Attachment 1.

Date 27/4/88

ETHICAL REVIEW COMMITTEE, ICDDR,B.

Principal Investigator CONSTANCE SCHULTSZ Trainee Investigator (if any) DM2

Publication No. 88-013 Supporting Agency (if Non-ICDDR,B) USAID

Title of Study Secretory IgA antibody in saliva of children with shigellosis

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

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

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

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

(PTO)

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

Principal Investigator

Trainee

88-013.
27/4/88

SECTION I - RESEARCH PROTOCOL

1.	TITLE	:	Secretory IgA antibody in saliva of children with shigellosis
2.	PRINCIPAL INVESTIGATOR	:	Ms. Constance Schultsz
	COINVESTIGATOR	:	Dr. Firdausi Qadri Dr. Faruque Ahmed
3.	STARTING DATE	:	May 1988
4.	COMPLETION DATE	:	May 1989
5.	TOTAL DIRECT COST	:	US$ 13,400 (Funding source: USAID)
6.	ASSOCIATE DIRECTOR	:	Dr. Ivan Ciznar

This protocol has been approved by the Laboratory Sciences Division.

Signature of Associate Director : Ivan Ciznar

Date : April 12, 1988

7. ABSTRACT SUMMARY

This study is meant to investigate the secretory IgA antibody response during shigellosis in children. Saliva samples from patients will be collected on day of diagnosis, day 7 and day 14 of illness. Saliva from children of a local school and from children who just arrived in Bangladesh from non-endemic areas, both without any history of recent diarrhoea, will be used as control.

The antibody response will be analyzed by ELISA and Western-blot, using outer membrane proteins (OMPs) and lipopolysaccharide (LPS), prepared from *Shigella dysenteriae*

type 1 and *Shigella flexneri* strains. *Shigella* toxin extracted from a *Shigella dysenteriae* type 1 strain will also be used in ELISA and Western-blot analysis. Unstimulated saliva samples will be used, after heating at 56°C and centrifugation. It is expected that these analyses will enable us to observe a rise in the IgA antibody titer in saliva during *Shigella* infection.

8. REVIEW

a) Ethical Review Committee _____

b) Research Review Committee _____

c) Director _____

SECTION II - RESEARCH PLAN

A. INTRODUCTION

1. Objective

To determine secretory IgA antibody response to *Shigella* infection in saliva from children.

2. Background

Vaccine development against shigellosis is one of the highest priorities in the WHO, Diarrhoeal Disease Control program (16). Since ORS alone is not sufficient for the treatment of shigellosis and resistance to antibiotics is expanding rapidly, immunoprophylaxis is one area of research attracting attention and gaining importance.

Development of an effective vaccine against shigellosis will substantially benefit from the knowledge of the immune response of the human body to pathogens. In addition, a knowledge of the immunogenic components of the pathogen is required. In intestinal infections, the local mucosal immune response is of great importance since it is the first step in defense against a pathogen. However, it is difficult to study this immune response without the use of invasive methods. As an alternative to this, saliva may be used to study the local humoral intestinal immunity.

Antigenic stimulation of lymphocytes residing in the Peyer's patches in the small intestine leads to proliferation and migration of the cells into the regional lymph nodes, the lymph and the circulation. The antigenically stimulated mature lymphocytes return to the small intestinal mucosa or settle in the various exocrine glands and differentiate into IgA secreting plasma cells. It is because of this mechanism of migration and homing of lymphocytes that the IgA excreted by the salivary glands is of similar specificity to the IgA secreted by the plasma cells which have returned to the intestinal mucosa (1,11). Various studies showed evidence that transport of circulating monomeric IgA into the secreting glands is minimal (11). It is for this reason that by measuring the salivary IgA levels in patients, one can evaluate the local humoral immune response in the small intestine.

Mellander *et al.* (9,10) have shown that infants can respond to exposure to *E. coli* antigens with production of salivary secretory IgA antibodies. Mestecky *et al.* (12) have immunized volunteers orally with capsulated and killed *Streptococcus mutans* which induced a significant rise in the secretory IgA titer in the saliva.

In Bangladesh, Islam *et al.* have detected salivary IgA antibodies against *Giardia lamblia* in a cohort study (4). There are no reports, however, regarding the presence of salivary IgA antibodies in patients with shigellosis (2). Several animal studies, focused on the local immune response after stimulation by *Shigella* spp., have shown an increase in local antibody production in the gut (5,8).

In shigellosis, various components of the bacteria may be responsible for generating an immune response. Of these, the outer membrane proteins (OMPs), lipopolysaccharides (LPS) and the *Shigella*-toxin appear to be important and are being studied so as to understand their immunogenic properties (8,13). Since secretory IgA in saliva represents the intestinal secretory immune response, it should be possible to investigate the immunogenicity of OMP, LPS and *Shigella*-toxin by measuring the salivary IgA levels against each of these bacterial components.

3. Rationale

The mucosal immune system provides the body with a major barrier against nutritional, as well as microbiological antigens. The importance of the mucosal immune system can be seen in patients with deficiency in secretory IgA. These patients suffer from recurrent respiratory and intestinal infections

(3). Understanding the various factors involved in mucosal immunity is of a great importance for development of an effective vaccine. This study aims to give insight into the production of salivary IgA antibodies during shigellosis and to assess whether salivary IgA can be used as an indicator of the intestinal immune response.

In developing a method to estimate the amount of IgA antibodies in saliva during shigellosis, one may find a non-invasive procedure for the measurement of antibody response. Thus, this study might also be of relevance in its clinical and epidemiological application.

B. SPECIFIC AIMS

a) To set up enzyme-linked assays for measuring IgA antibodies in saliva against OMPs, LPS and toxin obtained from *S. dysenteriae* type 1 and *S. flexneri* antigens.

b) To observe a rise in the secretory IgA antibody titer in saliva during the course of a *Shigella* infection.

C. MATERIALS AND METHODS

a) Patients saliva

Unstimulated saliva from 10 children with *S. dysenteriae* type 1 infection and 10 children with

S. flexneri infection (bacteriologically confirmed), aged 2-12 years, will be collected on the day of diagnosis (2nd day of hospitalization) and on day 7 and day 14 of illness. Maximal duration of diarrhoea before attending the hospital will be 4 days. In case of breastfeeding, saliva will be collected 2 hours after feeding to prevent contamination with secretory IgA in breast milk. In order to obtain a statistically satisfactory number of children, it will be necessary to collect samples from children attending both the Dhaka and the Matlab treatment centres.

b) Control saliva

Saliva from 10 children in the same age group as the test group will be used. Only children without a history of recent *shigella* infection will be included. These children will be found in a local social welfare school (Samaj Unnayan School, Siddeswari, Dhaka).

Further saliva of 10 children who have recently arrived in Bangladesh from a non-endemic area and without any history of shigellosis will be used as control (American International School, Dhaka).

c) Collection and treatment of saliva

Unstimulated saliva samples will be collected either by suction with a dropper, or by spitting into a beaker. The samples will be heated at 56°C for 15 min to

prevent enzymatic degradation (4), centrifuged at 5,000 X *g* and stored in aliquots at -70°C.

d) Stool samples

Stool samples from the patients group will be examined for *Salmonella, Shigella, V. cholera* and *E. coli* ST/LT on admission as is normal procedure in the ICDDR,B treatment centres. Stool samples will also be collected on day 7 and/or day 14 in case of persistent or recurrent diarrhoea only.

e) Analysis of antibody in saliva

i) Antigen

OMP (13) and LPS (15) for ELISA and Western-blotting will be prepared using strains *S. dysenteriae* type 1 No. 26406 and *S. flexneri* 2a No. 611. In case of different *Shigella flexneri* serotypes, homologous strains will be used. These strains are at present stored at -70°C. These bacteria will be subcultured and grown at 37°C with shaking in Trypticase Soy Broth containing 0.6% Yeast Extract. For preparation of *Shigella* toxin for ELISA and Western-blotting. *S. dysenteriae* type 1 strain No. 26406 will be used, using methods developed in the Immunology laboratory.

ii) ELISA

Microtitre plates (polystyrene) will be coated with OMP, LPS and *Shigella* toxin. After washing, serially diluted saliva samples will be added. Anti-human IgA conjugated to horseradish peroxidase will be used to determine the IgA content of the saliva. For visualization, 4-Chloro-1-Naphtol will be used as substrate and colour development will be measured at 540nm (6,13).

iii) Western-blotting

OMPs, LPS and *Shigella*-toxin, separated by 13.5% SDS-polyacrylamide gel electrophoresis (7), will be blotted onto nitrocellulose sheets in the transblot apparatus of Bio-Rad (14). Saliva samples will be used to probe specific antigens. Rabbit anti-human IgA linked to horseradish peroxidase will be used to detect recognition using 4-Chloro-1-Naphtol as substrate.

g) Statistical analysis

In order to measure the significance value of the obtained data the Student's t-test or other appropriate statistical evaluations will be carried out.

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ABSTRACT SUMMARY

This study is meant to investigate the secretory IgA antibody response during shigellosis in children. By measuring the salivary IgA levels in patients, one can evaluate the local immune response in the small intestine.

Saliva will be analyzed using ELISA and Western-blot.

It is expected that knowledge of the local immune system can give a valuable contribution to the development of an effective vaccine.

1) Since the majority of infections occurs in children, it is of more relevance to study the immune response in this high-risk group.
2) There are no risks involved.
3) N.A.
4) Patients will be identified by a study number, data will be handled with proper care.
5) All guardians will be asked to sign a consent form.
6) N.A.
7) No personal benefit for the patient; society can benefit if this study gives a relevant contribution to the development of a *Shigella* vaccine, as well as to the development of non-invasive methods for establishing a rapid diagnosis.
8) Saliva will be collected.

CONSENT FORM

At the International Centre for Diarrhoeal Disease Research, Bangladesh (ICDDR,B), research is carried out for a better understanding how to prevent people from being attacked by blood dysentery. We are studying the defense mechanism of the body against the bacteria which cause blood dysentery. We sincerely ask for your cooperation in this study, hoping that it will help us to gain a better insight into the processes involved.

If you kindly agree to participate in this study, you may expect the following:

a) We will collect some saliva from your child on the day of admission and day 7 and day 14 of illness. Your child will be asked to spit into a beaker or we will use a glass dropper.

b) On the same days we will collect a stool sample from your child, using a rectal swab, in case there has been recurrent diarrhoea.

c) We will visit your house to collect the samples in case you have already left the hospital before the completion of the study.

d) Your medical records will be kept confidential.

e) You do not have to participate in the study. Your decision to join or not to join the study will not in any way affect your medical treatment while you are in the hospital. Once you enter the study, you are free to leave the study without any risk of loosing your medical care.

f) We will be ready to answer any of your questions concerning the study.

If you agree to participate in this study, please sign your name here.

Signature (left thumb impression) of patient or guardian

Signature of investigator

Date

"সম্মতি পত্র"

আন্তর্জাতিক উদরাময় গবেষণা কেন্দ্র, বাংলাদেশ (ICDDR,B) এ রক্ত আমাশয়ের আক্রমন থেকে কিভাবে রক্ষা পাওয়া যায় সে ব্যাপারে গবেষণা চলছে। আমরা রক্ত আমাশয়ের কারণ যে ব্যাকটেরিয়া তার বিরুদ্ধে শরীরের যে প্রতিরক্ষা ব্যবস্থা তা বুঝতে চেষ্টা করছি, এই গবেষণা কর্মে আমরা আপনার ঐকান্তিক সহযোগীতা কামনা করছি, যা আমাদের এই গবেষণার বিষয়কে গভীর ভাবে বুঝতে সাহায্য করবে।

যদি আপনি এই কার্যক্রমে অংশ গ্রহণে ইচ্ছুক হন তবে নিম্নলিখিত বিষয়গুলোতে আপনাকে সম্মতি দিতে হবে :-

১। আমরা আপনার শিশুর মুখ থেকে কিছু লালা (থুথু) নিব যে দিন সে ভর্তি হবে এবং অসুস্থতার পঞ্চম এবং চতুর্থ দিনে আপনার শিশুকে একটি পাত্রে থুথু ফেলতে হবে অথবা একটি চুষার ব্যবহার করা হবে।

২। সেই একই দিনগুলোতে আপনার শিশুর মল (পায়খানা) রেকটাল সোয়াব ব্যবহার করে সংগ্রহ করা হবে যদি তারিয়া চলতে থাকে।

৩। যদি আপনি কার্যক্রম অসমাপ্ত রেখে বাড়ী চলে যান তবে আমরা আপনার বাড়ী থেকে মল (পায়খানা) সংগ্রহ করব।

৪। আপনার সকল তাত্ত্বরী মধ্য গোপন রাখা হবে।

৫। আপনার এই কার্যক্রমে যোগদান করা আবশ্যক নয়, আপনার যোগদান করা বা না করা কোন ক্রমে আপনার হাসপাতালের সুযোগ সুবিধার পাওয়াতে বাধাগ্রস্থ হবে না, যদি আপনি এই কার্যক্রমে একবার অংশগ্রহণ করেন, তথাপিও যে কোন সময়ই আপনি এই কার্যক্রম থেকে অব্যাহতি পেতে পারেন এতে আপনার হাসপাতালের সুবিধা পেতে কোন অসুবিধার সৃষ্টি হবে না।

৬। আমরা এই কার্যক্রম সম্বন্ধে যে কোন ধরণের প্রশ্নের উত্তর দিতে তৈরী আছি।

আপনি এই গবেষণা কার্যক্রমে রাজী হলে আমাদের এই সম্মতি পত্রে সই অথবা বাম হাতের বৃদ্ধাংগুলির ছাপ দিন।

স্বাক্ষর/রোগীর বাম হাতের বৃদ্ধাংগুলির ছাপ

পরীক্ষকের স্বাক্ষর

তারিখ

CONSENT FORM

At the International Centre for Diarrhoeal Disease Research, Bangladesh (ICDDR,B), research is carried out for a better understanding how to prevent people from being attacked by blood dysentery. We are studying the defense mechanism of the body against the bacteria which cause blood dysentery. We sincerely ask for your cooperation in this study, hoping that it will help us to gain a better insight into the processes involved.

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b) On the same days we will collect a stool sample from your child, using a rectal swab, in case there has been recurrent diarrhoea.

c) In case you have left the hospital before the completion of the study, we would like you to visit the hospital on day 7 and/or day 14 of illness in order to collect the samples.

d) Your medical records will be kept confidential.

e) You do not have to participate in the study. Your decision to join or not to join the study will not in any way affect your medical treatment while you are in the hospital. Once you enter the study, you are free to leave the study without any risk of loosing your medical care.

f) We will be ready to answer any of your questions concerning the study.

If you agree to participate in this study, please sign your name here.

Signature (left thumb impression) of patient or guardian

Signature of investigator

Date

"সম্মতি পত্র"

(ICDDR,B)

আন্তর্জাতিক উদরাময় গবেষণা কেন্দ্র, বাংলাদেশ এ রক্তস আমাশয়ের আক্রমন থেকে কিভাবে রক্ষা পাওয়া যায় সে ব্যাপারে গবেষণা চলছে। আমরা রক্তস আমাশয়ের কারণ যে ব্যাকটেরিয়া তার বিরুদ্ধে শরীরের যে প্রতিরক্ষা ব্যবস্থা তা বুঝতে চেষ্টা করছি, এই গবেষণা কর্মে আমরা আপনার ঐকান্তিক সহযোগীতা কামনা করছি, যা আমাদের এই গবেষণার বিষয়কে গভীর ভাবে বুঝতে সাহায্য করবে।

যদি আপনি এই কার্যক্রমে অংশ গ্রহণে ইচ্ছুক হন তবে নিম্নলিখিত বিষয়গুলোতে আপনাকে সম্মতি দিতে হবে :-

১। আমরা আপনার শিশুর মুখ থেকে কিছু লালা (থুথু) নিব যে দিন সে ভর্তি হবে এবং অসুস্থতার পঞ্চম এবং চতুর্থ দিনে আপনার শিশুকে একটি পাত্রে থুথু ফেলতে হবে অথবা একটি ড্রপার ব্যবহার করা হবে।

২। সেই একই দিনগুলোতে আপনার শিশুর মল (পায়খানা) রেকটাল সোয়াব ব্যবহার করে সংগ্রহ করা হবে যদি ডায়রিয়া চলতে থাকে।

৩। প্রয়োজন বোধে আপনার বাড়ী থেকে আমরা অসুস্থতার ৭ম এবং ১৪শদিনে মলমূত্র সংগ্রহ করব যদি আপনি কার্যক্রম অসমাপ্ত রেখে হাসপাতাল ছেড়ে বাড়ী চলে যান।

৪। আপনার সকল তাত্ত্বরী নথী পত্র গোপন রাখা হবে।

৫। আপনার এই কার্যক্রমে যোগদান করা আবশ্যক নয়, আপনার যোগদান করা বা না করা কোন ক্রমে আপনার হাসপাতালের সুযোগ সুবিধার পাওয়াতে বাধাগ্রস্থ হবে না, যদি আপনি এই কার্যক্রমে একবার অংশগ্রহণ করেন, তথাপিও যে কোন সময়ই আপনি এই কার্যক্রম থেকে অব্যাহতি পেতে পারেন এতে আপনার হাসপাতালের সুবিধা পেতে কোন অসুবিধার সৃষ্টি হবে না।

৬। আমরা এই কার্যক্রম সম্বন্ধে যে কোন ধরণের প্রশ্নের উত্তর দিতে তৈরী আছি।

আপনি এই গবেষণা কার্যক্রমে রাজী হলে আমাদের এই সম্মতি পত্রে সই অথবা বাম হাতের বৃদ্ধাংগুলির ছাপ দিন।

স্বাক্ষর/রোগীর বাম হাতের বৃদ্ধাংগুলির ছাপ

পরীক্ষকের স্বাক্ষর

তারিখ

To the parents of .....

At the International Centre for Diarrhoeal Disease Research, Bangladesh (ICDDR,B) in Dhaka research is carried out on all aspects of diarrhoeal diseases. Studies are carried out on the causes and treatment of diarrhoea, socio-economic aspects involved and also vaccine development.

We are planning to study the immune response of the body against the bacteria *Shigella* which cause bacillary dysentery. For this purpose, we will use saliva samples from children with shigellosis. We also need "control" saliva samples from healthy children without any history of bacillary dysentery and from non-endemic parts of the world.

We, therefore, would like to ask for your cooperation by giving us permission to collect some saliva (1-2 ml) from your child. The saliva will be collected at the American International School. We will call the child down from class for five minutes and he/she will just have to spit into a beaker. Besides this, we would like you to fill in the attached questionnaire.

All data will be handled with utmost discretion.

In case you have any further inquiries, please contact us at ICDDR,B (phone 600171-8, extension 243/286, Constance Schultsz).

Thanking you for your cooperation.

Constance Schultsz Research Fellow	Dr. Firdausi Qadri Scientist	Dr. Ivan Ciznar Associate Director Laboratory Sciences Division

QUESTIONNAIRE

1. Are you willing to help us in this study by permitting your child to participate?

   YES ☐ NO ☐

   If "yes", please answer the following questions:

2. Did your child have diarrhoea after arrival in Bangladesh?

   YES ☐ NO ☐

3. In case of diarrhoea, was a stool sample examined?

   YES ☐ NO ☐

   Diagnosis _____

4. Were there any family members who contracted diarrhoea after arrival in Bangladesh?

   YES ☐ NO ☐

5. In case of diarrhoea, were stool samples examined?

   YES ☐ NO ☐

   Diagnosis _____

6. Where did your child live in the previous years, before coming to Bangladesh?

   _____

DATA FORM

NAME :

AGE :

I.C. No. :

STUDY No. : PS

ON ADMISSION : _____ (DATE)

- DURATION OF DIARRHOEA : _____ DAYS (MAX. 4 DAYS)
- ASPECT OF STOOL : _____
- GRADE OF DEHYDRATION : MILD [ ] MODERATE [ ] SEVERE [ ]
- DIAGNOSIS : *S. dysenteriae* 1 [ ]
  S. flexneri [ ]
- TREATMENT : _____
- SALIVA SAMPLE COLLECTED : YES [ ] NO [ ]

DAY 7 : _____ (DATE)

- SALIVA SAMPLE COLLECTED : YES [ ] NO [ ]
- RECTAL SWAB COLLECTED : YES [ ] NO [ ]

  RESULT : _____

DAY 14 : _____ (DATE)

- SALIVA SAMPLE COLLECTED : YES [ ] NO [ ]
- RECTAL SWAB COLLECTED : YES [ ] NO [ ]

  RESULT : _____

ICDDR,B
1988 BUDGET PROPOSAL
(In US $)

PARTICULARS

Division Name: LABORATORY SCIENCES DIVISION

Protocol/Branch name: Secretory IgA antibody in saliva of children with shigellosis./Immunology & Bacterial Genetics Department

Name of P.I./Branch Head/Division Head: Ms. Constance Schultsz/Dr. Ivan Ciznar

Budget Code: ..... Starting Date: May 1988

Protocol No: ..... Completion Date: May 1989

Donor Name: USAID Grant Amount: .....

EXPENSE CATEGORY		Column A: Actual Jan.-June 1987	Column B: Estimated Whole Yr. 1987	Column C: Proposed 1988
A/C No.	Description / Refer Page			
3100	Local Salaries 2			5,100
3200	Intl. Salaries 8			
3300	Consultants 14			
3500	Travel Local 15			
3600	Travel Intl. 16			
3700	Supplies & Mat. 18			4,450
4000	Other Costs 19			300
4800	Inter Deptl. Ser. 21			3,550
	Total Direct Operating Cost			13,400
0300	Capital Expenditure Refer Page 22			
	TOTAL DIRECT COST			13,400

/Branch Head Associate Director Reviewed by Budget & Finance

Budget Code: _____

PERSONNEL REQUIREMENT-(LOCAL STAFF) 1988

	No.of Positions	No. of Man Months	$ Amount
\. Direct Project/Protocol/Branch Staff at 1.1.1988 Sourced from Page 3			
dd:			
. New Recruitments Sourced from Page 4	1	12	4,224
. Manpower allocated from other area Sourced from Page 5	2	4	876
(i) Sub-Total	3	16	5,100
ess:			
. Separations Sourced from Page 6			
. Manpower allocated to other area Sourced from Page 7			
(ii) Sub-Total			
(i)-(ii) TOTAL	3	16	* 5,100

*AGREES WITH PAGE 1 A/C NO.3100 COLUMN C

Budget Code: _____

NEW RECRUITMENT-(LOCAL STAFF)-1988

Job Title	A Level	B Start. date	C No. of posit.	D No. of months at Dec. 31, 1988	E=(CxD) No. of man months	F **Rate per month	G=(ExF) $ Amount
Research Officer	GS-5	May '88	1		12	352	4,224
TOTAL	*		XXXXXXX	* 12	XXXXXXXX	*	4,224

** See Annexure-A for rates

* AGREES WITH PAGE 2 ROW B

Budget Code: _____

MANPOWER-ALLOCATED FROM OTHER AREA-(LOCAL STAFF)-1988

Name & Job Title	A Level	B Budget code of other area	C No. of posit.	D No. of months	E=(CxD) No. of man months	F **Rate per month	G=(ExF) $ Amount	Endorsement of other area's P.I/ Branch Head
Female Health Worker	GS-3	23 01 20	1	2	2	219	438	
Male Health Worker	GS-3	23 01 20	1	2	2	219	438	
TOTAL			* 2	XXXXXXX	* 4	XXXXXXXX	* 876	XXXXXXXXXXXX

**. See Annexure-C for average rate/month

* AGREES WITH PAGE 2 ROW C

Budget Code:_____

SUPPLIES AND MATERIALS-1988

A/C Code	Item Description	$ Amount
3701	**Drugs** (used for medication in the hospitals and field stations)	
3702	**Glassware** (Bottle, beaker, cylinder, petridish, aluminium seal, slides, stopper, tube etc.)	300
3703	**Hospital supplies** (bandage, gauze, blade, bowl, catheter, cotton, needle, syringe, solution, leukoplast, towel etc.)	
3704	**Stationery and office supplies** (Battery, book register, binders, files, pencil, fastener, paper, ribbon, stapler etc.)	200
3705	**Chemicals and media** (Acid, reagent, dextrose, sodium, bactoagar etc.)	1,250
3706	**Materials for uniform** (Cloth, button etc. required for making uniforms)	
3707	**Fuel, oil and lubricants** (Diesel, mobil, petrol, kerosene etc.)	
3708	**Laboratory supplies** (Aluminium foil, bag, blade, brush, cap, container, film X-Ray etc.)	50
3709	**Housekeeping supplies** (Aerosol, battery, wiping cloth, duster, lock and key etc.)	50
3710	**Janitorial supplies** (Bleaching powder, brush, detol, detergent, insecticide, soap etc.)	
	Page total (balance c/f)	1,850

(Contd. to page No. 18)

Budget Code: _____

SUPPLIES AND MATERIALS-1988

(Contd. from Page No. 17)

A/C Code	Item Description	$ Amount
	Page total from page No.17 (balance b/f)	1,850
3711	Tools and spares (Automobile spares, tyres, tubes, battery, stores required for maintenance services etc.)	
3712	Non-stock supplies (Materials not normally kept in stock and purchased only against specific requisitions)	2,000
	Sub-Total	3,850
3713	Freight and other charges Add 30% to above sub-total for imports.	600
	TOTAL	* 4,450

*AGREES WITH PAGE 1 A/C 3700 COLUMN C

Note: For rates please contact Supply Ext.260.
Add 10% for inflation

Budget Code: _____

OTHER COST-1988

A/C Code	Accounts Description	$ Amount
3800	**Repairs and maintenance** (Maintenance and repairs of vehicles, equipments, furniture and building)	
3900	**Rent, communication and utilities** (Postage, telephone, telegram, electricity etc.)	100
4100	**Bank charges**	
4200	**Legal and professional expenses** (Professional membership fee, legal fee, audit fee etc.)	
4300	**Printing and publication** (Printing of forms, books, journals, reprints etc.)	100
4400	**Hospitality & donation** (Guest house accommodation, donations, hospital food, lunch, refreshment etc.)	100
4500	**Service charges** (Porter, labour, washing, laundry and other misc. exp.)	
4600	**Staff development and training** (Training course fee, training materials, stipend, scholarship, subsistence paid to the staff)	
	TOTAL	* 300

*AGREES WITH PAGE 1 A/C No.4000 COLUMN C

Budget Code: _____

**INTERDEPARTMENTAL SERVICES-1988

A/C Code	Service Area	$ Amount
4801	Computer	
4802	Transport Dhaka	500
4803	Transport Matlab	500
4804	Water transport-Matlab	500
4805	Transport Teknaf	
4806	Xerox and mimeograph	100
4807	Pathology	
4808	Microbiology tests	
4809	Biochemistry	
4810	X-Ray	
4811	I.V. fluid	
4812	Media	
4813	Patient hospitalisation study	
4814	Animal research	
4815	Medical illustration	400
4817	Telex	
4818	Out patient care	
4819	Maintenance charges	
4820	Vehicle maintenance charges	
4821	Library service charges	50
4822	Staff Clinic Charges - Dhaka	
	Page total (balance c/f)	2,050

(Contd. to page No. 21)