patterns and to identify risk factors for the development and transmission of tuberculosis. It is also planned to use recently developed rapid diagnostic tests for culture and determining drug susceptibility patterns against TB. The new tests will be validated with the conventional culture and sensitivity methods.

The study will be conducted at rural Matlab and urban Dhaka. All households in the ICDDR,B Matlab health and demographic surveillance system (HDSS) area are visited monthly by a community health worker (CHW). On each visit the CHW in the intervention area of Matlab HDSS will inquire if any member of the household aged 15 years and above has symptoms suggestive of TB (cough>3 weeks). A detailed history of illnesses and sociodemographic data will be collected from these suspected cases by a separate group of health workers through home visits. The CHW will refer all these cases to Matlab Thana Health Complex for doing sputum for acid-fast bacilli (AFB). Sputum samples from Matlab will be transported to Shymoli TB clinic in Dhaka for culture and susceptibility tests. To estimate and monitor antimicrobial resistance, a surveillance system will be set up in the Shymoli TB clinic. Sixty sputum smear positive cases will be cultured per month in the clinic. Both new test and conventional method will be used for culture and sensitivity. In addition 300 family studies will be conducted to study contact tracing and to estimate secondary spread.

Timely dissemination of the findings from the project, technical assistance to build the capacity of the national institutions and improved use of data for policy decisions will be important priorities of the project.

This study will provide updated information in terms of incidence, prevalence, seasonality and drug susceptibility patterns of tuberculosis. It is expected that after evaluation of potential risk factors we would be able to identify possible intervention strategies against tuberculosis. This would help the policy makers to establish future guidelines for the control of tuberculosis in Bangladesh.

KEY PERSONNEL (List names of all investigators including PI and their respective specialties)

Name	Professional Discipline/ Specialty	Role in the Project
1. K. Zaman	Epidemiologist (Child Health Programme, PHSD)	Principal Investigator
2. Abdullah Hel Baqui	Senior Epidemiologist (Head, Child Health Programme)	Co-Principal Investigator
3. Zeaur Rahim	Microbiologist (Laboratory Sciences Division)	Co-Principal Investigator
4. Shams El Arifeen	Epidemiologist (Child Health Programme, PHSD)	Co-Investigator

Name	Professional Discipline/ Specialty	Role in the Project
5. Md. Yunus	Scientist (Matlab Health Research Programme, PHSD)	Co-Investigator
6. J. Chakraborty	Manager, CHRU (Matlab HRP)	Co- Investigator
7. Anisur Rahman	Senior Medical Officer (Matlab HRP)	Co- Investigator
8. Sayera Banu	Research Fellow (Laboratory Sciences Division)	Co-Investigator
9. Nazma Begum	Data Manager (Child Health Programme, PHSD)	Co- Investigator
10. Professor Lars Åke Persson	Director (Public Health Sciences Division)	Co- Investigator
11. Professor V. I. Mathan	Director (Laboratory Sciences Division)	Co- Investigator
12. Professor R. E. Black	Chair, Dept. IH (Johns Hopkins University)	Co- Investigator
13. Professor R.E. Chaisson	Professor, Dept. IH (Johns Hopkins University)	Co- Investigator
14. Professor R. Gilman	Professor, Dept. IH (Johns Hopkins University)	Co- Investigator
15. Pierpaolo de Colombani	Medical Officer (TB), WHO, Dhaka	Co- Investigator
16. Jahanara Begum	Junior Consultant, Shymoli TB Clinic, Dhaka	Co- Investigator

PROJECT SUMMARY: Describe in concise terms, the hypothesis, objectives, and the relevant background of the project. Describe concisely the experimental design and research methods for achieving the objectives. This description will serve as a succinct and precise and accurate description of the proposed research is required. This summary must be understandable and interpretable when removed from the main application.

DESCRIPTION OF THE RESEARCH PROJECT

Hypothesis to be tested:

Concisely list in order, in the space provided, the hypothesis to be tested in the proposed study. Provide the scientific basis of the hypothesis, critically examining the observations leading to the formulation of the hypothesis.

1. Tuberculosis is an important cause of morbidity in Bangladesh.

2. Multidrug resistant strains of *M. tuberculosis* exist in Bangladesh.

3. Newly developed rapid diagnostic tests are suitable for culture of *Mycobacterium tuberculosis* and for determination of their antimicrobial resistance patterns.

Specific Aims:

Describe the specific aims of the proposed study. State the specific parameters, biological functions/ rates/ processes that will be assessed by specific methods **(Type within limits).**

1. Monitor drug resistance patterns of *M. tuberculosis* to commonly used antituberculous drugs and determine compliance with treatment.

2. To study the epidemiology of tuberculosis in terms of incidence, prevalence, transmission, risk factors, and care seeking patterns.

3. To determine the sensitivity and specificity of the rapid diagnostic methods comparing with the conventional methods for isolation of *M. tuberculosis* and determination of antimicrobial resistance patterns.

4. As long term goals, to identify strategies for further improvements of DOTS therapy for tuberculosis and to effectively collaborate with the government in capacity building, dissemination of findings, policy formulations, and overall improvement of tuberculosis control measures in Bangladesh.

Background of the Project including Preliminary Observations

Describe the relevant background of the proposed study. Discuss the previous related works on the subject by citing specific references. Describe logically how the present hypothesis is supported by the relevant background observations including any preliminary results that may be available. Critically analyze available knowledge in the field of the proposed study and discuss the questions and gaps in the knowledge that need to be fulfilled to achieve the proposed goals. Provide scientific validity of the hypothesis on the basis of background information. If there is no sufficient information on the subject, indicate the need to develop new knowledge. Also include the **significance and rationale** of the proposed work by specifically discussing how these accomplishments will bring benefit to human health in relation to biomedical, social, and environmental perspectives. **(Do not exceed 5 pages, use continuation sheets).**

Background:

Tuberculosis is a chronic disease caused by the bacillus *Mycobacterium tuberculosis*. Though the bacteria usually cause disease in the lungs, but other systems in the body may also be affected. The organism is transmitted from person to person via airborne droplets. The inhaled bacillus may multiply or it may be eliminated by alveolar macrophages before any lesion is produced. Small caseous lesions may progress or may heal. Larger lesions may also heal or they may grow, shedding bacilli into blood and lymph; alternately they may liquify and introduce bacilli and their products into bronchial tree. The various stages of pulmonary tuberculosis are results of the battle between host and invader (Dannenberg, 1980). The development of clinical illness is dependent upon several factors like advanced age, natural resistance of the host, virulence of the organism, nutritional status and standard of living of the host (Crompton & Haslett, 1995).

Tuberculosis remains a leading cause of morbidity and mortality in developing countries. The World Health Organization estimates that every year about 10 million new cases of tuberculosis occur globally and there are about three million deaths (Dolin et al., 1994). Ninety percent of these cases are from developing countries. Recently Dye et al (1999) estimated global burden of tuberculosis in 212 countries for the year 1997. They found that about 32% of the population are infected with TB bacilli. Of those infected with TB, 23% will die from the disease. In some countries with high Human Immunodeficiency virus (HIV) infection the case fatality rate exceeded 50%. About 7 percent of all deaths in the developing countries are attributed to tuberculosis and it is the common cause of death from a single source of infection among adults (Kaye & Frieden, 1996). It is established that tuberculosis occurs more frequently among low income population living in overcrowded, poor neighbourhood and persons with little schooling (Nayyar et al., 1989). Factors which determine transmission of tuberculosis include number and density of contacts, age and duration of contact(s) (WHO, 1995). The impact of Human Immunodeficiency virus/Acquired Immunodeficiency Syndrome (HIV/AIDS) on tuberculosis has been enormous. With the emergence of HIV/AIDS tuberculosis notifications in some countries has markedly increased. HIV has emerged as the most important risk factor for the progression of tuberculosis. In addition mortality of HIV positive tuberculosis patients was significantly higher than those who were HIV negative (Akah et al., 1995; Perriens et al., 1995).

In Bangladesh tuberculosis is considered a major public health problem, however there is scarcity of epidemiological data (incidence, prevalence, age distribution, transmission patterns

etc.) of tuberculosis. A recent analysis of global burden of TB revealed that Bangladesh ranked as the fourth highest among 212 countries in 1997 (Dye et al., 1999). The earliest survey was conducted by the National Tuberculosis Control Programme during 1987-88 showed that 0.87% of population aged 15 years and older had sputum positive for acid-fast bacillus (AFB). It was reported to be more common among men (1.08%) than women (0.60%) and more common in urban (1.61%) than rural areas (0.80%) (DG, 1989). This study was conducted using a total of about 25,000 sputum specimens collected from 250 primary sampling units selected through systematic sampling technique from all over Bangladesh. The sputum samples were collected from the respondents at their homes and were examined in the nearest TB clinics/ TB hospitals/sadar hospitals/upazila hospital laboratories. During the rainy seasons some of the survey areas were inaccessible. Also some of the female respondents did not cooperate and did not provide sputum for examination. In a more recent survey in 1993, the annual incidence was estimated at 220 per 100,000 (Kumaresan et al., 1996). The available data on the impact of TB control measures on the prevalence of disease in Bangladesh is limited (Islam et al., 1995). Lack of such data makes policy decisions and monitoring of programme success difficult.

The case notification rates in most of the countries including Bangladesh are higher in case of males than females. Globally, the ratio of female to male tuberculosis cases notified is 1/1.5-2.1 (Diwan & Thorson, 1999). About 70% more cases, as defined by positive smears, are from males than females are diagnosed every year and notified to WHO. The reasons for these gender differences are not clear. They may be due to differences in prevalence of infection, rate of progression from infection to disease, under-reporting of female cases or differences in access to services (Holmes et al., 1998; Borgdorff, 1999).

Implementation of directly observed therapy short course (DOTS) has been a "breakthrough" in the control of tuberculosis (WHO, 1997b). DOTS has become the cornerstone in the treatment of tuberculosis in many countries. In Bangladesh DOTS has now been implemented in most of the thanas. Studies have shown a very high treatment success rate with DOTS (~80%) in Bangladesh (Chowdhury et al., 1997; Kumaresan et al., 1998) and detected at least half of all existing cases (Chowdhury et al., 1997). However, a review for the World Bank estimated that case detection rate was less than 20% in 1990 (Veen & Becx-bleumix, 1990). Improvements in case identification and compliance with effective treatment are critical elements of effective tuberculosis control strategy. Patients with low compliance can have relapse and develop drug resistance.

Understanding of the prevalence of antituberculous drug resistance is one of the key elements in the control of tuberculosis. An increasing and high levels of drug resistance have been reported from many different countries (Cohn et al., 1997; Frieden et al., 1993). Resistant strains of *Mycobacterium tuberculosis* to one or more antituberculous drugs were observed in 44% and 28% in the studies conducted in the Dominican Republic and Estonia respectively (Espinal et al., 1998., Krunner et al., 1998). Multidrug resistant (resistant to at least isoniazid and rifampicin) strains in those studies were 9 to 10%. In developing countries, particularly in Asia, acquired drug resistance (resistance occurring during the course of treatment) is very high (Raviglione et al., 1995).

A study conducted in a rural district of Bangladesh during 1994-95 revealed that 10.9% of *M.*

tuberculosis strains were resistant to any antituberculous drugs (isoniazid, rifampicin, ethambutol, streptomycin). Multidrug resistant (MDR) was observed in 0.23% in new cases and 5.6% of previously treated cases (Van Deun et al., 1999). In urban Dhaka culture of 101 untreated patient of pulmonary TB during 1997-1998 showed that 29.7% of cases were resistant to one or more anti TB drug and 4.95% of cases were MDR (Hossain et al., 1998). Drug resistance against tuberculosis often occur as a result of improper treatment, poor quality of drugs and failure to comply with the prescription (WHO 1997c, WHO 1997d).

Currently available tests used for detection of tuberculosis (sputum and tissue smears for AFB) in the developing countries are simple and of low cost. But they have poor sensitivity, ranging from 40-50% in children to 70% in adults (R. Gilman - personal communication). Also testing of antimicrobial resistance is not possible from sputum smear examination. The conventional method for culture and determination of antimicrobial resistance to *M. tuberculosis* is based on Lowenstein-Jensen (L-J) medium. This test may take up to 8 weeks to complete the culture and assessment of antimicrobial resistance. More advanced tests (e.g. BACTEC system, growth indicator tubes) for isolation and determination of antimicrobial resistance patterns are more rapid (<7 days) and costly (Hacek, 1992; Inderlied & Salfinger, 1995; Palaci et al., 1996).

Considering the number of tuberculosis patients in the developing countries, tests are needed which are both rapid and inexpensive. Two rapid tests for the detection of tuberculosis and determination of antimicrobial resistance patterns have recently been developed. These are the Microscopic Observation Broth Drug Susceptibility (MODS) assay (Caviedes et al., 2000) and the Microplate-based Alamar Blue Assay (MABA) (Franzblau et al., 1998). These tests are simple, rapid, low cost and are well suited for use in developing countries. One area where there has been considerable experience with these tests include Lima, Peru. MODS permits simultaneous TB detection and determination of antimicrobial resistance. MABA is used to determine antimicrobial resistance in TB isolates. The overall agreements between the results obtained by MABA and BACTEC system were 88% (Franzblau et al., 1998). MABA is now routinely used for screening potential antituberculous drugs by the United States National Hansen's Disease Laboratory and is also used by the Carvel center for Leprosy and TB in Louisiana, USA (R. Gilman - personal communication). In these methods patients sputum are used directly for culture and test of antimicrobial resistance. Results are obtained within two weeks and the cost is less than $3 each for each patient.

Since there is a paucity of epidemiological data on tuberculosis in Bangladesh its research should be given high priority. The possibilities of flaring up of tuberculosis with spread of HIV/AIDS should be emphasized. Currently (1999) the rate of HIV infection in high risk group in Bangladesh is 0.4% (Azim et al., 1999). This rate will almost certainly increase during the next few years, adding urgency to the study of tuberculosis now. This study is planned to understand the epidemiology of tuberculosis, its drug resistance patterns and to identify risk factors for the development and transmission of tuberculosis.

Significance

The study will provide basic epidemiological information in terms of incidence, prevalence, seasonality and risk factors of tuberculosis in Bangladesh. This study will provide updated information on drug resistance patterns of *M. tuberculosis* that will be helpful for treatment of patients. It is expected that after evaluation of potential risk factors of tuberculosis we would be able to identify possible intervention strategies against tuberculosis. This would help the policy makers to establish future guidelines for the control of tuberculosis in Bangladesh.

Research Design and Methods

Describe in detail the methods and procedures that will be used to accomplish the objectives and specific aims of the project. Discuss the alternative methods that are available and justify the use of the method proposed in the study. Justify the scientific validity of the methodological approach (biomedical, social, or environmental) as an investigation tool to achieve the specific aims. Discuss the limitations and difficulties of the proposed procedures and sufficiently justify the use of them. Discuss the ethical issues related to biomedical and social research for employing special procedures, such as invasive procedures in sick children, use of isotopes or any other hazardous materials, or social questionnaires relating to individual privacy. Point out safety procedures to be observed for protection of individuals during any situations or materials that may be injurious to human health. The methodology section should be sufficiently descriptive to allow the reviewers to make valid and unambiguous assessment of the project. **(Do not exceed ten pages, use continuation sheets).**

Methods :

1. Establishment/strengthening of GoB laboratory facilities

Specimens are currently tested for tuberculosis in Bangladesh using the sputum smear for AFB. While this method is useful, it lacks sensitivity. With this programme, we will establish the conventional culture techniques using L-J medium that are more sensitive. Since these are new methods for the GoB as well as for ICDDR,B, one person from ICDDR,B and another from the government tuberculosis control program will be trained in India at the WHO reference laboratory (Madras, India) on conventional culture method (L-J medium).

In addition we intend to initiate the newly developed rapid and inexpensive tests for tuberculosis using the MODS and MABA methods. To introduce these methods, ICDDR,B person will be trained in Lima, Peru where these methods are currently being used. We have already established contact for collaboration and they have agreed to provide training free of cost. Once all of these tests are established in Dhaka, the new tests will be compared and validated in comparison with the conventional methods to determine their sensitivity, specificity, and cost effectiveness for Bangladesh. If the new tests are suitable, the ICDDR,B microbiologist will train others within the GoB and ICDDR,B laboratories. The work however can start as soon as the L-J methods are in place.

In order to establish these laboratory tests, the facilities at both the Shymoli TB clinic and the ICDDR,B must be upgraded. If not conducted properly using excellent equipment, a

laboratory for tuberculosis can be extremely hazardous for laboratory staff, so the proper equipment must be obtained and utilized. For quality control, specimens, will be sent regularly to the WHO reference laboratory (Madras, India) on a sample basis.

2. Help GoB to set up system to monitor antimicrobial resistance for TB

Shymoli TB clinic in Dhaka will participate with the ICDDR,B in this study. Patients mostly from Dhaka city and nearby districts attend this clinic. On an average Shymoli TB clinic tests about 70 sputum samples daily for AFB. Of these, about 15% are positive for AFB. Since 1996 no *M. tuberculosis* culture is being performed in this clinic but the consultant physician at the clinic feels that there are some cases with multidrug resistant strains of tubercle bacilli

To estimate and monitor antimicrobial resistance, we will establish a surveillance system in the Shymoli TB clinic. Sixty sputum smear positive cases will be cultured (using MODS and L-J medium) per month in the clinic. This will be done using systematic sampling technique (3 samples in a day). The expected number of cases that will be enrolled in a 2 year period is about 1500. A medical assistant will collect detailed information on signs and symptoms, and risk factors. It is expected that GoB tuberculosis programme will be able to take over the surveillance programme in the near future; however, the ICDDR,B laboratory will be capable of continuing testing should this prove to be needed.

Family studies will also be conducted. The TB index cases will be followed up at their homes for surveillance of contacts. A detailed illness history and sociodemographic characteristics will be collected to identify possible sources of infection. Suspected TB cases will be referred to TB clinic for further management. In addition a case control study will be conducted to identify factors associated with transmission of tuberculosis in urban areas. Cases (sputum smear positive) will be selected from Shymoli TB clinic. One hundred controls age sex matched with cases will be selected from the community. For the selection of controls we will visit the households of the index cases and delineate a cluster of 30-40 neighbourhood households. We will visit door to door and prepare a list of all eligible controls. One control will be selected randomly from the list.

3. Laboratory methods

Collection of specimens:
A series of three early morning sputum specimens will be collected in sterile leakproof, disposable, pre labeled plastic container. Samples should be processed immediately after collection. In case of delay specimens should be stored at +2 to + 8 °C.

Preparation of specimens:
Sputum specimens will be mixed with equal volume of NALC-NaOH (N-acetyl-L-cystein-sodium hydroxide) and will be incubated at room temperature for 15 minutes for digestion and decontamination. Following incubation, digested and decontaminated sputum will be diluted with 0.067 M phosphate buffer (PH 6.8) to a final volume of 50 ml. Diluted sputum will be centrifuged for 15 minutes at 3000 rpm. Then the pellet will be suspended with 1 ml of bovine albumin.

Sputum smear staining : A Loopful of sputum as prepared above will be used to perform Ziehl-Neelsen staining following standard procedure (Isenberg, 1999). Stained smear will be examined under X100 objective and X10 eye piece. 300 visual fields (VF) will be examined for preparing the report. The reporting will be performed as per recommendation of the American Lung Association scale (ALA, 1974) as follows:

(-) : No AFB found/300 VF
± : 1-2 AFB /300 VF, it indicates repetition
(+) : 3-9 AFB/300 VF
(++) : 10-299 AFB /300 VF
(+++) : 300 or more/ 300 VF

Culture
Sputum specimens prepared above will be diluted (1:10) in sterile phosphate buffer. Two drops of both diluted as well as undiluted sputum samples will be inoculated in Lowenstein-Jensen (LJ) culture medium. Inoculated culture media will be incubated at 37° C and will be read after 5-7 days of inoculation once in a week for 6-8 weeks before discarding as negative. Hand lense will be used while reading culture.

Identification of culture
From the surface of culture positive medium, mycobacterial colonies will be identified into species based on colony morphology, pigment production and conventional biochemical reaction (nitrate reduction, growth in 5% NaCl, production of pigment, urease, pyrazinamidase, arylsulphatase, catalase, test of Tween 80 hydrolysis and niacin; reduction of nitrate and potassium tellurite etc.) (Isenberg, 1999). While reading culture recording should be performed as follows:

No colonies	: Negative
Less than 50 colonies	: Actual count
50-100 colonies	: (+)
Approximately 100- 200 colonies	: (++)
Almost confluent (200-500 colonies)	: (+++)
Confluent (More than 500 colonies)	: (++++)

Test of drug resistance

Newly developed rapid test

Microplate-based Alamer Blue assay (MABA)

MABA is newly developed rapid test of determining minimum inhibitory concentration (MIC) of *M. tuberculosis*. This technique was used by Franzblau et al (1998) and will be used in this project. Basically it is a colorimetric MIC test which will be done in microplate. To conduct the test, all outer-perimeter wells of sterile 96 well microtiter plates (Falcon 3072, Becton Dickinson, Lincoln Park, N.J) will be filled with sterile deionized water to minimize evaporation. One hundred microliters of 7H9GC broth will be added into the wells of the row

B to G of column 3 to 11.Then 100 μl of 2X drug solution will be added in the wells of the row B to G of column 2 and 3. With the help of a multichannel pipette, 100 μl suspension will be transferred from column 3 to column 4 and the contents of the wells will be mixed well. Thus identical serial 1:2 dilutions will be continued through column 10. From wells of the column 10, 100 μl excess suspension will be discarded. Thus a serial double dilution of drug will be prepared.

One hundred microliters of *M. tuberculosis* culture will be added to all the wells of the row B to G of column 2 to 11. As a result all the wells contained 200 μl total volume of suspension. Wells in column 11 will be used as drug free control i.e only inoculum of *M. tuberculosis*.

The entire plate will be sealed with parafilm and will be incubated at 37° C for 5 days. Freshly prepared 50 μl of 1:1 mixture of 10 X Alamer Blue (Accumed International, Westlake, Ohio, USA) reagent and 10% Tween 80 will be added into well B11. Then the plates will be incubated at 37° C for 24 hours. Following inoculation if contents of the well B11 turn pink, the reagent mixture (Alamer blue in Tween 80) will be added in all the wells of the microplate. If the contents in the well B11 remain unchanged after incubation, reagent mixture will be added into another control well of B11 and reaction will be noted on the following day. The microlplate will be resealed and incubated for an additional 24h at 37° C and the colour of the wells will be recorded. A blue colour in the well will be interpreted as no growth and pink colour as growth. Few wells may remain violet after 24h of incubation, but additional incubation will help to change the color from violet to pink. From this method, MIC will be defined as the lowest drug concentration which prevented a color change from blue to pink.

MODS (Microscopic observation broth drug susceptibility)

This will be performed as per procedure described by Caviedes et al (2000). Briefly, sputum samples will be decontaminated with NALC-NaOH following standard procedure (Isenberg, 1999). Then Mycobacterium will be pelleted by centrifugation. The pellet will be resuspended in 4.5 ml Middlebrook 7H9 broth containing PANTA (20 μL/ml final concentration) and OADC (10%). Five hundred forty micro liters of culture will be inoculated into each well of 24-well plate. From stock solution of antibiotics (such as 4.0 and 1.0 μg /ml for INH and 10.0 & 5.0 μg /ml for RIF), 60 μL will be added into each test well containing Mycobacterium culture. In the control well, only 60 μL of Middlebrook 7H9 medium will be added. Then the plates will be sealed before incubation at 37°C. Every 1 or 2 days interval, wells will be examined for Mycobacterium under light inverted microscope (40X). A isolate will be considered susceptible if growth observed only in drug free well and resistant when growth will be visible in both wells with and without antibiotics.

Conventional method (Lowenstein - Jensen)

Drug resistance patterns with respect to commonly used antibiotics and chemotherapeutic agents will be performed following standard procedure (Isenberg, 1999). In short, strains of *M. tuberculosis* will be subcultured onto Middlebrook 7H11 agar (Becton Dickinson

Microbiology System, Cockeysville, MD). Culture from the agar plate will be suspended in 0.04% (vol/vol) Tween 80, 0.2% bovine serum albumin (Sigma Chemical Co, St. Louis, Mo) so that turbidity should match with McFarland No. 1 (Hindler et al., 1992). Suspensions will be diluted 1: 125 in 7H9GC broth (4.7 g of Middlebrook 7H9 broth base [Difco, Detroit, MiCh], 20 ml of 10% [vol/vol] glycerol, 1 g of Bacto Casitone [Difco], 880 ml of distilled water, 100 ml of oleic acid, albumin, dextrose and catalase).

The culture will be serially diluted from 10^1 to 10^4. From each dilution of 10^2 and 10^4 100 μL culture will be inoculated onto L-J medium with and without antibiotic. Inoculated . medium will be incubated at 37°C for 3 weeks. Following incubation, ratio of colonies grown on antibiotic containing medium to antibiotic free medium will be calculated. An organism will be considered resistant when the ratio is ≥ 1 and sensitive if it is <1.

Definitions

Smear positive pulmonary tuberculosis:

At least two sputum specimens positive for AFB or one sputum positive for AFB and radiological abnormalities consistent with tuberculosis (WHO, 1997a).

Primary drug resistance:

Resistance to strains of *M. tuberculosis* without histories or other evidence of previous treatment (Pablos-Mendez et al., 1998).

Acquired drug resistance:

Resistance in a patient who had previously received antituberculous treatment for at least one month including those with treatment failures and relapses (Pablos-Mendez et al., 1998).

Drug resistance tuberculosis:

M. tuberculosis bacilli resistance to one or more antituberculosis drugs (WHO, 1997b)

Multiple drug resistant (MDR) TB

Strains of TB organism which are resistant to, at least, both isoniazid and rifampicin (WHO, 1997a).

Primary case

A new patient who has sign symptom of tuberculosis and being diagnosed primarily.

Secondary case

Infected contacts having signs and symptoms at the household.

Clinical failure

A patient whose sign symptoms continue to persist and is smear positive at 5 months or later after starting treatment.

Index case

A new tuberculosis case who was detected and diagnosed first in a household.

Associated case

Other cases detected and diagnosed during the study period associated with index case but do not fall in the above categories.

4. Study epidemiology and assessment of antimicrobial resistance patterns against tuberculosis in a rural area of Bangladesh

This component will be conducted in rural Matlab, a low lying riverine area which lies 45 km south east of Dhaka. A tuberculosis surveillance system will be set up in Matlab and to

capitalize on the existing health & demographic surveillance system (HDSS) there which consists of regular cross sectional censuses and longitudinal registration of vital events that has been maintained in the area since 1966. A reproductive and child health programme has been in operation in half of the population of the HDSS area (current population is about 210,000) since 1978. The other half serves as a comparison area where regular government health care facilities are available. Each community health worker (CHW) in the intervention area covers a population of about 1800. She visits each household monthly and is responsible for distribution of contraceptives to eligible mothers, recording of vital events, immunization to children, referral of severely sick children and mothers etc.

Between January through July 1999 a total of 168 sputum specimens was tested for AFB at the Matlab GoB Thana Health Complex (THC) and 48 (28.6%) samples were positive. Matlab thana is included in the DOTS programme run by the GoB. About 60 patients are currently enrolled in the DOTS programme. This figure seems to be grossly under representative assuming about 0.87% of the adult populations have sputum positive for AFB (DG, 1989) (total population of Matlab thana is about 550,000 and 2900 expected cases of tuberculosis in persons ≥ 15 years of age). Based on population under surveillance from the reproductive and child health programme of Matlab (60, 000 aged 15 years and above) about 522 prevalent cases with sputum smear positive for AFB are expected from the intervention area.

All households in the Matlab HDSS area are visited monthly by a CHW. On each visit the CHW in the intervention area will inquire if any member of the household aged 15 years and above has symptoms of cough >3 weeks (suggestive of pulmonary tuberculosis). A written consent will be obtained and a detailed history of illnesses and sociodemographic data will be collected from all these suspected cases of tuberculosis by study health workers through home visits. This will include demographic and socioeconomic data, previous treatment of tuberculosis (if any), contact with tuberculosis patients, BCG vaccination status and current sign symptoms (cough with or without purulent sputum, history of haemoptysis, fever, chest pain, any recent loss of body weight etc). The field workers will refer all these suspected cases (cough > 3 weeks) of tuberculosis to the Matlab THC for doing sputum for AFB and chest X ray. Sputum samples will be collected from patient's home from those who are unable/unwilling to come to Matlab THC. These will be sent to Matlab THC for examination of AFB. The existing National Tuberculosis Control Programme algorithm will be used for the diagnosis and treatment of pulmonary TB (GoB, 1999). Sputum samples from Matlab will be transported to the laboratory of the ICDDR,B and /or Shymoli TB clinic, Dhaka for culture and testing of antimicrobial resistance patterns.

All treatment received from the hospital as well as compliance with therapy will be recorded by the field workers. Data on sociodemographic variables and symptoms suggestive of tuberculosis will also be collected from all contacts of the same household from about 1800 contacts. Suspected contacts will be referred to Matlab THC for further investigations. This will help to identify associated cases of active tuberculosis linked to index cases. CHWs will initially conduct surveillance for 18 months.

In the proposed study we will not perform tuberculin testing. Limitations of the method are now clearly recognised: (1) the estimation of tuberculosis incidence from the annual risk of infection is no longer accepted and (2) the application of tuberculin testing in population with

a high coverage of BCG vaccination is under debate (Borgdroff, 1999). The BCG vaccines are routinely given to infants in the intervention area of Matlab HDSS and the coverage is very high (~95%).

5. Assessment and further improvements of DOTS strategy

It is planned to estimate success and failure rates of DOTS program at Matlab. Failure of DOTS may result from lack of systematic case identification, non-compliance with the therapy, drug resistance and infection with new strains of tuberculosis. The DOTS strategy will be evaluated in two phases:

Phase 1: This phase will be carried out while the laboratory testing for tuberculosis is being established. This will essentially be an evaluation of current DOTS activities. The issues to be addressed will include:
i. How much the health systems (hospitals, medical officers, health assistants) follow the guidelines in implementing DOTS?
This will be done through interviewing head of the Matlab THC, medical officers, medical assistant regarding procedure of treating a TB patient.. Our study medical officer will also observe patient's examination by Matlab THC staff members, types of drugs prescribed and advise given to patients. Inventory of drug store and laboratory equipments will be conducted to assess stock and consumption of TB drugs.

ii. Patients compliance with the therapy
This will be determined from the THC hospital records of the number of patients regularly taking drugs. We will assess the proportion of enrolled patients who completed treatment or are still complying with treatment.

iii. Factors associated with non-compliance
Lists of compliance and noncompliance patients will be obtained from the Matlab THC records. These patients will be interviewed at their homes for reasons of compliance and noncompliance.

iv. Proportion of clinical failure cases due to non-compliance
Cases of clinical failures will be compared between the two groups of patients (compliance and non compliance). The patients will be followed up in their homes. They will be examined clinically and a sputum sample will taken for examination of AFB.

Phase II: This phase will be carried out after the establishment of the tuberculosis diagnostic facilities and the initiation of active case finding strategy. The following issues will be addressed:
i. What proportion of all tuberculosis cases are currently covered by DOTS programme ?
This will be estimated based on information from the hospital records and data from the community surveillance.

ii. DOTS compliance and non compliance at the family level
Matlab data will be used to assess the extent of coverage with DOTS. The compliance and non compliance of DOTS at the family level will also be assessed.

iii. Evaluation of DOTS on the incidence of tuberculosis.
This will be done from the data of family studies. The number of TB cases will be compared between the families using DOTS with those who are not using. All DOTS patients identified from the hospital will be followed up at their homes.

iv. To determine the factors associated with low coverage of DOTS.
It will be done by interviewing TB patients using DOTS and those who are not using.. Factors (distance, non availability of drugs, preoccupation etc.) associated with low coverage will be examined.

v. What proportion of clinical failures is associated with antimicrobial resistance and with other reasons (non-compliance)?
Antibiotic susceptibility results from the laboratory will be examined to determine the proportion of failures associated with cases who enrolled in DOTS programme.

Finally, further improvements of DOTS strategy, innovative strategies to improve coverage with DOTS and other therapeutic strategies will be attempted. Once we have all the data, we will arrange a workshop with program persons, scientist and other stakeholders to identify strategies for improvement of DOTS.

6. Sample size calculation

TB surveillance at Matlab

We expect that about 0.87% of the population aged 15 years and above at Matlab will be sputum positive for AFB (DG, 1989). To estimate the level of prevalence with ± 0.09% precision and 95% confidence limit, we need a population under surveillance of about 41000 aged 15 years and above. The reproductive and child health intervention area of the HDSS at Matlab will be sufficient to estimate this level of prevalence. The research will be conducted in the intervention area.

Estimation of antimicrobial resistance

Assuming that 10.9% of the isolates are resistant to any drug (Van Deun et al., 1999), we require 415 samples to estimate the level of prevalence with ±3% precision and 95% confidence limit. In a recently conducted study the prevalence of MDR TB was 4.95% (Hossain et al., 1998). We require 803 samples to estimate this level of prevalence with ±1.5% precision at 95% confidence limit.

Family studies (Dhaka and Matlab)
Assuming that about 5% of household contacts are also infected, we need about 1800 family contacts to study contact tracing and to estimate secondary spread (±1% precision and 95% confidence limit).

Case control studies (Dhaka)

With the following assumptions 89 controls will be required for our study. Assuming 10%

loss of follow up the required sample size is 99 (~100).

ALPHA Type I error	BETA Type II error	PHI Correlation coefficient for exposure between matched cases and controls	P0 Probability of exposure in control group	M Number of matched controls case	PSI Odds ratio	Sample size
0.05	0.2	0.1	0.5	1	2.5	89

7. Dissemination and Policy formulations

Timely dissemination of the findings from the project, technical assistance to build the capacity of the national institutions and improved use of data for policy decisions will be important priorities of the project. In order to achieve these objectives mechanisms of coordination with the GoB will be developed. A Steering Committee from Emerging and Reemerging Infectious Diseases (ERID) will be formed involving concerned officials from the MOHFW under the supervision of the Director General of Health Services. We would encourage him to include representatives from the National Tuberculosis Programme, National CDD and ARI Programme, Bangladesh AIDS Prevention and Control Programme (BAPCP), Institute of Epidemiology Disease Control and Research (IEDCR), USAID, National Integrated Health and Population Programme (NIPHP) and World Health Organization with key ICDDR,B researchers in order to facilitate greater ownership by GoB and thereby facilitate timely application of the results into national program.

There will be one steering committee for all ERID projects funded by USAID. ICDDR,B has already started working with the government to develop terms of reference and mode of operations of the committee. The expected role of the committee will be to provide technical guidance, help in implementation of the project and assist in translating lessons learned and study findings into policy decisions. A core group for tuberculosis will be established by coopting appropriate representatives of all interested parties. The Core Group will organize regular workshops, seminars and meetings with other health care providers, program managers and policy makers to share with them the various findings from the project. The project will prepare quarterly summary reports with policy recommendations which will be shared with the MOHFW, particularly with the tuberculosis program to adopt appropriate policy changes and pursue their programme in an effective way. The findings of the project will support National Tuberculosis Control Programme in Bangladesh. In addition, the findings will be published in regional and international peer-reviewed journals. Timely dissemination of the findings will be particularly useful in selecting appropriate antimicrobial therapy for tuberculosis.

Facilities Available

Describe the availability of physical facilities at the place where the study will be carried out. For clinical and laboratory-based studies, indicate the provision of hospital and other types of patient's care facilities and adequate laboratory support. Point out the laboratory facilities and major equipments that will be required for the study. For field studies, describe the field area including its size, population, and means of communications (Type within the provided space).

The International Centre for Diarrhoeal Disease Research, Bangladesh (ICDDR,B) has large multi-disciplinary international and national scientific research staff. The study will be conducted at rural Matlab and in urban Dhaka. For more than thirty five years ICDDR,B has been maintaining a field research centre at Matlab. Due to the presence of ongoing health and demographic surveillance system (HDSS), effective referral facilities and well-established infrastructure at Matlab, it offers an excellent research facilities for this study. The HDSS is a regularly updated information system on about 210,000 population at Matlab. The government thana health complex at Matlab has the facilities for doing sputum examination and X-ray. Shymoli TB clinic in Dhaka has well trained staff and facilities for conducting TB activities. The co-PI of the study and another person from the government will be trained on conventional and newly developed rapid diagnostic culture techniques of TB bacilli and testing of antimicrobial resistence. Necessary laboratory supplies will be provided to Shymoli clinic for this purpose.

Data Analysis

Describe the plans for data analysis. Indicate whether data will be analyzed by the investigators themselves or by other professionals. Specify what softwares packages will be used and if the study is blinded, when the code will be opened. For clinical trials, indicate if interim data analysis will be required to monitor further progress of the study. **(Type within the provided space).**

The investigators and supervisors will review all data forms for accuracy, consistency and completeness. Whenever necessary an additional visit will be made to clarify inconsistencies or missing data. After editing data will be entered in databases (FoxPro). Necessary range and consistencies will be in-built. Data will be periodically checked by running frequency distributions and cross tabulations.

Data analysis will be done using software packages STATA and SPSS. The incidence and prevalence of tuberculosis will be calculated using data from the surveillance. Initially, one-way tabulations of the data will be performed to provide a description of the study subjects (age, sex, education, socioeconomic condition etc.). Rates will be compared between different age and sex groups using appropriate tests. Prevalence of multi drug resistance tubercle bacilli will be calculated from the culture and testing of antimicrobial resistence. The incidence rates of TB will be compared between the families using DOTS with those who are not using. We will also examine the variables associated with the cases by using logistic regression analysis (Kahn & Sempos, 1989). This will be done from the data obtained in case control studies. The logit coefficient we get is the log of odds ratio (OR). Simply, OR can be calculated using the corresponding antilog of the coefficient ($OR=e^b$).

Ethical Assurance for Protection of Human Rights

Describe in the space provided the justifications for conducting this research in human subjects. If the study needs observations on sick individuals, provide sufficient reasons for using them. Indicate how subject's rights are protected and if there is any benefit or risk to each subject of the study.

Enrollment of the subjects (suspected cases of TB) will be done after signed consent of the individuals. All collected data will be treated as confidential. No subjects will be deprived of existing care facilities. Results of the antimicrobial resistence patterns will provide direct benefit to the patient by facilitating specific drugs. The study involves no more than minimal risk to the subjects.

Use of Animals

Describe in the space provided the type and species of animal that will be used in the study. Justify with reasons the use of particular animal species in the experiment and the compliance of the animal ethical guidelines for conducting the proposed procedures.

No animal will be used in the study

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World Health Organization (1997d). Anti-tuberculosis drug resistance in the world. The WHO/IUATLD global project on anti-tuberculosis drug resistance surveillance. WHO/TB/97. 229.

Collaborative Arrangements

Describe briefly if this study involves any scientific, administrative, fiscal, or programmatic arrangements with other national or international organizations or individuals. Indicate the nature and extent of collaboration and include a letter of agreement between the applicant or his/her organization and the collaborative organization (Do not exceed one page)

ICDDR,B will collaborate with the Government of Bangladesh, World Health Organization, Universidad Peruana Cayetano Heredia, Peru; PRISMA, Peru, Tuberculosis Research Centre, Madras and the Johns Hopkins University in training and implementation of the study.

Time frame with and specific activities of tuberculosis research project

To validate rapid diagnostic methods with conventional methods for isolation and antimicrobial susceptibility testing

Activities	Person/Institute responsible	Begin date (approx.)	Completion date	Organization(s)
Identification of personnel for training on diagnostic methods	Professor V. I. Mathan Dr. A. H. Baqui DG, MOHFW	Nov. 1999	Nov. 1999	ICDDR,B MOHFW
Training of personnel on diagnostic methods	Tuberculosis Reference Laboratory, India Johns Hopkins PRISMA, Lima, Peru	May 2000	July 2000	Tuberculosis Lab, India Johns Hopkins PRISMA, Lima, Peru
Recruitment of additional lab. personnel	Dr. K. Zaman Mr. Zeaur Rahim	Aug. 2000	Aug. 2000	ICDDR,B
Training of newly recruited lab personnel	Mr. Zeaur Rahim GoB trained personnel	Sep. 2000	Sep. 2000	ICDDR,B
Procurement of supplies	Dr. K. Zaman Mr. Zeaur Rahim	June 2000	July 2000	ICDDR,B
Starting of lab tests	Mr. Zeaur Rahim Dr. K. Zaman GoB trained personnel	Sep. 2000	Ongoing	Shymoli TB clinic GoB
Establishment linkage with reference laboratory for quality checking	Prof. V. I. Mathan Dr. K. Zaman Mr. Zeaur Rahim	Sep. 2000	Ongoing	Reference Laboratory, India Shymoli TB clinic, GoB ICDDR.B

Monitor drug resistance patterns of tubercle bacilli to commonly used antituberculous drugs and determine compliance with treatment

Activities	Person/Institute responsible	Begin date (approx.)	Completion date	Organization(s)
Establishment of guidelines through preparation of manuals for lab testing	Mr. Zeaur Rahim Dr. K. Zaman	Aug. 2000	Aug. 2000	ICDDR,B
Sampling, data collection and analysis plan	Dr. A. H. Baqui Dr. K. Zaman Mr. Zeaur Rahim Dr. Shams El Arifeen	Sep. 2000	Ongoing	ICDDR,B
Culture and testing of antimicrobial resistence	Shymoli TB Clinic	Sep. 2000	Ongoing	Shymoli TB clinic
Identification of persons with non-compliance at Matlab surveillance area	ICDDR,B GoB	Sep. 2000	Ongoing	ICDDR,B GoB

To study the epidemiology of tuberculosis in terms of incidence, prevalence, transmission, risk factors, and care seeking patterns

Activities	Person/Institute responsible	Begin date (approx.)	Completion date	Organization(s)
Recruitment of personnel at Matlab	Dr. K. Zaman Dr. Md. Yunus Mr. J. Chakraborty Mr. Zeaur Rahim	June 2000	June 2000	ICDDR,B
To capitalize existing surveillance system at Matlab and establishment of urban surveillance at Shymoli TB clinic	Dr. K. Zaman Dr. A. H. Baqui Dr. Md. Yunus Dr. Shams El Arifeen Mr. J. Chakraborty Mr. Zeaur Rahim GoB personnel	Jul 2000	Ongoing	ICDDR,B GoB
Interviewing, follow up, referral of tuberculosis patients and contacts	ICDDR,B GoB	Sep. 2000	Ongoing	ICDDR,B GoB

To document success and reasons of failure of DOTS and to identify strategies for improvements

Activities	Person/Institute responsible	Begin date (approx.)	Completion date	Organization(s)
Approval of GoB to work at Matlab on DOTS	Professor Lars Åke Persson Dr. Md. Yunus Dr. A. H. Baqui Dr. K. Zaman Mr. Zeaur Rahim	June 2000	June 2000	ICDDR,B GoB
Starting data collection	Dr. K. Zaman Mr. J. Chakraborty Dr. Shams El Arifeen GoB	June 2000	May 2001	ICDDR,B GoB

To effectively collaborate with the government in capacity building, dissemination of findings, policy formulations, and overall improvement of tuberculosis control measures in Bangladesh

Activities	Person/Institute responsible	Begin date (approx.)	Completion date	Organization(s)
Quarterly report on isolation and antimicrobial resistance pattern with recommendations	All Investigators	Dec. 2000	Ongoing	MOHFW particularly National Tuberculosis Programme
Six monthly presentation of key findings to Steering Committee by Core Group	All Investigators	Mar. 2001	Ongoing	Members of Steering Committee, MOHFW, National Tuberculosis Program
Annual seminar/meeting to present key findings with recommendations	All Investigators	Oct. 2001	Ongoing	MOHFW, National Tuberculosis Programme, other Health Care Providers, Programme Managers and Policy Makers

PROJECT TITLE: **Surveillance of multidrug resistance tuberculosis and development of cost effective tuberculosis control strategies in Bangladesh**

BUDGET DETAILS

Total study period: 3 years

SALARY Position	Pay Level	# of Staff	% of effort	Monthly Rate	Year-1 1st 6-mos	Year-1 2nd 6-mos	Year-2	Year-3	Sub-total	Total (US $)
Dr. K. Zaman	NO-C/11	1	80%	1,382	6,634	6,634	13,931	14,627	41,825	
Dr. Abdullah H. Baqui	P-5/7	1	10%	11,225	-	6,735	14,144	14,851	35,729	
Prof. V. I. Mathan *	D-1/7	1	5%	-	-	-	-	-	-	
Prof. Lars Ake Persson *	D-1/1	1	5%	-	-	-	-	-	-	
Mr. Zeaur Rahim	NO-C/9	1	100%	1,368	8,208	8,208	17,237	18,099	51,751	
Dr. Md. Yunus	NO-D/21	1	5%	1,995	-	599	1,257	1,320	3,175	
Mr. J. Chakrabarty	NO-C/14	1	5%	1,390	-	417	876	919	2,212	
Dr. Sayera Banu	Spl Level	1	24%	388	-	560	1,177	1,236	2,973	
Dr. Shams El Arifeen	NO-C/7	1	10%	1,307	-	784	1,647	1,729	4,160	
Dr. Anisur Rahman	NO-B/7	1	10%	1,008	-	605	1,270	1,334	3,208	
Ms. Nazma Begum	NO-A/6	1	25%	764	-	1,146	2,407	2,527	6,080	
Mr. S.A.K.M. Mansur	NO-A/2	1	25%	695	-	1,043	2,189	2,299	5,530	
Medical Officer	NO-A/1	1	100%	669	-	4,014	8,429	0	12,443	
Programmer	GS-6/2	1	50%	495	-	1,485	1,559	0	3,044	
SFRO **	GS-6/1	1	100%	470	-	2,820	5,922	0	8,742	
Research Officer (Lab)	GS-5/1	1	100%	364	-	0	4,368	4,674	9,042	
Secretary Gr-II	GS-5/1	1	40%	364	-	874	1,835	1,926	4,634	
Medical Assistant	GS-4/1	1	100%	267	-	1,602	3,364	0	4,966	
Health Assistant **	GS-3/1	8	100%	244	4,392	11,712	24,595	0	40,699	
Data Mgt.Assistant Gr-II	GS-3/1	1	100%	244	-	1,464	3,074	3,228	7,767	
Lab Technician	GS-3/1	1	100%	220	-	1,320	2,772	2,910	7,002	
Driver	GS-2/1	1	25%	199		299	627	657	1,583	
Office Attendant	GS-1/1	1	100%	179	-	1,074	2,255	2,368	5,698	
Existing/Regular CHWs **	Spl Level	60	10%	105	-	3,780	7,938	0	11,718	
Consultant					-	5,000	5,000	0	10,000	
	SUB-TOTAL:				19,234	62,173	127,872	74,703		283,982
TRAVEL COSTS										
International travel					0	3,000	8,000	8,000	19,000	
Local transportation cost ***					500	7,647	11,879	3,750	23,776	
	SUB-TOTAL:				500	10,647	19,879	11,750		42,776
SUPPLIES & OTHER COSTS										
Computers (3)/printer/UPS/accessories etc.					9,675	0	0	0	9,675	
Office & field supplies					500	1,517	2,050	1,533	5,600	
Communications, rents and utilities					200	800	1,250	1,250	3,500	
Printing & Publications of forms					0	4,500	2,500	0	7,000	
Cold box (25)					0	450	0	0	450	
Microscope Lense (2)					1,000	0	1,000	0	2,000	
Xerox Machine					0	2,700	0	0	2,700	
Media and chemicals					5,500	5,500	17,000	11,000	39,000	
Lab equipment ±					16,800	0	0	0	16,800	
Training cost (including travel & subsistance allowance)					8,500	1,000	1,000	0	10,500	
Dissemination costs					0	500	500	2,000	3,000	
	SUB-TOTAL:				42,175	16,967	25,300	15,783		100,225
INTER-DEPARTMENTAL SERVICES										
Repair & maintenance					500	1,000	1,500	500	3,500	
Transport (land & water)					500	3,700	7,800	4,800	16,800	
Guest house costs					500	1,500	2,000	2,000	6,000	
Fuel costs					500	850	1,750	500	3,600	
Medical Illustration					0	500	750	750	2,000	
Mimeography, Library charge etc.					0	750	1,200	1,250	3,200	
	SUB-TOTAL:				2,000	8,300	15,000	9,800		35,100
TOTAL DIRECT COSTS:					63,909	98,087	188,051	112,037		462,084
OVERHEAD @25%:					15,977	24,522	47,013	28,009		115,521
TOTAL PROJECT COSTS:					79,886	122,609	235,064	140,046		577,604

* Salary covered by the Centre

** Field staff have been budgeted for one and half years only.

*** Includes local porters and boatmen's salary costs

± Biosafety cabinet, analytical balance, freezer, vortex mixer, micropipet, centrifuge machine, electrophoretic apparatus etc.

30. 4. 2000

M. Rahman Chowdhury
Senior Budget & Cost Officer
ICDDR, B, Mohakhali
Dhaka-1212, Bangladesh.

\sm\chp\proposal\tb\budget.xls (sent to USAID)

Budget justification

The total duration of the proposed study will be of 36 months. The study involves recruitment and training of staffs, training of laboratory personnel to set up laboratory testing of tuberculosis within the GoB system, field activities (surveillance, interviewing, referral of patients), DOTS assessment and laboratory testing of specimens. One microbiologist from ICDDR,B and one GoB staff will be trained in India on conventional culture method. In addition ICDDR,B personnel will be trained in Peru on rapid diagnostic methods on tuberculosis. During the first 6 months of the study DOTS assessment will be carried out in addition to training activities. Accordingly the salaries of the PIs from PHSD and LSD and three health assistants have been budgeted during that period. Other investigators have been budgeted for 30 months and field staffs for 18 months. Data management and analysis will be ongoing activities of the project.

Justification

Investigators - The amount budgeted for the investigators reflects a reasonable estimate of the minimum time required to implement the study. These investigators are expected to give inputs on an ongoing basis. The Head of Matlab HRP (Dr. Md. Yunus), Senior Manager, CHRU, Matlab HRP (Mr. Chakraborty) and Senior Medical Officer (Dr. Anisur Rahman), CRU, Matlab HRP will play role to ensure that the project is implemented smoothly - they have been budgeted 5%-10% of their time. Role of the investigators is given in the attached work sheet.

Medical officer (1) - work with GoB medical officers in examining referred patients, sending samples for investigations and providing treatment.

Senior Field Research officer (SFRO) (1) - responsible for over all supervision of field activities and data collection methods. Also responsible to assist investigators for preparation of questionnaires and training of field staffs.

Research officer (Laboratory) (1) - will assist PI in further characterization of tubercle isolates during 2nd and 3rd year of the study.

Laboratory technician - will be responsible for recording and processing of specimens in Shymoli TB clinic in Dhaka.

Health Assistant (8) - Will be involved in case identification, DOTS assessment and contact tracing of cases in Dhaka and Matlab. They will interview patients in the field and refer patients to THC at Matlab. Will also collect data from family contacts of positive cases in Matlab and Dhaka. It is expected that health assistants will require to collect data (detailed sociodemographic and illness history) from about 2000 suspected cases of tuberculosis (assuming 522 positive cases) at Matlab over one year period. Three health assistants are required for these activities. Another 3 health assistants will be involved in DOTS assessment at Matlab and also collect data form 150 family contacts. Two health assistants will do family studies in Dhaka and collect data from patients attending Shymoli TB clinic (about 1000 over two years).

Medical assistant - Will work in the Shymoli TB clinic in Dhaka. S/he will be responsible for extracting data from GoB records.

Driver (25%) - included in the budget for transportation to coordinate activities between Shymoli TB clinic and ICDDR,B and also for supervision of field activities.

Data Staff:

Data manager- will be responsible for overall data management, assist programmer, coordinate with the field sites and ensure timely collection of data.

Office manager (25%) - will ensure overall logistics of the project.

Programmer (50%)- will be responsible for designing systems for analysis of data.

Data Management Assistant (1)- responsible for entry and cleaning of data

Consultants : will advise and guide time to time for smooth running of the project

Supplies: Three (3) computers for data entry and analysis will be required for the study. These computers will be used by the investigators in PHSD, LSD and also by the programmer and data management assistant both in Dhaka and Matlab. Cold boxes are for transport of specimens from Matlab to Dhaka and from within Dhaka. Microscope lenses (2) will be used in the existing microscopes in Dhaka and Matlab laboratories for sputum examination. The following equipments will be purchased for the project: Biosafety cabinet, analytical balance, freezer, vortex mixer, micropipet, centrifuge machine, electrophoretic apparatus etc. Partial cost for xerox machine is included in the budget. With support from other project a xerox machine will be procured. This is for copying of forms and relevant papers.

Fax . 880-2-886-050

Reviewer # 1

Title: Surveillance of multidrug resistance tuberculosis and development of cost effective tuberculosis control strategies in Bangladesh

Summary of Referee's Opinions: Please see the following table to evaluate the various aspects of the proposal by checking the appropriate boxes. Your detailed comments are sought on a separate, attached page.

	Rank Score		
	High	Medium	Low
Quality of Project		✓	
Adequacy of Project Design		✓	
Suitability of Methodology		✓	
Feasibility within time period		✓	
Appropriateness of budget		✓	
Potential value of field of knowledge		✓	

CONCLUSIONS

I support the application:

a) without qualification ✓

b) with qualification

- on technical grounds

- on level of financial support

I do not support the application

March 16, 2000

The project is the first incursion by ICDDR.B into this major public health problem, tuberculosis. The authors indicate there is little epidemiologic data on tbc in Bangladesh, but are able to quote a number of studies that form the basis of their new program. I think there is no question that tuberculosis is a disease that should be addressed by the Centre, and, as the authors point out, this will need to begin from scratch: training personnel, obtaining appropriate equipment, setting up adequate laboratory diagnostic tests and establishing field studies.

The program has a strong set of co-investigators (many of them unpaid) which will undoubtedly help in establishing the different methodologies. But I note that no person from the Government of Bangladesh has yet been identified. This would seem to be a crucial point; persons at the Government tbc lab should be involved as co-investigators as well, it seems. And particularly if the GOB will eventually take over this ongoing work, they must be involved at the very earliest stage.

The hypotheses and aims seem appropriate for this base-line type of study.

The methods involve first training (India and Peru) which is critical, and establishing the diagnostic labs, including the latest in new technologies. The types of studies are appropriate, both in Dhaka and in Matlab. The investigators are very experienced in doing these types of epidemiologic studies, and with the appropriate laboratory backup, these should be carried out extremely well.

I am concerned about the training: both choosing the appropriate person(s) to be trained, and making sure the training is of adequate duration to be complete. I trust this will be given careful consideration.

The authors do not mention tuberculin skin testing; I presume this is not going to be done. Is this because of the wide-spread use of BCG at birth in this population? Perhaps this should be explained.

Budget: This seems adequate and justified, but the equipment to be purchased is not identified.

On page 21, the collaboration should involve the other institutions mentioned, such as UPCH in Lima, and the institute in India.

Reviewer # 2

Title: Surveillance of multidrug resistance tuberculosis and development of cost effective tuberculosis control strategies in Bangladesh

Summary of Referee's Opinions: Please see the following table to evaluate the various aspects of the proposal by checking the appropriate boxes. Your detailed comments are sought on a separate, attached page.

	Rank Score		
	High	Medium	Low
Quality of Project	✓		
Adequacy of Project Design		✓	
Suitability of Methodology		✓	
Feasibility within time period	✓		
Appropriateness of budget		✓	
Potential value of field of knowledge	✓		

CONCLUSIONS

I support the application:

a) without qualification

b) with qualification ✓

- on technical grounds ✓

- on level of financial support

I do not support the application

Name of Referee:

Review of ICDDRB protocol entitled " Surveillance of multidrug resistance tuberculosis and development of cost effective tuberculosis control strategies in Bangladesh".

In the context of the Tuberculosis situation in Bangladesh, the stated objectives of this protocol which seek to determine the extent of multidrug resistant Tuberculosis and help GOB in establishment/ strengthening of diagnostic facilities, are most certainly of contemporary importance in the Bangladesh scenario with respect to Tuberculosis.

However with respect to Epidemiology of the disease, what new information the study is likely to generate, is not clear and needs to be spelled out.

OBSERVATIONS:

- As stated on pp. 9, should the improved tests turn out to be "unsuitable" what do the investigators propose to do Re: Objective of establishment/ strengthening GOB facilities or for that matter how MDR TB surveillance could be undertaken as the surveillance itself is stated to be dependent on development of improved and sensitive tests.

- Re; page 10, how long the surveillance for family contacts is expected to continue? What is the objective of studying 100 non-cases from Dhaka and what is the basis of the aforesaid sample size?

- Re: page 13 it is stated that for recording routine Demographic events there is one CHW for 1800 persons. How many CHW or field workers are envisaged to be engaged to detect 522 sputum +ive cases from a population with prevalence rate of 0.87% under 15 years?

- The sample size(s) at different study sites need to be spelled out in a simplified, logical, sequential fashion for better comprehension.

- The Objective # 4 with reference to evaluation of multiple aspects DOTS and the mechanism stated therein on page 14, makes the study complex, and multi headed, and are therefore recommended to be dropped.

- The title statement of "development of cost effective Tuberculosis CONTROL strategies in Bangladesh " is beyond scope of the protocol in its present form and the title is suggested to be accordingly modified.

- The protocol may be considered for approval subject to satisfactory accommodation of above mentioned observations.

Response to external Reviewers' comments

Reviewer # 1

Person from GoB

Dr. Jahanara Begum, junior consultant of Shymoli TB clinic has been identified for the training at the WHO Reference Laboratory in India. She has been included as one of the coinvestigators of the project. From the very beginning of the development of the project the junior consultant of Shymoli TB clinic has been involved in upgrading the laboratory and identification of the personnel for the training.

Training

Both the ICDDR,B microbiologist and the GoB personnel will be trained in India on conventional culture method. The duration of the training in India will be of 3 months. In addition, ICDDR,B microbiologist will be trained in Lima, Peru on newly developed rapid diagnostic techniques. The expected duration of the training will be about 2 months.

Tuberculin skin test

In the proposed study we will not perform tuberculin testing. Limitations of the method are now clearly recognised: (1) the estimation of tuberculosis incidence from the annual risk of infection is no longer accepted and (2) the application of tuberculin testing in population with a high coverage of BCG vaccination is under debate (Borgdorff, 1999). The BCG vaccines are routinely given to infants in the intervention area of Matlab HDSS and the coverage is very high (~95%). This has been mentioned on page 14.

Budget

The following equipments will be purchased for the project: Biosafety cabinet, analytical balance, freezer, vortex mixer, micropipet, centrifuge machine, electrophoretic apparatus etc. These have been mentioned in the budget section.

Page 21

Collaboration with Institutes in Peru and India have been mentioned (page-22).

Response to external Reviewers' comments

Reviewer # 2

The study will provide basic epidemiological information in terms of incidence, prevalence, seasonality and risks factors of tuberculosis in Bangladesh. The nationwide prevalence survey was conducted in Bangladesh about 13 years ago (DG, 1989). Some data on resistance patterns on TB are available from urban areas but the sample size was low. The proposed study will provide an updated information on drug resistance patterns of *M. tuberculosis* that will be helpful for treatment of patients. It has been mentioned in the significance section of the study (page-9).

Observations # 1

Both new tests and conventional method will be used for culture of TB bacilli and determining its drug sensitivity. The new tests will be compared and validated with the conventional method. The new tests have been standardized and already in place in USA and Peru (results already published). After proper training we hope to establish the new tests in our settings. The primary analysis will be based on conventional culture method. Both the conventional and new tests will continue.

Observations # 2

The surveillance for the family contacts will take place for 18 months both in Dhaka and Matlab. It has been estimated that we require families of 360 index cases (1800 family members required-reference sample size calculation). We plan to conduct 10 family studies each in Dhaka and Matlab in a month. The case control study has been designed to study the factors associated with the cases. With the following assumptions we require 89 controls for the study. Assuming 10% loss of follow up the required sample size is 99 (~100).

ALPHA Type I error	BETA Type II error	PHI Correlation coefficient for exposure between matched cases and controls	P0 Probability of exposure in control group	M Number of matched controls case	PSI Odds ratio	Sample size
0.05	0.2	0.1	0.5	1	2.5	89

Observations # 3

The regular CHWs in the intervention area of Matlab HDSS (total nos. 60) will enquire if any members of the household aged 15 years and above has any symptoms suggestive of TB (cough

> 3 weeks) during their routine monthly visit . A detailed history of illnesses and sociodemographic data will be collected from these suspected cases by a separate group of health workers through home visits. CHWs initially conduct surveillance in the Matlab intervention area of HDSS for 18 months.

Observations # 4

All calculation for sample sizes have been given together (page - 16).

Observations # 5

The study will involve extensive TB surveillance in the intervention area of Matlab HDSS. All suspected cases of TB will be referred to Matlab for necessary investigations and treatment. Directly observed therapy short course (DOTS) has been regarded as major breakthrough in the control of TB. In Bangladesh DOTS has now been implemented in most of the thanas. Although studies have shown a very high treatment success rate with DOTS (~80%) in Bangladesh, the impact of DOTS in reducing the incidence and transmission has not been extensively studied. The number of patients currently enrolled under DOTS programme at Matlab is grossly under representative. So we think that it is a good opportunity to estimate success and failure rates of DOTS programme at Matlab and to identify the strategies for further improvements of DOTS. Detailed methodology has been given in the section assessment of DOTS (page 15-16).

Observations # 6

Rapid and low cost tests are needed to diagnose TB and determine its susceptibility patterns. Two newly developed rapid diagnostic tests (MODS and MABA) will be established. The new tests will be compared and validated with the conventional methods to determine cost effectiveness for Bangladesh. We have budgeted a health economist as consultant to assist analysis of cost effectiveness (under consultant category).

Biography of the investigators

1. **(I) Name :** K. Zaman, MBBS, MPH, PhD Birth date : April 7, 1953

(ii) Designation : Epidemiologist

(iii) Official Address with telephone : Child Health Programme, Public Health Sciences Division, ICDDR,B,Dhaka, Bangladesh, Tel: 8811751- 60 ext. 2246

2. **Academic Background:**

Degree	University	Field	Year
PhD	Johns Hopkins University	International Health	1999
MPH	Johns Hopkins University	International Health	1992
MBBS	Rajshahi University	Medicine, Paediatrics	1978

3. Professional experience

Epidemiologist (July 1999 -) - Child Health Programme, Public Health Sciences Division, ICDDR,B
Teaching Assistant (Nov 1998-Jan 1999) - Department of International Health, Johns Hopkins University, Baltimore, MD.
Assistant Scientist (Feb 1988 -) - ICDDR,B Matlab Health Research Programme
Senior Physician In-Charge (March 1999 - July 1999) - ICDDR,B Matlab Health Research Program
Manager, Clinical Research Unit (March 1997 -March 1999) - ICDDR,B Matlab Health Res. Program
Senior Medical Officer I (July 1993-March 1997) - ICDDR,B Matlab Health Research Program
Senior Medical Officer II (June 1984-June 1993) - ICDDR,B Matlab Health Research rogram
Medical Officer (Dec 1979- June 1984) - ICDDR,B Matlab Health Research Program
Assistant Surgeon (Dec 1978-Dec 1979) - Rajshahi Medical College Hospital, Bangladesh

4. **Field of Speciality:** Epidemiology, Infectious diseases, International Health, Paediatrics

5. **(a) Research Experience:** Experienced in the design, implementation, and analysis of data from clinical and community-based epidemiological studies for 20 years

(b) Other Experience:

Patient care: Clinical care of the patients with diarrhoeal and respiratory diseases
Teaching: Served as a faculty member in different courses on 'Epidemiological methods in Public Health' organized by the ICDDR,B
Teaching Assistant: Department of International Health, Johns Hopkins University, USA
Administration: Overall supervision and management of ICDDRB Matlab Diarrhea Treatment Centre, MCH-FP clinic and Staff clinic

Publications of Dr. K. Zaman

1. **Zaman K.** Children's fluid intake during diarrhea: a comparison of questionnaire responses with data from observations. Doctor of Philosophy dissertation. **Johns Hopkins University School of Hygiene and Public Health**, Baltimore, Maryland, USA, 1999.

2. **Zaman K,** Baqui AH, Yunus M, Sack RB, Bateman OM, Chowdhury HR, Black RE. Acute respiratory infections in children: a community based longitudinal study in rural Bangladesh. **J Trop Pediatrics** 1997;43:133-137.

3. **Zaman K**, Baqui AH, Yunus M, Sack RB, Chowdhury HR, Black RE. Malnutrition, cell-mediated immune deficiency and acute upper respiratory infections in rural Bangladeshi children. **Acta Paediatrica** 1997; 86: 923-927.

4. **Zaman K**, Zeitlyn S, Chakraborty J, Francisco A de, Yunus M. Acute lower respiratory infections in rural Bangladeshi children: patterns of treatment and identification of barriers. **Southeast Asian J Trop Med Pub Hlth** 1997;28:99-106.

5. **Zaman K**, Baqui AH, Yunus M, Sack RB, Bateman OM, Chowdhury HR, Black RE. Association between nutritional status, cell-mediated immune status and acute lower respiratory infections in Bangladeshi children. **Eur J Clin Nutr** 1996; 50: 309-314.

6. **Zaman K**, Yunus M, Baqui AH, Hossain KMB. Surveillance of Shigellosis in rural Banghladesh : A 10 year review. **J Pak Med Asso** 1991; 41: 75 - 78.

7. **Zaman K**, Yunus M, Hossain KMB. Changing pattern of bio and serotypes of Vibrio cholerae 01 in rural Bangladesh. **J Pak Med Asso** 1987; 37: 57.

8. **Zaman K**, Baqui AH, Yunus M. Hypokalaemia and urinary anomalies in children with diarrhoea in rural Bangladesh. **J Pak Med Asso** 1986; 36: 20 - 21.

9. **Zaman K**, Islam MR, Baqui AH, Yunus M. Hypokalaemia in children with diarrhoea in rural Bangladesh. **Indian J Med Res** 1985; 81: 169 - 174.

10. **Zaman K**. Islam MR, Baqui AH, Yunus M. Nutritional status and electrolyte anomalies in children with diarrhoea in rural Bangladesh. **Nutr Rep Int** 1984; 30: 865 - 871.

11. **Zaman K**, Yunus M, Baqui AH. 100 years of cholera. **The Pulse** 1984; 53: 11 - 12.

12. **Zaman K**, Yunus M, Baqui AH, Hossain KMB, Khan MU. Cotrimoxazole resistant Shigella dysenteriae type 1 outbreak in a family in rural Bangladesh. **Lancet** 1983; ii: 796 - 797.

13. Henning B, Stewart K, **Zaman K**, Alam AN, Brown KH, Black RE. Lack of therapeutic effect of Vitamin A for non-cholera, watery diarrhoea in Bangladeshi children. **Eur J Clin Nutn** 1992; 46 : 437- 443.

14. The cholera working group, ICDDR,B: Albert MJ, Ansaruzzaman M, Bardhan PK, Faruque ASG, Islam MS, Mahalanabis D, Sack RB, Salam MA, Siddique AK, Yunus M, **Zaman K** (in alphabetical order).A large epidemic of cholera like disease in Bangladesh

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15. Baqui Abdullah H, Yunus M, **Zaman K**. Community-operated treatment centres prevented many cholera deaths. **J Diar Dis Res** 1984; 2: 92 - 98.

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Curricula vitae of DR. ABDULLAH HEL BAQUI

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(d)	Current employment (position, institution and address)	Position: Senior Epidemiologist and Head, Child Health Programme Department: Public Health Sciences Division Institution: International Centre for Diarrhoeal Disease Research, Bangladesh (ICDDR,B), GPO Box 128, Dhaka-1000, Bangladesh Date of appointment: January 1998
(e)	Previous employment	1994-1997: Project Director, MCH-FP Extension Project (Urban), ICDDR,B 1994-1994: Associate Project Director, Urban Health Extension Project, ICDDR,B 1990-1994: Head, Research and Evaluation, Urban Health Extension Project, ICDDR,B 1987-1990: Assistant Scientist, Department of Epidemiology, ICDDR,B 1981- 1984: Senior Medical Officer and In-Charge of Clinical Services, Matlab Health Research Station, ICDDR,B
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(g)	Most recent, significant or relevant publications	Baqui AH, Black RE, Arifeen SE, Hill, K, Mitra SN and Sabir AA. Causes of childhood deaths in Bangladesh: results of a nation-wide verbal autopsy study. Bull WHO 1998;76:161-171. Baqui AH, de Francisco A, Arifeen SE, Siddique AK, Sack RB. Bulging fontanelle after supplementation with 25,000 IU of vitamin A in infancy using immunization contacts. Acta Paediatrica. 1995;85:863-6. Baqui AH, Arifeen SE, Amin S & Black RE. Levels and Correlates of Maternal Nutritional Status in Urban Bangladesh European Journal of Clinical Nutrition, 1994;48:349-57

(g)	Publications (continue...)	Baqui AH, Black RE, Sack RB, Chowdhury HR, Yunus M, Siddique AK. Malnutrition, Cell-Mediated immune deficiency and diarrhoea: A community-based longitudinal study in rural Bangladeshi children. Am J Epidemiol 1993; 137(3):355-65. Baqui AH, Sack RB, Black RE, Yunus M, Haider K, Alim ARM, Siddique AK. "Enteropathogens associated with Acute and Persistent Diarrhoea in Rural Bangladeshi Children". The Journal of Infectious Disease 1992; 166:792-6 Baqui AH, Black RE, Sack RB, Yunus M, Siddique AK and Chowdhury HR. Epidemiologic and clinical characteristics of Acute and Persistent Diarrhoea in Rural Bangladeshi Children. Acta Padded Scand Suppl 381:15-21, 1992 Osendarp SJM, Van Raaij JMA, Arifeen SEA, Wahed MA, Baqui AH, and Fuchs GJ. A randomized, placebo-controlled trial of the effect of zinc supplementation during pregnancy on pregnancy outcome in Bangladeshi urban poor. Am J Clin Nutr 2000;71:114-9. Arifeen SE, Black RE, Caulfield LE, Antelman G, Baqui AH, Nahar Q, Alamgir SU and Mahmud H. Infant growth patterns in the slums of Dhaka in relation to birth weight, intrauterine growth retardation and prematurity. Am J Clin Nutr (accepted). Ali M, Emch M, Tofail F and Baqui AH. Implications of health care provision on acute lower respiratory infection mortality in Bangladeshi children. Social Science & Medicine (in press). Arifeen SE, Black RE, Caulfield LE, Antelman G and Baqui AH. Determinants of infant growth in the slums of Dhaka: size and maturity at birth, breastfeeding and morbidity. Am J Clin Nutr (in press).

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Academic Qualification:

Degree	University	Discipline
M.S,1993	University of Paris VII	Department of Biochemistry
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Professional Experience:
Associate Scientist, ICDDR,B (1st May 1992 - Onward).

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Senior Research Officer, Clinical Microbiology Section, ICDDR,B
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Trainer (Research Officer) in ICDDR,B Training Laboratory,
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Research Trainee in ICDDR,B (4th July 1981 to 25th of
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Scientific publication:

Islam, M.S., **Z. Rahim,** M.J. Alam, S. Begum, S.M. Moniruzzaman, .A. Umeda, K. Amako, M.J. Albert, R.B. Sack,A. Huq and R.R. Colwell. Association of cyanobacterium, Anabaena sp., with *Vibrio cholerae* 01 elucidated by polymerase chain reaction and transmission electron microscopy. Trans. R. Soc. Trop. Med, Hyg. 93:36-40,1999.

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Curricula vitae of DR. SHAMS EL ARIFEEN

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(e)	Previous employment	1994-1997 - MCH-FP Program Specialist, MCH-FP Extension Project (Urban)/Operations Research Project, ICDDR,B 1993-1994 - Senior Research Investigator, Urban Health Extension Project/MCH-FP Extension Project (Urban), ICDDR,B: 1992-1993 - Research Investigator, Urban Health Extension Project, ICDDR,B:
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(g)	Most recent, significant or relevant publications	Perry H, Weierbach R, Arifeen SE, Hossain I. A comprehensive assessment of the quality of immunization services in one major area of Dhaka City, Bangladesh. Trop Med Int Health 1998;3:981-92. Baqui AH, Black RE, Arifeen SE, Hill, K, Mitra SN and Sabir AA. Causes of childhood deaths in Bangladesh: results of a nation-wide verbal autopsy study. Bull WHO 1998;76:161-171. Arifeen SE. Birth weight, intrauterine growth retardation and prematurity: a prospective study of infant growth and survival in the slums of Dhaka, Bangladesh. Doctor of Public Health dissertation. Johns Hopkins University School of Hygiene and Public Health, Baltimore, Maryland, USA, 1997.

(g)	Publications (continue...)	Baqui AH, de Francisco A, Arifeen SE, Siddique AK, Sack RB. Bulging fontanelle after supplementation with 25,000 IU of vitamin A in infancy using immunization contacts. Acta Paediatrica. 1995;85:863-6. Baqui AH, Arifeen SE, Amin S & Black RE. Levels and Correlates of Maternal Nutritional Status in Urban Bangladesh European Journal of Clinical Nutrition, 1994;48:349-57.

Curriculum-Vitae

Name	Position	Date of birth
Mohammad Yunus	Scientist and Head, Matlab Health Research Programme, PHSD, ICDDR,B	January 5, 1945

Academic Qualifications (Begin with baccalaureate or other initial professional education)

Institution and Location	Degree	Year	Field of Study
Dhaka Medical College, University of Dhaka, Dhaka, Bangladesh	M.B.B.S.	1968	Medicine
London School of Hygiene and Tropical Medicine, London, UK	M.Sc.	1982	Community Health in Developing countries

Research and Professional Experience

Concluding with the present position, list, in chronological order, previous positions held, experience, and honours. Indicate current membership on any professional societies or public committees. List, in, chronological order, the titles, all authors, and complete references to all publications during the past three years and to representative earlier publications pertinent to this application. (**Do not exceed two pages, use continuation sheets**).

Nov'1968-Sep'1976: **Physician**: Cholera Research Laboratory, Bangladesh

Oct'1976-Apr'1978: **Deputy Chief Physician**: Cholera Research Laboratory, Bangladesh

Apr'1978-Mar'1980: **Physician-in-charge**: Cholera Research Laboratory and International Centre for Diarrhoeal Disease Research, Bangladesh

Mar'1980-Oct'1983: **Head**: Matlab Station, International Centre for Diarrhoeal Disease Research, Bangladesh

Oct'1983-Sep'1985: **Coordinator**: Matlab Station and MCH-FP Extension Project, International Centre for Diarrhoeal Disease Research, Bangladesh

Sep'1985-Dec'1996: **Coordinator**: Matlab Health and Research Centre, International Centre for Diarrhoeal Disease Research, Bangladesh

Dec'1996-present: **Head**: Matlab Health (Services) Research Programme, International Centre for Diarrhoeal Disease Research, Bangladesh

Professional Organizations:

Bangladesh Medical Association	1972-
Bangladesh Association for the Advancement of Science	1979-
National Anti-Tuberculosis Association	1979-
Public Health Association of Bangladesh	1980-
Nutrition Society of Bangladesh	1991-
Bangladesh Population Association	1993-
Bangladesh Environmental Society	1994-

Selected Publications:

Yunus M, Rahman ASMM, Faruque ASG, Glass RI. A clinical trial of ampicillin versus trimethoprim-sulfamethoxazone in the treatment of Shigella dysentery. J Trop Med Hyg. 1982 Oct;85(5):195-9

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Yunus M, Aziz KMA, Zaman K. Message for parents: Diarrhoea. Child Health Dialogue 4th Quarter, 1996;5:5.

Sack RB, Rahman M, **Yunus M**, Khan EH. Antimicrobial resistance in organisms causing diarrhoeal diseases. Clin Infect Dis 1997 Jan;24(1 suppl):S102-5.

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Zaman K, Zeitlyn S, Chakraborty J, Francisco A de, **Yunus M**, Acute lower respiratory infections in rural Bangladeshi children: Patterns of treatment and identification of barriers. Southeast Asian J Trop Med Public Health 1997;28(1):99-106.

Francisco A de, Hall AJ, Unicomb L, Chakraborty J, **Yunus M**, Sack RB. Maternal measles antibody decay in rural Bangladeshi infants - implications for vaccination schedules. Vaccine 1998; 16(6): 564-56

Annex 1

Epidemiology and surveillance of multidrug resistant Mycobacterium tuberculosis and assessment of directly observed therapy short course (DOTS) programme in selected areas of Bangladesh

Abstract summary for ethical review committee

In Bangladesh, tuberculosis (TB) is considered a major public health problem. However, there is scarcity of epidemiological data. A recent analysis of global burden of TB revealed that Bangladesh rank as the fourth highest among 212 countries in 1997. An increasing levels of drug resistance TB has been reported and this level is expected to rise further. Better understanding of the magnitude of the problem of TB in Bangladesh and its drug susceptibility patterns are key elements for its effective control.

This study is planned to understand the epidemiology of tuberculosis, its drug susceptibility patterns and to identify risk factors for the development and transmission of tuberculosis. It is also planned to use recently developed rapid diagnostic tests for culture and determining drug susceptibility patterns against TB. The new tests will be validated with the conventional culture and sensitivity methods.

The study will be conducted at rural Matlab and urban Dhaka. All households in the ICDDR,B Matlab health and demographic surveillance system (HDSS) area are visited monthly by a community health worker (CHW). On each visit the CHW in the intervention area of Matlab HDSS will inquire if any member of the household aged 15 years and above has symptoms suggestive of TB (cough>3 weeks). A detailed history of illnesses and sociodemographic data will be collected from these suspected cases by a separate group of health workers through home visits. The CHW will refer all these cases to Matlab Thana Health Complex for doing sputum for acid-fast bacilli (AFB). Sputum samples from Matlab will be transported to Shymoli TB clinic in Dhaka for culture and susceptibility tests. To estimate and monitor antimicrobial resistance, a surveillance system will be set up in the Shymoli TB clinic. Sixty sputum smear positive cases will be cultured per month in the clinic. Both new test and conventional method will be used for culture and sensitivity. In addition families of 300 index cases will be conducted to study contact tracing and to estimate secondary spread.

Timely dissemination of the findings from the project, technical assistance to build the capacity of the national institutions and improved use of data for policy decisions will be important priorities of the project.

This study will provide updated information in terms of incidence, prevalence, seasonality and drug susceptibility patterns of tuberculosis. It is expected that after evaluation of potential risk factors we would be able to identify possible intervention strategies against tuberculosis. This would help the policy makers to establish future guidelines for the control of tuberculosis in

Bangladesh.

Strategies to address ethical issues:

1. The study will be conducted at rural Matlab and urban Dhaka. All persons aged > 15 years of age with symptoms suggestive of tuberculosis will be identified (expected number 2000) in the intervention area of Matlab Health and Demographic Surveillance System. They will be interviewed in their homes and referred to Matlab for complete physical check up and examination of sputum and X ray. Family studies will be conducted in Matlab and Dhaka. Families of TB cases (150 in Dhaka and 150 at Matlab) will be interviewed. A surveillance system for antimicrobial susceptibility will be set up in the Shymoli clinch in Dhaka. Sixty sputum smear positive cases will be cultured per month in the clinic. A detailed history of illnesses and sociodemographic data will be collected from these patients. In addition, a sample of 100 age sex matched controls will selected from the households of the cases to identify factors associated with TB.

2. There is no real risk involved in this study except minimal risk related to doing an X ray of the patients. All these patients are suspected cases of tuberculosis. Only one X ray will be done which will be needed for the diagnosis.

3. Standardized X ray procedures will be used.

4. Identification of all study participants will remain confidential. Records will be used by study staff only. Every effort will be made to keep the records as confidential as possible. All data forms will be kept in a locked file cabinet. Data will be analyzed and published without reference to any name or other identity.

5. All study subjects will have the study explained to them and will be asked if they agree to participate in the study. Those who agree to participate will be required to sign consent form. In cases of minors, consent will be obtained from the legal guardian. No information regarding potential risks will be withheld.

6. Patients will be interviewed in the hospital or at their homes (Matlab and Dhaka). They will be asked regarding their past and present illnesses and socioeconomic conditions. This interview will not take more than 30 minutes.

7. Patients and their families will be benefitted from the study. The cases will be diagnosed and treatment will be given free of costs. All patients will be given appropriate drugs after having sensitivity results

8. Hospital records will be reviewed. Sputum samples will be examined for microscopy and culture.

Annex - 2

REQUEST FOR INCLUSION IN TB SURVEILLANCE
CONSENT FORM

Title: Epidemiology and surveillance of multidrug resistant Mycobacterium tuberculosis and assessment of directly observed therapy short course (DOTS) programme in selected areas of Bangladesh

Principal Investigator: Dr. K. Zaman, Epidemiologist, Child Health Programme, Public Health Sciences Division, ICDDRB, Mohakhali, Dhaka- 1212

Study location: Matlab

In Bangladesh, tuberculosis (TB) is considered a major public health problem. It is the common cause of death from a single source of infection among adults. A recent analysis of global burden of TB revealed that Bangladesh rank as the fourth highest among 212 countries in 1997. In Bangladesh about 300,000 new cases of TB occur in a year and there are about 80,000 deaths. An increasing level of drug resistance TB has been reported and this level is expected to rise further. Mortality from multidrug resistant cases are very high. Better understanding of the magnitude of the problem of TB in Bangladesh and its drug susceptibility patterns are key elements for its effective control.

We are conducting a study to estimate the prevalence of TB and determine its susceptibility patterns. Prolonged cough is one of the important symptoms of TB. You have cough for more than three weeks and we would like to know more about its causes. If you agree to participate we will ask you some questions regrading your illness and socioeconomic conditions. This will take about 30 minutes to answer the questions. We will also refer you to the Matlab Thana Health Complex for complete physical examination, examination of sputum, chest X ray free of costs. You will be required to give 3 samples of sputum for the examinations. If you are diagnosed as a case of TB necessary treatment will be provided free of costs.

There are minimal risks involved in it. You and your family members will be benefitted from the study. Your participation is completely voluntary. You may decide not to participate in the study at all and this will not affect your treatment. You are at liberty to withdraw from the study at any time without any obligations and jeopardizing your medical care and treatment. Your identity will remain strictly confidential, but the records may be reviewed by representative of the authorities supporting this study.

If you are voluntarily willing to participate in the study, then please sign your name or give left thumb impression (LTI) below.
Consent: The study described above has been explained to me and I voluntarily consent to participate in it.

_____ _____

Signature of the interviewer
Date_____

Signature or LTI of the person
Date _____

REQUEST FOR INCLUSION IN FAMILY STUDIES

CONSENT FORM

Title: Epidemiology and surveillance of multidrug resistant Mycobacterium tuberculosis and assessment of directly observed therapy short course (DOTS) programme in selected areas of Bangladesh

Principal Investigator: Dr. K. Zaman, Epidemiologist, Child Health Programme, Public Health Sciences Division, ICDDRB, Mohakhali, Dhaka- 1212
Study location: Matlab and Dhaka

In Bangladesh, tuberculosis (TB) is considered a major public health problem. It is the common cause of death from a single source of infection among adults. A recent analysis of global burden of TB revealed that Bangladesh rank as the fourth highest among 212 countries in 1997. In Bangladesh about 300,000 new cases of TB occur in a year and there are about 80,000 deaths. An increasing level of drug resistance TB has been reported and this level is expected to rise further. Mortality from multidrug resistant cases are very high. Better understanding of the magnitude of the problem of TB in Bangladesh and its drug susceptibility patterns are key elements for its effective control.

We are conducting a study to find out transmission patterns of TB among the contacts (family members). One of your family members has been suffering from TB. We are interested to know whether any other family members have any symptoms suggestive of TB. Prolonged cough is one of the important symptoms of TB. We will refer you/your child to the hospital (Matlab THC for Matlab and Shymoli TB clinic for Dhaka family studies) if you/your child have any cough for more than 3 weeks. The sputum samples will be examined in the hospital for AFB (Matlab & Dhaka) and cultured for TB bacilli to determine its sensitivity patterns (Dhaka). If you agree to participate, we will ask you some questions regrading your illness and socioeconomic conditions. This will take about 30 minutes to answer the questions. All treatment and investigations will be free of costs.

There are minimal risks involved in it. You and your family members will be benefitted from the study. Your participation is completely voluntary. You may decide not to participate in the study at all and this will not affect your treatment. You are at liberty to withdraw from the study at any time without any obligations and jeopardizing your medical care and treatment. Your identity will remain strictly confidential, but the records may be reviewed by representative of the authorities supporting this study.

If you (or allow your child) are voluntarily willing to participate in the study, then please sign your name or give left thumb impression (LTI) below (guardians in case of minors) .

Consent: The study described above has been explained to me and I voluntarily consent to participate in it.

_____ _____

Signature of the interviewer
Date_____

Signature or LTI of the person/guardian
Date _____

REQUEST TO PARTICIPATE AS CONTROL
CONSENT FORM

Title: Epidemiology and surveillance of multidrug resistant Mycobacterium tuberculosis and assessment of directly observed therapy short course (DOTS) programme in selected areas of Bangladesh

Principal Investigator: Dr. K. Zaman, Epidemiologist, Child Health Programme, Public Health Sciences Division, ICDDRB, Mohakhali, Dhaka- 1212

Study location: Dhaka

In Bangladesh, tuberculosis (TB) is considered a major public health problem. It is the common cause of death from a single source of infection among adults. A recent analysis of global burden of TB revealed that Bangladesh rank as the fourth highest among 212 countries in 1997. In Bangladesh about 300,000 new cases of TB occur in a year and there are about 80,000 deaths. An increasing level of drug resistance TB has been reported and this level is expected to rise further. Mortality from multidrug resistant cases are very high. Better understanding of the magnitude of the problem of TB in Bangladesh and its drug susceptibility patterns are key elements for its effective control.

We are conducting a study to determine the risk factors associated with TB. You have been selected as a control person for a TB case matched with age and sex. If you agree to participate, we will request you to provide information on your illnesses and socioeconomic conditions. This will take about 30 minutes to answer the questions.

Your information will be helpful in planning future intervention strategies to prevent TB in Bangladesh. There are minimal risks involved in it.. Your participation is completely voluntary. You may decide not to participate in the study at all and this will not affect your treatment. You are at liberty to withdraw from the study at any time without any obligations and jeopardizing your medical care and treatment. All information will be kept confidential but the records may be reviewed by representative of the authorities supporting this study.

If you are voluntarily willing to participate in the study, then please sign your name or give left thumb impression (LTI) below.

Consent: The study described above has been explained to me and I voluntarily consent to participate in it.

_____ _____

Signature of the interviewer
Date_____

Signature or LTI of the person
Date _____

REQUEST PATIENTS TO PARTICIPATE IN TB SURVEILLANCE, DHAKA
CONSENT FORM

Title: Epidemiology and surveillance of multidrug resistant Mycobacterium tuberculosis and assessment of directly observed therapy short course (DOTS) programme in selected areas of Bangladesh

Principal Investigator: Dr. K. Zaman, Epidemiologist, Child Health Programme, Public Health Sciences Division, ICDDRB, Mohakhali, Dhaka- 1212
Study location: Dhaka

In Bangladesh, tuberculosis (TB) is considered a major public health problem. It is the common cause of death from a single source of infection among adults. A recent analysis of global burden of TB revealed that Bangladesh rank as the fourth highest among 212 countries in 1997. In Bangladesh about 300,000 new cases of TB occur in a year and there are about 80,000 deaths. An increasing level of drug resistance TB has been reported and this level is expected to rise further. Mortality from multidrug resistant cases are very high. Better understanding of the magnitude of the problem of TB in Bangladesh and its drug susceptibility patterns are key elements for its effective control.

We are conducting a study to estimate the prevalence of TB and determine its susceptibility patterns. Prolonged cough is one of the important symptoms of TB. You have prolonged cough and subsequent sputum examination suggest that you have been suffering from TB. If you agree to participate we will culture your sputum samples for isolation of TB bacilli and determine its sensitivity patterns. This will facilitate to select appropriate drugs against TB. You will be given treatment of TB free of costs which may change after having the sensitivity results. We will ask you some questions regrading your illness and socioeconomic conditions. This will take about 30 minutes to answer the questions.

There are minimal risks involved in it. You and your family members will be benefitted from the study. Your participation is completely voluntary. You may decide not to participate in the study at all and this will not affect your treatment. You are at liberty to withdraw from the study at any time without any obligations and jeopardizing your medical care and treatment. Your identity will remain strictly confidential, but the records may be reviewed by representative of the authorities supporting this study.

If you are voluntarily willing to participate in the study, then please sign your name or give left thumb impression (LTI) below.

Consent: The study described above has been explained to me and I voluntarily consent to participate in it.

_____ _____

Signature of the interviewer
Date_____

Signature or LTI of the person
Date _____

যক্ষ্মা সার্ভেলেন্স প্রকল্পে অন্তর্ভূক্তিকরণের অনুরোধ
সম্মতিপত্র

Title: Epidemiology and surveillance of multidrug resistant Mycobacterium tuberculosis and assessment of directly observed therapy short course (DOTS) programme in selected areas of Bangladesh

প্রধান গবেষক:- ডাঃ কে জামান, এপিডেমিয়লজিস্ট, শিশু স্বাস্থ্য প্রোগ্রাম, পাবলিক হেল্‌থ সাইন্সেস ডিভিসন,
আই.সি.ডি.ডি.আর,বি, মহাখালি, ঢাকা।

প্রকল্পের অবস্থান :- মতলব

বাংলাদেশে যক্ষ্মা একটি অন্যতম প্রধান স্বাস্থ্য সমস্যা। সংক্রামক রোগের কারণে প্রাপ্তবয়স্কদের মৃত্যুর প্রধানতম কারণ হচ্ছে যক্ষ্মা। সাম্প্রতিক এক সমীক্ষাতে দেখা গেছে যে পৃথিবীর ২১২ টি দেশের মধ্যে ১৯৯৭ সালে যক্ষ্মা জনিত উদ্ভূত সমস্যাগুলোর ক্ষেত্রে বাংলাদেশ চতুর্থ স্থানে অবস্থান করছে। বাংলাদেশে প্রতি বছরে প্রায় তিন লক্ষ মানুষ যক্ষ্মায় আক্রান্ত হয় এবং যক্ষ্মা জনিত কারণে ৮০ হাজার রোগীর মৃত্যু ঘটে। তাছাড়া বর্ধিত হারে ঔষধ প্রতিরোধী যক্ষ্মার জীবাণূর কথা জানা যাচ্ছে এবং এটি ক্রমান্বয়ে বাড়ছে। ঔষধ প্রতিরোধী যক্ষ্মায় মৃত্যুর হার অনেক বেশী। যক্ষ্মা উদ্ভূত এই সমস্যার গভীরতার যথার্থ পরিমাপ এবং যক্ষ্মা জীবাণুর ঔষধ সংবেদনশীলতার ধরণ জানা যক্ষ্মা নিয়ন্ত্রণে অতীব জরুরী।

আমরা যক্ষ্মা রোগের ব্যাপ্তি এবং এর ঔষধ-সংবেদনশীলতা জানার জন্য একটি গবেষণা করছি।

দীর্ঘ স্থায়ী কাশি যক্ষ্মার অন্যতম প্রধান উপসর্গ। আপনার তিন সপ্তাহেরও অধিক সময় ধরে কাশি আছে এবং আমরা এর কারণ জানতে চাই। আপনি যদি এই গবেষণায় অংশগ্রহনে রাজি থাকেন তাহলে, আপনার অসুস্থতা এবং অর্থনৈতিক অবস্থা সম্পর্কে আমরা কিছু তথ্য সংগ্রহ করব যা করতে ত্রিশ মিনিটেরও কম সময় লাগবে। আমরা মতলব স্বাস্থ্য কমপ্লেক্সে বিনামূল্যে আপনার স্বাস্থ্য পরীক্ষা, কফ পরীক্ষা এবং এক্স-রে করার জন্য প্রেরণ করবো। আপনার তিনটি কফের নমুনা পরীক্ষার জন্য দিতে হবে। অতঃপর, যদি আপনাকে একজন যক্ষ্মা রোগী হিসাবে সনাক্ত করা হয়, তাহলে বিনামূল্যে আপনার চিকিৎসা দেয়া হবে।

আপনি ও আপনার পরিবারের সদস্যরা এর মাধ্যমে উপকৃত হবেন এবং এতে ঝুকির সম্ভাবনা অতি সমান্য। এতে আপনার অংশগ্রহন সম্পূর্ণভাবে স্বেচ্ছামূলক। আপনি এই গবেষণা প্রকল্পে অংশগ্রহন না করলেও চিকিৎসার কোন ত্রুটি হবে না। গবেষণায় অংশগ্রহন করার পরেও যে কোন সময় আপনি এই গবেষণা থেকে নিজেকে প্রত্যাহার করতে পারবেন। আপনার পরিচয় ও রোগ সংক্রান্ত তথ্য সম্পূর্ণভাবে গোপন রাখা হবে। কাজের খাতিরে প্রাপ্ত তথ্যসমূহ সংশ্লিষ্ট প্রতিনিধি পরীক্ষা করে দেখতে পারেন।

আপনি যদি স্বেচ্ছায় এই গবেষণায় অংশ গ্রহনে রাজি থাকেন, তাহলে নিম্নে আপনার স্বাক্ষর অথবা বাম বৃদ্ধাঙ্গুলির ছাপ দিন।

সম্মতিদান:- উপরে বর্ণিত গবেষণা প্রকল্প আমাকে ব্যাখ্যা করা হয়েছে এবং আমি স্বেচ্ছায় এই গবেষনা প্রকল্পে অংশ গ্রহন করতে সম্মতি দান করলাম।

তথ্য সংগ্রহকারীর স্বাক্ষর তারিখ:-	অংশগ্রহনকারীর স্বাক্ষর অথবা বাম বৃদ্ধাঙ্গুলির ছাপ তারিখ:-

যক্ষ্মা সার্ভেলেন্স প্রকল্পে পরিবারিক স্টাডিতে অন্তর্ভূক্তিকরণের অনুরোধ সম্মতিপত্র

Title: Epidemiology and surveillance of multidrug resistant Mycobacterium tuberculosis and assessment of directly observed therapy short course (DOTS) programme in selected areas of Bangladesh

প্রধান গবেষক:- ডাঃ কে জামান, এপিডেমিয়লজিস্ট, শিশু স্বাস্থ্য প্রোগ্রাম, পাবলিক হেল্‌থ সাইন্সেস ডিভিশন, আই.সি.ডি.ডি.আর,বি, মহাখালি, ঢাকা।

প্রকল্পের অবস্থান :- মতলব ও ঢাকা

বাংলাদেশে যক্ষ্মা একটি অন্যতম প্রধান স্বাস্থ্য সমস্যা। সংক্রামক রোগের কারণে প্রাপ্তবয়স্কদের মৃত্যুর প্রধানতম কারণ হচ্ছে যক্ষ্মা। সাম্প্রতিক এক সমীক্ষাতে দেখা গেছে যে পৃথিবীর ২১২ টি দেশের মধ্যে ১৯৯৭ সালে যক্ষ্মা জনিত উদ্ভূত সমস্যাগুলোর ক্ষেত্রে বাংলাদেশ চতুর্থ স্থানে অবস্থান করছে। বাংলাদেশে প্রতি বছরে প্রায় তিন লক্ষ মানুষ যক্ষ্মায় আক্রান্ত হয় এবং যক্ষ্মা জনিত কারণে ৮০ হাজার রোগীর মৃত্যু ঘটে। তাছাড়া বর্ধিত হারে ঔষধ প্রতিরোধী যক্ষ্মার জীবাণূর কথা জানা যাচ্ছে এবং এটি ক্রমান্বয়ে বাড়ছে। ঔষধ প্রতিরোধী যক্ষ্মায় মৃত্যুর হার অনেক বেশী। যক্ষ্মা উদ্ভূত এই সমস্যার গভীরতার যথার্থ পরিমাপ এবং যক্ষ্মা জীবাণুর ঔষধ সংবেদনশীলতার ধরণ জানা যক্ষ্মা নিয়ন্ত্রণে অতীব জরুরী।

আমরা যক্ষ্মা রোগীর সংস্পর্শে আসা পারিবারিক সদস্যদের যক্ষ্মা সংক্রামনের ধারা নির্ধারণের জন্য গবেষনা করছি। আপনার পরিবারের একজন সদস্য যক্ষ্মা রোগে ভুগছেন। আপনার পরিবারের অন্য কোন সদস্যের যক্ষ্মার মত উপসর্গ আছে কিনা তা আমরা জানতে চাই। দীর্ঘ স্থায়ী কাশি যক্ষ্মার অন্যতম প্রধান উপসর্গ। আপনার/ আপনার সন্তানের যদি তিন সপ্তাহের বেশী কাশি থাকে তাহলে আপনি/আপনার সন্তানকে হাসপাতালে প্রেরণ করা হবে (মতলব স্বাস্থ্য কমপ্লেক্সে / শ্যামলী স্বাস্থ্য কমপ্লেক্সে)। হাসপাতালে কফ পরীক্ষা(মতলব ও ঢাকা) করা হবে এবং কলচার করা হবে যক্ষ্মার রোগের জীবানু সনাক্তকরণ এবং ঔষধসংবেদনশীলতা জানার জন্য(ঢাকা)। আপনি যদি এই গবেষণায় অংশগ্রহনে রাজি থাকেন তাহলে, আপনার অসুস্থতা এবং অর্থনৈতিক অবস্থা সম্পর্কে আমরা কিছু তথ্য সংগ্রহ করব যা করতে ত্রিশ মিনিটেরও কম সময় লাগবে। সকল চিকিৎসা এবং প্রয়োজনীয় পরীক্ষা বিনামূল্যে করা হবে।

আপনি ও আপনার পরিবারের সদস্যরা এর মাধ্যমে উপকৃত হবেন এবং এতে ঝুকির সম্ভাবনা অতি সমান্য। এতে আপনার অংশগ্রহন সম্পূর্ণভাবে স্বেচ্ছামূলক। আপনি এই গবেষণা প্রকল্পে অংশগ্রহন না করলেও চিকিৎসার কোন ত্রুটি হবে না। গবেষণায় অংশগ্রহন করার পরেও যে কোন সময় আপনি এই গবেষণা থেকে নিজেকে প্রত্যাহার করতে পারবেন। আপনার পরিচয় ও রোগ সংক্রান্ত তথ্য সম্পূর্ণভাবে গোপন রাখা হবে। কাজের খাতিরে প্রাপ্ত তথ্যসমূহ সংশ্লিষ্ট প্রতিনিধি পরীক্ষা করে দেখতে পারেন।

আপনি (অথবা আপনার সন্তানকে) যদি স্বেচ্ছায় এই গবেষণায় অংশ গ্রহনে রাজি থাকেন, তাহলে নিম্নে আপনার স্বাক্ষর অথবা বাম বৃদ্ধাঙ্গুলির ছাপ দিন(শিশুদের ক্ষেত্রে অভিভাবক)।

সম্মতিদান:- উপরে বর্ণিত গবেষণা প্রকল্প আমাকে ব্যাখ্যা করা হয়েছে এবং আমি স্বেচ্ছায় এই গবেষণা প্রকল্পে অংশ গ্রহন করতে সম্মতি দান করলাম।

তথ্য সংগ্রহকারীর স্বাক্ষর তারিখ:-	অংশগ্রহনকারীর/অভিভাবকের স্বাক্ষর অথবা বাম বৃদ্ধাঙ্গুলির ছাপ তারিখ:-

যক্ষ্মা সার্ভেলেন্স প্রকল্পে অন্তর্ভূক্তিকরণের অনুরোধ
সম্মতিপত্র।

Title: Epidemiology and surveillance of multidrug resistant Mycobacterium tuberculosis and assessment of directly observed therapy short course (DOTS) programme in selected areas of Bangladesh

প্রধান গবেষক:- ডাঃ কে জামান, এপিডেমিয়লজিস্ট, শিশু স্বাস্থ্য প্রোগ্রাম, পাবলিক হেল্‌থ সাইন্সেস ডিভিশন,
আই.সি.ডি.ডি.আর,বি, মহাখালি, ঢাকা।

প্রকল্পের অবস্থান : ঢাকা

বাংলাদেশে যক্ষ্মা একটি অন্যতম প্রধান স্বাস্থ্য সমস্যা। সংক্রামক রোগের কারণে প্রাপ্তবয়স্কদের মৃত্যুর প্রধানতম কারণ হচ্ছে যক্ষ্মা। সাম্প্রতিক এক সমীক্ষাতে দেখা গেছে যে পৃথিবীর ২১২ টি দেশের মধ্যে ১৯৯৭ সালে যক্ষ্মা জনিত উদ্ভূত সমস্যাগুলোর ক্ষেত্রে বাংলাদেশ চতুর্থ স্থানে অবস্থান করছে। বাংলাদেশে প্রতি বছরে প্রায় তিন লক্ষ মানুষ যক্ষ্মায় আক্রান্ত হয় এবং যক্ষ্মা জনিত কারণে ৮০ হাজার রোগীর মৃত্যু ঘটে। তাছাড়া বর্ধিত হারে ঔষধ প্রতিরোধী যক্ষ্মার জীবাণুর কথা জানা যাচ্ছে এবং এটি ক্রমান্বয়ে বাড়ছে। ঔষধ প্রতিরোধী যক্ষ্মায় মৃত্যুর হার অনেক বেশী। যক্ষ্মা উদ্ভূত এই সমস্যার গভীরতার যথার্থ পরিমাপ এবং যক্ষ্মা জীবাণুর ঔষধ সংবেদনশীলতার ধরন জানা যক্ষ্মা নিয়ন্ত্রণে অতীব জরুরী।

আমরা যক্ষ্মা রোগের ব্যাপ্তি এবং এর ঔষধ-সংবেদনশীলতা জানার জন্য একটি গবেষণা করছি।

দীর্ঘ স্থায়ী কাশি যক্ষ্মার অন্যতম প্রধান উপসর্গ। আপনার তিন সপ্তাহেরও অধিক সময় ধরে কাশি আছে এবং কফ পরীক্ষায় জানা গেছে যে আপনি যক্ষ্মা রোগে ভুগছেন। আপনি যদি এই গবেষণায় অংশগ্রহনে রাজি থাকেন তাহলে আপনার কফ কালচার করা হবে যক্ষ্মা জীবাণু সনাক্তকরণ এবং ঔষধ-সংবেদনশীলতা জানার জন্য। এটা আপনার জন্য উপযুক্ত ঔষধ নির্বাচনে সহায়ক হবে। আপনাকে বিনামূল্যে যক্ষ্মা রোগের চিকিৎসা প্রদান করা হবে। তবে তা সংবেদনশীলতা জানার পর পরিবর্তিত হতে পারে। আপনার অসুস্থতা এবং অর্থনৈতিক অবস্থা সম্পর্কে কিছু তথ্য সংগ্রহ করব যা করতে ত্রিশ মিনিটেরও কম সময় লাগবে।

আপনি ও আপনার পরিবারের সদস্যরা এর মাধ্যমে উপকৃত হবেন এবং এতে ঝুকির সম্ভাবনা অতি সামান্য। এতে আপনার অংশগ্রহন সম্পূর্ণভাবে স্বেচ্ছামূলক। আপনি এই গবেষণা প্রকল্পে অংশগ্রহন না করলেও চিকিৎসার কোন ত্রূটি হবে না। গবেষণায় অংশগ্রহন করার পরেও যে কোন সময় আপনি এই গবেষণা থেকে নিজেকে প্রত্যাহার করতে পারবেন। আপনার পরিচয় ও রোগ সংক্রান্ত তথ্য সম্পূর্ণভাবে গোপন রাখা হবে। কাজের খাতিরে প্রাপ্ত তথ্যসমূহ সংশ্লিষ্ট প্রতিনিধি পরীক্ষা করে দেখতে পারেন।

আপনি যদি স্বেচ্ছায় এই গবেষণায় অংশ গ্রহনে রাজি থাকেন তাহলে, নিম্নে আপনার স্বাক্ষর অথবা বাম বৃদ্ধাঙ্গুলির ছাপ দিন।

সম্মতিদান:- উপরে বর্ণিত গবেষণা প্রকল্প আমাকে ব্যাখ্যা করা হয়েছে এবং আমি স্বেচ্ছায় এই গবেষণা প্রকল্পে অংশ গ্রহন করতে সম্মতি দান করলাম।

তথ্য সংগ্রহকারীর স্বাক্ষর
তারিখ:-

অংশগ্রহনকারীর স্বাক্ষর অথবা বাম বৃদ্ধাঙ্গুলির ছাপ
তারিখ:-

কন্ট্রোল হিসাবে অন্তর্ভূক্তিকরণের অনুরোধ
যক্ষ্মা সার্ভেলেন্স প্রকল্প
সম্মতিপত্র

Title: Epidemiology and surveillance of multidrug resistant Mycobacterium tuberculosis and assessment of directly observed therapy short course (DOTS) programme in selected areas of Bangladesh

প্রধান গবেষক:- ডাঃ কে জামান, এপিডেমিয়লজিস্ট, শিশু স্বাস্থ্য প্রোগ্রাম, পাবলিক হেল্থ সাইন্সেস ডিভিশন, আই.সি.ডি.ডি.আর,বি, মহাখালি, ঢাকা।

প্রকল্পের অবস্থান :- ঢাকা

বাংলাদেশে যক্ষ্মা একটি অন্যতম প্রধান স্বাস্থ্য সমস্যা। সংক্রামক রোগের কারণে প্রাপ্তবয়স্কদের মৃত্যুর প্রধানতম কারণ হচ্ছে যক্ষ্মা। সাম্প্রতিক এক সমীক্ষাতে দেখা গেছে যে পৃথিবীর ২১২ টি দেশের মধ্যে ১৯৯৭ সালে যক্ষ্মা জনিত উদ্ভূত সমস্যাগুলোর ক্ষেত্রে বাংলাদেশ চতুর্থ স্থানে অবস্থান করছে। বাংলাদেশে প্রতি বছরে প্রায় তিন লক্ষ মানুষ যক্ষ্মায় আক্রান্ত হয় এবং যক্ষ্মা জনিত কারণে ৮০ হাজার রোগীর মৃত্যু ঘটে। তাছাড়া বর্ধিত হারে ঔষধ প্রতিরোধী যক্ষ্মার জীবাণূর কথা জানা যাচ্ছে এবং এটি ক্রমান্বয়ে বাড়ছে। ঔষধ প্রতিরোধী যক্ষ্মায় মৃত্যুর হার অনেক বেশী। যক্ষ্মা উদ্ভূত এই সমস্যার গভীরতার যথার্থ পরিমাপ এবং যক্ষ্মা জীবাণুর ঔষধ সংবেদনশীলতার ধরণ জানা যক্ষ্মা নিয়ন্ত্রণে অতীব জরুরী।

আমরা এই গবেষণায় যক্ষ্মায় আক্রান্ত হবার ঝুকিসমূহ নির্ধরণের চেষ্টা করছি। একজন যক্ষ্মা রোগীর সাথে বয়স ও লিঙ্গের সামঞ্জস্য রেখে আপনাকে এই গবেষণায় একজন কন্ট্রোল হিসাবে নির্বাচন করা হয়েছে। আপনি যদি এই গবেষণায় অংশগ্রহনে রাজি থাকেন তাহলে, আপনার অসুস্থতা এবং অর্থনৈতিক অবস্থা সম্পর্কে আমরা কিছু তথ্য সংগ্রহ করব যা করতে ত্রিশ মিনিটেরও কম সময় লাগবে।

আপনার কাছ থেকে সংগৃহীত তথ্য ভবিষ্যতে বাংলাদেশে যক্ষ্মার কার্যকর নিয়ন্ত্রণ পরিকল্পনা প্রনয়নে সহায়তা করবে। এই গবেষনায় আপনার অংশগ্রহন সম্পূর্ণভাবে স্বেচ্ছামূলক। এতে ঝুকির সম্ভাবনা অতি সমান্য। আপনি এই গবেষণা প্রকল্পে অংশগ্রহন না করলেও চিকিৎসার কোন ত্রটি হবে না। গবেষণায় অংশগ্রহন করার পরেও যে কোন সময় আপনি এই গবেষণা থেকে নিজেকে প্রত্যাহার করতে পারবেন। আপনার পরিচয় ও রোগ সংক্রান্ত তথ্য সম্পূর্ণভাবে গোপন রাখা হবে। কাজের খাতিরে প্রাপ্ত তথ্যসমূহ সংশ্লিষ্ট প্রতিনিধি পরীক্ষা করে দেখতে পারেন।

আপনি যদি স্বেচ্ছায় এই গবেষণায় অংশ গ্রহনে রাজি থাকেন, তাহলে নিম্নে আপনার স্বাক্ষর অথবা বাম বৃদ্ধাঙ্গুলির ছাপ দিন।

সম্মতিদান:- উপরে বর্ণিত গবেষণা প্রকল্প আমাকে ব্যাখ্যা করা হয়েছে এবং আমি স্বেচ্ছায় এই গবেষনা প্রকল্পে অংশ গ্রহন করতে সম্মতি দান করলাম।

তথ্য সংগ্রহকারীর স্বাক্ষর তারিখ:-	অংশগ্রহনকারীর স্বাক্ষর অথবা বাম বৃদ্ধাঙ্গুলির ছাপ তারিখ:-

Annex - 3

Form 1 **Information of suspected cases of TB - Matlab Household level TB Surveillance Study**

Identification

1.1 Case serial number |__|__|__|__|__|

1.2 Date of interview (dd/mm/yy) |__|__|__|__|__|__|

1.3 Name and number of interviewer _____ |__|__|

1.4 Address of the patient

Name _____
Vill _____
P.O _____
Thana _____
Dist _____

1.5 Patient CID |__|__|__|__|__|__|__|__|__|

1.6 Patient RID |__|__|__|__|__|__|__|__|__|__|

1.7 Date of birth (dd/mm/yy) |__|__|__|__|__|__|

1.8 Patient sex (male =1, female =2) |__|

1.9 Religion (muslim = 1, hindu =2, others = 3) |__|

Socio demographics

2.1 Number of persons in the household |__|__|

2.2 Occupation of the patient |__|__|

2.3 Is the person head of the household? (no=1, yes=2) |__|

2.4 Occupation of the head of the household |__|__|

2.5 Education of the patient (in years) |__|__|

2.6 Education of the head of the household (in years) |__|__|

2.7 Number of under 5 children |__|

2.8 Average household income per month (in taka) |__|__|__|__|__|

2.9 Number of living rooms |__|

2.10 Does the family own house ? (no=1, yes = 2) |__|

2.11 Does the family own land? (no=1, yes = 2) |__|

Type of household

2.12. 1 Type of walls |__|
(straw = 1, jute = 2, bamboo= 3, tin = 4, brick = 5, others= 6)

2.12.2 Type of roof |__|
(straw = 1, jute = 2, bamboo= 3, tin = 4, brick = 5, others= 6)

2.12.3 Type of floor |__|
(mud =1, cement =2, others =3)

Water source
(river = 1, canal = 2, pond = 3, tube well = 4, others = 5)
2.13.1 Drinking |__|
2.13.2 Washing |__|
2.13.3 Cooking |__|
2.13.4 Bathing |__|

2.14 Tubewell in the courtyard (no =1, yes=2) |__|

2.15 Type of latrine |__|
(dug hole = 1, water-seal = 2, sanitary = 3, others = 4)

2.16 Animal in the household (no=1, yes=2)
Cow |__| Goat |__| Dog |__| Cat |__| Chicken |__| Duck |__|

2.17 Amount of land (in decimal)
Housing |__|__|__|
Cultivable |__|__|__|

BCG vaccination status

3.1 Did the patient receive BCG vaccine? (no=1, yes=2) |__|

3.2 Presence of scar (no=1, yes=2) |__|

Family Illness history

4.1 Does any of the family members have the following complaints?

Relation	Complaints	Duration	Treatment source
|__|	|__|__|__|	|__|
	|__|	|__|__|__|	
	|__|	|__|__|__|	
|__|	|__|__|__|	|__|
	|__|	|__|__|__|	
	|__|	|__|__|__|	
|__|	|__|__|__|	|__|
	|__|	|__|__|__|	
	|__|	|__|__|__|	
|__|	|__|__|__|	|__|
	|__|	|__|__|__|	
	|__|	|__|__|__|	

4.2 Does any family members had TB? (no=1, yes=2) |__|
4.3 If so, relationship with the patient |__|__|
4.4 Does any of the family members are currently suffering from TB? |__|
(no=1, yes=2)
4.5 Does any family members died with symptoms suggestive of TB (prolonged cough, fever, wasting of the body) ? (no=1, yes=2) |__|
4.5.1 If yes, relationship with the patient |__|

Illness History

Past illness history

5.1 Any illness in last 5 years (no=1, yes=2) |__|

If so, name of the illness _____
duration of illness (months) |__|__| days |__|__|

Treatment received

Drug name |__| duration (months) |__|__| days |__|__|
Drug name |__| duration (months) |__|__| days |__|__|
Drug name |__| duration (months) |__|__| days |__|__|
Drug name |__| duration (months) |__|__| days |__|__|

If so, name of the illness _____
duration of illness (months) |__|__| days |__|__|

Treatment received

Drug name |__| duration (months) |__|__| days |__|__|
Drug name |__| duration (months) |__|__| days |__|__|
Drug name |__| duration (months) |__|__| days |__|__|
Drug name |__| duration (months) |__|__| days |__|__|

If so, name of the illness _____
duration of illness (months) |__|__| days |__|__|

Treatment received

Drug name |__| duration (months) |__|__| days |__|__|
Drug name |__| duration (months) |__|__| days |__|__|
Drug name |__| duration (months) |__|__| days |__|__|
Drug name |__| duration (months) |__|__| days |__|__|

Presenting complains

6.1 Cough (no=1, yes=2, recurrent =3) |__| If yes, duration in days |__|__|__|
6.2 Breathing difficulty (no=1, yes=2, recurrent =3) |__| If yes, duration in days |__|__|__|
6.3 Fever (no=1, yes=2, recurrent = 3) |__| If yes, duration in days |__|__|__|
6.4 Sputum (no=1, yes=2) |__| If yes, duration in days |__|__|__|
6.5 Anorexia (no=1, yes=2) |__| If yes, duration in days |__|__|__|
6.6 Night sweating (no=1, yes=2) |__| If yes, duration in days |__|__|__|
6.7 Haemoptysis (no=1, yes=2) |__| If yes, duration in days |__|__|__|
6.8 Loss of body weight (no=1, yes=2) |__| If yes, duration in days |__|__|__|
6.9 Chest pain (no=1, yes=2) |__| If yes, duration in days |__|__|__|
6.10 Difficulty in swallowing (no=1, yes=2) |__| If yes, duration in days |__|__|__|
6.11 Abdominal pain (no=1, yes=2) |__| If yes, duration in days |__|__|__|

Form 2

Information of suspected cases of TB - Matlab Thana Health Complex
TB Surveillance Study

1.1 Case serial number |__|__|__|__|__|

1.2 Date of interview (dd/mm/yy) |__|__|__|__|__|__|

1.3 Name and number of interviewer _____ |__|__|

1.4 Address

Name _____
Vill _____
P.O _____
Thana _____
Dist _____

1.5 Patient CID |__|__|__|__|__|__|__|__|__|__|

1.6 Patient RID |__|__|__|__|__|__|__|__|__|__|__|

1.7 Date of birth (dd/mm/yy) |__|__|__|__|__|__|

1.8 Patient sex (male =1, female =2) |__|

Past illness history

2.1 Any illness in last 5 years (no=1, yes=2) |__|

If so, name of the illness _____
duration of illness (months) |__|__| days |__|__|

Treatment received

Drug name |__| duration (months) |__|__| days |__|__|
Drug name |__| duration (months) |__|__| days |__|__|
Drug name |__| duration (months) |__|__| days |__|__|
Drug name |__| duration (months) |__|__| days |__|__|

If so, name of the illness _____
duration of illness (months) |__|__| days |__|__|

Treatment received

Drug name |__| duration (months) |__|__| days |__|__|
Drug name |__| duration (months) |__|__| days |__|__|
Drug name |__| duration (months) |__|__| days |__|__|
Drug name |__| duration (months) |__|__| days |__|__|

If so, name of the illness _____
duration of illness (months) |__|__| days |__|__|

Treatment received
Drug name |__| duration (months) |__|__| days |__|__|
Drug name |__| duration (months) |__|__| days |__|__|
Drug name |__| duration (months) |__|__| days |__|__|
Drug name |__| duration (months) |__|__| days |__|__|

Past TB treatment history

3.1 Did the patient receive any treatment of TB before ? |__|
(no =1, yes=2)
If yes, when (dd/mm/yr) |__|__|__|__|__|__|
from where |__|__|
Was the patient under DOTS programme? (no=1, yes=2) |__|

3.2 How long the patient has been receiving treatment (yr/mm/dd)? |__|__|__|__|__|__|
Name of the drugs INH |__| for (months) |__|__| days |__|__|
(no =1, yes=2) RIF |__| for (months) |__|__| days |__|__|
ETH |__| for (months) |__|__| days |__|__|
PYR |__| for (months) |__|__| days |__|__|
THI |__| for (months) |__|__| days |__|__|
|__| for (months) |__|__| days |__|__|
|__| for (months) |__|__| days |__|__|
|__| for (months) |__|__| days |__|__|
|__| for (months) |__|__| days |__|__|
|__| for (months) |__|__| days |__|__|

3.3 Was the sputum examined ? (no=1, yes=2) |__|
If so, result of sputum smear examination |__|

3.4 Was X ray done ? (no=1, yes=2) |__|
If yes, X ray findings Abnormality (no=1, yes=2) |__|
Pulmonary TB left lung |__| right lung |__| both lungs |__|

3.5 Did the patient discontinue treatment ? (no=1, yes=2) |__|

If so, when (dd/mm/yr) |__|__|__|__|__|__|

3.6 Reasons for discontinuation |__|
(side effects =1, feeling better = 2, tastes bad =3, too many medicines/doses=4
Non-availability = 5)

BCG vaccination status

4.1 Did the patient receive BCG vaccine ? (no=1, yes=2) |__|

4.2 Presence of scar (no=1, yes=2) |__|

Clinical examination findings

5.1 Date of examination (dd/mm/yy) |__|__|__|__|__|__|

5.2 General appearance (normal =1, ill looking =2) |__|

5.3 Weight (kg) |__|__|__| . |__|__|

5.4 Height (cm) |__|__|__|

5.5 Anaemia (no=1, yes=2) |__|

5.6 Pulse (/min) |__|__|__|

5.7 Temperature (°C) |__|__| . |__|

5.8 Jaundice (no=1, yes=2) |__|

5.9 Oedema (no=1, yes=2) |__|

5.10 Muscle wasting (no=1, yes=2) |__|

5.11 Lung

Wheeze (no=1, yes=2) |__|
Rales (no=1, yes=2) |__|
Rhonchi (no=1, yes=2) |__|

5.12 Heart sound (normal =1, added sound =2) |__|

5.13 Liver (not palpable =1, palpable =2) |__|

5.14 Lymph nodes (not palpable =1, palpable =2) |__|

5.15 Abdomen (soft =1, distended =2) |__|

5.16 Eyes (normal =1, conjunctivitis=2, catarract =3) |__|

5.17 Ear (Normal=1, discharge =2) |__|

5.18 Skin (normal =1, rash =2) |__|

5.19 Breathing difficulty (no=1, yes=2) |__|

5.20 Chest indrawing (no=1, yes= 2) |__|

6.1 Provisional diagnosis _____

7.1 Treatment given

Name of the drugs (no =1, yes=2)								
	INH |__|	for	(months) |__|__|		days |__|__|		
	RIF |__|	for	(months) |__|__|		days |__|__|		
	ETH |__|	for	(months) |__|__|		days |__|__|		
	PYR |__|	for	(months) |__|__|		days |__|__|		
	THI |__|	for	(months) |__|__|		days |__|__|		
	|__|	for	(months) |__|__|		days |__|__|		
	|__|	for	(months) |__|__|		days |__|__|		
	|__|	for	(months) |__|__|		days |__|__|		
	|__|	for	(months) |__|__|		days |__|__|		
	|__|	for	(months) |__|__|		days |__|__|		

Form 3

Family Studies - Matlab
TB Surveillance Study

Identification

1.1 Case serial number |__|__|__|__|__|

1.2 Date of interview (dd/mm/yy) |__|__|__|__|__|__|

1.3 Name and number of interviewer _____ |__|__|

1.4 Address

Name _____
Vill _____
P.O _____
Thana _____
Dist _____

1.5 CID |__|__|__|__|__|__|__|__|__|

1.6 RID |__|__|__|__|__|__|__|__|__|

1.7 Date of birth (dd/mm/yy) |__|__|__|__|__|__|

1.8 Sex (male =1, female =2) |__|

1.9 Religion (muslim = 1, hindu =2, others = 3) |__|

Socio demographics

2.1 Number of persons in the household |__|__|

2.2 Occupation of the individual |__|__|

2.3 Is the person head of the household ? (no=1, yes =2) |__|

2.4 Occupation of the head of the household |__|__|

2.5 Education of the individual (in years) |__|__|

2.6 Education of the head of the household (in years) |__|__|

2.7 Number of under 5 children |__|

2.8 Average household income per month (taka) |__|__|__|__|__|

2.9 Number of living rooms |__|

2.10 Does the family own house? (no=1, yes = 2) |__|

2.11 Does the family own land? (no=1, yes = 2) |__|

Type of household

2.12.1 Type of walls |__|
(straw= 1, jute = 2, bamboo= 3, tin = 4, brick = 5, others= 6)

2.12.2 Type of roof |__|
(straw= 1, Jute = 2, bamboo= 3, tin = 4, brick = 5, others= 6)

2.12.3 Type of floor |__|
(mud =1, cement=2)

Water source
(river = 1, canal = 2, pond = 3, tube well = 4, other = 5)
2.13.1 Drinking |__|
2.13.2 Washing |__|
2.13.3 Cooking |__|
2.13.4 Bathing |__|

2.14 Tubewell in the courtyard (no=1, yes=2) |__|

2.15 Type of latrine |__|
(dug hole = 1, water-seal = 2, sanitary = 3, other = 4)

2.16 Animal in the household (no=1, yes=2) |__|
cow |__| goat |__| dog |__| cat |__| chicken |__| duck |__|

BCG vaccination status

3.1 Did the patient receive BCG vaccine? (no=1, yes =2) |__|

3.2 Presence of scar (no=1, yes=2) |__|

Illness History

Past illness history

4.1 Any illness in last 5 years (no=1, yes=2) |__|

If so, name of the illness ____________________
duration of illness (months) |__|__| days |__|__|

Treatment received

Drug name |__| duration (months) |__|__| days |__|__|
Drug name |__| duration (months) |__|__| days |__|__|
Drug name |__| duration (months) |__|__| days |__|__|
Drug name |__| duration (months) |__|__| days |__|__|

If so, name of the illness ____________________
duration of illness (months) |__|__| days |__|__|

Treatment received

Drug name |__| duration (months) |__|__| days |__|__|
Drug name |__| duration (months) |__|__| days |__|__|
Drug name |__| duration (months) |__|__| days |__|__|
Drug name |__| duration (months) |__|__| days |__|__|

If so, name of the illness ____________________
duration of illness (months) |__|__| days |__|__|

Treatment received

Drug name |__| duration (months) |__|__| days |__|__|
Drug name |__| duration (months) |__|__| days |__|__|
Drug name |__| duration (months) |__|__| days |__|__|
Drug name |__| duration (months) |__|__| days |__|__|

Presenting complains

5.1 Cough (no=1, yes=2, recurrent =3) |__| If yes, duration in days |__|__|__|
5.2 Breathing difficulty (no=1, yes=2, recurrent =3) If yes, duration in days |__|__|__|
5.3 Fever (no = 1, yes = 2, recurrent = 3) |__| If yes, duration in days |__|__|__|
5.4 Sputum (no = 1, yes = 2 |__| If yes, duration in days |__|__|__|
5.5 Anorexia (no = 1, yes = 2) |__| If yes, duration in days |__|__|__|
5.6 Night sweating (no=1, yes=2) |__| If yes, duration in days |__|__|__|
5.7 Haemoptysis (no=1, yes=2) |__| If yes, duration in days |__|__|__|

Form3

5.8 Loss of body weight (no=1, yes=2) |__| If yes, duration in days |__|__|__|
5.9 Chest pain (no = 1, yes = 2) |__| If yes, duration in days |__|__|__|
5.10 Difficulty in swallowing (no=1, yes=2) |__| If yes, duration in days |__|__|__|
5.11 Abdominal pain (no=1, yes=2) |__| If yes, duration in days |__|__|__|

Current illnesses

6.1 Is the person suffering from any illness now |__|
(no=1, yes=2)

If so, name of the illness _____
duration of illness (months) |__|__| days |__|__|

6.2 Treatment receiving

Drug name |__| duration (months) |__|__| days |__|__| Source |__|
Drug name |__| duration (months) |__|__| days |__|__|
Drug name |__| duration (months) |__|__| days |__|__|
Drug name |__| duration (months) |__|__| days |__|__|

Form 4

Laboratory Results - Matlab
TB Surveillance Study

1.1 Case serial number |__|__|__|__|__|

1.2 Address

Name _____
Vill _____
P.O _____
Thana _____
Dist _____

1.3 Patient CID |__|__|__|__|__|__|__|__|__|

1.4 Patient RID |__|__|__|__|__|__|__|__|__|__|

1.5 Date of birth |__|__|__|__|__|__|

1.6 Patient sex (male =1, female =2) |__|

Laboratory results

2.1 Sputum sent to the Matlab lab for AFB examination (no=1, yes=2) |__|

2.2 Visual appearance of sputum Muco-purulent |__| Blood stained |__| Saliva |__|

Microscopic Examination

Specimen	Date Sample Received	Date Sample Examined	Results Write Positive or Negative	Positive grading			
				+++	++	+	scanty
1							
2							
3							

2.3 Was X ray done ? (no=1, yes=2) |__|
If yes, X ray findings Abnormality (no=1, yes=2) |__|

Pulmonary TB

Left lung (no=1, yes=2) |__|
Right lung (no=1, yes=2) |__|
Both lungs (no=1, yes=2 |__|

2.4 Was blood examined for CBC ? |__|
(no=1, yes=2)

If yes, results

2.5.1 TBC - 0000/dl |__|__|__|__|
2.5.2 Poly (%) |__|__|
2.5.3 Lymp (%) |__|__|
2.5.4 Mono- (%) |__|__|
2.5.5 Eosino (%) |__|__|

2.6 ESR (mm 1st hr) |__|__|__|

2.7 Hb (gm %) |__|__|.|__| 2.8 HCT (%) |__|__|

2.9 Has the sputum sample been sent to Dhaka? |__|
(no=1, yes=2)

Form 5

Information of suspected cases of TB - Shymoli TB Clinic
TB Surveillance Study

1.1 Case serial number |__|__|__|__|__|

1.2 Date of interview (dd/mm/yy) |__|__|__|__|__|__|

1.3 Name and number of interviewer _____ |__|__|

1.4 Address

Name _____
Vill/Road /House# _____
P.O _____
Thana _____
Dist _____

1.5 Date of birth (dd/mm/yy) |__|__|__|__|__|__|

1.6 Patient sex (male =1, female = 2) |__|

Past illness history

2.1 Any illness in last 5 years (no=1, yes=2) |__|

If so, name of the illness _____
duration of illness (months) |__|__| days |__|__|

Treatment received

Drug name |__| duration (months) |__|__| days |__|__|
Drug name |__| duration (months) |__|__| days |__|__|
Drug name |__| duration (months) |__|__| days |__|__|
Drug name |__| duration (months) |__|__| days |__|__|

If so, name of the illness _____
duration of illness (months) |__|__| days |__|__|

Treatment received

Drug name |__| duration (months) |__|__| days |__|__|
Drug name |__| duration (months) |__|__| days |__|__|
Drug name |__| duration (months) |__|__| days |__|__|
Drug name |__| duration (months) |__|__| days |__|__|

If so, name of the illness _____
duration of illness (months) |__|__| days |__|__|

Treatment received

Drug name |__| duration (months) |__|__| days |__|__|
Drug name |__| duration (months) |__|__| days |__|__|
Drug name |__| duration (months) |__|__| days |__|__|
Drug name |__| duration (months) |__|__| days |__|__|

Past TB treatment history

3.1 Did the patient receive any TB treatment before ? (no=1, yes=2) |__|
If yes, when (dd/mm/yr) |__|__|__|__|__|__|
from where |__|__|

Was the patient under DOTS program ? (No=1, yes=2) |__|

3.2 How long the patient has been receiving treatment ?

Name of the drugs (no =1, yes=2)					
	INH |__|	for	(months) |__|__|	days	|__|__|
	RIF |__|	for	(months) |__|__|	days	|__|__|
	ETH |__|	for	(months) |__|__|	days	|__|__|
	PYR |__|	for	(months) |__|__|	days	|__|__|
	THI |__|	for	(months) |__|__|	days	|__|__|
	|__|	for	(months) |__|__|	days	|__|__|
	|__|	for	(months) |__|__|	days	|__|__|
	|__|	for	(months) |__|__|	days	|__|__|
	|__|	for	(months) |__|__|	days	|__|__|
	|__|	for	(months) |__|__|	days	|__|__|

3.3 Was sputum smear examined ? (no=1, yes=2) |__|
If so, result of sputum smear examination |__|
(AFB negative =1, positive =2)

3.4 Was X ray done ? (no=1, yes=2) |__|
If yes, X ray findings Abnormality (1=no, 2 =yes) |__|
Pulmonary TB left lung |__| right lung |__| both lungs |__|
(no=1, yes =2)

3.5 Did the patient discontinue treatment ? (no=1, yes=2) |__|
If so, when (dd/mm/yr) |__|__|__|__|__|__|

3.6 Reasons for discontinuation |__|
(side effects =1, feeling better = 2, tastes bad = 3, too many medicines/doses = 4, non availability=5, preoccupation =6)

BCG vaccination status

4.1 Did the patient receive BCG vaccine ? (no=1, yes =2) |__|

4.2 Presence of scar (no=1, yes=2) |__|

Clinical examination findings

5.1 Date of examination (dd/mm/yy) |__|__|__|__|__|__|

5.2 General appearance (normal =1, ill looking =2) |__|

5.3 Weight (kg) |__|__|__| . |__|__|

5.4 Height (cm) |__|__|__|

5.5 Anaemia (no=1, yes=2) |__|

5.6 Pulse (/min) |__|__|__|

5.7 Temperature (°C) |__|__| . |__|

5.8 Jaundice (no=1, yes=2) |__|

5.9 Oedema (no=1, yes=2) |__|

5.10 Muscle wasting (no=1, yes=2) |__|

5.11 Lung

Wheeze (no=1, yes=2) |__|
Rales (no=1, yes=2) |__|
Rhonchi (no=1, yes=2) |__|

5.12 Heart sound (normal =1, added sound =2) |__|

5.13 Liver (not palpable =1, palpable =2) |__|

5.14 Lymph nodes (not palpable =1, palpable =2) |__|

5.15 Abdomen (soft =1, distended =2) |__|

5.16 Eyes (normal =1, conjunctivitis=2, catarract =3) |__|

5.17 Ear (normal=1, discharge =2) |__|

5.18 Skin (normal =1, rash =2) |__|

5.19 Breathing difficulty (no=1, yes=2) |__|

5.20 Chest indrawing (no=1, yes= 2) |__|

6.1 Provisional diagnosis _____

7.1 Treatment given

Name of the drugs (no =1, yes=2)								
	INH |__|	for	(months) |__|__|	days |__|__|
	RIF |__|	for	(months) |__|__|	days |__|__|
	ETH |__|	for	(months) |__|__|	days |__|__|
	PYR |__|	for	(months) |__|__|	days |__|__|
	THI |__|	for	(months) |__|__|	days |__|__|
	|__|	for	(months) |__|__|	days |__|__|
	|__|	for	(months) |__|__|	days |__|__|
	|__|	for	(months) |__|__|	days |__|__|
	|__|	for	(months) |__|__|	days |__|__|
	|__|	for	(months) |__|__|	days |__|__|

Form 6

Family studies - Dhaka
TB Surveillance Study

Identification

1.1 Case serial number |__|__|__|__|__|

1.2 Date of interview (dd/mm/yy) |__|__|__|__|__|__|

1.3 Name and number of interviewer _____ |__|__|

1.4 Address

Name _____
Vill/Road/House # _____
P.O _____
Thana _____
Dist _____

1.5 Date of birth (dd/mm/yy) |__|__|__|__|__|__|

1.6 Sex of the person (male =1, female =2) |__|

1.7 Religion (muslim =1, hindu =2, others = 3) |__|

Socio demographics

2.1 Number of persons in the household |__|__|

2.2 Occupation of the person |__|__|

2.3 Whether the person is the head of the household (no=1, yes=2) |__|

2.4 Occupation of the head of the household |__|__|

2.5 Education of the individual (in years) |__|__|

2.6 Education of the head of the household (in years) |__|__|

2.6 Number of under 5 children |__|

2.7 Average household income per month (taka) |__|__|__|__|__|

2.8 Number of living rooms |__|

2.9 Does the family own house ? (no=1, yes = 2) |__|

2.10 Does the family own land ? (no=1, yes=2) |__|

Type of Housing

2.11.1 Type of walls |__|
(straw= 1, Jute = 2, bamboo= 3, tin = 4, brick = 5, others= 6)

2.11.2 Type of roof |__|
(straw= 1, Jute = 2, bamboo= 3, tin = 4, brick = 5, others= 6)

2.11.3 Type of floor |__|
(1= mud =1, cement =2)

Water source
(river = 1, canal = 2, pond = 3, tube well = 4, Other = 5)
2.12.1 Drinking |__|
2.12.2 Washing |__|
2.12.3 Cooking |__|
2.12.4 Bathing |__|

2.13 Tubewell in the courtyard (no=1, yes=2) |__|

2.14 Types of latrine |__|
(dug hole = 1, water-seal = 2, sanitary = 3, other = 4)

2.15 Animal in the household (no=1, yes=2)
cow |__| goat |__| dog |__| cat |__| chicken |__| duck |__|

BCG vaccination status

3.1 Did the patient receive BCG vaccine? (no=1, yes=2) |__|

3.2 Presence of scar (no=1, yes=2) |__|

Illness History

Past illness history

4.1 Any illness in last 5 years (no=1, yes=2) |__|

If so, name of the illness ____________________
duration of illness (months) |__|__| days |__|__|

Treatment received
Drug name |__| duration (months) |__|__| days |__|__|
Drug name |__| duration (months) |__|__| days |__|__|
Drug name |__| duration (months) |__|__| days |__|__|
Drug name |__| duration (months) |__|__| days |__|__|

If so, name of the illness ____________________
duration of illness (months) |__|__| days |__|__|

Treatment received
Drug name |__| duration (months) |__|__| days |__|__|
Drug name |__| duration (months) |__|__| days |__|__|
Drug name |__| duration (months) |__|__| days |__|__|
Drug name |__| duration (months) |__|__| days |__|__|

If so, name of the illness ____________________
duration of illness (months) |__|__| days |__|__|

Treatment received
Drug name |__| duration (months) |__|__| days |__|__|
Drug name |__| duration (months) |__|__| days |__|__|
Drug name |__| duration (months) |__|__| days |__|__|
Drug name |__| duration (months) |__|__| days |__|__|

Presenting complains

5.1 Cough (no=1, yes=2, recurrent =3) |__| If yes, duration in days |__|__|__|
5.2 Breathing difficulty (no=1, yes=2, recurrent =3) If yes, duration in days |__|__|__|
5.3 Fever (no = 1, yes = 2, recurrent = 3) |__| If yes, duration in days |__|__|__|
5.4 Sputum (no = 1, yes = 2) |__| If yes, duration in days |__|__|__|
5.5 Anorexia (no = 1, yes = 2) |__| If yes, duration in days |__|__|__|
5.6 Night sweating (no=1, yes=2) |__| If yes, duration in days |__|__|__|
5.7 Haemoptysis (no=1, yes=2) |__| If yes, duration in days |__|__|__|

Form6

5.8 Loss of body weight (no=1, yes=2) |__| If yes, duration in days |__|__|__|
5.9 Chest pain (no = 1, yes = 2) |__| If yes, duration in days |__|__|__|
5.10 Difficulty in swallowing (no=1, yes=2) |__| If yes, duration in days |__|__|__|
5.11 Abdominal pain (no=1, yes=2) |__| If yes, duration in days |__|__|__|

Current illnesses

6.1 Is the person suffering from any illness now |__|
(no=1, yes=2)

If so, name of the illness _____
duration of illness (months) |__|__| days |__|__|

6.2 Treatment receiving

Drug name |__| duration (months) |__|__| days |__|__| Source |__|
Drug name |__| duration (months) |__|__| days |__|__|
Drug name |__| duration (months) |__|__| days |__|__|
Drug name |__| duration (months) |__|__| days |__|__|

Form 7

Laboratory Results - Shymoli
TB Surveillance Study

1.1 Case serial number |__|__|__|__|__|

1.2 Address

Name _____
Vill/Road/House# _____
P.O _____
Thana _____
Dist _____

1.3 Date of birth |__|__|__|__|__|__|

1.4 Patient sex (male =1, female =2) |__|

Laboratory results

2.1 Visual appearance of sputum Muco-purulent |__| Blood stained |__| Saliva |__|

Microscopic Examination

Specimen	Date Sample Received	Date Sample Examined	Results Write Positive or Negative	Positive grading			
				+++	++	+	scanty
1							
2							
3							

2.4 Was X ray done ? (no=1, yes =2) |__|
If yes, X ray findings Abnormality (no=1, yes =2) |__|
Pulmonary TB
Left lung (no=1, yes =2) |__|
Right lung (no=1, yes =2) |__|
Both lungs (no=1, yes =2) |__|

2.5 Has blood examined for CBC ? |__|
(no=1, yes =2)

If yes, results

2.5.1 TBC - 0000/dl |__|__|__|__|
2.5.2 Poly (%) |__|__|
2.5.3 Lymp (%) |__|__|
2.5.4 Mono- (%) |__|__|
2.5.5 Eosino (%) |__|__|

2.6 ESR (mm 1st hr) |__|__|__|

2.7 Hb (gm %) |__|__|.|__| 2.8 HCT (%) |__|__|

2.8 Culture result

L-J medium (no growth =1, TB growth =2) |__| time for growth (days) |__|__|
MODS (no growth = 1, TB growth =2) |__| time for growth (days) |__|__|

2.9 Sensitivity results

(sensitive = S, resistant = R)

	INH	RIF	ETH	PYR	THI		
Sensitivity							

Form 8

Case Control study - Dhaka
TB Surveillance Study

Identification

1.1 Case serial number |__|__|__|__|__|

1.2 Date of interview (dd/mm/yy) |__|__|__|__|__|__|

1.3 Name and number of interviewer _____ |__|__|

1.4 Address

Name _____
Vill/Road/House # _____
P.O _____
Thana _____
Dist _____

1.5 Date of birth (dd/mm/yy) |__|__|__|__|__|__|

1.6 Sex of the person (male =1, female =2) |__|

1.7 Religion (muslim =1, hindu =2, others = 3) |__|

Socio demographics

2.1 Number of persons in the household |__|__|

2.2 Occupation of the person |__|__|

2.3 Whether the person is the head of the household (no=1, yes=2) |__|

2.4 Occupation of the head of the household |__|__|

2.5 Education of the individual (in years) |__|__|

2.6 Education of the head of the household (in years) |__|__|

2.6 Number of under 5 children |__|

2.7 Average household income per month (taka) |__|__|__|__|__|

2.8 Number of living rooms |__|

2.9 Does the family own house ? (no=1, yes = 2) |__|

2.10 Does the family own land ? (no=1, yes=2) |__|

Type of Housing

2.11.1 Type of walls |__|
(straw= 1, Jute = 2, bamboo= 3, tin = 4, brick = 5, others= 6)

2.11.2 Type of roof |__|
(straw= 1, Jute = 2, bamboo= 3, tin = 4, brick = 5, others= 6)

2.11.3 Type of floor |__|
(1= mud =1, cement =2)

Water source
(river = 1, canal = 2, pond = 3, tube well = 4, Other = 5)
2.12.1 Drinking |__|
2.12.2 Washing |__|
2.12.3 Cooking |__|
2.12.4 Bathing |__|

2.13 Tubewell in the courtyard (no=1, yes=2) |__|

2.14 Types of latrine |__|
(dug hole = 1, water-seal = 2, sanitary = 3, other = 4)

2.15 Animal in the household (no=1, yes=2)
cow |__| goat |__| dog |__| cat |__| chicken |__| duck |__|

BCG vaccination status

3.1 Did the patient receive BCG vaccine? (no=1, yes=2) |__|

3.2 Presence of scar (no=1, yes=2) |__|

Illness History

Past illness history

4.1 Any illness in last 5 years (no=1, yes=2) |__|

If so, name of the illness ______________________
duration of illness (months) |__|__| days |__|__|

Treatment received
Drug name |__| duration (months) |__|__| days |__|__|
Drug name |__| duration (months) |__|__| days |__|__|
Drug name |__| duration (months) |__|__| days |__|__|
Drug name |__| duration (months) |__|__| days |__|__|

If so, name of the illness ______________________
duration of illness (months) |__|__| days |__|__|

Treatment received
Drug name |__| duration (months) |__|__| days |__|__|
Drug name |__| duration (months) |__|__| days |__|__|
Drug name |__| duration (months) |__|__| days |__|__|
Drug name |__| duration (months) |__|__| days |__|__|

If so, name of the illness ______________________
duration of illness (months) |__|__| days |__|__|

Treatment received
Drug name |__| duration (months) |__|__| days |__|__|
Drug name |__| duration (months) |__|__| days |__|__|
Drug name |__| duration (months) |__|__| days |__|__|
Drug name |__| duration (months) |__|__| days |__|__|

Presenting complains

5.1 Cough (no=1, yes=2, recurrent =3) |__| If yes, duration in days |__|__|__|
5.2 Breathing difficulty (no=1, yes=2, recurrent =3) If yes, duration in days |__|__|__|
5.3 Fever (no = 1, yes = 2, recurrent = 3) |__| If yes, duration in days |__|__|__|
5.4 Sputum (no = 1, yes = 2) |__| If yes, duration in days |__|__|__|
5.5 Anorexia (no = 1, yes = 2) |__| If yes, duration in days |__|__|__|
5.6 Night sweating (no=1, yes=2) |__| If yes, duration in days |__|__|__|

Form8

5.7 Haemoptysis (no=1, yes=2) |__| If yes, duration in days |__|__|__|

5.8 Loss of body weight (no=1, yes=2) |__| If yes, duration in days |__|__|__|

5.9 Chest pain (no = 1, yes = 2) |__| If yes, duration in days |__|__|__|

5.10 Difficulty in swallowing (no=1, yes=2) |__| If yes, duration in days |__|__|__|

5.11 Abdominal pain (no=1, yes=2) |__| If yes, duration in days |__|__|__|

Form 9

Questionnaire for assessment of DOTS
TB Surveillance Study

Identification

1.1 Serial number |__|__|__|__|__|

1.2 Date of interview (dd/mm/yy) |__|__|__|__|__|__|

1.3 Name and number of interviewer _____ |__|__|

1.4 Address of the patient

Name _____
Vill _____
P.O _____
Thana _____
Dist _____

1.5 Patient CID |__|__|__|__|__|__|__|__|__|__|

1.6 Patient RID |__|__|__|__|__|__|__|__|__|__|

1.7 Date of birth (dd/mm/yy) |__|__|__|__|__|__|

1.8 Patient sex (male =1, female =2) |__|

1.9 Religion (muslim = 1, hindu =2, others = 3) |__|

Socio demographics

2.1 Number of persons in the household |__|__|

2.2 Occupation of the patient |__|__|

2.3 Is the person head of the household? (no=1, yes=2) |__|

2.4 Occupation of the head of the household |__|__|

2.5 Education of the patient (in years) |__|__|

2.6 Education of the head of the household (in years) |__|__|

2.7 Number of under 5 children |__|

2.8 Average household income per month (in taka) |__|__|__|__|__|

2.9 Number of living rooms |__|

2.10 Does the family own house ? (no=1, yes = 2) |__|

2.11 Does the family own land? (no=1, yes = 2) |__|

Type of household

2.12. 1 Type of walls |__|
(straw = 1, jute = 2, bamboo= 3, tin = 4, brick = 5, others= 6)

2.12.2 Type of roof |__|
(straw = 1, jute = 2, bamboo= 3, tin = 4, brick = 5, others= 6)

2.12.3 Type of floor |__|
(mud =1, cement =2, others =3)

Water source
(river = 1, canal = 2, pond = 3, tube well = 4, others = 5)
2.13.1 Drinking |__|
2.13.2 Washing |__|
2.13.3 Cooking |__|
2.13.4 Bathing |__|

2.14 Tubewell in the courtyard (no =1, yes=2) |__|

2.15 Type of latrine |__|
(dug hole = 1, water-seal = 2, sanitary = 3, others = 4)

2.16 Animal in the household (no=1, yes=2)
Cow |__| Goat |__| Dog |__| Cat |__| Chicken |__| Duck |__|

2.17 Amount of land (in decimal)
Housing |__|__|__|
Cultivable |__|__|__|

BCG vaccination status

3.1 Did the patient receive BCG vaccine? (no=1, yes=2) |__|

3.2 Presence of scar (no=1, yes=2) |__|

Past TB treatment history

3.1 Did the patient receive any TB treatment before ? (no=1, yes=2) |__|
If yes, when (dd/mm/yr) |__|__|__|__|__|__|
from where |__|__|

Was the patient under DOTS program ? (No=1, yes=2) |__|

Are you regularly taking treatment from Matlab THC ? (No=1, yes=2) |__|

If yes,

3.2 How long the patient has been receiving treatment ?

Name of the drugs (no =1, yes=2)						
	INH |__|	for	(months) |__|__|	days	|__|__|
	RIF |__|	for	(months) |__|__|	days	|__|__|
	ETH |__|	for	(months) |__|__|	days	|__|__|
	PYR |__|	for	(months) |__|__|	days	|__|__|
	THI |__|	for	(months) |__|__|	days	|__|__|
	|__|	for	(months) |__|__|	days	|__|__|
	|__|	for	(months) |__|__|	days	|__|__|
	|__|	for	(months) |__|__|	days	|__|__|
	|__|	for	(months) |__|__|	days	|__|__|
	|__|	for	(months) |__|__|	days	|__|__|

3.3 Was sputum smear examined ? (no=1, yes=2) |__|
If so, result of sputum smear examination |__|
(AFB negative =1, positive =2)

3.4 Was X ray done ? (no=1, yes=2) |__|
If yes, X ray findings Abnormality (no=1, yes=2) |__|
Pulmonary TB left lung |__| right lung |__| both lungs |__|
(no=1, yes =2)

3.5 Did the patient discontinue treatment ? (no=1, yes=2) |__|
If so, when (dd/mm/yr) |__|__|__|__|__|__|

3.6 Reasons for discontinuation |__|
(side effects =1, feeling better = 2, tastes bad = 3, too many medicines/doses = 4, non availability of drugs =5, preoccupation =6)

Annex – 4

সম্ভাব্য যক্ষ্মা রোগীর তথ্য--মতলব
যক্ষ্মা সার্ভেলেন্স প্রকল্প

ফর্ম-১

রোগীর পরিচিতিঃ

১.১ রোগীর ক্রমিক নাম্বার |__|__|__|__|__|

১.২ সাক্ষাৎকারের তারিখ(দিন/মাস/বৎসর) |__|__|/|__|__|/|__|__|

১.৩ সাক্ষাৎকার গ্রহনকারীর নাম ও নাম্বার _____ |__|__|

১.৪ রোগীর ঠিকানাঃ

নাম: _____

গ্রাম: _____

পো: অফিস: _____

থানা: _____

জেলা: _____

১.৫ রোগীর সি.আই.ডি |__|__|__|__|__|__|__|__|__|__|

১.৬ রোগীর আর.আই.ডি |__|__|__|__|__|__|__|__|__|__|

১.৭ জন্মের তারিখ(দিন/মাস/বৎসর) |__|__|__|__|__|__|

১.৮ রোগীর লিঙ্গ(পুরুষ=১,মহিলা=২): |__|

১.৯ ধর্ম (মুসলিম=১,হিন্দু=২,অন্যান্য=৩) |__|

আর্থসামাজিক অবস্থা:-

২.১ বাড়ীর লোকসংখ্যা:- |__|__|

২.২ রোগীর পেশা: |__|__|

২.৩ রোগী কি নিজেই গৃহকর্তা ? (না=১,হাঁ=২) |__|

২.৪ গৃহকর্তার পেশা |__|__|

২.৫ রোগীর শিক্ষাগত যোগ্যতা (বৎসর হিসাবে) |__|__|

২.৬ গৃহকর্তার শিক্ষাগত যোগ্যতা(বৎসর হিসাবে) |__|__|

২.৭ অনুর্ধ পাঁচ বৎসরের শিশুর সংখ্যা |__|__|

২.৮ গড় মাসিক আয়(টাকা) |__|__|__|__|__|

২.৯ বাসযোগ্য ঘরের সংখ্যা |__|__|

২.১০ পরিবারের নিজস্ব বাড়ী আছে কি ?(না=১, হাঁ=২) |__|

২.১১ পরিবারের নিজস্ব জমি আছে কি ?(না=১, হাঁ=২) |__|

বাসগৃহের ধরণ

২.১২.১ দেয়ালের ধরণ |__|

(খড়=১, পাট=২, বাঁশ=৩, টিন=৪, ইট= ৫ অন্যান্য=৬)

২.১২.২ ছাদের ধরণ |__|

(খড়=১, পাট=২, বাঁশ=৩, টিন=৪, ইট= ৫ অন্যান্য=৬)

২.১২.৩ মেঝের ধরণ |__|

(মাটি=১, সিমেন্ট=২, অন্যান্য=২)

পানির উৎস:-

(নদী=১, খাল=২, পুকুর=৩, টিউব ওয়েল/চাঁপ কল=৪, অন্যান্য=৫)

২.১৩.১ পান করার জন্য |__|

২.১৩.২ ধৌত করার জন্য |__|

২.১৩.৩ রান্না করার জন্য |__|

২.১৩.৪ গোসল করার জন্য |__|

২.১৪ বাড়ীর আঙ্গীনায় টিউব ওয়েল/চাঁপ কল আছে ? (না=১,হাঁ=২) |__|
২.১৫ পায়খানা ঘরের ধরণ ? |__|
(গর্ত করা=১, ওয়াটার সীল=২, স্যানিটারী=৩, অন্যান্য=৪)
২.১৬ গৃহপালিত জীব-জন্তুর বিবরণ(না=১,হাঁ=২) |__|
(গরু|__|, ছাগল|__|, কুকুর|__|, বিড়াল|__|, মুরগী|__|, হাঁস|__|)
২.১৭ সর্বমোট জমির পরিমাণ (শতকে)
বাসগৃহ |__|__|__|
চাষাবদযোগ্য |__|__|__|
বি.সি.জি. টিকার বিবরণ:-
৩.১ রোগী কি বি.সি.জি. টিকা নিয়েছে ? (না=১,হাঁ=২) |__|
৩.২ রোগীর শরীরে কি বি.সি.জি. টিকার দাগ আছে ? (না=১,হাঁ=২) |__|

অসুস্থতার বিবরণ

পারিবারিক অসুস্থতার বিবরণ:-
৪.১ পরিবারের অন্য কারো কি কি সমস্যা আছে ?

সম্পর্ক	শারীরিক সমস্যা	স্থায়িত্ব	চিকিৎসার উৎস
|__|	|__|__|	|__|__|__|	|__|
	|__|__|	|__|__|__|	
	|__|__|	|__|__|__|	
|__|	|__|__|	|__|__|__|	|__|
	|__|__|	|__|__|__|	
	|__|__|	|__|__|__|	
|__|	|__|__|	|__|__|__|	|__|
	|__|__|	|__|__|__|	
	|__|__|	|__|__|__|	
|__|	|__|__|	|__|__|__|	|__|
	|__|__|	|__|__|__|	
	|__|__|	|__|__|__|	

৪.২ পরিবারের কোন সদস্যের কি যক্ষ্মা হয়েছিল ? (না=১,হাঁ=২) |__|
৪.৩ উত্তর হাঁ হলে, রোগীর সাথে সম্পর্ক |__|
৪.৪ পরিবারের কোন সদস্য কি বর্তমানে যক্ষ্মা রোগে ভুগছেন ? (না=১,হাঁ=২) |__|
৪.৫ পরিবারের কোন সদস্য কি যক্ষ্মা রোগের অনুরূপ উপসর্গসহ (দীর্ঘস্থায়ী কাশি, জ্বর ও ওজন হ্রাস)মৃত্যুবরণ করেছেন (না=১,হাঁ=২) |__|
৪.৬ উত্তর হ্যা হলে, রোগীর সাথে সম্পর্ক|__|

অতীতের অসুস্থতার বিবরণ
৫.১ বিগত পাঁচ বছরে কি কোন উল্লেখ যোগ্য অসুস্থতা হয়েছিল ? (না=১,হাঁ=২)
উত্তর হ্যা হলে, রোগের বিবরণ

- রোগের নাম _____

রোগের স্থায়িত্ব (মাস) |__|__| (দিন) |__|__|
প্রাপ্ত চিকিৎসা:

ঔষধের নাম|__| স্থায়িত্ব (মাস) |__|__| (দিন) |__|__|
ঔষধের নাম|__| স্থায়িত্ব (মাস) |__|__| (দিন) |__|__|
ঔষধের নাম|__| স্থায়িত্ব (মাস) |__|__| (দিন) |__|__|
ঔষধের নাম|__| স্থায়িত্ব (মাস) |__|__| (দিন) |__|__|

- রোগের নাম _____

রোগের স্থায়িত্ব (মাস) |__|__| (দিন) |__|__|

প্রাপ্ত চিকিৎসা:

ঔষধের নাম|__| স্থায়িত্ব (মাস) |__|__| (দিন) |__|__|
ঔষধের নাম|__| স্থায়িত্ব (মাস) |__|__| (দিন) |__|__|
ঔষধের নাম|__| স্থায়িত্ব (মাস) |__|__| (দিন) |__|__|
ঔষধের নাম|__| স্থায়িত্ব (মাস) |__|__| (দিন) |__|__|

- রোগের নাম _____

রোগের স্থায়িত্ব (মাস) |__|__| (দিন) |__|__|

প্রাপ্ত চিকিৎসা:

ঔষধের নাম|__| স্থায়িত্ব (মাস) |__|__| (দিন) |__|__|
ঔষধের নাম|__| স্থায়িত্ব (মাস) |__|__| (দিন) |__|__|
ঔষধের নাম|__| স্থায়িত্ব (মাস) |__|__| (দিন) |__|__|
ঔষধের নাম|__| স্থায়িত্ব (মাস) |__|__| (দিন) |__|__|

বর্তমানে শারীরিক সমস্যা

৬.১ কাশি (না=১, হাঁ=২, মাঝেমাঝে=৩) |__| উত্তর হাঁ হলে, স্থায়িত্ব (দিন) |__|__|__|
৬.২ শ্বাস কষ্ট (না=১, হাঁ=২, মাঝেমাঝে=৩) |__| উত্তর হাঁ হলে, স্থায়িত্ব (দিন) |__|__|__|
৬.৩ জ্বর (না=১, হাঁ=২, মাঝেমাঝে=৩) |__| উত্তর হাঁ হলে, স্থায়িত্ব (দিন) |__|__|__|
৬.৪ কফ (না=১, হাঁ=২) |__| উত্তর হাঁ হলে, স্থায়িত্ব (দিন) |__|__|__|
৬.৫ ক্ষুধামন্দ্যা (না=১, হাঁ=২) |__| উত্তর হাঁ হলে, স্থায়িত্ব (দিন) |__|__|__|
৬.৬ রাত্রীকালীন ঘাম (না=১, হাঁ=২) |__| উত্তর হাঁ হলে, স্থায়িত্ব (দিন) |__|__|__|
৬.৭ কাশির সাথে রক্ত (না=১, হাঁ=২) |__| উত্তর হাঁ হলে, স্থায়িত্ব (দিন) |__|__|__|
৬.৮ শরীরের ওজন হ্রাস (না=১, হাঁ=২) |__| উত্তর হাঁ হলে, স্থায়িত্ব (দিন) |__|__|__|
৬.৯ বুকে ব্যথা (না=১, হাঁ=২) |__| উত্তর হাঁ হলে, স্থায়িত্ব (দিন) |__|__|__|
৬.১০ গিলতে অসুবিধা (না=১, হাঁ=২) |__| উত্তর হাঁ হলে, স্থায়িত্ব (দিন) |__|__|__|
৬.১১ তলপেটে ব্যথা (না=১, হাঁ=২) |__| উত্তর হাঁ হলে, স্থায়িত্ব (দিন) |__|__|__|

সম্ভাব্য যক্ষ্মা রোগীর তথ্য--মতলব থানা সাস্থ্য কমপ্লেক্স
যক্ষ্মা সার্ভেলেন্স প্রকল্প

ফর্ম-২

রোগীর পরিচিতিঃ

১.১ রোগীর ক্রমিক নাম্বার |__|__|__|__|__|__|

১.২ সাক্ষাৎকারের তারিখ(দিন/মাস/বৎসর) |__|__|/|__||__|/|__||__|

১.৩ সাক্ষাৎকার গ্রহনকারীর নাম ও নাম্বার ______________________ |__|__|

১.৪ রোগীর ঠিকানাঃ

নাম: ______________________

গ্রাম: ______________________

পো: অফিস: ______________________

থানা: ______________________

জেলা: ______________________

১.৫ রোগীর সি.আই.ডি |__|__|__|__|__|__|__|__|__|

১.৬ রোগীর আর.আই.ডি |__|__|__|__|__|__|__|__|__|

১.৭ জন্মের তারিখ(দিন/মাস/বৎসর) |__|__|__|__|__|__|

১.৮ রোগীর লিঙ্গ(পুরুষ=১,মহিলা=২): |__|

বিগত অসুস্থতার বিবরণ:-

২.১ বিগত পাঁচ বছরে আপনি অসুস্থ হয়েছেন কি ?(না=১, হা=২) |__|

উত্তর হ্যা হলে, রোগের বিবরণ

- রোগের নাম ______________________

রোগের স্থায়িত্ব (মাস) |__|__| (দিন) |__|__|

প্রাপ্ত চিকিৎসা:

ঔষধের নাম|__| স্থায়িত্ব (মাস) |__|__| (দিন) |__|__|

ঔষধের নাম|__| স্থায়িত্ব (মাস) |__|__| (দিন) |__|__|

ঔষধের নাম|__| স্থায়িত্ব (মাস) |__|__| (দিন) |__|__|

ঔষধের নাম|__| স্থায়িত্ব (মাস) |__|__| (দিন) |__|__|

- রোগের নাম ______________________

রোগের স্থায়িত্ব (মাস) |__|__| (দিন) |__|__|

প্রাপ্ত চিকিৎসা:

ঔষধের নাম|__| স্থায়িত্ব (মাস) |__|__| (দিন) |__|__|

ঔষধের নাম|__| স্থায়িত্ব (মাস) |__|__| (দিন) |__|__|

ঔষধের নাম|__| স্থায়িত্ব (মাস) |__|__| (দিন) |__|__|

ঔষধের নাম|__| স্থায়িত্ব (মাস) |__|__| (দিন) |__|__|

- রোগের নাম ______________________

রোগের স্থায়িত্ব (মাস) |__|__| (দিন) |__|__|

প্রাপ্ত চিকিৎসা:

ঔষধের নাম|__| স্থায়িত্ব (মাস) |__|__| (দিন) |__|__|

ঔষধের নাম|__| স্থায়িত্ব (মাস) |__|__| (দিন) |__|__|

ঔষধের নাম|__| স্থায়িত্ব (মাস) |__|__| (দিন) |__|__|

ঔষধের নাম|__| স্থায়িত্ব (মাস) |__|__| (দিন) |__|__|

অতীতে যক্ষ্মা চিকিৎসার বিবরণ

৩.১ আপনি কি পূর্বে কখনও যক্ষ্মার চিকিৎসা করেছেন ? |__|

(না=১, হাঁ=২)

৩.২রোগী কতদিন চিকিৎসা পেয়েছে ? (দিন/মাস/বৎসর)|__||__||__||__||__||__|

ওষধের নাম	INH|__|	মাস|__||__|	দিন |__||__|
(না=১, হাঁ=২)	RIF|__|	মাস|__||__|	দিন |__||__|
	ETH|__|	মাস|__||__|	দিন |__||__|
	PYR|__|	মাস|__||__|	দিন |__||__|
	THI|__|	মাস|__||__|	দিন |__||__|
	|__|	মাস|__||__|	দিন |__||__|
	|__|	মাস|__||__|	দিন |__||__|
	|__|	মাস|__||__|	দিন |__||__|
	|__|	মাস|__||__|	দিন |__||__|
	|__|	মাস|__||__|	দিন |__||__|

৩.৩ কফ পরীক্ষা করা হয়েছে ? (না=১, হাঁ=২) |__|

উত্তর হা হলে কফ পরীক্ষার ফলাফল |__|

৩.৪ এক্স-রে করা হয়েছিল কি ?(না=১, হাঁ=২) |__|

উত্তর হা হলে এক্স-রের ফলাফলঃ অস্বাভাবিক(না=১, হাঁ=২) |__|

ফুসফুসে যক্ষাঃ বাম ফুসফুস |__| ডান ফুসফুস |__| উভয় ফুসফুসে |__|

৩.৫ রোগী কি চিকিৎসা বন্ধ করে দিয়েছিল ? (না=১, হা=২) |__|

উত্তর হা হলে, কখন বন্ধ করেছিল ? (দিন/মাস/বৎসর) |__|__|/|__|__|/|__|__|

৩.৬ চিকিৎসা বন্ধের কারণঃ |__|

(পার্শ্ব প্রতিক্রিয়া=১, ভাল অনুভব করা=২, ঔষধ বিস্বাদ বোধ করা=৩, অনেকগুলো ওষধ=৪
ওষধ না পাওয়া=৫)

বি.সি.জি. টিকা

৪.১ রোগী কি বি.সি.জি. টিকা নিয়েছে ? (না=১, হাঁ=২) |__|

৪.২ বি.সি.জি. টিকার ক্ষত আছে ?(না=১, হাঁ=২) |__|

ডাক্তারী পরীক্ষার ফলাফল:-

৫.১ পরীক্ষার তারিখ (দিন/মাস/বৎসর) |__|__||__|__||__|__|

৫.২ রোগীর সামগ্রিক চেহারা (স্বাভাবিক=১, রুগ্ন=২) |__|

৫.৩ ওজন(কে.জি) |__|__|__|.|__||__|

৫.৪ উচ্চতা(সে.মি) |__|__|

৫.৫ রক্ত শুন্যতা(না=১, হাঁ=২) |__|

৫.৬ শিরা (বার/মিনিট) |__||__|

৫.৭ তাপমাত্রা (সেন্টিগ্রেডে) |__||__||__|.|__|

৫.৮ জন্ডিস/পান্ডু রোগ(না=১, হাঁ=২) |__|

৫.৯ শরীরে পানি আসা (না=১, হাঁ=২) |__|

৫.১০ মাংশপেশীর ক্ষয়(না=১, হাঁ=২) |__|

৫.১১ ফুসফুস Wheeze(না=১, হাঁ=২) |__|

Rales(না=১, হাঁ=২) |__|

Rhonchih(না=১, হাঁ=২) |__|

৫.১২ হৃদস্পন্দনের শব্দ(স্বাভাবিক=১, অতিরিক্ত শব্দ=২) |__|

৫.১৩ যকৃত (হাতে অনুভব করা যায়না=১, যায়=২) |__|

৫.১৪ লিম্ফনোড (অনুভব করা যায় না=১, যায়=২) |__|

৫.১৫ পেট (স্বাভাবিক=১, প্রসারিত=২) |__|

৫.১৬ চোখ(স্বাভাবিক=১, কঞ্জাক্টিভাইটিস=২, ছানি=৩) |__|

৫.১৭ কান (স্বাভাবিক=১, ক্ষরণ=২) |__|
৫.১৮ ত্বক(স্বাভাবিক=১, গোটা=২) |__|
৫.১৯ স্বাস কষ্ট(না=১, হাঁ=২) |__|
৫.২০ স্বাসের সময় বুক দেবে যাওয়া (না=১, হাঁ=২) |__|

৬.১ প্রাথমিকভাবে সনাক্তকৃত রোগ _____

৬.২ প্রদত্ত চিকিৎসাঃ

ওষধের নাম	INH|__|	মাস|__|__|	দিন |__|__|
(না=১, হাঁ=২)	RIF|__|	মাস|__|__|	দিন |__|__|
	ETH|__|	মাস|__|__|	দিন |__|__|
	PYR|__|	মাস|__|__|	দিন |__|__|
	THI|__|	মাস|__|__|	দিন |__|__|
	|__|	মাস|__|__|	দিন |__|__|
	|__|	মাস|__|__|	দিন |__|__|
	|__|	মাস|__|__|	দিন |__|__|
	|__|	মাস|__|__|	দিন |__|__|
	|__|	মাস|__|__|	দিন |__|__|

পরিবারিক স্টাডি--মতলব
যক্ষ্মা সার্ভেলেন্স প্রকল্প

ফর্ম-৩

পরিচিতিঃ

১.১ ব্যক্তির ক্রমিক নাম্বার |__|__|__|__|__|

১.২ সাক্ষাৎকারের তারিখ(দিন/মাস/বৎসর) |__|__|/|__||__|/|__||__|

১.৩ সাক্ষাৎকার গ্রহনকারীর নাম ও নাম্বার _____ |__|__|

১.৪ ঠিকানাঃ

নাম: _____

গ্রাম: _____

পো: অফিস: _____

থানা: _____

জেলা: _____

১.৫ সি.আই.ডি |__|__|__|__|__|__|__|__|__|__|

১.৬ আর.আই.ডি |__|__|__|__|__|__|__|__|__|__|

১.৭ জন্মের তারিখ(দিন/মাস/বৎসর) |__|__|__|__|__|__|

১.৮ লিঙ্গ(পুরুষ=১,মহিলা=২): |__|

১.৯ ধর্ম (মুসলিম=১,হিন্দু=২,অন্যান্য=৩) |__|

আর্থসামাজিক অবস্থা:-

২.১ বাড়ীর লোকসংখ্যা:- |__|__|

২.২ ব্যক্তির পেশা: |__|__|

২.৩ ব্যক্তি কি নিজেই গৃহকর্তা ? (না=১,হাঁ=২,) |__|

২.৪ গৃহকর্তার পেশা |__|__|

২.৫ শিক্ষাগত যোগ্যতা (বৎসর হিসাবে) |__|__|

২.৬ গৃহকর্তার শিক্ষাগত যোগ্যতা(বৎসর হিসাবে) |__|__|

২.৭ অনুর্ধ পাঁচ বৎসরের শিশুর সংখ্যা |__|

২.৮ গড় মাসিক আয়(টাকা) |__|__|__|__|__|

২.৯ বাসযোগ্য ঘরের সংখ্যা |__|

২.১০ পরিবারের নিজস্ব বাড়ী আছে কি ?(না=১, হাঁ=২) |__|

২.১১ পরিবারের নিজস্ব জমি আছে কি ?(না=১, হাঁ=২) |__|

বাসগৃহের ধরণ

২.১২.১ দেয়ালের ধরণ |__|

(খড়=১, পাট=২, বাঁশ=৩, টিন=৪, ইট= ৫ অন্যান্য=৬)

২.১২.২ ছাদের ধরণ |__|

(খড়=১, পাট=২, বাঁশ=৩, টিন=৪, ইট= ৫ অন্যান্য=৬)

২.১২.৩ মেঝের ধরণ |__|

(মাটি=১, সিমেন্ট=২)

পানির উৎস:-

(নদী=১, খাল=২, পুকুর=৩, টিউব ওয়েল/চাঁপ কল=৪, অন্যান্য=৫)

২.১৩.১ পান করার জন্য |__|

২.১৩.২ ধৌত করার জন্য |__|

২.১৩.৩ রান্না করার জন্য |__|

২.১৩.৪ গোসল করার জন্য |__|

২.১৪ বাড়ীর আঙ্গীনায় টিউব ওয়েল/চাঁপ কল আছে ? (না=১,হাঁ=২) |__|
২.১৫ পায়খানা ঘরের ধরণ ? |__|
(গর্ত করা=১, ওয়াটার সীল=২, স্যানিটারী=৩, অন্যান্য=৪)
২.১৬ বাড়ীতে গৃহপালিত জীব-জন্তুর বিবরণ(না=১,হাঁ=২) |__|
(গরু|__|, ছাগল|__|, কুকুর|__|, বিড়াল |__| , মুরগী|__|, হাঁস|__|)

বি.সি.জি. টিকার বিবরণ:-
৩.১ রোগী কি বি.সি.জি. টিকা নিয়েছে ? (না=১,হাঁ=২) |__|
৩.২ রোগীর শরীরে কি বি.সি.জি. টিকার দাগ আছে ? (না=১,হাঁ=২) |__|

অসুস্থতার বিবরণ
অতীতের অসুস্থতার বিবরণ
৪.১ বিগত পাঁচ বছরে কি কোন উল্লেখ যোগ্য অসুস্থতা হয়েছিল ? (না=১,হাঁ=২)
উত্তর হ্যা হলে, রোগের বিবরণ

- রোগের নাম ______________________

রোগের স্থায়িত্ব (মাস) |__|__| (দিন) |__|__|
প্রাপ্ত চিকিৎসা:
ঔষধের নাম|__| স্থায়িত্ব (মাস) |__|__| (দিন) |__|__|
ঔষধের নাম|__| স্থায়িত্ব (মাস) |__|__| (দিন) |__|__|
ঔষধের নাম|__| স্থায়িত্ব (মাস) |__|__| (দিন) |__|__|
ঔষধের নাম|__| স্থায়িত্ব (মাস) |__|__| (দিন) |__|__|

- রোগের নাম ______________________

রোগের স্থায়িত্ব (মাস) |__|__| (দিন) |__|__|
প্রাপ্ত চিকিৎসা:
ঔষধের নাম|__| স্থায়িত্ব (মাস) |__|__| (দিন) |__|__|
ঔষধের নাম|__| স্থায়িত্ব (মাস) |__|__| (দিন) |__|__|
ঔষধের নাম|__| স্থায়িত্ব (মাস) |__|__| (দিন) |__|__|
ঔষধের নাম|__| স্থায়িত্ব (মাস) |__|__| (দিন) |__|__|

- রোগের নাম ______________________

রোগের স্থায়িত্ব (মাস) |__|__| (দিন) |__|__|
প্রাপ্ত চিকিৎসা:
ঔষধের নাম|__| স্থায়িত্ব (মাস) |__|__| (দিন) |__|__|
ঔষধের নাম|__| স্থায়িত্ব (মাস) |__|__| (দিন) |__|__|
ঔষধের নাম|__| স্থায়িত্ব (মাস) |__|__| (দিন) |__|__|
ঔষধের নাম|__| স্থায়িত্ব (মাস) |__|__| (দিন) |__|__|

বর্তমানে শারীরিক সমস্যা
৫.১ কাশি (না=১, হাঁ=২, মাঝেমাঝে=৩) |__| উত্তর হাঁ হলে, স্থায়িত্ব (দিন) |__|__|__|
৫.২ শ্বাস কষ্ট (না=১, হাঁ=২, মাঝেমাঝে=৩) |__| উত্তর হাঁ হলে, স্থায়িত্ব (দিন) |__|__|__|
৫.৩ জ্বর (না=১, হাঁ=২, মাঝেমাঝে=৩) |__| উত্তর হাঁ হলে, স্থায়িত্ব (দিন) |__|__|__|
৫.৪ কফ (না=১, হাঁ=২) |__| উত্তর হাঁ হলে, স্থায়িত্ব (দিন) |__|__|__|
৫.৫ ক্ষুধামন্দ্যা (না=১, হাঁ=২) |__| উত্তর হাঁ হলে, স্থায়িত্ব (দিন) |__|__|__|
৫.৬ রাত্রীকালীন ঘাম (না=১, হাঁ=২) |__| উত্তর হাঁ হলে, স্থায়িত্ব (দিন) |__|__|__|

৫.৭ কাশির সাথে রক্ত (না=১, হাঁ=২) |__| উত্তর হাঁ হলে, স্থায়িত্ব (দিন) |__|__|__|
৫.৮ শরীরের ওজন হ্রাস (না=১, হাঁ=২) |__| উত্তর হাঁ হলে, স্থায়িত্ব (দিন) |__|__|__|
৫.৯ বুকে ব্যথা (না=১, হাঁ=২) |__| উত্তর হাঁ হলে, স্থায়িত্ব (দিন) |__|__|__|
৫.১০ গিলতে অসুবিধা (না=১, হাঁ=২) |__| উত্তর হাঁ হলে, স্থায়িত্ব (দিন) |__|__|__|
৫.১১ তলপেটে ব্যথা (না=১, হাঁ=২) |__| উত্তর হাঁ হলে, স্থায়িত্ব (দিন) |__|__|__|

বর্তমানে অসুস্থতা:-

৬.১ ব্যক্তি কি বর্তমানে কোন অসুস্থতাতে ভুগছেন ? |__|
(না=১,হাঁ=২)

উত্তর হাঁ হলে রোগের নাম _____
রোগের স্থায়িত্ব (মাস) |__|__| (দিন) |__|__|

৬.২ প্রাপ্ত চিকিৎসা:

ঔষধের নাম|__| স্থায়িত্ব (মাস) |__|__| (দিন) |__|__| উৎস |__|
ঔষধের নাম|__| স্থায়িত্ব (মাস) |__|__| (দিন) |__|__|
ঔষধের নাম|__| স্থায়িত্ব (মাস) |__|__| (দিন) |__|__|
ঔষধের নাম|__| স্থায়িত্ব (মাস) |__|__| (দিন) |__|__|

ল্যাবরেটরী পরীক্ষার ফলাফল-মতলব
যক্ষ্মা সার্ভেলেন্স প্রকল্প

ফর্ম-৪

রোগীর পরিচিতিঃ

১.১ রোগীর ক্রমিক নাম্বার |__|__|__|__|__|

১.২ রোগীর ঠিকানাঃ

নাম: _____

গ্রাম: _____

পো: অফিস: _____

থানা: _____

জেলা: _____

১.৩ রোগীর সি.আই.ডি |__|__|__|__|__|__|__|__|__|

১.৪ রোগীর আর.আই.ডি |__|__|__|__|__|__|__|__|__|

১.৫ জন্মের তারিখ(দিন/মাস/বৎসর) |__|__|__|__|__|__|

১.৬ রোগীর লিঙ্গ(পুরুষ=১,মহিলা=২): |__|

ল্যাবরেটরী পরীক্ষার ফলাফল:-

২.১ মতলবে কফ AFB পরীক্ষার জন্য পাঠানো হয়েছিল ?(না=১, হাঁ=২) |__|

২.২ চোখে দেখতে কফের প্রকৃতি Muco-Purulent|__| Blood stained|__| Saliva|__|

২.৩ অণুবিক্ষণিক পরীক্ষার ফলাফল:-

নমুনা	নমুনা গ্রহনের তারিখ	নমুনা পরীক্ষার তারিখ	ফলাফল= পজেটিভ / নেগেটিভ	পজেটিভ ফলাফলের গ্রেড			
				+++	++	++	অতি সামান্য
১							
২							
৩							

২.৩ এক্স-রে করা হয়েছিল ?(না=১, হাঁ=২) |__|

উত্তর হাঁ হলে, এক্স-রেতে প্রাপ্ত অস্বাভাবিকতা (না=১, হাঁ=২) |__|

ফুসফুসে যক্ষাঃ

বাম ফুসফুস (না=১, হাঁ=২) |__|

ডান ফুসফুস (না=১, হাঁ=২) |__|

উভয় ফুসফুসে(না=১, হাঁ=২) |__|

২.৪ রক্ত CBC-র জন্য পরীক্ষা করা হয়েছিল ?(না=১, হাঁ=২) |__|

উত্তর হাঁ হলে, প্রাপ্ত ফলাফল:-

২.৫.১ TBC - 0000/dl |__|__|__|__|

২.৫.২ Poly (%) |__|__|

২.৫.৩ Lymp (%) |__|__|

২.৫.৪ Mono (%) |__|__|

২.৫.৫ Eosino (%) |__|__|

২.৬ ই.এস.আর(ESR- mm in 1st hr) |__|__|__|

২.৭ হিমোগ্লোবিন (%) |__|__|.|__|

২.৮ HCT(%) |__|__|

২.৯ কফের নমুনাটি কি ঢাকায় পাঠানো হয়েছে ? (না=১, হাঁ=২) |__|

সম্ভাব্য যক্ষ্মা রোগীর তথ্য--শ্যামলী যক্ষা ক্লিনিক
যক্ষ্মা সার্ভেলেন্স প্রকল্প

ফর্ম-৫

রোগীর পরিচিতিঃ

১.১ রোগীর ক্রমিক নাম্বার |__|__|__|__|__|__|

১.২ সাক্ষাৎকারের তারিখ(দিন/মাস/বৎসর) |__|__|/|__||__|/|__||__|

১.৩ সাক্ষাৎকার গ্রহনকারীর নাম ও নাম্বার ______________________ |__|__|

১.৪ ঠিকানাঃ

নাম: ____________________

গ্রাম: ____________________

পো: অফিস: ____________________

থানা: ____________________

জেলা: ____________________

১.৫ জন্মের তারিখ(দিন/মাস/বৎসর) |__|__|__|__|__|__|__|

১.৬ রোগীর লিঙ্গ(পুরুষ=১,মহিলা=২): |__|

অতীতের অসুস্থতার বিবরণ

২.১ বিগত পাঁচ বছরে কি কোন উল্লেখ যোগ্য অসুস্থতা হয়েছিল ? (না=১,হাঁ=২)

উত্তর হাঁ হলে

- রোগের নাম ____________________

রোগের স্থায়িত্ব (মাস) |__|__| (দিন) |__|__|

প্রাপ্ত চিকিৎসা:

ঔষধের নাম|__| স্থায়িত্ব (মাস) |__|__| (দিন) |__|__|
ঔষধের নাম|__| স্থায়িত্ব (মাস) |__|__| (দিন) |__|__|
ঔষধের নাম|__| স্থায়িত্ব (মাস) |__|__| (দিন) |__|__|
ঔষধের নাম|__| স্থায়িত্ব (মাস) |__|__| (দিন) |__|__|

- রোগের নাম ____________________

রোগের স্থায়িত্ব (মাস) |__|__| (দিন) |__|__|

প্রাপ্ত চিকিৎসা:

ঔষধের নাম|__| স্থায়িত্ব (মাস) |__|__| (দিন) |__|__|
ঔষধের নাম|__| স্থায়িত্ব (মাস) |__|__| (দিন) |__|__|
ঔষধের নাম|__| স্থায়িত্ব (মাস) |__|__| (দিন) |__|__|
ঔষধের নাম|__| স্থায়িত্ব (মাস) |__|__| (দিন) |__|__|

- রোগের নাম ____________________

রোগের স্থায়িত্ব (মাস) |__|__| (দিন) |__|__|

প্রাপ্ত চিকিৎসা:

ঔষধের নাম|__| স্থায়িত্ব (মাস) |__|__| (দিন) |__|__|
ঔষধের নাম|__| স্থায়িত্ব (মাস) |__|__| (দিন) |__|__|
ঔষধের নাম|__| স্থায়িত্ব (মাস) |__|__| (দিন) |__|__|
ঔষধের নাম|__| স্থায়িত্ব (মাস) |__|__| (দিন) |__|__|

অতীতে যক্ষ্মা চিকিৎসার বিবরণ

৩.১ আপনি কি পূর্বে কখনও যক্ষ্মার চিকিৎসা পেয়েছেন ? (না=১, হাঁ=২) |__|

উত্তর হাঁ হলে কখন থেকে চিকিৎসা পেয়েছেন ? (দিন/মাস/বৎসর)|__|__|/|__|__|/|__|__|

কোথা হতে |__|__|

রোগী কি DOTS প্রোগ্রামে আছেন ? (না=১, হাঁ=২) |__|

৩.২রোগী কতদিন চিকিৎসা পাচ্ছেন ?

ঔষধের নাম	INH|__|	মাস|__|__|	দিন |__|__|
(না=১, হাঁ=২)	RIF|__|	মাস|__|__|	দিন |__|__|
	ETH|__|	মাস|__|__|	দিন |__|__|
	PYR|__|	মাস|__|__|	দিন |__|__|
	THI|__|	মাস|__|__|	দিন |__|__|
	|__|	মাস|__|__|	দিন |__|__|
	|__|	মাস|__|__|	দিন |__|__|
	|__|	মাস|__|__|	দিন |__|__|
	|__|	মাস|__|__|	দিন |__|__|
	|__|	মাস|__|__|	দিন |__|__|

৩.৩ কফ পরীক্ষা করা হয়েছিল কি ? (না=১, হাঁ=২) |__|

উত্তর হাঁ হলে কফ পরীক্ষার ফলাফল(AFB ছিল না=১,AFB ছিল=২) |__|

৩.৪ এক্স-রে করা হয়েছিল কি ?(না=১, হাঁ=২) |__|

উত্তর হাঁ হলে এক্স-রের ফলাফলঃ অস্বাভাবিক(না=১, হা=২) |__|

ফুসফুসে যক্ষাঃ বাম ফুসফুস |__| ডান ফুসফুস |__| উভয় ফুসফুসে |__|

৩.৫ রোগী কি চিকিৎসা বন্ধ করে দিয়েছিল ? (না=১, হাঁ=২) |__|

উত্তর হা হলে, কখন বন্ধ করেছিল ? (দিন/মাস/বৎসর) |__|__||__|__||__|__|

৩.৬ চিকিৎসা বন্ধের কারণঃ |__|

(পার্শ্ব প্রতিক্রিয়া=১, ভাল অনুভব করা=২, ঔষধ বিস্বাদ বোধ করা=৩, অনেকগুলো ওষধ=৪ ওষধ না পাওয়া=৫)

বি.সি.জি. টিকা

৪.১ রোগী কি বি.সি.জি. টিকা নিয়েছে ? (না=১, হাঁ=২) |__|

৪.২ বি.সি.জি. টিকার ক্ষত আছে ?(না=১, হাঁ=২) |__|

ডাক্তারী পরীক্ষার ফলাফল:-

৫.১ পরীক্ষার তারিখ (দিন/মাস/বৎসর) |__|__||__|__||__|__|

৫.২ রোগীর সামগ্রিক চেহারা (স্বাভাবিক=১, রুগ্ন=২) |__|

৫.৩ ওজন(কে.জি) |__|__|__|.|__||__|

৫.৪ উচ্চতা(সে.মি) |__|__|

৫.৫ রক্ত শুন্যতা(না=১, হাঁ=২) |__|

৫.৬ শিরা (বার/মিনিট) |__||__|

৫.৭ তাপমাত্রা (সেন্টিগ্রেডে) |__||__||__|.|__|

৫.৮ জন্ডিস/পান্ডু রোগ(না=১, হাঁ=২) |__|

৫.৯ শরীরে পানি আসা(না=১, হাঁ=২) |__|

৫.১০ মাংশপেশীর ক্ষয়(না=১, হাঁ=২) |__|

৫.১১ ফুসফুস Wheeze(না=১, হাঁ=২) |__|

Rales(না=১, হাঁ=২) |__|

Rhonchih(না=১, হাঁ=২) |__|

৫.১২ হৃদস্পন্দনের শব্দ(স্বাভাবিক=১, অতিরিক্ত শব্দ=২) |__|

৫.১৩ যকৃত (হাতে অনুভব করা যায় না=১, যায়=২) |__|

৫.১৪ লিম্ফনোড(অনুভব করা যায় না=১, যায়=২) |__|

৫.১৫ পেট (স্বাভাবিক=১, প্রসারিত=২) |__|

৫.১৬ চোখ(স্বাভাবিক=১, কঞ্জাক্টিভাইটিস=২, ছানি=৩) |__|
৫.১৭ কান (স্বাভাবিক=১, ক্ষরণ=২) |__|
৫.১৮ ত্বক(স্বাভাবিক=১, গোটা=২) |__|
৫.১৯ স্বাস কষ্ট(না=১, হাঁ=২) |__|
৫.২০ স্বাসের সময় বুক দেবে যাওয়া (না=১, হাঁ=২) |__|

৬.১ প্রাথমিকভাবে সনাক্তকৃত রোগ _____

৬.২ প্রদত্ত চিকিৎসাঃ

ওষধের নাম	INH|__|	মাস|__|__|	দিন |__|__|
(না=১, হাঁ=২)	RIF|__|	মাস|__|__|	দিন |__|__|
	ETH|__|	মাস|__|__|	দিন |__|__|
	PYR|__|	মাস|__|__|	দিন |__|__|
	THI|__|	মাস|__|__|	দিন |__|__|
	|__|	মাস|__|__|	দিন |__|__|
	|__|	মাস|__|__|	দিন |__|__|
	|__|	মাস|__|__|	দিন |__|__|
	|__|	মাস|__|__|	দিন |__|__|
	|__|	মাস|__|__|	দিন |__|__|

পরিবারিক স্টাডি ঢাকা
যক্ষ্মা সার্ভেলেন্স প্রকল্প

ফর্ম-৬

রোগীর পরিচিতিঃ

১.১ ব্যক্তির ক্রমিক নাম্বার |__|__|__|__|__|

১.২ সাক্ষাৎকারের তারিখ(দিন/মাস/বৎসর) |__|__|/|__|__|/|__|__|

১.৩ সাক্ষাৎকার গ্রহনকারীর নাম ও নাম্বার _____ |__|__|

১.৪ ঠিকানাঃ

নাম: _____

গ্রাম/রাস্তা/বাড়ী #: _____

পো: অফিস: _____

থানা: _____

জেলা: _____

১.৫ জন্মের তারিখ(দিন/মাস/বৎসর) |__|__|__|__|__|__|

১.৬ রোগীর লিঙ্গ(পুরুষ=১,মহিলা=২): |__|

১.৭ ধর্ম (মুসলিম=১,হিন্দু=২,অন্যান্য=৩) |__|

আর্থসামাজিক অবস্থা:-

২.১ বাড়ীর লোকসংখ্যা:- |__|__|

২.২ ব্যক্তির পেশা: |__|__|

২.৩ তিনি কি নিজেই গৃহকর্তা ? (না=১,হ্যা=২) |__|

২.৪ গৃহকর্তার পেশা |__|__|

২.৫ ব্যক্তির শিক্ষাগত যোগ্যতা (বৎসর হিসাবে) |__|__|

২.৬ গৃহকর্তার শিক্ষাগত যোগ্যতা(বৎসর হিসাবে) |__|__|

২.৭ অনুর্ধ পাঁচ বৎসরের শিশুর সংখ্যা |__|

২.৮ গড় মাসিক আয়(টাকা) |__|__|__|__|__|

২.৯ বাসযোগ্য ঘরের সংখ্যা |__|__|

২.১০ পরিবারের নিজস্ব বাড়ী আছে কি ?(না=১, হাঁ=২) |__|

২.১১ পরিবারের নিজস্ব জমি আছে কি ?(না=১, হাঁ=২) |__|

বাসগৃহের ধরণ

২.১২.১ দেয়ালের ধরণ |__|

(খড়=১, পাট=২, বাঁশ=৩, টিন=৪, ইট= ৫ অন্যান্য=৬)

২.১২.২ ছাদের ধরণ |__|

(খড়=১, পাট=২, বাঁশ=৩, টিন=৪, ইট= ৫ অন্যান্য=৬)

২.১২.৩ মেঝের ধরণ |__|

(মাটি=১, সিমেন্ট=২)

পানির উৎস:-

(নদী=১, খাল=২, পুকুর=৩, টিউব ওয়েল/চাঁপ কল=৪, অন্যান্য=৫)

২.১৩.১ পান করার জন্য |__|

২.১৩.২ ধৌত করার জন্য |__|

২.১৩.৩ রান্না করার জন্য |__|

২.১৩.৪ গোসল করার জন্য |__|

২.১৪ বাড়ীর আঙ্গীনায় টিউব ওয়েল/চাঁপ কল আছে ? (না=১,হাঁ=২,) |__|

২.১৫ পায়খানা ঘরের ধরণ ? |__|

(গর্ত করা=১, ওয়াটার সীল=২, স্যানিটারী=৩, অন্যান্য=৪)

২.১৬ গৃহপালিত জীব-জন্তুর বিবরণ(না=১,হাঁ=২) |__|

(গরু|__|, ছাগল|__|, কুকুর|__|, বিড়াল|__|, মুরগী|__|, হাঁস|__|)

বি.সি.জি. টিকার বিবরণ:-

৩.১ রোগী কি বি.সি.জি. টিকা নিয়েছে ? (না=১,হাঁ=২) |__|

৩.২ রোগীর শরীরে কি বি.সি.জি. টিকার দাগ আছে ? (না=১,হাঁ=২) |__|

অতীতের অসুস্থতার বিবরণ

৪.১ বিগত পাঁচ বছরে কি কোন উল্লেখ যোগ্য অসুস্থতা হয়েছিল ? (না=১,হাঁ=২)

উত্তর হ্যা হলে, রোগের বিবরণ

- রোগের নাম ______________________

রোগের স্থায়িত্ব (মাস) |__|__| (দিন) |__|__|

প্রাপ্ত চিকিৎসা:

ঔষধের নাম|__| স্থায়িত্ব (মাস) |__|__| (দিন) |__|__|
ঔষধের নাম|__| স্থায়িত্ব (মাস) |__|__| (দিন) |__|__|
ঔষধের নাম|__| স্থায়িত্ব (মাস) |__|__| (দিন) |__|__|
ঔষধের নাম|__| স্থায়িত্ব (মাস) |__|__| (দিন) |__|__|

- রোগের নাম ______________________

রোগের স্থায়িত্ব (মাস) |__|__| (দিন) |__|__|

প্রাপ্ত চিকিৎসা:

ঔষধের নাম|__| স্থায়িত্ব (মাস) |__|__| (দিন) |__|__|
ঔষধের নাম|__| স্থায়িত্ব (মাস) |__|__| (দিন) |__|__|
ঔষধের নাম|__| স্থায়িত্ব (মাস) |__|__| (দিন) |__|__|
ঔষধের নাম|__| স্থায়িত্ব (মাস) |__|__| (দিন) |__|__|

- রোগের নাম ______________________

রোগের স্থায়িত্ব (মাস) |__|__| (দিন) |__|__|

প্রাপ্ত চিকিৎসা:

ঔষধের নাম|__| স্থায়িত্ব (মাস) |__|__| (দিন) |__|__|
ঔষধের নাম|__| স্থায়িত্ব (মাস) |__|__| (দিন) |__|__|
ঔষধের নাম|__| স্থায়িত্ব (মাস) |__|__| (দিন) |__|__|
ঔষধের নাম|__| স্থায়িত্ব (মাস) |__|__| (দিন) |__|__|

বর্তমানে শারীরিক সমস্যা

৫.১ কাশি (না=১, হাঁ=২, মাঝেমাঝে=৩)	|__|	উত্তর হাঁ হলে, স্থায়িত্ব (দিন) |__|__|__|
৫.২ শ্বাস কষ্ট (না=১, হাঁ=২, মাঝেমাঝে=৩)	|__|	উত্তর হাঁ হলে, স্থায়িত্ব (দিন) |__|__|__|
৫.৩ জ্বর (না=১, হাঁ=২, মাঝেমাঝে=৩)	|__|	উত্তর হাঁ হলে, স্থায়িত্ব (দিন) |__|__|__|
৫.৪ কফ (না=১, হাঁ=২)	|__|	উত্তর হাঁ হলে, স্থায়িত্ব (দিন) |__|__|__|
৫.৫ ক্ষুধামন্দ্যা (না=১, হাঁ=২)	|__|	উত্তর হাঁ হলে, স্থায়িত্ব (দিন) |__|__|__|
৫.৬ রাত্রীকালীন ঘাম (না=১, হাঁ=২)	|__|	উত্তর হাঁ হলে, স্থায়িত্ব (দিন) |__|__|__|
৫.৭ কাশির সাথে রক্ত (না=১, হাঁ=২)	|__|	উত্তর হাঁ হলে, স্থায়িত্ব (দিন) |__|__|__|
৫.৮ শরীরের ওজন হ্রাস (না=১, হাঁ=২)	|__|	উত্তর হাঁ হলে, স্থায়িত্ব (দিন) |__|__|__|

৫.৯ বুকে ব্যথা (না=১, হাঁ=২) |__| উত্তর হাঁ হলে, স্থায়িত্ব (দিন) |__|__|__|
৫.১০ গিলতে অসুবিধা (না=১, হাঁ=২) |__| উত্তর হাঁ হলে, স্থায়িত্ব (দিন) |__|__|__|
৫.১১ তলপেটে ব্যথা (না=১, হাঁ=২) |__| উত্তর হাঁ হলে, স্থায়িত্ব (দিন) |__|__|__|

বর্তমানে অসুস্থতা:-

৬.১ ব্যক্তি কি বর্তমানে কোন অসুস্থতাতে ভুগছেন ? |__|
(না=১,হাঁ=২)

উত্তর হাঁ হলে রোগের নাম _____
রোগের স্থায়িত্ব (মাস) |__|__| (দিন) |__|__|

৬.২ প্রাপ্ত চিকিৎসা:

ঔষধের নাম|__| স্থায়িত্ব (মাস) |__|__| (দিন) |__|__| উৎস |__|
ঔষধের নাম|__| স্থায়িত্ব (মাস) |__|__| (দিন) |__|__|
ঔষধের নাম|__| স্থায়িত্ব (মাস) |__|__| (দিন) |__|__|
ঔষধের নাম|__| স্থায়িত্ব (মাস) |__|__| (দিন) |__|__|

ল্যাবরেটরী পরীক্ষার ফলাফল-শ্যামলী
যক্ষ্মা সার্ভেলেন্স প্রকল্প

ফর্ম-৭

রোগীর পরিচিতিঃ

১.১ রোগীর ক্রমিক নাম্বার |__|__|__|__|__|

১.২ রোগীর ঠিকানাঃ

নাম: _____

গ্রাম/রাস্তা/বড়ী #:_____

পো: অফিস: _____

থানা: _____

জেলা: _____

১.৩ জন্মের তারিখ(দিন/মাস/বৎসর) |__|__|__|__|__|__|

১.৪ রোগীর লিঙ্গ(পুরুষ=১,মহিলা=২): |__|

ল্যাবরেটরী পরীক্ষার ফলাফল:-

২.১ চোখে দেখতে কফের প্রকৃতি Muco-Purulent|__| Blood stained|__| Saliva|__|

২.২ আণুবিক্ষণিক পরীক্ষার ফলাফল:-

নমুনা	নমুনা গ্রহনের তারিখ	নমুনা পরীক্ষার তারিখ	ফলাফল= পজেটিভ / নেগেটিভ	পজেটিভ ফলাফলের গ্রেড			
				+++	++	++	অতি সামান্য
১							
২							
৩							

২.৩ এক্স-রে করা হয়েছিল ?(না=১, হাঁ=২) |__|

উত্তর হাঁ হলে, এক্স-রেতে প্রাপ্ত অস্বাভাবিকতা (না=১, হাঁ=২) |__|

ফুসফুসে যক্ষাঃ

বাম ফুসফুস (না=১, হাঁ=২) |__|

ডান ফুসফুস (না=১, হাঁ=২) |__|

উভয় ফুসফুসে(না=১, হাঁ=২) |__|

২.৪ রক্ত CBC-র জন্য পরীক্ষা করা হয়েছিল ?(না=১, হাঁ=২) |__|

উত্তর হাঁ হলে, প্রাপ্ত ফলাফল:-

২.৫.১ TBC - 0000/dl |__|__|__|__|

২.৫.২ Poly (%) |__|__|

২.৫.৩ Lymp (%) |__|__|

২.৫.৪ Mono (%) |__|__|

২.৫.৫ Eosino (%) |__|__|

২.৬ ই.এস.আর(ESR- mm in 1st hr) |__|__|__|

২.৭ হিমোগ্লোবিন (%) |__|__|.|__|

২.৮ HCT(%) |__|__|

২.৯ কালচারের ফলাফল:

L-J মিডিয়া (কোন গ্রোথ নাই=১, যক্ষ্মা = ২) গ্রোথের সময় (দিন) |__||__|

MODS (কোন গ্রোথ নাই=১, যক্ষ্মা = ২) গ্রোথের সময় (দিন) |__||__|

২.১০ সংবেদনশীলতার ফলাফল

(সংবেদনশীল=S প্রতিরোধী=R)

	INH	RIF	ETH	PYR	THI		
সংবেদনশীলতা							

কেস্-কন্ট্রোল স্টাডি-ঢাকা
যক্ষ্মা সার্ভেলেন্স প্রকল্প

ফর্ম-৮

পরিচিতিঃ

১.১ ক্রমিক নাম্বার |__|__|__|__|__|

১.২ সাক্ষাৎকারের তারিখ(দিন/মাস/বৎসর) |__|__|/|__|__|/|__|__|

১.৩ সাক্ষাৎকার গ্রহনকারীর নাম ও নাম্বার _____ |__|__|

১.৪ রোগীর ঠিকানাঃ

নাম: _____

গ্রাম/রাস্তা/বড়ী #:_____

পো: অফিস: _____

থানা: _____

জেলা: _____

১.৫ জন্মের তারিখ(দিন/মাস/বৎসর) |__|__|__|__|__|__|

১.৬ রোগীর লিঙ্গ(পুরুষ=১,মহিলা=২): |__|

১.৭ ধর্ম (মুসলিম=১,হিন্দু=২,অন্যান্য=৩) |__|

আর্থসামাজিক অবস্থা:-

২.১ বাড়ীর লোকসংখ্যা:- |__|__|

২.২ রোগীর পেশা: |__|__|

২.৩ ব্যক্তি কি নিজেই গৃহকর্তা ? (না=১,হাঁ=২) |__|

২.৪ গৃহকর্তার পেশা |__|__|

২.৫ ব্যক্তির শিক্ষাগত যোগ্যতা (বৎসর হিসাবে) |__|__|

২.৬ গৃহকর্তার শিক্ষাগত যোগ্যতা(বৎসর হিসাবে) |__|__|

২.৭ অনুর্ধ পাঁচ বৎসরের শিশুর সংখ্যা |__|

২.৮ গড় মাসিক আয়(টাকা) |__|__|__|__|__|

২.৯ বাসযোগ্য ঘরের সংখ্যা |__|__|

২.১০ পরিবারের নিজস্ব বাড়ী আছে কি ?(না=১, হাঁ=২) |__|

২.১১ পরিবারের নিজস্ব জমি আছে কি ?(না=১, হাঁ=২) |__|

বাসগৃহের ধরণ

২.১২.১ দেয়ালের ধরণ |__|

(খড়=১, পাট=২, বাঁশ=৩, টিন=৪, ইট= ৫ অন্যান্য=৬)

২.১২.২ ছাদের ধরণ |__|

(খড়=১, পাট=২, বাঁশ=৩, টিন=৪, ইট= ৫ অন্যান্য=৬)

২.১২.৩ মেঝের ধরণ |__|

(মাটি=১, সিমেন্ট=২)

পানির উৎস:-

(নদী=১, খাল=২, পুকুর=৩, টিউব ওয়েল/চাঁপ কল=৪, অন্যান্য=৫)

২.১৩.১ পান করার জন্য |__|

২.১৩.২ ধৌত করার জন্য |__|

২.১৩.৩ রান্না করার জন্য |__|

২.১৩.৪ গোসল করার জন্য |__|

২.১৪ বাড়ীর আঙ্গীনায় টিউব ওয়েল/চাঁপ কল আছে ? (না=১,হাঁ=২) |__|
২.১৫ পায়খানা ঘরের ধরণ ? |__|
(গর্ত করা=১, ওয়াটার সীল=২, স্যানিটারী=৩, অন্যান্য=৪)
২.১৬ গৃহপালিত জীব-জন্তুর বিবরণ(না=১,হাঁ=২) |__|
(গরু|__|, ছাগল|__|, কুকুর|__|, বিড়াল|__|, মুরগী|__|, হাঁস|__|)

বি.সি.জি. টিকার বিবরণ:-
৩.১ রোগী কি বি.সি.জি. টিকা নিয়েছে ? (না=১,হাঁ=২) |__|
৩.২ রোগীর শরীরে কি বি.সি.জি. টিকার দাগ আছে ? (না=১,হাঁ=২) |__|

অসুস্থতার বিবরণ

অতীতের অসুস্থতার বিবরণ
৪.১ বিগত পাঁচ বছরে কি কোন উল্লেখ যোগ্য অসুস্থতা হয়েছিল ? (না=১,হাঁ=২)
উত্তর হ্যা হলে, রোগের বিবরণ

- রোগের নাম _____

রোগের স্থায়িত্ব (মাস) |__|__| (দিন) |__|__|
প্রাপ্ত চিকিৎসা:
ঔষধের নাম|__| স্থায়িত্ব (মাস) |__|__| (দিন) |__|__|
ঔষধের নাম|__| স্থায়িত্ব (মাস) |__|__| (দিন) |__|__|
ঔষধের নাম|__| স্থায়িত্ব (মাস) |__|__| (দিন) |__|__|
ঔষধের নাম|__| স্থায়িত্ব (মাস) |__|__| (দিন) |__|__|

- রোগের নাম _____

রোগের স্থায়িত্ব (বৎসর) |__|__| (দিন) |__|__|
প্রাপ্ত চিকিৎসা:
ঔষধের নাম|__| স্থায়িত্ব (মাস) |__|__| (দিন) |__|__|
ঔষধের নাম|__| স্থায়িত্ব (মাস) |__|__| (দিন) |__|__|
ঔষধের নাম|__| স্থায়িত্ব (মাস) |__|__| (দিন) |__|__|
ঔষধের নাম|__| স্থায়িত্ব (মাস) |__|__| (দিন) |__|__|

- রোগের নাম _____

রোগের স্থায়িত্ব (মাস) |__|__| (দিন) |__|__|
প্রাপ্ত চিকিৎসা:
ঔষধের নাম|__| স্থায়িত্ব (মাস) |__|__| (দিন) |__|__|
ঔষধের নাম|__| স্থায়িত্ব (মাস) |__|__| (দিন) |__|__|
ঔষধের নাম|__| স্থায়িত্ব (মাস) |__|__| (দিন) |__|__|
ঔষধের নাম|__| স্থায়িত্ব (মাস) |__|__| (দিন) |__|__|

বর্তমানে শারীরিক সমস্যা
৫.১ কাশি (না=১, হাঁ=২, মাঝেমাঝে=৩) |__| উত্তর হাঁ হলে, স্থায়িত্ব (দিন) |__|__|__|
৫.২ শ্বাস কষ্ট (না=১, হাঁ=২, মাঝেমাঝে=৩) |__| উত্তর হাঁ হলে, স্থায়িত্ব (দিন) |__|__|__|
৫.৩ জ্বর (না=১, হাঁ=২, মাঝেমাঝে=৩) |__| উত্তর হাঁ হলে, স্থায়িত্ব (দিন) |__|__|__|
৫.৪ কফ (না=১, হাঁ=২) |__| উত্তর হাঁ হলে, স্থায়িত্ব (দিন) |__|__|__|
৫.৫ ক্ষুধামন্দ্যা (না=১, হাঁ=২) |__| উত্তর হাঁ হলে, স্থায়িত্ব (দিন) |__|__|__|
৫.৬ রাত্রীকালীন ঘাম (না=১, হাঁ=২) |__| উত্তর হাঁ হলে, স্থায়িত্ব (দিন) |__|__|__|

৫.৭ কাশির সাথে রক্ত (না=১, হাঁ=২) |__| উত্তর হাঁ হলে, স্থায়িত্ব (দিন) |__|__|__|
৫.৮ শরীরের ওজন হ্রাস (না=১, হাঁ=২) |__| উত্তর হাঁ হলে, স্থায়িত্ব (দিন) |__|__|__|
৫.৯ বুকে ব্যথা (না=১, হাঁ=২) |__| উত্তর হাঁ হলে, স্থায়িত্ব (দিন) |__|__|__|
৫.১০ গিলতে অসুবিধা (না=১, হাঁ=২) |__| উত্তর হাঁ হলে, স্থায়িত্ব (দিন) |__|__|__|
৫.১১ তলপেটে ব্যথা (না=১, হাঁ=২) |__| উত্তর হাঁ হলে, স্থায়িত্ব (দিন) |__|__|__|

Questionnaire for assessment of DOTS

যক্ষ্মা সার্ভেলেন্স প্রকল্প

ফর্ম-৯

পরিচিতিঃ

১.১ ক্রমিক নাম্বার |__|__|__|__|__|

১.২ সাক্ষাৎকারের তারিখ(দিন/মাস/বৎসর) |__|__|/|__||__|/|__||__|

১.৩ সাক্ষাৎকার গ্রহনকারীর নাম ও নাম্বার _____ |__|__|

১.৪ রোগীর ঠিকানাঃ

নাম: _____

গ্রাম: _____

পো: অফিস: _____

থানা: _____

জেলা: _____

১.৫ রোগীর সি.আই.ডি |__|__|__|__|__|__|__|__|__|__|

১.৬ রোগীর আর.আই.ডি |__|__|__|__|__|__|__|__|__|__|

১.৭ জন্মের তারিখ(দিন/মাস/বৎসর) |__|__|__|__|__|__|

১.৮ রোগীর লিঙ্গ(পুরুষ=১,মহিলা=২): |__|

১.৯ ধর্ম (মুসলিম=১,হিন্দু=২,অন্যান্য=৩) |__|

আর্থসামাজিক অবস্থা:-

২.১ বাড়ীর লোকসংখ্যা:- |__|__|

২.২ রোগীর পেশা: |__|__|

২.৩ রোগী কি নিজেই গৃহকর্তা ? (না=১,হাঁ=২) |__|

২.৪ গৃহকর্তার পেশা |__|__|

২.৫ রোগীর শিক্ষাগত যোগ্যতা (বৎসর হিসাবে) |__|__|

২.৬ গৃহকর্তার শিক্ষাগত যোগ্যতা(বৎসর হিসাবে) |__|__|

২.৭ অনুর্ধ পাঁচ বৎসরের শিশুর সংখ্যা |__|__|

২.৮ গড় মাসিক আয়(টাকা) |__|__|__|__|__|

২.৯ বাসযোগ্য ঘরের সংখ্যা |__|__|

২.১০ পরিবারের নিজস্ব বাড়ী আছে কি ?(না=১, হাঁ=২) |__|

২.১১ পরিবারের নিজস্ব জমি আছে কি ?(না=১, হাঁ=২) |__|

বাসগৃহের ধরণ

২.১২.১ দেয়ালের ধরণ |__|

(খড়=১, পাট=২, বাঁশ=৩, টিন=৪, ইট= ৫ অন্যান্য=৬)

২.১২.২ ছাদের ধরণ |__|

(খড়=১, পাট=২, বাঁশ=৩, টিন=৪, ইট= ৫ অন্যান্য=৬)

২.১২.৩ মেঝের ধরণ |__|

(মাটি=১, সিমেন্ট=২, অন্যান্য=২)

পানির উৎস:-

(নদী=১, খাল=২, পুকুর=৩, টিউব ওয়েল/চাঁপ কল=৪, অন্যান্য=৫)

২.১৩.১ পান করার জন্য |__|

২.১৩.২ ধৌত করার জন্য |__|

২.১৩.৩ রান্না করার জন্য |__|

২.১৩.৪ গোসল করার জন্য |__|

২.১৪ বাড়ীর আঙ্গীনায় টিউব ওয়েল/চাঁপ কল আছে ? (না=১,হাঁ=২) |__|
২.১৫ পায়খানা ঘরের ধরণ ? |__|
(গর্ত করা=১, ওয়াটার সীল=২, স্যানিটারী=৩, অন্যান্য=৪)
২.১৬ গৃহপালিত জীব-জন্তুর বিবরণ(না=১,হাঁ=২) |__|
(গরু|__|, ছাগল|__|, কুকুর|__|, বিড়াল|__|, মুরগী|__|, হাঁস|__|)
২.১৭ সর্বমোট জমির পরিমাণ (শতকে)
বাসগৃহ |__||__||__|
চাষাবদযোগ্য |__||__||__|
বি.সি.জি. টিকার বিবরণ:-
৩.১ রোগী কি বি.সি.জি. টিকা নিয়েছে ? (না=১,হাঁ=২) |__|
৩.২ রোগীর শরীরে কি বি.সি.জি. টিকার দাগ আছে ? (না=১,হাঁ=২) |__|

অতীতে যক্ষ্মা চিকিৎসার বিবরণ
৪.১ আপনি কি পূর্বে কখনও যক্ষ্মার চিকিৎসা পেয়েছেন ? (না=১, হাঁ=২) |__|
উত্তর হাঁ হলে কখন থেকে চিকিৎসা পেয়েছেন ? (দিন/মাস/বৎসর)|__|__|/|__|__|/|__|__|
কোথা হতে |__|__|
রোগী কি DOTS প্রোগ্রামে আছেন ? (না=১, হাঁ=২) |__|
আপনি কি নিয়মিত মতলব থানা হেলথ কমপ্লেক্স থেকে চিকিৎসা পাচ্ছেন ? (না=১, হাঁ=২) |__|

উত্তর হাঁ হলে
৪.২রোগী কতদিন চিকিৎসা পাচ্ছেন ?

ঔষধের নাম (না=১, হাঁ=২)			
	INH|__|	মাস|__|__|	দিন |__|__|
	RIF|__|	মাস|__|__|	দিন |__|__|
	ETH|__|	মাস|__|__|	দিন |__|__|
	PYR|__|	মাস|__|__|	দিন |__|__|
	THI|__|	মাস|__|__|	দিন |__|__|
	|__|	মাস|__|__|	দিন |__|__|
	|__|	মাস|__|__|	দিন |__|__|
	|__|	মাস|__|__|	দিন |__|__|
	|__|	মাস|__|__|	দিন |__|__|
	|__|	মাস|__|__|	দিন |__|__|

৪.৩ কফ পরীক্ষা করা হয়েছিল কি ? (না=১, হাঁ=২) |__|
উত্তর হাঁ হলে কফ পরীক্ষার ফলাফল(AFB ছিল না=১,AFB ছিল=২) |__|
৪.৪ এক্স-রে করা হয়েছিল কি ?(না=১, হাঁ=২) |__|
উত্তর হাঁ হলে এক্স-রের ফলাফলঃ অস্বাভাবিক(না=১, হা=২) |__|
ফুসফুসে যক্ষাঃ বাম ফুসফুস |__| ডান ফুসফুস |__| উভয় ফুসফুসে |__|
৪.৫ রোগী কি চিকিৎসা বন্ধ করে দিয়েছিল ? (না=১, হাঁ=২) |__|
উত্তর হা হলে, কখন বন্ধ করেছিল ? (দিন/মাস/বৎসর) |__|__||__|__||__|__|
৪.৬ চিকিৎসা বন্ধের কারণঃ |__|
(পার্শ্ব প্রতিক্রিয়া=১, ভাল অনুভব করা=২, ঔষধ বিস্বাদ বোধ করা=৩, অনেকগুলো ওষধ=৪
ওষধ না পাওয়া=৫)