ICDDR,B

BOARD OF TRUSTEES MEETING

6-9 June 2002

PROGRAMME OF THE

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Revised

Thurs 06 Jun 2002	**Programme Committee (open session)** Sasakawa Auditorium	**Venue**
08:30 - 10:00 am	Tea & tour of facilities (BoT)	Director's Conf Rm
10:00 – 11:00 am	Director's Report	
11:00 – 13:00 pm	Division Reports	
13:00 – 14:00 pm	Lunch (scientists, staff and donors)	DIR, CSD, PHSD Conf Rms
14:00 – 14:30 pm	SWA presentation	Seminar Rm 2
14:30 – 15:30 pm	Division Reports (continued)	
15:30 – 15:45 pm	Tea	
15:45 – 17:30 pm	Discussion of Strategic Plan (closed) (BoT & SC)	CSD Conf Rm
17:30 –	Evening open	

Fri 07 Jun 2002	**am: Small groups (see attached schedule)* pm: LSD Review Report and SP discussions (closed)**	
08:00 – 08:30 am	Tea (BoT & SC)	Director's Conf Rm
08:30 – 12:30 pm	Small groups	
12:30 – 13:30 pm	Lunch (BoT)	Director's Conf Rm
14:00 – 15:45 pm	Presentation of the Preliminary Report of the LSD External Review (BoT & AC)	CSD Conf Rm
15:45 – 16:00 pm	Tea	
16:00 – 17:30 pm	Strategic Plan discussions (BoT & SC)	CSD Conf Rm
17:30 –	Evening open	

Sat 08 Jun 2002	**am: Small groups (see attached schedule)* pm: HR and Finance Committees (closed)**	
08:00 – 09:00 am	Tea (BoT & SC)	Director's Conf Rm
09:00 – 12:30 pm	Small groups and visits to urban field areas	
12:30 – 13:30 pm	Lunch (BoT)	Director's Conf Rm
13:30 – 15:30 pm	**HR Committee** (BoT/Assoc Dirs/CFO/HR)	CSD Conf Rm
15:30 – 15:45 pm	Tea	
15:45 – 17:30 pm	**Finance Committee**	CSD Conf Rm
19:30 –	Supper with SC members and spouses at Rooftop Pavilion	

Sun 09 Jun 2002	**Full Board (closed)**	
08:30 – 09:00 am	Tea (BoT)	Director's Conf Rm
09:00 – 11:00 am	Discussion of Reports from Programme, Finance and HR Committees and passing of Resolutions (BoT/Assoc Dirs/CFO/HR)	CSD Conf Rm
11:00 – 12:00 noon	Any Other Business	
12:00 – 13:30 pm	Lunch (BoT) (Corridor Café)	

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Donors' Support Group (DSG)

14:30 – 15:30 pm	Presentation from Director and Board Chair (open)	Seminar Rms 1&2
15:30 – 15:45 pm	Tea for DSG	
15:45 – 17:00 pm	DSG members meeting (closed) BoT/DSG/SC	CSD Conf Rm

Mon 10 Jun 2002 This is an optional day for BoT members who wish to take a field trip to Matlab

Groups	Days	*Schedule for Small Groups	Venue
Group 1	Friday am	Child Health Programme and Nutrition Programme	**CSD Conf Rm**
	Saturday am	Kamalapur field visit	
Group 2	Friday am	Infectious Disease and Vaccine Sciences Programme and Population Programme	**Director's Conf Rm**
	Saturday am	Mirpur Field Visit (include projects on amoeba, rotavirus vaccine, ETEC vaccine and nutrition rehabilitation at daycare)	
Group 3	Friday am	Reproductive Health Programme and FHRP programme	**PHSD Conf Rm**
	Saturday am	Safe water and HIV projects (arsenic and environmental health projects) with visits to sites where work is ongoing	**PHSD Conf Rm & CARE site**
Group 4	Friday am	Interviews and Promotions review[1] (Prof Sack, Prof Jacobs, Dr Dagach, Dr Lanata, Dr Nair[1], Ms Hill)	**Director's Conf Room**
	Saturday am	Finance and Administration and Master Plan of the Centre Review of the Review from Price Waterhouse Update of new HR & Finance MIS system Resource mobilisation	**Seminar Room 1**

Group 1	-	Dr Ishikawa, Dr Azad Khan, Prof Kusin, Mr Chowdhury
Group 2	-	Dr Hamid, Dr Hull, Dr Pang, Dr Wachsmuth
Group 3	-	Prof Ganguly, Mr Rahman, Prof Tanner, Prof Vlassoff
Group 4	-	Prof Jacobs, Dr Dagach, Dr Lanata, Prof Sack

1/BT/JUNE 2002

APPROVAL OF THE AGENDA

2/BT/JUNE 2002

APPROVAL OF THE DRAFT MINUTES

OF THE MEETING

HELD ON 9-11 NOVEMBER 2001

MINUTES OF THE MEETING OF THE EXECUTIVE COMMITTEE OF THE BOARD OF TRUSTEES, ICDDR,B

DHAKA, BANGLADESH

9-11 November 2001

The Board of Trustees held its meeting from 9 to 11 November 2001. The meeting comprised the Executive Committee of the Board: Prof Marian Jacobs (Chair), Mr Rolf Carriere (Personnel and Selection Committee), Prof AK Azad Khan (Finance Committee), Prof David Sack (Centre Director). Dr Ricardo Uauy Dagach (Programme Committee) was unable to attend due to prior commitments.

It had been earlier decided, after polling BoT members, that due to current world events, a Full Board meeting should be postponed and an Executive meeting held in its place. Minutes and resolutions will be submitted to BoT members following the meeting for their recommendations, amendments, comments and approval.

Friday 9 November 2001
Executive Committee meeting (informal)
EC members – Prof Jacobs and Prof Azad Khan—held informal meetings with Assoc Directors and Programme Heads to get updates and insights into work in progress. Mr Carriere was absent as he was enroute to Dhaka.

Saturday 10 November 2001
Executive Committee meeting
CSD Conference Room

Present:

Prof Marian Jacobs	Chair
Prof Azad Khan	Chair, Finance Committee
Mr Rolf Carriere	Chair, Personnel & Selection Committee
Prof David A Sack	Director, ICDDR,B

Absent:

Dr Ricardo Uauy Dagach (Chair, Programme Committee)(earlier sent his regrets due to prior commitments)

Invited:

Associate Directors: Prof Lars Ake Persson (PHSD); Dr M A Salam (Acting CSD); Dr G Balakrish Nair (Acting LSD); Mr Peter Thorpe (ISD); Dr Robert Breiman (HSRD); Prof Barkat e Khuda (Policy and Planning); Mr Stephen Sage, Chief Finance Office; Mr Wahabuzzaman Ahmed, Acting Head, Human Resources; Ms Vanessa Brooks, ER&ID; Dr Ishtiaque Zaman, ER&ID; Programme Heads; NOC staff and above

Minute Secretary:
Mrs Judith Bennett Henry

Prof Jacobs welcomed everyone to the meeting and noted the presence of the staff of NOC rank and above. She stated that she looked forward to a good discussion and interaction throughout the ensuing meetings. She thanked all for accommodating her schedule. She

stated further that due to world events, the Full Board was unable to meet so there will not be a quorum but all documentation emanating from the meetings will be submitted to all Board members for Full Board review and decision. She said that the current crisis pointed to the need to move forward to peace and noted that each of us is at the heart of the peace process.

Prof Jacobs reminded the assembly of the Centre's success which was celebrated in Washington and expressed the hope that future successes will be celebrated in Dhaka. She extended very hearty congratulations to the entire staff.

She noted that there is a six-month hiatus between one Board meeting and the next. However, she maintained communication with the Centre Director each month and kept abreast of Centre activity through the Weekly Bulletin distributed by Mr Shah Alam and the reports on donor funding from Dr Ishtiaque Zaman.

Prof Jacobs welcomed, on behalf of the BoT: **Mr Peter Thorpe**, Head of the newly established Information Sciences Division (ISD); **Mr Stephen Sage**, Chief Finance Officer, who the BoT met in Washington; and **Dr Robert Breiman**, Head of the Health Systems Research Division (HSRD). She congratulated **Dr M A Salam** for a sterling job as Acting Head of Clinical Sciences Division (CSD) after the departure of Prof George Fuchs; **Dr G Balakrish Nair** as Acting Head of Laboratory Sciences Division (LSD) following the departure of Prof V I Mathan; **Ms Shamima Moin** for her confident and self-assured performance while looking after Finance Office pending the arrival of Mr Sage; **Prof Barkat e Khuda** for his work compiling the Strategic Plan; and **Prof Sack** for "keeping the ship afloat". She praised the ongoing plans for upgrading the Centre's facilities, including the Guest House.

She noted that the Strategic Plan was truly a participatory exercise with input from all the Divisions, Programmes , HR, Finance, ER&ID. Staff co-operation on the Plan meant that it was a genuine ownership process.

Prof Jacobs declared the meeting open. She then introduced Prof Sack to begin the report of the Director's Division for the Programme Committee.

Minutes of the Programme Committee
10 November 2001

Present:
Executive Committee of the BoT

Absent (with regrets):
Dr Ricardo Uauy Dagach

Invited:
Division Heads, CFO, Acting Head HR, ER&ID, Programme Heads, staff NOC level and above

Minute Secretary:
Mrs Judith Bennett Henry

The Programme Committee met at 8:30am to hear the Director's Report from Prof David Sack and highlights of Division activities from the Division Heads.

The meeting convened in the Conference Room of the Clinical Sciences Division (CSD) of ICDDR,B.

Prof Sack opened the meeting with an introduction of Division Heads and changes in senior staff.

- Dr M Abdus Salam is now acting head of CSD
- Dr Rob Breiman is acting head of HSRD, formerly HPED. The Executive Committee will be requested to confirm his appointment as head of the Division
- Mr Peter Thorpe took up duties as Head ISD in August
- Mr Stephen Sage took up duties as CFO in August
- Prof Marian Jacobs will chair her last BoT meeting in June 2002 and the Board will need to identify her replacement.

He further stated that one member of staff who is not well-known to the BoT is Mr Bejoy Saha who heads the Staff Development Unit and who plays a central role of supporting the secretariat of the Research Review Committee (RRC) and Ethical Review Committee (ERC).

He reported that a tremendous number of changes is currently in progress at the Centre which has been undergoing a time of transition over the last six (6) months.

In addition to changes in senior management, several key grants are ending and the transition to the new grants is proving difficult at times The Scientific Council which comprises senior management staff and Programme Heads is playing a more interactive role in addressing issues of scientific priorities. The Strategic Plan is nearing finalisation with input from the Divisions, Programmes, Human Resources, Finance and ER&ID.

Bangladesh is also making a transition with a new government. The events of 11 September and the ensuing crisis has had an effect on the Centre as evidenced by the fact of Board members not being able to attend the meeting. (Note: The expatriate staff was unsettled by these events and the Centre management developed an evacuation plan for expatriates following 11 September).

The Director's report will highlight issues for consideration by the Executive Committee, as well as presentations from the respective Divisions.

Financial situation

Dr Sack reported that the Centre hopes to end the year with a positive balance of US$150,000, the final amount pending the audit report. The cumulative deficit will be decreased by about US$350,000 after transferring a portion of the interest in the reserve fund, bringing the deficit to under US$3 million. Aggressive cost management as well as some recent key donations served to improve the Centre's financial situation. Further, the Centre scientists have been developing new projects which have attracted funding.

The award of US$1 million from the Bill and Melinda Gates Foundation plus the matching fund from the Government of Bangladesh were not counted in the operating fund. The Gates funds were deposited to the Centre's account following the ceremony in June and the GoB funds were received a week ago with the assistance of Dr Zaman (ER&ID). Priorities for the use of these funds will be discussed during the meeting.

Major donors

Dr Sack reported on current donor funding. The Government of Bangladesh provides US$200,000 annually for core support – this was increased by the one-off matching fund to the Gates Award. The Netherlands government granted US$1 million annually for 3 years starting this year. The Swiss government through its Dhaka Embassy, traditionally gives a substantial annual award to various projects. This year, the mechanism has been changed to a grant of about US$500,000 from its HQ. The Japanese government awarded a grant of US$980,000 to be allocated to various projects – US$200,000 was designated to the Hospital Endowment Fund (HEF). USAID Washington has been providing funding through a cooperative agreement (CA) for Child Health Research. The agreement provides core and project funding and also helps the Centre as an administrative mechanism by which other US agencies can add funds to the Centre's programme. The CA was signed in June 2001 for another three years and is expected to be in the amount of about US$900,000 a year. This will depend on funds availability and the nature of the work undertaken by projects. USAID Dhaka had been providing funding through a CA for the Operations Research Project (ORP). A major change in the project was agreed upon and the CA was amended to extend the Project for another five (5) years at a total budget of US$15 million. The Project's name was also changed to Family Health Research Project (FHRP). The funds will primarily be used for targeted research protocols developed by scientists from across the Divisions. The transition from ORP to FHRP required difficult adjustments both financially and in personnel, but the Centre anticipates that the FHRP will be more productive and effective in carrying out research in support of the Essential Services Package (ESP) in Bangladesh.

The British government through its DfID representatives, received an application from the Centre for funding for a 5-year project on Poverty and Health in the amount of 1 million pounds sterling. The award has not yet been officially confirmed but unofficially, the Centre hopes to begin the project within a month. (This has now been confirmed). A three-year agreement with SIDA-SAREC (Sweden) for collaborative work with Swedish scientists is nearing completion. The Swedish government, through its Dhaka embassy, has been providing additional funds for a project on health effects of arsenic.

The Australian government has been a consistent donor to the Centre. However there was a recent concern that it would discontinue funding. The Director made a trip to Canberra in August and with the efforts of Board members, AusAID decided to continue funding at a similar level of AUS$ 500,000 annually, a portion (AUS$200,000) of which is designated for HIV-AIDS research.

Dr Sack also noted that the Centre receives many grants and awards which can be read in detail in the Finance Report.

There has been an increase in grants based on competition from agencies like NIH, Thrasher Foundation, NVPO, private companies and other funding sources. Formerly the Finance report combined both NIH and USAID grants under one umbrella of US government funding -- they are however different in their implications and are now being listed separately.

Dr Sack stated that the grant news is not all good – two major grants are ending without hope of a replacement. The World Bank's grant to the Nutrition Centre of Excellence (NCOE) in the amount of US$900,000 annually over three years cannot not be extended further, and the Centre is reviewing other sources to continue the nutrition research which had been stimulated by the grant. A major shortfall of over US$600,000 in a grant from the EU has severely affected projects on reproductive health and studies on contraceptive use dynamics – these projects have had to reprogramme their activities. This shortfall was due to currency devaluation coupled with delays by the EU administration.

There are a number of prospective grants. Two crucially important grants, both in cooperation with the Government of Bangladesh and the World Bank are due to be finalized soon. In one project, the Centre will assist the national HIV-AIDS Programme by continuing to conduct the national sero-surveillance which has been lauded as a model project within Asia and for which Bangladesh received high praise. The Centre can play an increasingly crucial role in providing assistance in this area of HIV-AIDS research and control where a lot still needs to be done.

The second project with the National Nutrition Programme (NNP) is a multi-million multi-year World Bank project which is expected to begin in a few months. The Centre hopes to take a leadership role in the Operations Research component of this project. Both of these World Bank-related projects have involved lengthy administrative delays, making Centre planning difficult.

The Centre is awaiting a response from the Bill & Melinda Gates Foundation to a proposal on vaccine development and evaluation.

Strategic planning

The Strategic Plan exercise has moved forward and is presented for Board consideration. The process is led by Prof Barket e Khuda and Programme Heads have submitted their inputs. There are many overlapping interests between the programmes, but it is important to recall that priorities are Centre-wide and not "owned" by a specific programme.

Dr Sack listed some crucial points relevant to the Strategic Plan for Board consideration:

- **Name change of the Centre.** Suggestions: International Centre for Health and Population (ICHAP); International Health and Population Institute (IHAPI).
- **Mission/values/vision statement.** Dr Sack pointed to the statement as it appears in the Plan and asked the Executive Committee to review and comment.
- **Reorganisation.** At the last BoT meeting, members requested a copy of the Mummert Report of 1998 recommending a reorganization of the Centre. The Report was included in the pre-meeting documents folder and distributed to all Board members. The Strategic Plan attempted to address some of the lessons from the Report where recommendations were proposed on emphasizing cross-divisional

thematic programmes. The recommended administrative changes from the Report were deemed impractical for the Centre. In contrast to the virtual divisions recommended by the Report, the Centre has maintained the basic administrative divisions and added an Information Sciences Division which combines Dissemination and Information Services Centre (DISC), Computer Information Services (CIS), Training Extension Unit (TEU).

- **Divisions and Programmes**. It has been agreed that Programmes are cross-divisional and lay under the jurisdiction of the Division Head whose responsibility it is to ensure that Programmes are ultimately centre-wide. There are currently six programmes but there is a need for two more – HIV-AIDS and Safe Water. The latter is more realistic as a separate programme (rather than environmental health) as it covers chemical and microbial safety, an area in which the Centre has considerable expertise.

The cross-divisional activities are addressed in the Scientific Council (SC) which meets twice monthly. Additionally, the Centre Scientific Forum (CSF) is held on Mondays. The SC discusses priorities and new projects – the CSF presents cross-divisional topics for discussion on the research themes of the Centre.

Priority setting

During the preparation of the Plan, Programmes placed emphasis on methods for setting priorities and producing tables depicting higher and lower priority issues. It was noted that there were many instances of overlapping but it was agreed that while Programmes held similar views on priorities, it served ultimately to underline their importance.

Hospital plans

Dr Sack reminded the assembly of a line in the speech by Melinda Gates at the award ceremony that "no child should die from an easily prevented or easily treated disease". The question is whether the Centre should build a treatment centre around this concept by evolving into an Urgent Care Facility for patients with diseases that fit the criteria of "common, potentially fatal and easy and cheap to treat". Such a facility would need to be sound in its development and economically sustainable.

Geographic interests for the Centre

In Bangladesh, the Centre's work is concentrated in Dhaka and several field areas. With new protocols, the tendency has been to establish additional field areas but it is becoming clear that the Centre should focus on those field areas currently in existence and in which it has heavily invested and not expand further within Bangladesh.

The Centre is looking into the potential of expansion beyond Bangladesh. There is currently a collaborative project with Nepal. He felt that as the Centre becomes more financially stable, it was worth developing establishing projects outside Bangladesh, especially to countries in the region but this would require long-term funding for such a project.

There is some demand for consultants from the Centre to assist with work outside Bangladesh. The Centre has provided consultants to UNICEF, IVI, UNAIDS and has been in contact with WHO on collaboration for outbreak investigations of emerging diseases in the region.

Management changes

In a bid to improve efficiency, the Centre is making changes in its management systems. It was decided to decentralize the financial responsibilities to encourage units to become self-supporting and run like small businesses. If a subsidy is required, an evaluation will be made to determine if the amount is warranted or whether it would be more economical to outsource. Previously, management decisions were made centrally by staff who had no direct knowledge of the unit; decentralization would place responsibility of the unit on those more knowledgeable of the unit.

Ethical reviews

The Ethical Review Committee (ERC) is functioning well. There are new requirements for Assurances – the Centre has a Multiple Project Assurance with USAID but will have to obtain a Federal Wide Assurance with the US government. This new Assurance will require training for scientists, ERC members and ERC staff. (The FWA has now been awarded to the Centre).

Major scientific activities

Many of these activities were presented to the Board last June and Division Heads will update the Executive Committee on new initiatives, major findings from recent studies and future directions. The activities include studies on neonatal health, severe malnutrition, zinc deficiency, low birth weight, pneumonia, tuberculosis, dengue, enteric and respiratory vaccine testing and HIV-AIDS, each of which depend on project funding. Endorsement by the Board is sought on whether these are appropriate and in keeping with the Centre's mission.

Planned changes in medical practice

Following results from studies at the Centre and at other centres, the consensus was to change the standard ORS to one containing 70 meq of sodium. The national authorities will be advised of this anticipated change.

The Centre plans to start the treatment of diarrhoea with zinc. Research studies confirm that zinc decreases the severity and duration of diarrhoea and that children treated with zinc over 14 days have a lower mortality rate. It is now necessary to implement these findings in the Centre Hospital, in clinics and in the wider community.

Physical changes and capital investment

- An architect had been engaged to work on the Master Plan which will extend the main building to eight (8) floors to allow for expansion of the library, laboratories and training space.
- A rooftop pavilion has been constructed on the Library building. This will compliment the training facilities to provide space for receptions for sessions held in the Sasakawa auditorium.
- A corridor café was created in the main building to provide a different menu from the canteen as well as a congenial atmosphere for discussions.
- The microwave link to Matlab will be fully functional soon. It will facilitate voice and data transfer between Dhaka and Matlab and supply internet connection to Matlab staff, via the V-Sat.

- The new clinic close to the entrance of the campus is nearing completion. It will house the PSKP clinic on the first two floors and Centre projects on the remaining two floors.
- The office of human resources is being constructed in the Director's wing of the main building. CSD offices will be relocated in the ex-HR space. The vacant CSD space will be allocated to additional lab space.
- Space on the ground floor of the main building is being renovated to create a diagnostic centre, a "one-stop-shop" that will offer improved facilities for processing clinical specimens. The location of the facility which also has a separate entrance will limit patients to the ground floor, thus providing improved security in the building.

Publications

The Journal of Health Population and Nutrition continues to be published on schedule. It was noted that there was increased interest in the publication of summaries of meetings. The Journal's March issue reported on the findings of a meeting on community based IMCI and the December issue will publish the consensus of a WHO meeting on zinc.

The Centre's website will become more user-friendly and will provide a wider range of information to users. It is hoped that it will become more effective as additional staff are brought on board.

Prof Sack ended his report. Prof Jacobs thanked him for his presentation.

Discussion:

Mr Carriere stated that he was impressed with the changes being implemented at the Centre. Staffing changes reinforced the need for fundamental changes. He congratulated the Director and staff for making such progress in the transformation. The funding situation has improved considerably but is not yet at the desired level and the Strategic Plan needs to address in greater detail the question of resource mobilization. The Strategic Plan was clearly a participatory exercise and he complimented all involved for their commitment to the Plan. Prof Jacobs stated that the Centre is in a very exclusive position but there is a gap in understanding in the international arena as to the exact workings of an international research institution. It has an obligation to become a more prominent actor in the international arena not only in research but also in the process of research management. The Centre can make a valuable contribution to the dialogue on current issues in health care, particularly in genomics. She pointed to a recently-released report by WHO, a copy of which she will send to the Centre and on which she hopes the Centre will have substantial comments.

Prof Jacobs further stated that it was important to balance priorities on international debate and institutional funding. She felt that the issues of poverty and equity should be prominent in the Centre's priorities which would attract funders who have greater social consciousness on the issues.

Mr Carriere noted that on 17 September, the UN was scheduled to host a special session on children. This was a culmination of a year and a half of planning and would focus on the rights of children over a decade. The meeting is likely to happen in June 2002 and he felt that the Centre should find a place at the table as it had a crucial role to play in this issue.

Prof Jacobs reported on her experience dealing with children in South Africa who have been infected with the AIDS virus. She strongly urged that the Centre get HIV-AIDS on its agenda, not only on biomedical research but on all aspects of dealing with the disease.

It was discussed that the mission/values/vision statement should be reviewed and restructured to reflect the Centre as more on the cutting edge of international research. The statement

needs to underline the Centre's uniqueness from other such institutions. It was advised that a PR agency be engaged to look over the statement and create one which defines the Centre's goals. The agency should also review the Centre's name and advise accordingly on one which would attract donors, partners and national and international groups.

Prof Jacobs invited Dr M A Salam to make his presentation for **Clinical Sciences Division (CSD)**.

Dr Salam presented the Division organogram which showed the Head CSD overseeing 3 units of research, service and training. Main activities of the units: research – diarrhoeal diseases, malnutrition and related areas such as ALRI; patient care – diarrhoeal diseases and associated health problems; training – case management of diarrhoeal diseases, malnutrition and clinical research. He felt that the structure should be changed tc be more effective.

The staffing status showed a total of 423 staff members which comprised 1 international, 31 national officers, 167 general service, 3 local consultants, 2 international consultants, 179 contract service agreement, 26 daily wagers, 14 security guards and cleaners (contracted out).

Research themes: case management research; pathphysiology research; maternal and child health; preventive strategies. Research achievements from April to September 2001 showed 9 published work, 6 in press and 25 protocols in progress.

Dr Salam outlined highlights on completed protocols:

Low birthweight babies born to Bangladeshi women receiving zinc from 4 months of gestation to childbirth had reduced disease morbidity. A follow up study revealed significantly lower mental and psychometer indexes as well as altered behaviour in infants born to women receiving zinc. The effects were more pronounced in LBW infants. The findings have important policy implications on zinc supplementation to pregnant women and more research and evaluation of the role of micronutrient mix is needed.

A random group of women in the last trimester of pregnancy received individual counseling, individual and group counseling or no counseling for exclusive breast feeding. At the end of six months, 89% of the individual, 81% of the mixed and 11% of the control group were practicing exclusive breast feeding. This finding coupled with two early studies demonstrate the efficacy and feasibility of breast feeding counseling in existing health delivery systems.

Adding Benefibre to comminuted chicken-based diet for children with PD revealed a resolution of diarrhoea in a higher proportion of children, a shortening in mean diarrhoeal duration and less stool volume. Monitoring the efficacy and adverse effects of this fortified diet would be the next step in the management of children with PD.

Rececardotril, an anti-secretory agent was evaluated in the treatment of severe cholera in adults. The drug was found safe but it failed to produce any positive effects in the reduction of stool output, need for IV fluid, ORS or diarrhoea duration. In future, a more cautious approach in advised in evaluation of newer anti-secretory agents.

Prof Salam reported on patient visits at the Dhaka hospital Apr-Sep 2000 and Apr-Sep 2001 respectively:

Total:	57,004	-- 49,406
Inpatient:	38,106	-- 33,814
Short stay ward:	33,583	-- 30,164
General ward	3,231	-- 2,506

Special Care Unit	1,292	--	1,157
Nutrition Rehab Unit	258	--	196

Ongoing staff development activities showed 3 doctoral programmes in nutrition, gastroenterology, other at UC Davis (2), Edinburgh (1), Karolinska (1) and University of Dhaka (1) respectively. Post doctoral programme in nutrition at UC Davis (1), MPH at New South Wales (1) and MSc (Epidemiology) at Harvard School of Public Health (1).

Completed staff development training: Infectious Diseases Modelling and its application – LSH&TM (1); Masters in Maternal and Child Health – ICH, UK (1); Introductory Course on Epidemiology and Biostatistics – TEU, ICDDR,B (1); Cardio-pulmonary Resuscitation – BIRDEM Dhaka (12).

Seven staff members received training under staff development and left the Centre since 1977. Training activities at the CRSC included the Clinical Fellowship Programme for SAARC Fellows, clinical Fellows and nurse Fellows; Training of Trainers on international case management and national case management; National Training Courses for general practitioners and short orientation training; Elective training in CSD.

The Division participated in various international fora:
Congress/workshop/meeting/conference – 28; consultative meeting - 1.

Dr Salam highlighted the Division's notable accomplishments:

- Strategic planning including the future of the Dhaka Hospital and Action Plan
- Development of Case Management manual
- Improvement of physical facilities of the Hospital including SCU and creation of ARI ward
- Strengthening the Diagnostic Unit
- Formation of research interest groups
- Strengthening the Child Development Unit
- Developing an efficient organogram for CSD

Dr Salam reported on the Nutrition Programme. Dr S K Roy is the Acting Programme Head. Programme accomplishments included:

- Organisation of 6 theme groups:

  Maternal Nutrition/LBW: Dr Shams El Arifeen (PHSD)
  Severe and moderate child malnutrition: Dr T Ahmed (CSD)
  Infections-Nutrition interactions: Dr D S Alam (PHSD)
  Infant and child feeding: Dr Iqbal Kabir (CSD)
  Child development: Dr Jena Hamadani (CSD)
  Micronutrients research and interventions: (Mr M A Wahed (LSD)

- A strategic plan has been developed.

Regarding the Nutrition Centre of Excellence (NCOE), a three-year World Bank grant of US$2.7 million will end this year. The Centre is currently strengthening its infrastructure. It supported 19 research protocols of which 3 have been completed.

The Bangladesh Integrated Nutrition Project (BINP) is conducting and coordinating18 Operations Research projects supported by the World Bank of which 14 have been completed and 4 ongoing. The Project strengthened its research capacity of 10 national institutions. A

seminar at the national policy level will be held to disseminate and integrate findings into BINP operations.

The National Nutrition Programme (NNP) is being funded by the World Bank and will be launched in early 2002. ICDDR,B has been identified as the sole source for conducting and coordinating research.

The Division published papers in 4 international peer-reviewed journals, 1 regional journal, and 1 letter.

Dr Salam concluded his report. Prof Jacobs thanked him for his presentation.

Discussion: Mr Carriere stated that the Centre's involvement in micro-nutrients can be linked with the need for additional funding. GAIN has established a plan to look into ways to get food vehicles that are fortifiable. The Centre needs to focus on the right issues and work its position effectively to capture some of the funding.

Dr Salam noted that at present, the Division was operating without international staff and there were some positions that needed to be urgently filled. Further, he suggested that staff be trained in clinical disciplines. He also stated that the Division needed to look beyond its primary objectives.

Prof Jacobs invited Dr Balakrish Nair to present the report of the **Laboratory Sciences Division (LSD)**.

Dr Nair stated that LSD conducts laboratory-based research to adopt, develop and use the best scientific technology to address infectious diseases and related health problems of disadvantaged populations in partnership with other Divisions of the Centre and with national, regional and international institutions that share the Division's commitment to maintain healthy populations.

The mandate of the Division is to apply science to alleviate diseases.

LSD has state-of-the-art laboratories in which to conduct research: Enteric and respiratory microbiology; environmental microbiology; immunology; molecular genetics, nutritional biochemistry, parasitology; reproductive tract microbiology; tuberculosis; virology and clinical diagnostics. The Division is also involved in HIV surveillance activities.

The Division recently inaugurated the new TB laboratory which was funded by UNOCAL. The nutritional biochemistry lab was upgraded to dust-free status with funding from the NCOE grant of the World Bank. The lab has been participating in the external quality control programme administered by the National Institute of Standards and Technology (NIST) and has been accredited by NIST. The opening ceremony was attended by Mr Fred Temple, Head, World Bank Dhaka Mission, Prof Sack and Centre staff.

The Division is research- and service-oriented. It has 20 scientists, 64 technologists and 166 support staff.

Findings:

- Strains (attRS) carrying the RF of CTX) were either negative or produced mild diarrhoea in adult rabbits compared to lysogens
- Non-01 non-0139 strains of clinical or environmental origin carrying the RF caused mild diarrhoea in rabbits

- In the intestinal tract of rabbits, un-integrated CTX genome was rapidly lost and the excreted strains were mostly non-toxigenic.
- 105 isolates of *Shigella dysenteriae* type 1 strains isolated between Jan 199 and June 2001 were examined by PFGE. The pattern of the 3 strains differed from that currently seen indicating the emergence of a new clone of *S. dysenteriae* type 1
- 21 strains of *Sh. Flexneri* agglutinated with type antigen factor IV-2 but not with group factor Y-5 of 6. Molecular typing showed these to belong to a new clone and possibly a new serotype.

Shigella. Dr Nair reported on a burden of disease study in an urban area of Dhaka. The study is funded by IVI under the DOMI programme. A pilot study was conducted to standardize sample and data collection procedures. The main study was initiated from July 2001. A total population of 20,000 of all ages were randomly selected from over 5000 households and consent was obtained for participation in the study. Training of field and clinic workers in distribution of households cards were completed.

Dengue. He reported that Dengue 3 caused outbreaks in 2000 and 2001. DEN 3 detected by serum RT-PCR – 17 cases in 2000, 5 in 2001. DEN 2 in 4 cases – 3 in 2000, 1 in 2001. Secondary infection was frequent with low case fatality of ~1.15%.

Hospital-based dengue surveillance in Dhaka City. Collaboration with DMCH and HFRCH has continued since October 2000. 1093 patients were enrolled and 1033 serum samples were tested for Dengue antibody and 719 (70%) were positive by ELISA. Of 1033, 166 (23%) were positive for lgM (primary dengue) and 553 (77%) for lgG (secondary dengue). Reagents were obtained from AFRIMS Thailand as part of the collaboration.

Invasive bacterial infection. Dr Nair reported that multidrug resistant *H.influenzae* type b (HiB) was a frequent cause of meningitis in children < 5 years. HiB was found in 37.4% (40 of 107) bacterial meningitis and resistant to ampicillin, chloramphenicol and cotrimoxazole in 44% (16 of 36 strains). None were resistant to ceftriaxone. Pneumococcus and *n. meningitdis* was detected in 30% and 6.5% cases.

HIV/AIDS. The Division completed Round III of its surveillance for HIV in Bangladesh, July 2000-June 2001. The results are submitted through the GoB system, but HIV infections are now in high risk groups including injecting drug users and sex workers. A dissemination seminar is scheduled for 22 November 2001 when the results of the national surveillance will be released.

Staff development 2001:

Ongoing:
Doctoral programme (*H.pylori*) – 1, Univ of Otago, New Zealand; doctoral programme (nutrition) – 1, UC Davis; diploma (molecular parasitology) – 1, LSHTM UK; diploma (microbiology) – 2 Univ of Leuven, Belgium; short training on immunology – 1, Harvard Univ, USA.

Completed:
Doctoral (pathology) – 1, Univ of Niigata, Japan; short training on *H. pylori* – 1, Washington Univ, USA.

Participants at international fora: 22.

Publications

The Journal of Infectious Diseases published cover photos credited to Dr Sack in their June and August issues relating to articles on *E. histolytica*.

The Division published in 1 internationally-reviewed journal; papers in press – 4; abstracts/papers presented at conference – 1; book chapter published – 1.

Prof Jacobs thanked Dr Nair for his presentation.

Discussion:

Dr Nair noted that the Division was in the process of transition both in the executive as well as in the infrastructure. Staff members gave considerable input into the Strategic Plan with assistance from Prof Barkat.

He affirmed that confidentiality arrangements are in place for HIV/AIDS testing; however, counselling is not yet in operation but a project is establishing this.

Prof Jacobs invited Mr Peter Thorpe to present his report for the **Information Sciences Division (ISD)**.

Mr Thorpe reported that the Division comprised DISC, CIS and TEU:

DISC, the Dissemination and Information Service Centre serves as an effective centre for information management and dissemination using modern methods of storage, retrieval, preparation, publication and dissemination of the Centre's Journal of Health, Population and Nutrition (JHPN), newsletters – Glimpse, Shasthya Sanglap, published articles, etc. It also develops and maintains databases on publications and contacts with universities, research institutions, Centre alumni, subscribers, UN and other international agencies. DISC encourages the free flow of information to avoid duplication of research effort. It houses the Audio-Visual Unit (AVU) which provides audio-visual and photographic services.

Its mission is to diffuse the results of global health, nutrition and population research to solve common problems, especially in the context of the developing world.

DISC's objectives are to produce and make available digitized archives of Centre materials and to provide easy access to these materials in electronic format on CD and the Internet. It develops additional specialized databases; provides resource areas in the library for Centre programme areas and; upgrades computer facilities for library users.

CIS, the Computer Information Services is responsible for the provision of modern IT services to all scientific and support Divisions in the Centre. Its objectives are to develop a fully-integrated IT infrastructure throughout the Centre; provides end-users with a seamless interface to all applications as well as direction and strategy to fulfil these requirements. CIS' strategic plans are the introduction of a data warehouse on the Internet; enhancement of the Centre's web page; standardization of the software and hardware used in the Centre; conversion of CIS to a self-supporting business.

TEU, the Training and Education Unit (TEU) promotes human resources development by strengthening research capacity in research techniques; management of diarrhoeal diseases and family planning services and; responding to new and emerging issues. The Unit's objectives are to develop distance learning methods and tools; develop new training courses

in areas in which the Centre has a comparative advantage; promote the fellowship scheme; collaborate with national and regional universities for accreditation; make the Unit self-sufficient.

Prof Jacobs thanked Mr Thorpe for his presentation.

Discussion:

Mr Carriere stated that he welcomed the creation of the Division. It was discussed that with the ever-changing new technologies, it was necessary for the Centre to have a Division devoted to strengthening the Centre's capacity to deliver services that are on par with international standards. It was noted that DISC has the best bio-medical library in the country and is used by people of wide-ranging interests.

Mr Thorpe stated that the Division was recently-established in August and was in the process of assessing its personnel and other resources to determine the appropriate needs of the Division, the Centre, and the wider user community.

Prof Jacobs invited Dr Robert Breiman to present his report for **Health Systems and Infectious Diseases Division (HSID)**.

Dr Breiman reported that the name HSID is the name change of HPED as had been directed by the Board. It was recently Health Systems Research Division (HSRD) but with the addition of an Infectious Diseases component in August 2001, it was felt that the name Health Systems and Infectious Diseases Division better reflected the mission and objectives of the Division.

HSID's provisional mission is to strengthen national health systems through support of operations research; design, test and facilitate replication/extension of cost-effective and sustainable research outcomes for rural and urban settings with emphasis on prevention and control of infectious diseases.

The Division provides infrastructure and expertise for Centre-wide operations research with adaptation/implementation of benefits of interventions identified in "research world" and "real world" applications i.e. accelerates evolution of policy through research. It also provides a Division-level epidemiologic and operational focal point for infectious disease research.

Total HSID staff is 205 – 41 national officers, 2 international, 162 other (including field level and general services).

3 cross-divisional programmes are housed within HSID: Programme on Health and Family Planning Systems (PHFPS); Programme on Infectious Diseases and Vaccine Sciences (PIDVS) and; Family Health Research Project (FHRP).

PHFPS is an ICDDR,B Centre-wide initiative for supporting activities on integrated delivery of essential health and family planning services. Its objectives are to facilitate, focus and make coherent Centre-wide research and activities relevant to national health and family planning programmes through identification of priority problems; design, implementation, evaluation and replication of cost-effective and sustainable interventions; provision of technical assistance. PHFPS delivers maximum health benefits tc the community, making optimal use of available knowledge, solutions and resources.

PIDVS is an ICDDR,B initiative for focus, facilitation and synergy. Its objectives are to facilitate and focus ICDDR,B's expanding role in the prevention and control of infectious diseases important to Bangladesh and other impoverished settings.

The Programme's prinicipal coordination and facilitation efforts are to:

- Evaluate promising vaccine candidates against key infectious diseases and disease syndromes
- Define disease incidence and burden for major disease syndromes and key aetiologies
- Define risk factors and clinical and epidemiologic characteristics of priority infectious diseases for use in cost-effective strategies for prevention and control
- Evaluate treatment and prevention strategies for reducing burden of infectious diseases
- Enhance capacity to investigate outbreaks in Bangladesh

FHRP is the USAID/Dhaka-supported Operation Research Project (ORP) which has been restructured and renamed. The restructuring aims to improve project activities with broad involvement of scientists/researchers working in other Divisions/Programmes of the Centre; to develop and test practical new interventions with enhanced emphasis on ESP programme needs.

FHRP studies:

- Bangladesh fertility decline
- Development and evaluation of community-based IMCI intervention
- Community-based interventions to reduce neo-natal mortality
- Cost-effectiveness analyses of NGO (PSKP) nutrition interventions in Dhaka
- Addressing missed opportunities for family health rapid appraisal tool for ESP managers
- Programmatic and non-programmatic determinants of low EPI coverage
- Cost-effectiveness of different strategies to improve access to basic obstetric care in Bangladesh
- Effects of single-dose vs multiple dose HiB vaccine
- Community-based impact evaluation and surveillance of PSKP nutrition interventions
- Impact of improved Essential Obstetric care.

Dr Breiman stated that apart from the above, studies/interventions having practical relevance to the national programme on ESP will be undertaken on a rolling basis.

PHFPS coordinates FHRP activities and assists in strengthening operations research capacities/skills of the Centre.

PIDVS and PHFPS interact with all the Divisions of the Centre.

The Division is overseen by Head, HSID. The Administration and Coordination offices of PIDVS and PHFPS are directed by the Head and in turn are responsible for coordinating the activities of the Economic Studies Unit (rural interventions and field site management); Data Management Unit (urban interventions and field site management) and; the Infectious Disease Unit.

PIDVS operates 3 field sites: Abhoynagar (education and communication), Mirsarai (essential obstetric care) and Kamalapur (Dhaka urban slum clinic). Research at Abhoynagar and Mirsarai provided the base for guidelines for site selection of clinics; community

participation in clinic establishment and function; reorganization of domiciliary services to clinic-based service delivery. 6,000 community clinics will operate in government and local community partnership. The National Health Reform Programme now wants "one-stop" provision of ESP in rural areas via community clinics.

The Division incorporates cross-divisional scientific teams in wide-ranging activities: dengue, rotavirus vaccine, Shigella burden of disease and cholera vaccine (DOMI), ARI, tuberculosis, emerging and re-emerging infectious diseases. It also coordinates the activities of the Vaccine Working Group.

The dengue research team comprises:

LSD – Dr Anowar Hossain, Dr Mahbubhur Rahman, Dr Tasnim Azim
CSD – Dr Akramuzzaman, Dr M A Salam
PHSD – Dr A K Siddique, Dr Yukiko Wagatsuma, Dr Abdullah Brooks
TEU – Dr A N Alam

Dr Breiman pointed to knowledge gaps in the efforts to limit the impact of dengue in Bangladesh: magnitude and severity of the problem; habitat and density of Aedes mosquito; clinical characteristics of dengue/DHF; risk factors for disease and poor outcome; host factor determinants for severe disease and poor outcome.

PIDVS' partners/collaborators are: Ministry of Health, Dhaka City Corporation, Bangladesh hospitals, Johns Hopkins University, CDC, AFRIMS, WHO, IVI, pharmaceutical companies. Its donors are: USAID, DfID, JICA, NIH, NVPO, WHO IVI, Gates/PATH, GAVI, pharmaceutical companies, CDC, AFRIMS.

Prof Jacobs thanked Dr Breiman for his presentation.

Discussion:

It was suggested that the name of the Division be re-assessed.

Prof Jacobs invited Prof Lars Ake Persson to present the report for **Public Health Sciences Division (PHSD)**.

Prof Lars Ake outlined the structure of the PHSD: Matlab Health Research Unit (MHRU), Social and Behavioural Sciences Unit (SBSU), Health and Demographic Surveillance Unit (HDSU), Health Economics (HEU), Epidemic Control Preparedness Unit (ECPU), Child Health Unit (CHU), Reproductive Health Unit (RHU).

Highlights
In 2001, the Division published 22 papers in peer-reviewed journals, 10 in press, and 7 contributions in books. Two PhD theses: Dr D S Alam (MHRU) amd Dr G Mostafa (HDSU). Experiences from Chakoria were the basis for the organization of a Self-Help Conference (which started today in the Sasakawa auditorium). The modernization of Matlab HDSS is completed. In December, an international training course and longitudinal data analysis is planned. The Centre now has microwave link to Matlab for voice and IT communication.

Major initiatives/plans:

Child health

- Evaluation of Integrated Management of Childhood Illness (IMCI)
- mproving case management diarrhoea, ARI, malnutrition
- Strengthening Centre's capacity on Child Development studies
- Improving neonatal health and survival
- Childhood injuries: understanding and interventions

Reproductive health

- EU-supported investments in obstetric care facilities in Matlab to be finalised soon; infrastructure for evaluation and in-depth studies
- USAID and DfID new partners in safe motherhood studies
- Unmet Obstetric Need project underway; assessing and evaluating new safe motherhood indicators
- Violence against women studies completed. Other studies on the public health consequences of violence initiated
- Male involvement in reproductive health project; male clinics running well; peer promotion and community awareness activities

Major population issues

The key population issue currently is the stalling of the fertility decline of the 1980s. Is it brief and temporary, or longer-term. What are the implications? >80% of population growth to 2050 will be due to population momentum, a consequence of large numbers of adolescents entering the reproductive years. What social and economic policies and interventions might offer alternative roles to early marriage and childbearing for young women? What new (non-FP) approaches may be needed to minimize unwanted fertility (incl abortion) and assist couples to achieve their desired family size?

Prof Persson thanked Dr Yunus and colleagues for their excellent work in the modernization of HDSS.

He stated that the Division is hoping to recruit a health economist.

The Division hoped to do more on health for the elderly as it is a vulnerable, very under-served group.

Prof Jacobs thanked Prof Persson for his presentation.

Discussion:

Mr Carriere noted that the Division has been very productive and action-oriented. It has made very important findings and appears to be clear in its focus. He wanted to know "how and where does it all come together?" Dr Sack stated that the Programmes follow a cross-divisional, thematic approach with staff working together from different disciplines.

Prof Jacobs thanked all the participants and declared the Programme Committee closed.

Draft resolutions of the Programme Committee

The Committee resolved to present the following draft resolutions to the Board for its approval:

1/BT/NOV/01

The Board authorizes an external review of the Laboratory Sciences Division during the first half of 2002 and of the Clinical Sciences Division during the second half of 2002. A report from the external reviews will be submitted to the Board of Trustees at its June meeting and November meeting respectively. Further, the Board anticipates external reviews of the Information Sciences Division and the Public Health Sciences Division during 2003. Each of these external reviews will be carried out by a multinational group of three or four persons, including at least one member of the Board of Trustees.

Minutes of the Finance Committee
Saturday 10 November 2001
1:30pm

Present:

Executive Committee

Prof Marian Jacobs	Chair of the Board
Prof Azad Khan	Chair, Finance Committee
Mr Rolf Carriere	
Prof David Sack	Director

Absent (with regrets):
Dr Ricardo Uauy Dagach

Invited:
Division Heads, CFO, Acting Head HR, Ms Vanessa Brooks (ER&ID), Dr Ishtiaque Zaman (ER&ID), Ms Shamima Moin, Mr M A Samad, Mr SK Abdul Matin (Finance personnel).

Minute Secretary:
Mrs Judith Bennett Henry

Prof Jacobs invited Mr Stephen Sage CFO to present the Finance report.

Mr Sage stated that he was pleased to be at the Centre and thanked the Trustees, Director and staff for their patience and understanding for his delayed arrival. He looked forward to a rewarding relationship with ICDDR,B.

2001 Forecast

The 2001 forecast showed a revenue of US$14,136,000 in donors' contribution which was US$365,000 (2.5%) less than the budget approved in November 2000. For items with a change of more than US$100,000, contributions showed reduced revenues from AusAid, European Union, USAID-Dhaka, oil companies (for disasters), the Hospital Endowment Fund (HEF). This was offset by increased contributions from Netherlands government, SDC-Switzerland, Thrasher Foundation, the Bangladesh government.

Unrestricted contributions for core totalled US$2,738,000 forecast for 2001 compared to US$1,810,000 budgeted for 2001. This showed an increase of US$928,000 (51%). Mr Sage stressed that the Centre must continue to press for unrestricted funds as well as it needs to internally generate core funds.

Expenditures against 2001 budget were US$13,956,000 cash basis which was US$435,000 (3.0%) less than budget. These covered increased vs budget, local salaries and capital expenditures and were offset by international salaries, supplies and materials.

Surplus is forecasted to be $180,000 compared to budget of $110,000 for 2001. This reduces the cumulative deficit to less than $3,000,000 which is a reduction of over $1,000,000 in the past three years.

2002 Budget

The 2002 budget forecast showed revenue from contributions totalling US$13,773,000 which was US$363,00 (2.6%) less than 2001. Contributions to 2002 budget showed reduced revenues vs 2001 from European Union and World Bank which was offset by increased contributions from USAID-Dhaka, DfID, AusAID.

The ten (10) largest donors contributed US$10,313,000 to the 2002 budget which was 75% of the total budget. The same 10 contributed US$9,843,000 in 2001, 69% of the total budget. Mr Sage urged that the Centre expand its donor base to avoid any possible crisis should a major donor decide to change its funding policy or orientation.

Unrestricted contributions for core for 2002 showed US$2,488,000 budgeted vs US$2,738,000 forecast for 2001, a decrease of US$250,000 (9%).

Expenditures for 2002 were forecast at US$14,305,000 or US$349,000 (2.5%) more than 2001. Mr Sage stated that for the Centre to break even in 2002, it would need: to decrease the deficit by US$532,000. The budget was prepared on a conservative basis including only finalized agreements.

Although the budget shows a deficit, management is confident that projects in progress will yield contributions to the 2002 budget to at least breakeven. This is similar to 1999 to 2000 when deficit budgets were presented the previous November and actual results yielded a surplus.

Hospital Endowment Fund(HEF)

The HEF received contributions of US$252,000 through 30 Sept 2001. A new fund manager was engaged in September 2001 – Morgan Stanley was replaced by TIAA-CREF. The HEF saw an 8% decline in market value; 94% of the HEF is in money market funds pending stability of the market. Management is recommending a withdrawal of $200,000 as of 31 December 2001 for operating costs of the Hospital in 2002.

Centre Endowment Fund

The Fund received no contribution through 30 Sept 2001. A new fund manager was engaged in September. The Fund saw a 13% decline in market value in 2001. The Fund is invested with TIAA-CREF and currently held in money market account. Mr Sage requested Board approval to transfer US$120,000 from Centre Endowment Fund for project development funds. (The reason this fund declined more than the HEF was that more was invested in equities and bonds. Some of the HEF was in time deposits and were protected from the market decline).

Gates/Government of Bangladesh Award

Mr Sage pointed out that the Gates Award (US$1m) and the Government of Bangladesh matching funds (US$885,000) were not represented in the budget. The Gates fund is invested in short-term time deposits and is projected to earn approx US$14,000 in 2001. The GOB recently released the matching fund. The award monies are being held pending instruction from the Board. A plan for this fund is being presented (see Annex 1).

Strategic Plan

On Strategic Plan issues, the Finance Office is involved in several activities:

- Common operating costs which would be identified in all projects with an indication of portion contributed by project and portion contributed by core funds. This would allow tracking to inform core donors of projects funded by their contributions.

- MIS review to test the capabilities of the finance MIS as well as of the current system and identify improvements needed.
- Audit of indirect costs for USAID reimbursement which is required periodically to maintain ongoing funding and which will effect future common operating costs.
- Plans to service units on a business basis i.e. to identify service support units, develop a business model with the aim to implement with specific support services e.g. transport pool, hospital lab.

Prof Jacobs thanked Mr Sage for his presentation.

Discussion:

Prof Azad Khan stated that the Gates/Bangladesh funds should directly benefit the children of Bangladesh. It was discussed that Mrs Melinda Gates' statement in her speech at the award ceremony that no child should die of an easily prevented disease should be taken as the guiding principle. It was suggested that the speech should be looked over and a brochure prepared explaining the use of the funds in keeping with the spirit of the award.

It was noted that the local currency of Bangladesh was devalued by 4.8% resulting in some gain to the Centre. However, the grant from the EU was negatively impacted by the weakening of the Euro against the dollar in 2001.

It was further discussed that in an effort to diversify funding sources, the Centre may consider using some of the award to create something innovative. It was suggested that corporate as well as individual donors should be targeted. Ms Brooks felt that to advance the profile of the Centre to corporations and individuals, it was crucial that the Centre change its name. It was equally important to avoid quirky or catchy names and to settle on one which projects the Centre in a more sophisticated, international way.

Mr Sage affirmed that TIAA-CREF did offer accounts targeted to individuals, corporations and organizations with a social and humanitarian agenda and that the endowment funds were to be invested in such an account.

It was suggested that the Centre should give a higher profile to donors of unrestricted funds. Prof Jacobs also suggested that the Centre should institute a mechanism for tracking donor policy. Prof Sack confirmed that the ER&ID office receives electronic mailing with updated information on donor policy.

Prof Jacobs suggested that the Centre consider income-generation activities through sale of services such as the laboratories; rental of accommodation; ICDDR,B guesthouse.

Prof Jacobs thanked Ms Moin, Mr Samad and Mr Matin for managing the Finance Office until Mr Sage's arrival. She declared the Finance Committee closed.

Draft resolutions of the Finance Committee

The Committee resolved to present the following draft resolutions to the Board for its approval:

2/BT/NOV/01

The Board authorises Mr Stephen Sage, acting in his capacity as Chief Finance Officer (CFO) to sign cheques on behalf of the Centre, and the Board withdraws its previous authorisation of Mr Winklemann as signatory.

3/BT/NOV/01

The Board authorizes the transfer from the Reserve Fund to the operating Fund of all monies in excess of $2,000,000 at December 31, 2001 to further reduce the cumulative deficit.

4/BT/NOV/01

The Board approves that the previously authorised transfer of $200,000 from the Hospital Endowment Fund in 2001 may be carried over into 2002 as deemed necessary by the Director; and also authorises $200,000 to be transferred from the Hospital Endowment Fund to operations in 2002.

5/BT/NOV/01

The Board authorises the transfer of up to $120,000 from the Centre Endowment Fund in 2001 and that such unexpended monies may be carried over into 2002.

6/BT/NOV/01

The Board authorizes opening an account with TIAA-CREF Trust Company for the Hospital Endowment Fund as per the attached certificate (Annex 2).

7/BT/NOV/01

The Board endorses the budget for the award funds (from the Gates Global Health Award and the matching award from the Government of Bangladesh) as presented by the Director in the memo of 4 Nov. Further, it encourages the Centre to utilize these funds and the work carried out as a result to popularize these two awards.

Annex 1

CENTRE FOR HEALTH AND POPULATION RESEARCH

The Director's Office

ICDDR,B: The Centre for Health and Population Research
ICDDR,B, GPO Box 128, Mohakhali, Dhaka 1000
BANGLADESH
Phone: 8811751- 60 (Ext 2100) Direct: 880-2-8823031
Fax: 880-2-882-3116 (from the U.S.; 1-208-955-4437)
Email: dsack@icddrb.org

To: Executive Committee of the BOT

From: Director

Subject: Gates-Bangladesh Award Funds

Date: 4 November 2001

The following describes the recommendation of the management for the allocation of the Gates-Bangladesh award funds.

INCOME

Award	Source	Amount
	Gates Foundation	$1,000,000
	G of Bangladesh	$885,000
Total		

ALLOCATION		2001	2002
Staff benefits			
	Staff Benefit		$50,000
	Staff Development and Training	$0	$50,000
Patient care			$200,000
Investments			
	Local investment	$0	$400,000
	Project Development Funds	$100,000	$200,000
	Dissemination activities		$50,000
Totals			
Remaining			

(Expenditures will be within 10% of the above listed line-item amounts.)

An explanation of the items is as follows:

Staff Benefit

Examples of the funds for **staff benefit** will include improving the crèche, health club facilities, canteen, etc. We would want input on these from SWA, staff clinic, HR and other groups who have an interest in improving the facilities for staff.

Staff development would operate according to staff rules. Our "*Circle Around the Centre*" campaign this year will include a matching programme

whereby contributions through the Circle will be matched from the award fund.

Patient care would provide certain specific services in our Dhaka Hospital. For this we would designate a specific activity (e.g. costs for the ALRI ward, short stay ward, or other activity) as being funded by the Gates award. We could confidently say that the $600,000 in patient care will

provide services for 60,000 patients and save the lives of 6,000 patients. Alternatively, this could be start up funds for new and innovative ideas about how to operate the hospital.

Investments

Local investment means that we would think like a businessperson. Considering our expertise and relative strengths, we would invest in a Centre-controlled activity that would continue to earn income into the future. This could be, for example, in further development of our clinical laboratory, production / marketing of rice ORS, renting vehicles to our international level staff, or others. Whatever activity is selected should have a solid business plan and should be geared to provide an income in the future.

Project Development funds would provide discretionary funds to the Divisions and Programmes. Of the $500,000 total available for project funds, at least $50,000 will be spent for collaborative projects with local institutions and another $50,000 will be spent in collaborative projects with regional institutions outside Bangladesh. The funds to the local and regional institutions is not a "small grants programme" for local institution, but rather are intended to be start up funds that will build future collaborations.

Dissemination activities will increase the ways that the Centre provides information to those outside the Centre. This may be through journals, other publications, Internet sites, special training activities, brochures, videos, etc.

Remaining

This will remain at the Director's discretion for use in unforeseen circumstances or for new initiatives that require seed funds. Examples will include capital needs for an HIV laboratory, pending receipt of specific project funds, funds for emergency response to emerging diseases or outbreaks. Prior to its use, the funds will remain invested in safe investments and will continue to bear earnings.

Reporting requirements for the Gates-Bangladesh funds

All funds from the fund will be given a specific budget number that identifies this as the source for the activity. On a semi-annual basis we will want to report the results of the funds to ourselves and annually in the Annual Report. Thus, the persons receiving funds for staff development will be designated Gates-Bangladesh scholars. The patient care activity funded will be designated as the Gates-Bangladesh ward or activity, etc. The projects funded under the project development funds will likewise be designated as a Gates-Bangladesh project.

Annex 2

SECRETARY'S CERTIFICATE

I, David A. Sack, as Director of The International Centre for Diarrhoeal Disease Research, Bangladesh (the "Centre"), and Executive Secretary of the Board of Trustees of the Centre, a non-profit organization formed and existing under the laws of the Bangladesh, hereby certify that the following is a true and correct copy of a resolution of the Board of Trustees of the Centre adopted by unanimous written consent of the Board of Trustees:

RESOLVED, that the Director is authorized to open an account for the Centre with TIAA-CREF Trust Company, FSB ("Trust Company"), and to execute an agreement with the Trust Company in the name and on behalf of the Centre governing that account, and that he is authorized in the name and on behalf of the Centre to take such action with respect to said agreement and account consistent with its purpose that such officer may deem appropriate; and further

RESOLVED, that the Director, the Chief Finance Officer of the Centre, and the Chairman of the Endowment Fund Committee are each an "Authorized Individual" and as such must act together with one other such Authorized Individual and further

RESOLVED, that any two Authorized Individuals acting together are hereby authorized to act on behalf of the Centre with regard to the account, including the power to give written instructions for the purchase, sale, exchange or transfer, deposit, or withdrawal of any securities or other property held in such account, and to make and to execute any necessary forms in connection with such transactions; and otherwise take any action relating to the account on behalf of the Centre, and Trust Company may deal with any two Authorized Individuals acting together as though it were dealing with the Centre directly; and further

RESOLVED, that the Executive Secretary of the Centre's Board of Trustees is hereby authorized, empowered and directed to certify a true copy of these Resolutions and a specimen signature of each Authorized Individual to the Trust Company; and further

RESOLVED, that Trust Company may rely upon the certification given as continuing fully effective unless and until Trust Company shall receive written notice of an amendment, modification or rescission of such Resolution or certification, in the form of a certification of the Secretary of change in the Authorized Individual's authority, and that Trust Company shall not be liable for any action taken or not taken upon instruction of any Authorized Individual prior to receipt of notice of change in such person's authority, and a reasonable opportunity to act upon that notice.

I further certify that the following is a true and correct list of officers elected to the office of Director, Chief Finance Officer and Chairman of the Fund Management Committee and at duly convened meetings of said Board of Trustees, as taken by me from the minutes of said meetings:

Director:	David A. Sack:
Chief Finance Officer:	Stephen E. Sage
Chairman, Fund Management Committee:	William B. Greenough, III

I further certify that the following individuals hold the office indicated and that the signature affixed next to that individual's name is a true and correct specimen signature of that individual:

Name:	**Position:**	**Signature:**
David A. Sack	Director	
Stephen E. Sage	Chief Finance Officer	
William B. Greenough, III	Chairman, Fund Management Committee	

I further certify that the above quoted resolutions are still in force and effect and have not been repealed or amended.

In witness whereof, I have set my hand.

By: Judith Bennett Henry date
Board of Trustees

By: David A. Sack date
Executive Secretary
Board of Trustees

Minutes of the Personnel & Selection Committee
Saturday 10 November 2001
2:30pm

Present:

Executive Committee

Prof Marian Jacobs	Chair of the Board
Prof Azad Khan	
Mr Rolf Carriere	Chair, P&S Committee
Prof David Sack	Director

Absent (with regrets):
Dr Ricardo Uauy Dagach

Invited:
Division Heads, CFO, Acting Head HR, Ms S Nahid Sultana (Personnel)

Minute Secretary:
Mrs Judith Bennett Henry

Mr Carriere requested the Executive Committee's approval of the minutes of the Personnel and Selection Committee meeting of June 2001. Prof Jacobs moved; Prof Sack seconded. He then invited Acting Head HR Mr Wahabuzzaman Ahmed to present the report of the Personnel Office.

Staffing overview

During the reporting period 1 April-30 September 2001, the Centre had 45 separations and 57 additions. Fixed term staff belonging to all categories increased by 12 – these were hired mostly for project positions. The Centre continues to follow the policy of restricting external recruitment of fixed-term staff.

International staff by continent: As of 30 September 2001, Asia – 9 (38%); N. America – 7 (29%); Europe – 5 (21%); Australia – 1 (4%); Africa – 1 (4%); S.Amer – 1 (4 %). These numbers include fixed-term, seconded and short-term staff.

Staffing status by gender:

Total international professional (incl FT/ST/Seconded)	-- 24
Male	--18 (75%)
Female	-- 6 (25 %)
Total national officers (incl FT/ST)	--173
Male	-- 133 (77%)
Female	-- 40 (23%)
Total General Services (incl FT/ST)	-- 932
Male	-- 546 (59%)
Female	-- 386 (41%)

Total community health workers	-- 19
Male	-- 6 (32%)
Female	-- 13 (68%)
Total volunteers	--72
Male	-- 1 (1%)
Female	-- 71 (99%)
Total trainees	-- 27
Male	-- 18 (67%)
Female	-- 9 (33%)
Total CSA (contract)	-- 379
Male	-- 120 (32%)
Female	-- 259 (68%)
Grand Total	1626
Male	-- 842 (52%)
Female	-- 784 (48%)

Discussion:

Gender policy

It was discussed that the Centre needs gender balance. This requires pro-active recruitment and the commitment to set a trend and be seen to create a conducive environment. It was important to open up the recruitment process. A strong gender policy is needed.

It was also discussed that the Centre should institute a mentoring system for female scientists. It was suggested a public health fellowship to train female scientists in the research field and provide on-the-job training.

New international professional staff

Head, Information Sciences Division, P5. Mr Peter Thorpe, a British national, joined the Centre on 1 August 2001 to head the newly established Information Sciences Division.

Chief Finance Officer, P5, Director's Division. Mr Stephen Sage, a US national, joined the Centre on 21 August 2001.

Recruitment of international professional staff

Associate Director of the Centre and Head, Laboratory Sciences Division (D1). The position was advertised in The Lancet, ASM News, New England Journal of Medicine and the Centre website. Two (2) candidates-- Dr Andrej Weintraub and Prof Antoine Andremont -- were shortlisted and interviewed. At the June meeting, the Board gave approval to extend an offer to either one of the candidates. Offers were made to both but personal and professional commitments prevented their acceptance. Dr G Balakrish Nair, who is currently acting Head LSD, indicated his interest in assuming the position. Centre management will recommend to the Board the confirmation of Dr Nair as Head of LSD.

Associate Director and Head, Clinical Sciences Division (D1). One (1) candidate was shortlisted for the position – Dr Pearay Ogra, who was unable to accept the offer until late

2002. Dr Charles Larson, a candidate for a position with the FHRP project, has indicated his interest in the position. Dr M A Salam is currently Acting Head, CSD.

Renewal of contracts

Associate Director, D1, Policy and Planning. Prof Barkat e Khuda's contract will end on 19 June 2002. He will complete almost 5 years of service as international professional staff. The Centre recommends that Prof Barkat e Khuda's contract be extended to complete six years.

The recommendation was noted by the Executive Committee and will be addressed in the Closed Session of the meeting.

Head, Health and Demographic Surveillance Programme, P5, PHSD. The contract of Dr Peter Kim Streatfield will expire on 17 July 2002. The Centre recommends that Mr Streatfield's contract be extended by another full term of three (3) years under the existing terms and conditions. Prof Lars Ake Persson made a strong recommendation for extension of Dr Streatfield.

Director, ADG. The three-year secondment contract of Prof David Sack expires on 30 September 2002. He was seconded from Johns Hopkins University.

Clause 13.1 of the ICDDR,B Ordinance 1978 (Ordinance No. LI of 1978) stipulates 'a Director who shall be selected and appointed by the Board for a term which may be renewable for another term'.

It was agreed that Executive Committee members would discuss with Prof Sack in Closed session and submit its recommendations to the Full Board.

Seconded staff contracts

Dr Jozef Bogaerts, Senior Scientist, P5, Laboratory Sciences Division, will leave the Centre on 21 December 2001. He was seconded from the Belgian Technical Cooperation. It was not yet known whether the agency will send a replacement.

The contract of Dr Robert Breiman, Medical Epidemiologist and Acting Head, Health Systems Research Division, will expire on 21 July 2002. He was seconded from CDC Atlanta and US Embassy Dhaka. Centre management will request approval of an extension of contract and his confirmation as Head of the Division. Prof Sack reported that he had made formal request to the Surgeon General for approval of Dr Breiman's extension.

The contract of Mr Carel Van Mels, Demographic Researcher, Health and Demographic Surveillance, PHSD, will expire on 28 December 2001. He was seconded from the Ministry of Foreign Affairs, Government of the Netherlands. Prof Sack reported that formal request for extension was submitted through the Dhaka Embassy and is awaiting a formal response but initial indicators are favourable for his continuation.

The contract of Dr Yukiko Wagatsuma, Scientist, P4, Epidemic Control Preparedness Programme will expire on 16 January 2002. She was seconded from Johns Hopkins University and is expected to continue at the Centre.

Dr Abdullah Brooks, Scientist, P4, HSRD, completed his assignment under a secondment from Johns Hopkins under the Child Survival Fellow Programme on 31 May 2001 an

commenced his new tenure as a Scientist on secondment from Johns Hopkins University effective 1 July 2001 for a period of 2 years.

Completion of tenure at International Professional level

Dr AKM Siddique, Epidemiologist and Head, Epidemic Control Preparedness Programme, P4, PHSD, will complete 6 years at international level on 30 June 2002. As per Centre rules, and as noted at the June 2001 Board meeting, he may remain under the policy of promotion of Bangladeshi scientists to international level. Further to this, he has attained the age of 60 and under the provision of the Staff Rules, can continue on a renewal basis yearly until age 65. It was suggested that an understudy be engaged for eventual hand-over of the ECPP.

Dr Radheshyam Bairagi, Senior Scientist, P5, PHSD completed six years of tenure on 14 June 2001. He was extended for one year under the policy of promotion of Bangladeshi scientists to international level, as noted at the June 2001 Board meeting. He may be renewed on a yearly basis based on satisfactory performance as well as availability of funds, not exceeding age 65, as per rule.

Establishment of new international posts

The establishment of a new position of Head, Nutrition Research Programme, P4/P5, CSD, is needed urgently to provide effective leadership to the ongoing and highly expanding nutrition research, training and service activities of the Centre.

The post of Head, External Relations and Institutional Development (ER&ID), P2, was established at the 1998 November BoT meeting. Following announcements and receipt of applications, it was decided to postpone the process until the arrival of the Director to assess the needs of the post.

It was decided to rename the post as Programme Officer and seek an early recruitment. The job description was revised to suit the needs of the ER&ID office. Centre management is requesting the Board to approve recruitment for the post.

Mr Zaman highlighted to the Committee the number of vacant posts in the list of established international professional posts:

Director's Division: Head, ER&ID (P2), Internal Auditor (P1), Associate Director (P4).

PHSD: Environmental Specialist (P4), Health Economist (P4), Demographer (P4), Maternal Health Specialist (P3).

CSD: Assoc Director (D1), Health & Child Survival Fellow, International Fellow.

LSD: Assoc Director (D1)

HSRD: Management Scientist (P4), Health Scientist (P4), Administrative Director (P5), Sr Adviser & Head, HPED (FHRP) (D1), Operations Research Scientist (P4), Visiting Scientist (P4).

Selection of members to the Board of Trustees

Currently, all members are in place. However, the tenure of Prof Marian Jacobs as a member will expire in November 2002 and BoT members should submit names of possible candidates to the Director. When Prof Jacobs leaves the Board, a new Chair will need to be appointed.

Scientific Promotions update

It was reported that the Centre instituted a new policy for Bangladeshi scientists to apply for promotion to the international level. Scientists must be at least at an NOC level and should submit their applications with CVs and list of publications to Division Heads who will then make recommendations to the Promotions Committee following which the applications will be sent for external review. The process takes at least 3 months. There are currently 5 applications under review. This policy allows for outstanding scientists to receive promotions, but it is intended for only a few.

Discussion:

Prof Jacobs asked whether non-scientific staff were eligible under the policy. She suggested that the Centre look at the financial implications. It would send a positive signal to the staff that their work is recognized as important as the scientific staff. She further suggested that the Centre identify selected posts as key posts and provide salary enhancement.

Dr Sack commented that the current policy of Bangladeshi staff promotion to international status is relevant only if the scientist is able to bring in additional support through competitive grants. Thus, this mechanism may not fit non-scientist positions.

It was discussed that the scientists who apply for promotions are screened not only for scientific production but also for their skill in clinical or other professional services in areas where the Centre is active. Evidence of scientific/clinical performance, training and advocacy are some of the criteria by which scientists should be judged.

Prof Sack reported that Human Resources was 80% through the re-classification of posts. It is expected to be completed in several months. A new personnel evaluation system is being reviewed.

Home leave policy

Mr Zaman presented for the Committee's information, a revised home leave policy. The policy states that eligible staff members will be entitled to one home leave every eighteen months during their contract. In exceptional cases, home leave may be advanced with approval from the Director, provided that the staff member has served a minimum period of qualifying service.

Prof Sack explained that the previous rule stated that leave could be taken after 24 months which was not practical for someone with a three-year contract. In fact, the new home leave policy represents no significant change from the previous one except for being more adaptable to the Centre's situation.

Duration of Contracts

It was further noted that a 3-year contract was not a sufficient timeframe for developing programmes or for staff to settle into the programmes and build a strong base of interaction with other related projects/collaborators/fellow researchers. It was suggested that Prof Sack review the issue and develop options for career structure for next BoT meeting. Note: The Executive Committee stressed that renewal of contracts should be submitted through Division Heads who would then forward the approval/non-approval to the Director.

Education grant policy

Dr Sack pointed out that staff members' children attend different international schools in Dhaka and these follow a different grading system which causes difficulty in assessing eligibility for education grant allowance. He felt that the policy should be revised to make it age-specific. The Board was informed that the staff rule was revised to state that a child will be eligible after the first full term that begins after the child's 5th birthday. It was recommended that the policy be retroactive to 1 August 2001 to include the beginning of the current school year.

Salaries

It was discussed that the Staff Welfare Association would be making the request for a salary increase and the Executive Committee would need to consider this in Closed Session. It was noted that the Board approved salary increases in November 1999 and November 2000.

Draft resolutions of the Personnel & Selection Committee

The Committee resolved to present the following draft resolutions to the Board for its approval:

8/BT/NOV/01

The Board approves the extension of the current employment contract of Prof Barkat e Khuda for the period 20 June 2002 to 31 July 2003 under the same terms and conditions.

9/BT/NOV/01

The Board approves the extension of the current employment contract of Dr Kim Peter Streatfield by another term of three (3) years effective 18 July 2002 under the same terms and conditions.

10/BT/NOV/01

The Board approves the extension of the secondment employment contract of Prof David A Sack for a further term of three (3) years.

11/BT/NOV/01

The Board approves the establishment of the post of Head, Nutrition Research Programme (P4/P5) of the Clinical Sciences Division.

12/BT/NOV/01

The Board approves the recruitment of Head, External Relations and Institutional Development (P4) rather than the P2 position suggested in the HR report.

13/BT/NOV/01

The Board approves salary increases of 6% for General Services staff, 8% for National Officers and 6% for International Professional staff, effective 1 January 2002. The benefits provided to IPO staff should be consistent with the UN system and the total increase (salary plus benefits) should be 6%.

14/BT/NOV/01

The Board approves the selection of Dr Rob Breiman as Head of the Health Systems and Infectious Diseases Division, and Associate Director of the Centre. Dr Breiman is serving at the Centre under secondment from the Centers of Disease Control and Prevention in the USA. He will be equated to a level of D1, step 2 (see note from Prof Sack).

15/BT/NOV/01

The Board authorizes a three-year contract with Dr Charles Larson as Senior Operations Research Scientist at P5 or as Head of the Clinical Sciences Division at D1 level (see note from Prof Sack).

Notation: The Board notes that several Bangladeshi scientists have applied for an international position under the Bangladeshi Scientists to International Level Policy, and further notes that it was not possible to complete the evaluation of these applications prior to the November meeting. The Board is willing to evaluate these applications using electronic media prior to the next meeting of the Board in order to speed the process of promotion as needed.

Minutes of the Strategic Plan
Sunday 11 November 2001
8:00am

Present:

Executive Committee

Prof Marian Jacobs	Chair of the Board
Prof Azad Khan	
Mr Rolf Carriere	
Prof David Sack	Director

Absent (with regrets):
Dr Ricardo Uauy Dagach

Invited:
Division Heads, CFO, Acting Head HR, Ms Vanessa Brooks (ER&ID), Dr Ishtiaque Zaman (ER&ID).

Minute Secretary:
Mrs Judith Bennett Henry

Prof Barkat-e-Khuda stated that the compilation of the Plan was an entirely participatory exercise. Following the review of the draft at the June Board meeting, a Strategic Plan Core Group was formed. Questionnaires were distributed to all Divisions and Programmes for their input. A retreat was organized to brainstorm and review responses to the questionnaire. Discussions also took place at the Scientific Council.

The Plan was sent to all BOT members in the pre-meeting documents folder.

Prof Barkat outlined the health setting as a context for the Centre's priorities:

Global setting

97% of the world population increase takes place in developing countries who have a continuing need to pursue strong family planning programmes and research. They are also experiencing new challenges of rapid urbanization, environment degradation, malnutrition, non-communicable diseases, burden of injuries and an ageing population. Since the 1978 Declaration of Alma Ata, there has been progressive physical and social deterioration; inequity in all areas of these societies continues to rise.

The resources devoted to health systems are unevenly distributed and out of proportion to the range and level of health problems. Less than 10% of global spending on health research is allocated to 90% of world's health problems. There is an ever-widening gap between rich and poor countries in average per capita on health spending and in distribution of the global disease burden.

Bangladesh setting

Cholera and all other known forms of diarrhoeal disease are endemic to Bangladesh who continues to face difficult challenges in the health sector. Respiratory and diarrhoeal are still

the most common causes of death among children under 5; tuberculosis is the second most common cause of death among adults. 75% of DALYS is accounted for by 7 conditions – malnutrition is a major cause of Years Lived with Disability.

Population growth is a major development challenge for Bangladesh and places a heavy burden on health care and social services. In the future, communicable, perinatal and pregnancy-related complications as causes of death from approx half to less than one-third of all deaths. By contrast, non-communicable diseases will account for over half of all deaths.

The Centre is thus located in a setting that enables it to bring science to where the problems exist.

Priority setting

The basis for setting priorities is provided by the Centre's broad mission statement, a well-defined vision for the future, multi-disciplinary skills, long-standing evidence-based research experience, patient and field populations, funding prospects.

These aspects are combined with an evaluation of the cost-effectiveness of the activity; feasibility of potential resulting interventions; emerging new problems. In setting its priorities, the Centre's guiding principles are Global Health by the Year 2020; the regional burden of disease/DALYS, and the national burden of disease..

Discussion:

EC members congratulated all who participated in putting together the Plan. It was noted however that it needed to better establish strategic choices and intentions. These should be defined in terms of the scientific staff and mobilizing resources for infrastructure, collaboration, clinical services, training, TB, poverty, violence against women. It also needed to focus the idea of the Centre as a specialised organization that is clearly distinguishable from other organizations. Resource mobilization should be included in a more effective way.

It was also felt that the priority setting timelines (outlined in Prof Barkat's charts) were unrealistic and should be reviewed.

Mission, values, vision statement. EC members urged the Centre to enter into a long-term relationship with a marketing/ad agency who would over time, know and understand the Centre in all its aspects and can assist in identifying and translating the Centre's needs and priorities. It was suggested that the Centre invite proposals from 3 or 4 agencies.

It was important to distinguish ICDDR,B from another organization with a compelling statement that captures the imagination and links the Centre's vision with a bigger world vision. The Centre needed to declare what is not its mandate; focus on where its strengths and critical mass lie and be cognizant of what is taking shape in the world in health and development. The Centre should discuss in its Scientific Council what it can realistically do that no other organization is doing in the world. This should not be handcuffed by the Centre's funding status. The statement needs also to underline what is important so that someone who is unfamiliar with the Centre could interpret the details more easily.

The question was raised on the reaction of the government of Bangladesh to the priorities. Is the Centre shifting from high to low priorities too fast? Prof Sack stated that the Centre is already working with the GoB in certain areas – IMCI, Nutrition. The Plan will be submitted to the Health Secretary for his comments and he will be invited to be present at the adoption of the Plan.

The Plan (without annexes) had been forwarded to the Donors Support Group who had requested to review it in preparation for the DSG meeting this afternoon.

Name change

It was advised that the word "Centre" should remain in the new title. Remember that the name means a lot to agencies, foundations – Centre may want to request suggestions.

Final draft

The Centre would need to meet with government officials for consultation on the Plan to define more sharply the division of labour between the Centre and other national institutions.

Division Heads, Programme Heads should liaise with the marketing agency to assist in getting the Plan into focus. The final draft should be completed by next June.

Full EC Meeting
Sunday 11 November 2001
10:00am

Present:

Executive Committee

Prof Marian Jacobs	Chair of the Board
Prof Azad Khan	
Mr Rolf Carriere	
Prof David Sack	Director

Absent (with regrets):
Dr Ricardo Uauy Dagach

Invited:
Division Heads, CFO, Acting Head HR, Ms Vanessa Brooks (ER&ID), Dr Ishtiaque Zaman (ER&ID).

Minute Secretary:
Mrs Judith Bennett Henry

Prof Jacobs stated that the duty of the Board was not to manage but, as prescribed in the Ordinance, to make it possible for the Centre staff to carry out their work. She felt the Centre's priorities should focus on: continued interest in micro-nutrients, infectious diseases, gap in the life cycle, ageing population, poverty and equity.

HR

She noted that Ms Diann Hill was on maternity leave and conveyed best wishes on behalf of the Board. However, with the absence of Mrs Hill, she was concerned about the schedule for the HR agenda.

The SWA had earlier expressed concern about capacity retention at the Centre. She felt it was necessary for the Centre to strike the balance of the need for an international centre to have change against the need to stay "cutting-edge".

Funding

She stated that the Centre has to meet the challenges to see how best to support the Centre. Important to diversify the donor base. Ms Brooks reported that on mission to the US in August, she met with various individuals and corporations to drum up interest in and support for ICDDR,B. Plans were underway for a trip in mid-November by Centre Director to key US cities to meet with interested parties. This would culminate in a sponsored event in New York with representatives from the public health sector, pharmaceuticals, philantrophists who would be attracted to adopt the Centre as one of their causes. The plans were put on hold following the events of 11 September but it is anticipated that these events will occur in March 2002.

It was noted that there were a number of individuals/corporations who are interested in funding humanitarian causes. Prof Sack felt that it was necessary to play up the Centre's role

in peacekeeping. By addressing root causes of discontent, the Centre's research has great relevance to the global threats.

Divisions

With core operating costs being projectised, the Divisions are interacting and these activities are necessary to translate research findings into policy and planning.

Salaries

It is increasingly clear that the Centre's system is not capable of keeping up with the UN salary scale but it can provide fair and competitive salaries to its staff. The Full Board will review the recommendation for salary increase and its approval will be transmitted at the earliest to the Director to inform the staff.

Strategic Plan

Prof Sack affirmed that he will share the Plan in draft with key government officials and donors.

June Board meeting

The Executive Committee felt that a four- or five-day meeting should be planned for June 2002. This could begin with a meeting of the Programme Committee followed by one day of informal discussions between staff and Board members followed by two (2) days of formal meetings. The informal day would allow Board members to make field trips.

Members considered whether, for economy, the EC should physically meet in Dhaka with video-conferencing to the other Board members during one of the two annual meetings.
Action: Head ISD to check with World Bank on the possibility of renting their video-conferencing system.

Date of June meeting: Thursday 30 May 2002 to Sunday 2 June 2002. (For information, British Airways arrives early morning on 30 May and departs morning of 3 June).

Note: **The name of Dr Ricardo Uauy Dagach was omitted from the minutes of the June Board. Dr Dagach was present at all meetings.** The omission is deeply regretted.

Prof Jacobs declared the Board meeting closed.

Staff Welfare Association (SWA)

Officers of the Staff Welfare Association met with members of the Executive Committee to share their views on matters relating to the Centre staff. Following are the minutes:

Dr Golam Rabbani, President of SWA welcomed the EC and thanked them for taking the time from their busy schedules to meet with them. The SWA would present to the EC several issues for Board consideration and approval.

Salaries

He thanked the Board for its approval at the last two meetings of salary increases which gesture served to boost the confidence and morale of the staff. However, there are still wide gaps in the salary structure which need to be addressed. He noted that the award by the Gates Foundation reflected the contribution of the staff to promoting and advancing the work of the Centre. He urged the EC to submit to the Board recommendations for a targeted time period to bring the Centre salary structure in line with the UN, as prescribed in the Ordinance.

Establishment of promotion criteria for non-scientific staff

Dr Rabbani noted that the introduction of the scientific ranking system has also boosted the morale of the scientific staff. However, a system has yet to be introduced which addresses the career needs of the non-scientific staff who perform their duties at the highest level alongside their colleagues who benefit from the scientific ranking system. Centre management should look into establishing a similar system for non-scientific staff to encourage and support their efforts.

The SWA was heartened to note that the re-classification exercise had started under the new Head HR; however, the process has been slow and to date, has been unproductive.

Other issues

Dr Rabbani listed a number of issues which had been brought to the attention of the Board on previous occasions and which remain to be resolved:

- Introduction of a uniform recruitment policy
- Review of salary of national vs international staff
- Review of working hours of employees in GS level I & II
- Dependency allowances:
  - Increase the allowance
  - Extend the age limit for dependent children up to 25 years.
    (Due to student overload at universities, it may take up to age 25 to complete a Masters degree)
- Increase of annual holidays from 11 to 14 days.
- Three months' leave pay at time of retirement.

Dr Rabbani urged timely action on issues currently being handled by Head HR.

He stated that the relationship between the staff, management and the Board was important to all parties and he expressed the hope that the relationship would continue to be productive. He thanked the EC for its consideration.

3/BT/JUNE 2002

PROGRAMME COMMITTEE

BOARD OF TRUSTEES MEETING
JUNE 2002

CENTRE
FOR HEALTH AND
POPULATION RESEARCH

PROGRAMME COMMITTEE
6 June 2002

Draft

PROGRAMME COMMITTEE

Thursday 6 June 2001

1. Director's Report

2. SWA presentation

CENTRE
FOR HEALTH AND
POPULATION RESEARCH

Director's Report

Prepared for the

BOARD OF TRUSTEES MEETING
June 2002

Director's Report to the Board of Trustees
June 2002

Overview of the Board Meeting

This overview is intended to provide a glance at the structure of the meeting. As a separate part of the Directors Report, I am also enclosing the Director's Report from the 2001 Annual Report. The full Annual Report will be available when you arrive in Dhaka.

A schedule for the meeting is enclosed with the materials in the packet. To summarize the general schedule, the meeting will start on June 6 in the morning and continue until June 9 around mid-day. A Donors Support Group meeting immediately follows the Board meeting in the afternoon of June 9. On June 10, a trip to Matlab is available for those Board members who wish to stay the extra day, but this is optional and informal.

The first day, June **6**, will start with an open meeting of the Programme Committee (donors and Centre staff are invited to come to this open session). This includes a presentation by the Director followed by presentations by each of the Division Heads. The day will end with a preliminary report of the external review of the Laboratory Sciences Division. (The final report and the Centre's response will be presented at the next Board meeting in November). The lunch on June 6 provides an opportunity for informal discussions with selected Centre staff. The evening is open.

June 7 is divided into morning and afternoon sessions. During the morning, the Board members will be assigned to one of four sub-groups and will have a chance to hear about specific programmes or to visit some of the Dhaka field sites. We will assign Board members to the sub-groups. During the afternoon, the Board will discuss the Strategic Plan. This evening is open as well.

June 8 is also divided between sub-groups in the morning and formal sessions in the afternoon. The afternoon session will include the Committee meetings of the HR and Finance Committees. (For the information of new Board members, each member is assigned to a Committee, however, the Committees meet with all members of the Board present). During the Committee meetings, the issues are discussed and resolutions are formulated. The committee meetings are generally closed to include only the Board members and the Division Heads. For some specific agenda items, the Board may have a "closed-closed" meeting (meaning only Board members present). On the evening of June 8, we plan a nice supper on the Rooftop Pavilion along with the Scientific Council members and their partners.

On June 9, we have the formal Board meeting when we carry out the official business of the Board (e.g. passing resolutions) and also take care of other agenda items that may not have been addressed in the Committees. We schedule the meeting of the Donors Support Group, which immediately follows the Board meeting and is intended to inform the donors in Dhaka about the results of the meeting, and to communicate any issues that need to be

communicated between the donor community and the Board. The first hour of the Donors Support Group is an open session that is also open to the staff of the Centre and during this session, the Board Chair and the Director will provide an overview of the Board meeting. Since staff may also be present, it gives a consistent message to all of those concerned.

We welcome you and trust that you will enjoy the monsoon season of Dhaka.

Long Hiatus Since A Board Meeting In Dhaka

There has been an unusual hiatus for the meetings of the Board in Dhaka. The June 2001 meeting was held in Washington DC to coincide with the presentation of the Gates Award for Global Health that was presented on May 31. Then because of the uncertain political climate during the last half of the year, only the Executive Committee met in Dhaka in November 2001. While unfortunate, the Executive Committee did conduct the business of the Centre, and the considerations and the decisions of the EC were sent to all Board members for their approval. This unusual hiatus since the last meeting, along with the joining of several new Board members will make this meeting more eventful than normal. The staff at the Centre will attempt to bring the Board up-to-date with the events of the last year and will attempt to orient the new members in a more deliberate manner, thus the meeting is scheduled for four days rather than the usual three.

Forty million lives saved, and 40 million less people.

The Centre is scheduling a profile-raising event in New York on May 17 to highlight the role of the Centre in the international health arena. One is often asked whether it is wise to invest in health research, and we are able to answer that the discovery of oral rehydration solution (ORS) has saved the lives of an estimated 40 million children around the world since its development. Furthermore, the development of family planning strategies that led to the successful national family planning programmes in Bangladesh has resulted in a marked lowering of fertility in this country. Had the fertility continued at the higher rates, there would be at least 40 million more mouths to feed. During a recent trip to the Philippines, I had the opportunity to talk to one who is an expert in issues of the green revolution and I inquired whether the Philippines was self-sufficient in rice. His reply was striking. "No" he said, "the rice farmers are increasing their production of rice but they cannot keep up with the increase in population. It is a race between the rice production and the population and so far the population is increasing too fast for us." Now that Bangladesh is self-sufficient in rice, one wonders if this could have occurred if the population of population of Bangladesh was 40 million more than it is today.

The "ICDDR,B way" of research

The Centre has developed a certain method for conducting research that may be unique in developing countries. A large number of the research projects are intimately linked to the provision of service. Certainly this has always been the

case for the hospital where medical services are provided to over 100,000 patients per year, and in Matlab where those living within our field area receive considerable benefits from their participation in the research project. This is now extended to the Kamalapur urban project where the interventions being tested require a clinic to detect outcome events, but at the same time, the clinic serves the needs of the families who are participating in the study. One cannot provide service for the specific illness of the study participant without providing services to the other children in the family, and without providing services for other common illnesses that bring families to the clinic. The interlinking of service and research is somewhat more expensive in the short run, but it leads to a partnership between the Centre and the community that in fact makes the research more productive as well as ethical. This is in contrast to the many projects in which research data is collected while not providing any service to those who are the subjects of the research, and given the inherent inequality in position of the researcher and the subject, presents real ethical issues for international health research. The ICDDR,B way is a process that has developed over time, and seems to work well, but given the reputation of the Centre and the trust that communities place in us, it also places an even greater burden on us to maintain the trust and to ensure that the research being conducted is ethical and benefits the community and the study subjects.

Follow-up from the last meeting in November

A few action items from the last meeting in November included the following:

a) We reported that the reclassification of Centre positions was in process. This is one of the important items on the HR agenda. It is now completed and will be discussed in the HR Committee meeting.
b) The duration of contracts for the Centre's international staff is generally for three years, with a maximum of six years, but there has been uncertainty about whether this is an appropriate policy. The Director was to make a recommendation about this issue and report back the Board. This will be discussed at the meeting, but we may need additional time for a firm recommendation.
c) There was a need for clarification of the list of approved International posts and recommendations for the current needs at the Centre. This is now provided in the HR folder.
d) There is always need to balance the budget and extensive information on this is provided in the Finance folder.

Transitions At The Centre

Transitions of senior staff

The Centre nearly always has some transitions in staffing. The changes in senior staff are included below:

- Dr M Abdus Salam is now the acting Division Head of the Clinical Sciences Division following the departure of Prof George Fuchs in June 2001.
- Dr Balakrish Nair was appointed Associate Director and Head of the Laboratory Sciences Division.
- Dr Rob Breiman was appointed Associate Director and Head of the Health Systems and Infectious Disease Division (HSID, formerly HPED).
- Mr Peter Thorpe joined the Centre in August as Head of the Information Sciences Division.
- Mr Stephen Sage joined the Centre in August as Chief Financial Officer. Unfortunately, we regret that he has decided that he will need to leave the Centre in September because of family reasons. A search is underway for his replacement.
- Prof Marian Jacobs will be attending her last Board meeting in June 2002, and the Board will need to identify a new trustee and a new Board Chair.
- Dr Charles Larson, a paediatrician from McGill University joined the Centre as Senior Operations Research Scientist and Head of the Health and Family Planning Systems Programme.

The HR Committee will consider the positions for the LSD, CSD, and HSRD divisions.

Project Transitions

Several of the major grants are ending and new grants are beginning, and the transition between the old and new is not always smooth. Some large and / or significant new projects include the following:

- The conversion of the Operations Research Project (ORP) to the Family Health Research Project (FHRP). This has resulted in a significant decrease in staff, but hopefully a more focused and productive project that involves all divisions of the Centre. By contrast the ORP only involved the one Division. Eight projects are now active under the newly redesigned FHRP, and about 15 new should start soon.
- A five-year grant from DfID on poverty and health is now enabling a major emphasis on this theme, and is also enhancing the resources for the infrastructure of the Centre to pursue this theme.
- The project on low-birth weight is well under way in Matlab with support from UNICEF. We had been awarded a multi-million dollar grant from NIH for co-funding of the low-birth weight study in collaboration with Cornell University, but after more than a year of negotiation with NIH, Cornell with the concurrence of the investigators at the Centre withdrew its application because of conditions that NIH administrators attempted to impose that we felt to be improper.
- A large study on the health effects of arsenic is under way in Matlab with support from the government of Sweden and the WHO. This will identify the quantitative relation between arsenic ingestion in water and the health

consequences such as skin lesions and cancer, internal cancers, other chronic diseases, and reproductive health events (e.g. stillbirths, spontaneous abortions). The arsenic exposure in Bangladesh has been termed the worst mass poisoning in history, and the Centre is uniquely qualified to address critical issues regarding arsenic contamination because the Matlab field area is located in the epicentre of the contamination and because of the long-standing demographic data base that includes cause of death and morbidity.

- The Centre has been conducting studies with the International Vaccine Institute on shigellosis and will soon initiate another study of a new live oral cholera vaccine. Additional studies are being planned with the killed oral cholera vaccine that was proven effective at the Centre in 1985 and is now recommended by WHO.
- Over the last several years, the Centre has established an urban field area in the neighborhood of Kamalapur, near the train station. This is the site for several studies (pneumonia, shigellosis, dengue and influenza vaccines). We anticipate that this urban site will increase in importance for both controlled intervention studies as well as for operations research related to urbanization, urban health services, and urban demography.
- The Chakaria project, characterized as a self-help project, is in the process of undertaking changes that will lead to sustainability as well as the creation of a "health cooperative." This initiative has grown out of the community-based decisions from the community itself.
- Major studies on neonatal mortality are now starting in Sylhet (multiple funding agencies) and another will start soon in Mirzapur (funding from Wellcome Trust).
- The Centre has signed an agreement with the Government of Bangladesh to continue the HIV-AIDS sero-surveillance for the next three years in cooperation with a concurrent behavioural surveillance being organized by FHI. The Centre has also established the first CVT facility in Bangladesh and is looking for ways to provide these services in cooperation with other NGOs involved with HIV control. We expect that prevention of or limitation of the HIV epidemic in Bangladesh will assume an increasingly important role for the Centre.
- The funding for the World Bank-supported Nutrition Centre of Excellence ended in 2001 since it was limited to three years. This has been an immensely important stimulus for the Nutrition Programme at the Centre, and has led to several important new initiatives that will continue on. The Annual Scientific Conference (ASCON) scheduled to start on June 10 will highlight the research from the NCOE, as well as the Bangladesh Integrated Nutrition Project (BINP).
- The Reproductive Health Project funded by the European Union has led to a solid infrastructure for essential obstetric care in Matlab, including a new maternity unit at the Thana Health Complex, and improved government facilities in surrounding unions. It is now in an excellent position for continuing studies on safe motherhood and can be a leader in this area as it has been in the field of family planning earlier.

- The Centre has initiated several new studies in infectious diseases including dengue, sexually-transmitted diseases, tuberculosis, kala azar, and recently malaria. A little-known problem in Bangladesh is the large number (estimated at 15 million) of people who are at risk of resistant *P. falciparum.* One of the most affected areas is our field area in Chakaria (south of Chittagong).

Organization of the Centre

The Centre is organized administratively into five scientific / technical Divisions including the newly-created Information Sciences Division and the Health Systems and Infectious Diseases Division (converted from Health and Population Extension Division). The Centre also has six thematic Programmes that cut across the Divisions, but each is housed in a Division. After a long period of discussions as to the nature and relationships between the Divisions and Programmes, they are now working together in an increasingly cooperative manner, but we will likely always need to work toward an integrated scientific programme.

The Centre carries out its coordinating and decision-making roles through several Committees. The Administrative Council (AC) includes the Heads of each Division, the Associate Director of Policy and Planning, CFO, Head HR, ERID senior staff, and the Consultant on logistics and management. The Scientific Council (SC) includes the same persons as well as each of the Programme Heads. The AC and SC meet on alternating Mondays. Each Monday at 12:30 pm, there is also a Centre Scientific Forum (CSF) where the Divisions and Programmes have a chance to present their work to other staff at the Centre. The Divisions and / or programmes sponsor additional seminars frequently.

The Research Review Committee meets monthly to consider new protocols and other scientific policy issues. Similarly the Ethical Review Committee meets monthly. Official minutes of each of these meetings are maintained. The ERC is recognized with an MPA and FWA with the US government.

Changes in Physical Plant

The facilities have been needing changes to adapt to the increasing needs at the Centre for offices, laboratory and other space. In addition, many of the facilities were up to the standard for an "international standard." When the current main building was constructed, there was funding identified for the basic construction, but not for equipping the building, and so there has been need to improve the space that we occupy. A summary of the major capital improvements since July 2001 is included here.

Work Description	Area	Start Date	Completion Date
Improvements to Animal House.	Animal House	14 May 01	27 July 01
Renovation of space for "Corridor Café"	2nd Floor of Main Building	20 May 01	25 July 01
Installation of false ceiling and lighting in LSD corridor	LSD	25 Jan 02	15 Feb 02
Data Centre for LSD	LSD	5 Jan 02	30 Mar 02
Renovation works in Director's Wing for shifting ER&ID, Travel & Estate and HR	Director's Wing of Main Building	30 Sep 01	25 Feb 02
Rooftop Pavilion	Library / PHSD Building	20 Jul 01	28 Jan 02
Construction of Out Patient building for PSKP clinic and ICDDR, B projects	Out Patient Building	25 Feb 01	12 Dec 02
Renovation of Staff Clinic	Staff Clinic	17 Mar 02	31 May 02
Construction of Diagnostic Unit	Main Building	20 Mar 02	31 May 02
Renovation of CSD project & Division Director's office	Main Building	25 Feb 02	20 April 02
Construction of STD Lab	Main Building	25 Jan 02	31 May 02
Construction of parking area	West of Main Building	02 Jan 02	28 Apr 02
Shifting of PABX and renovation of Reception Area	Lobby of Main Building	20 Apr 02	31 May 02
Replacement of auto transfer switch of stand by generator	Electrical Substation	Nov 01	01 Feb 02
Upgrading the power substation with new 800 KVA transformer	Electrical Substation	02 May 02	June 02

Overview of the financial situation

The good news is that the Centre finished last year (2001) with a positive balance. The cumulative deficit remains at about $2.9 million at years end. This has decreased from $3.9 million (officially) in 1998. The deficit of 1998 included a commitment for deferring charges for the cost of the right-sizing of 1998 (about $550,000) on the assumption that the right-sizing would result in cost savings over the next few years. Unfortunately, the 1998 deficit also included additional expenditures for research under the USAID grant that was not, in fact funded until later, and this added to the financial burden during the last two years. So, we have made remarkable progress in decreasing the cumulative deficit by $1 million over three years (or by $2.5 million depending on how one counts it). Currently, there are no other deferred expenses, and the Centre is on more solid financial footing now, but still has the cumulative deficit than it has been in recent years.

The bad news is that our financial figures are currently forcasting a negative balance for the current year **IF** we do not take action to prevent this. Hence, in spite of good financial years in the last three years, we have concerns about the near future. We will provide an updated financial forecast at the time of the meeting and will provide a plan on how to reduce or eliminate the deficit by years end.

Interestingly, the revenue for our forecast is significantly higher than originally budgeted last November by about $1.4 million. This degree of increase (forecast relative to budget) has not been seen previously and reflects a major increase in project activity – positive sign. Unfortunately, many of the projects do not include common operating costs so that, although they increase our activity, they do not reduce our deficit for the year

One factor that has led to the risk of deficit is the large number of transitions, some of which have left gaps in funding between the time the old projects ended and the start of the new one. In many cases, these gaps represented projects that are high priority and could not be stopped without severely damaging the overall productivity of the Centre or of a priority project. In other cases, there were major delays in start-up of projects beyond that which could have been foreseen, and in two cases an unexpected response from the donor to not adjust for major currency devaluation.

Looking to the future, we face significant obstacles in reducing the deficit at a rate close to that of the last three years. Unless there are significant increases in unrestricted funding, it will be increasingly difficult to further lower the cumulative deficit. This is because the earnings from our reserve account, as well as the endowment were being transferred to the operating fund and these earnings provided a major help in reducing the deficit. The low yields from the reserve fund and the Endowment are unlikely to allow for significant transfers to the operating fund during the next years.

We need to recognize the remarkable commitments from the Dutch and Swiss governments to the core along with the Japanese government who contributed to the Hospital Endowment. While many others contribute to the core funding of the Centre as shown in the financial report, these particular donors' commitment to the institutional strength of the Centre is extremely welcome and timely. Without the unrestricted income, the Centre would not be able to function, and there would be no Centre to carry out the projects. It is unfortunate that so many donors, including many of the leading foundations for international health seem unsupportive of institutional strengthening.

At our New York event on May 17, we will be launching a drive to invite 100 companies to contribute $10,000 to the Centre annually in order to add $1 million to the endowment annually. It will only be through this broad base of additional support that the Centre can become financially stable. I invite

the Board members to assist with this effort to identify companies that would provide this pledge.

Major donors

The Finance Report will provide more detail about the financial situation; however, we should note several major grants during the year. (Many of these were reported to the November meeting).

Bangladesh

The Government of Bangladesh continues to provide core support to the Centre at a level of about $200,000 annually. In addition, the GoB provided a one-off contribution to match that of the Gates Award. ($885,000), thus creating the Gates-Bangladesh fund. We have also been awarded a contract with the GoB for conducting the national sero-surveillance for HIV-AIDS.

Netherlands

The Government of the Netherlands awarded an annual grant of about $1 million (depending on exchange rates) for three years starting this year. The importance of this award is hard to overestimate in terms of providing substantial stability to the work of the Centre.

Switzerland

The Swiss government had been giving the Centre a substantial award each year to various projects at the Centre from its Embassy in Dhaka. This year, they decided to change to the mechanism to provision of a grant of about $500,000 from its headquarters.

Japan

The Government of Japan granted an award of $980,000 in 2001 and this is divided into some different portions, $200,000 of which was designated for the hospital endowment.

USA, Washington

The Government of the USA through USAID had been providing funding through its central office in Washington through a cooperative agreement for Child Health Research. This agreement helps the Centre, not only in providing core and project funding, but also in being an administrative mechanism by which other government agencies can add funds to the Centre's programme. An extension to the Cooperative Agreement was signed in June 2001 for another three years. The amount of the award is expected to be in excess of $900,000 annually depending on availability of funding and the nature of the project work.

USA, Dhaka

The USAID mission has been providing a considerable amount of funding to the Centre primarily through a Cooperative Agreement for the Operations Research Project. In late September, an agreement was reached for a major change in

this project, and it is now called the Family Health Research Project (FHRP). Under this amendment to the Cooperative Agreement, the Project was extended for another five years for a total budget of $15.5 million over this time period. The funds will be used primarily by targeted research protocols that will be developed by scientists in any of the divisions (formerly, only the HPED was involved). The transition of the ORP to FHRP requires many financial and personnel adjustments that are difficult this year, but we anticipate that the revised project will be more productive and will benefit more directly the effectiveness of the Essential Services Package in Bangladesh.

United Kingdom
In consultation with representatives from DfID, the Centre prepared an application to DfID for a five-year project on Poverty and Health at a funding level of one million pounds annually. This grant started in late 2001.

Sweden
We have negotiated a new three-year agreement with SIDA-SAREC for continuation of work in collaboration with Swedish scientists. In addition, the Swedish government has provided additional funds for a project on health effects of arsenic contamination.

Australia
The Australian government has been a consistent donor throughout the history of the Centre; however, there was a major concern that they would no longer be able to continue this practice. The Director made a trip to Canberra in August, and through the efforts of our Board members, the decision was made to continue the contributions at about the same level (Au$ 500,000 annually). A portion (Au$200,000 annually) of the donation will, however, be designated for use in HIV-AIDS research. Two research projects are now being carried out on HIV, and the funds from Australia are also being used in part to fund the flow – cytometer, a necessary large piece of equipment when treating AIDS patients or carrying out research on immunology.

Vaccine-related grants
The Centre has received several grants in the area of vaccine testing. These include grants from the International Vaccine Institute for shigellosis and for testing of a new oral cholera vaccine, a grant from the National Vaccine Programme Office (through USAID) to conduct studies on a new rotavirus vaccine, and a grant from Quintiles for studies of a new nasal influenza vaccine. We anticipate additional vaccine related grants in the near future for work on other vaccines.

Other grants
There are many other grants and awards that deserve attention, and it is not my intent to ignore any. I trust the Board will read the Finance Report that gives more detail. However, the ones mentioned above are larger and support the

infrastructure of the Centre that is critical to the financial and scientific health of the Centre. They are also important because these are multi-year agreements that allow for planning in a more realistic fashion.

Competitive Grants
Of note is the increase in receiving grants based on competition with granting agencies like NIH, Thrasher Foundation, NVPO, private companies, and others. The finance report formerly combined the NIH grants with USAID since both of these come from the US government. They are however different in their implications, and we are now showing them separately.

Decrease in support
Not all the grant news is good. Two major grants are coming to a close with out any logical replacement. The first is the Nutrition Centre of Excellence Grant from the World Bank, amounting to $900,000 annually over the last three years. Unfortunately, this particular grant cannot be extended beyond three years, and the Centre is looking for other sources to maintain the momentum in nutrition research that was stimulated by the NCOE / World Bank grant.

The other disappointment was a major (exceeding $600,000) shortfall in a grant from the European Union, caused primarily by currency devaluation along with some additional administrative problems. The EU was funding major projects in reproductive health and studies on contraceptive use dynamics, and these projects have had to reprogramme their activities severely.

Prospects
While there are many potential prospective grants, one should be highlighted because of their strategic importance. The Centre is scheduled to coordinate the operations research for the National Nutrition Programme (NNP). Unfortunately the start for this has been delayed, but the Centre plans to play an important supportive role with the government in the success of the NNP.

Strategic Planning
Led by Prof Barkat-e-Khuda, the strategic planning process has moved forward and is an important issue for the Board to consider. Since the last Board meeting, the programmes have continued to prepare their inputs into the Plan, the primary outcome of these programme inputs are in the tables that reflect the priorities that each of the programmes is recommending as priorities for the Centre. This last convoluted sentence is only to clarify that there are potential overlapping interests between programmes, and one way to encourage cooperation rather than competition is to ensure that the priorities are Centre priorities and are not "owned" by any one programme.

Some crucial points I would ask the Board to consider about the Strategic Plan include:

Name change for the Centre

The name that is being suggested is the International Centre for Health and Population (ICHAP). This is very similar to the name adopted several years ago, but leaves out the word "research" from the name. The reason for dropping the word "research" from the name is because of the donors perspective that we were only a research organization and were not eligible for funds related to service, technical assistance or training.

Mission / values / vision statements

These statements are always difficult, but hopefully they capture the Centre's spirit. The Board should reflect on these to ensure that they are clearly understood, and do indeed give the right message. Consider that they are a way that we communicate our message to the outside and to our own staff.

Priority Setting

In preparing the Plan, the Programmes spent considerable time discussing the methods for setting priorities, as well as creating tables of higher and lower priority issues. When each of the Programmes brought their priorities to the table, it was clear that there were many overlapping priorities and there was a potential conflict about which Programme was to "own" a given priority. However, the discussion revealed that in fact each of these priority areas were recommendations as Centre priorities, and should not be viewed as overlapping. The fact that multiple programmes recommended them, only added to their importance for the Centre.

Hospital Plans

The Plan also presents a vision for the Hospital as evolving into a self-supporting, teaching and research facility for patients with certain diseases that fit the criteria of being "common, life-threatening, and easily treated". As Melinda Gates indicated in her award banquet speech, "no child should die from an easily prevented or easily treated disease." Our interpretation of this remark is that we need to characterize these "easily-preventable deaths" and build a treatment centre around this concept. In Bangladesh, the common and easily-treated diseases are diarrhoea, pneumonia, severe malnutrition, dengue and malaria. Unfortunately, the primary care system is not equipped to deal with these diseases when they are severe and the hospital care for these cases is too complex to be cost-effective. However, the experience with the ICDDR,B hospital has shown that inexpensive care for diarrhoea or severe malnutrition, if given urgently, can save many lives at a very low cost. It costs the Centre about $10 to provide life saving treatment to patients with severe dehydrating diarrhoea. We feel the same is true for the other common, life-threatening illnesses, but the model for this new type of facility must be developed and be sustainable economically.

Geographic interests for the Centre

In Bangladesh
Where should we carry out our work? Currently, the Centre is based in Dhaka but it has several field areas. New protocols have tended to add additional field areas to the Centre's range, and there is increasing realization that the Centre should concentrate on only a few field areas and not expand to further areas for intensive studies. That is, the Centre has invested heavily in the field areas already in place and we should use them to the maximum extent. This does not prevent surveys in any part of the country that is appropriate, but we should not be starting new field areas with each new protocol.

Outside Bangladesh
Outside Bangladesh, the Centre is conducting a major collaborative project with Nepal. This project to assist with improving the microbiology laboratory services has been going well and could lead to additional projects there. The Centre is interested in developing projects outside Bangladesh, especially in the region, but these will require project and long-term funding.

Also outside Bangladesh, there is need for **consultants** from the Centre to assist with important work. Recently, the Centre has provided consultants to UNICEF, International Vaccine Institute, and to UNAIDS. We have also been in contact with WHO regarding collaboration for outbreak investigations of emerging diseases in the region. We anticipate that the Centre will need to increase its capacity to carry out these regional consultancies.

Management changes

In contrast with rather modest changes in the organogram, the Centre is working toward making changes in management systems to improve efficiency. One change is to decentralize the financial responsibilities, and from a financial perspective, our goal is for each unit of the Centre to become self-supporting, or nearly so. For example, administrative units such as the transport pool, maintenance, travel office, etc. receives core funding, and these costs have been included in the indirect cost pool. In principle, these units are functioning in order to carry out specific tasks and provide resources to the projects, and appropriate charges are made to budget codes using these services. However, the charges have not been sufficient to cover the costs of operating the units. In the future, the units will be run more like small businesses, and they must at least break even in order to stay in business. If they require subsidies from the core, an evaluation will be made to determine if the amount of subsidy is warranted, or if there are ways to economize, or to outsource the service. Our current system monitors costs very accurately, but there is limited ability to make management decisions based on this information since the management decisions were made centrally by persons not having direct knowledge of the unit. Decentralization will require greater responsibility upon those having the most knowledge of the unit.

Major Scientific Activities

The Division Heads will update the Board on the major new initiatives, some major findings from recent studies, and future directions. Many of these are ones that the Board learned about last June, but they include studies on neonatal health, severe malnutrition, zinc deficiency, low birth-weight, pneumonia, tuberculosis, dengue, enteric and respiratory vaccine testing, and HIV-AIDS

Planned Changes in Medical Practice

As a result of some of the Centre's studies, as well as studies carried out in other Centres, we will want to follow-up with the consensus to change the standard ORS to one containing 70 meq of sodium. We will also be advising the national authorities about this anticipated change.

We plan to begin treating diarrhoea patients with zinc. Research from the Centre has shown that zinc treatment decreases the severity and duration of diarrhoea and that children who receive zinc for 14 days have a decreased mortality rate. Operations research is now needed to determine the optimal methods for implementing these findings in our hospital, in clinics and in the community. We will likely need to find an industrial partner to produce the needed dissolvable tablets.

Publications

The Journal of Health Population and Nutrition continues to be published on schedule. We are finding increasing interest in publication of summaries of important meetings. For example, the March 2001 issue reported on the findings of a meeting on community-based IMCI, and the December issue published the consensus of a WHO meeting on zinc treatment for diarrhoea. We expect these reviews and policy statements will increase the interest in the journal and increase its scores.

The Centre's web site is also changing to make it more user-friendly and to provide increased information to the users. We anticipate that this will continue to evolve with the additional staff who are being recruited for this.

Representation of the ICDDR,B Staff Welfare Association (SWA) to The Board of Trustee's meetings, 6-9 June 2002

Welcome!

Hon'ble Chairperson of the ICDDR, B Board of Trustees Prof. Marian Jacobs, respected Trustees, representatives of the Government of Bangladesh, Patron-in-Chief of the Staff Welfare Association, welcome and *Assalamo-alaikum.*

It is my privilege to share the views of the staff of the Centre with the members of the Board of Trustees. I would like to thank the Board, on behalf of the staff of the Centre, for allowing us to discuss matters of mutual interests amid their busy time schedule. I hope the issues that I am going to raise would receive favorable consideration.

1. Staff Salary:

On behalf of the staff of the Centre, I am pleased to express our gratitude to the Board members and the Patron-in–Chief, SWA, for considering salary adjustments during the last three years. This helped the employees to overcome their frustration and lack of confidence on the Centre's policy, the salary adjustment helped them financially and increased their level of confidence and moral. They would remain ever grateful to you all.

However, there are still wide gaps in the salary structure, whether it is determined by UN scale (as prescribed in the ICDDR,B Ordinance) or by the market forces. By any standard, the staff of the Centre are grossly underpaid. Despite the fact, they have been continuing their efforts to accomplish the Centre's goals in promoting health and human welfare world wide. For example the Gate's Global Public Health Award which has been given to the ICDDR,B reflects the contribution of the staff at all levels.

It should be emphasized that the Centre's best strength is its skilled employees, their morale and interest must be protected judiciously against all odds. This will ensure an uninterrupted growth and development of the Centre.

I would therefore, strongly urge upon the Board and the management that they consider a definite plan of action, preferably in cooperation with the staff members, as to how the salary gap could be resolved on a priority basis, in the best possible way, considering the interest of the Centre, its financial situation, staff expectation, and the regulatory issues. Without having such a plan, the future is left to chance and uncertainty with little probability of success.

2. Establishment of promotion criteria for all categories of staff:

(a) **Scientific staff:** Introduction of the **scientific ranking system** has contributed much towards boosting up the morale of the scientific staff of the Centre. The criteria of scientific ranking are again under review and we are expecting that before taking any major decision regarding the promotion of any scientific staff, an uniform criteria will be set up and following the new criteria, next promotion, up-grading or fixing the scientific staff should be considered.

(b) **Non-scientific staff:** Setting up criteria for non-scientific Staff is also in progress. These categories of staff of the Centre work equally hard to perform their assigned duties and responsibilities with the entire satisfaction of their supervisors. There are many staff who have been working in the same Grade for years even for more than 25 years. These staff are deprived and frustrated. Therefore as the setting up of criteria for both scientific and non-scientific staff are in progress, we are expecting that if any promotion is considered following the new criteria, it should be implemented for both the scientific and non-scientific staff simultaneously.

Other pending issues:

There are some important and specific issue that have been brought repeatedly to the notice of the Board for many years now, but little has been done. They are briefly summarized below:

- Introduction of a uniform recruitment policy.
- Review of salary of national versus international staff.
- Review of working hours of employees in GS level I & II.
- Dependent facilities:

  (a) To increase the children allowance from Tk. 500 to 1000.
  (b) Extension of retirement age limit for staff up-to 65 years.
  (c) Extension of age limit for dependent children up-to 25 years. (It may be mentioned that due to session jam in Universities nowadays it takes about 25 years of age to complete the Masters degree).
- Increase of Annual Holidays from 11 to 14 days.
- Three months leave pay at the time of retirement.

It is good to hear that some of these issues are being considered by the current Head of Human Resources. However, we would solicit a fast action in these respects, since little major steps have been taken so far.

Benefits by the SWA to the staff: I would like to bring to your kind attention, the important role that the SWA has been playing in accomplishing the overall goal of the Centre. Through its medical assistance fund, the SWA provides monetary benefit to employees, provides educational funds to staff dependents, organize cultural activities including picnic, annual dinner, farewell to outgoing staff, condolences of deceased staff, construction of mosque in Matlab, and home gardening and fish production in Matlab. Through the Cooperative Society, the SWA has been significantly contributing to staff welfare by its credit programme.

Conclusion: By interacting with management, the SWA also contribute significantly in improving staff relationship with the management with regard to the administrative, financial, and regulatory activities.

We believe that the confidence and trust the SWA and the management are very important for the development of the Centre and we must ensure that our mutual cooperation definitely leads to a productive conclusion in the future.

Thank you.

M. S. Islam

Dr. Md. Sirajul Islam

President, ICDDR, B Staff Welfare Association (SWA)

4/BT/JUNE 2002

FINANCE COMMITTEE

WELCOME TO FINANCE COMMITTEE

ICDDR,B: CENTRE FOR HEALTH & POPULATION RESEARCH

CENTRE
FOR HEALTH AND
POPULATION RESEARCH

BOARD OF TRUSTEES MEETING
FINANCE COMMITTEE

June 8, 2002

ICDDR,B BOARD OF TRUSTEES MEETING

FINANCE COMMITTEE - JUNE 8, 2002 MEETING

AGENDA

1. Approval of Agenda.

2. 2001 Auditors' Report and Audited Financial Statements

3. 2002 Forecast.

4. Appointment of Auditors for 2002.

5. Funds
   a) Hospital Endowment Fund
   b) Centre Endowment Fund
   c) Reserve Fund
   d) Operating Fund

6. Other Items:
   a) Update on Prior Year Issue
   b) Bank Overdraft Facility
   c) Cheque Signatories

7. Draft Resolutions

Tables:

Table 1/1A.	Contributions from Donors 2000 to 2002
Table 2.	Revenue by Sources and Expenditure by Categories 2000 to 2002
Table 3	Unrestricted and Restricted Revenue and Expenditure 2000 to 2002
Table 4/4A .	Donor Contributions by Unrestricted and Restricted Funds 2000 to 2002
Table 5.	Unrestricted Projects/Programs and Management Expenditure 2000 to 2002

Annexure:

A - Report of the Finance Committee of November 2001
B - 2001 Auditors' Report and Audited Financial Statements

2001 AUDITORS' REPORT AND AUDITED FINANCIAL STATEMENTS

The audit was completed and the audit report was signed on March 21, 2002. The audited financial statements are attached as annexure B.

Financial highlights and abridged audited financial statements are included in the Centre's 2001 Annual Report.

The auditors' report includes one qualification. Management does not agree with the qualification for not including the assets and liabilities of "ICDDR,B Employees Separation Payment Fund" as the Centre has no effective control over these funds. The inclusion of such funds in the Centre's Statement of Financial Position would materially distort the true financial position of the Centre.

The joint auditors have issued a letter to management covering minor matters. This letter is available, should any committee member wish to review it.

The audited financial statements do not contain the detailed information which is presented to the Finance Committee. Accordingly, Finance Department has prepared detailed tables included as attachments to this report.

REVENUE

Contributions from Donors and Endowment Fund (Tables 1,3,4,4A) increased from prior year by $162,000, (1.2%) from $13,830,000 to $13,992,000.

	2001 ACTUAL	2000 ACTUAL	INCREASE (DECREASE)
Restricted			
Projects / Programs	9,172,000	9,817,000	(645,000)
Fixed Assets	764,000	611,000	153,000
Endowment Funds	69,000	266,000	(197,000)
	10,005,000	10,694,000	(689,000)
Project -Indirect	1,349,000	1,404,000	(55,000)
Total Restricted	11,354,000	12,098,000	(744,000)
Unrestricted	2,638,000	1,732,000	906,000
Total Contributions	$ 13,992,000	$ 13,830,000	$ 162,000

Restricted Contributions decreased primarily due to less project activities funded by Switzerland-SDC, USAID, NIH, World Bank and absence of transfer from Hospital Endowment Fund. This decline was partially offset by greater funding by Government of Bangladesh, International Vaccine Institute, Japan and UNICEF.

Unrestricted Contributions increased primarily due to the generous contributions from the Netherlands and Switzerland-SDC.

Contributions include a write-off of $109,000 due to the uncertainty of collection of a receivable outstanding since 1998. Collection efforts are continuing and should the donor make payment, receipts will be reflected as revenue in the year received.

Exchange gains and other receipts decreased $52,000, (6.2%) from $833,000 to $781,000.

EXPENDITURE

Operating Cash Expenditure (Tables 3,4,5) decreased by $18,000, (0.1%) from prior year from $14,600,000 to $14,582,000.

	2001 ACTUAL	2000 ACTUAL	INCREASE (DECREASE)
Summary			
Operating Cash Expenditure	14,582,000	14,600,000	(18,000)
Less: Exchange Gain & Other Receipts	781,000	833,000	(52,000)
Net Operating Cash Expenses	$ 13,801,000	$ 13,767,000	$ 34,000
Detail			
Restricted			
Projects / Programs	9,241,000	10,083,000	(842,000)
Fixed Assets	764,000	611,000	153,000
Total Restricted	10,005,000	10,694,000	(689,000)
Unrestricted			
Projects / Programs	2,224,000	1,434,000	790,000
Management	1,572,000	1,639,000	(67,000)
Total Unrestricted	3,796,000	3,073,000	723,000
Net Operating Cash Expenses	$ 13,801,000	$ 13,767,000	$ 34,000

Restricted Expenditure decreased in line with decreased revenues as noted under revenue.

Unrestricted Expenditure in Projects / Programs increased primarily due to absence of transfer from Hospital Endowment Fund, formation of Information Sciences Division, and increased support for Matlab and other PHSD activities.

Unrestricted Expenditure in Management decreased primarily due to the absence of a charge for the Voluntary Severance Program which was incurred in 2000 and was partially offset by increased spending on administrations/personnel and policy/planning.

Net Cash Surplus excluding depreciation increased by $128,000 from prior year from $63,000 to $191,000.

Cumulative Operating Deficit excluding depreciation decreased by $431,000 from prior year from $3,357,000 to $2,926,000. This improvement was comprised of the operating surplus of $191,000 and a transfer of $240,000 from the Reserve Fund to the Operating Fund.

Depreciation increased by $44,000, (4.8%) from $920,000 to $964,000. Cumulative unfunded depreciation, increased by $964,000 from $12,081,000 to $13,045,000.

Total Expenditures including depreciation increased by $26,000, (0.2%) from $15,520,000 to $15,546,000.

2002 FORECAST

REVENUE

Donor and Endowment Funds Contributions (Tables 1,3,4,4A) were budgeted at $13,773,000 and are forecast to increase to $15,165,000. This increase of $1,392,000, (10.1%) is explained by the following table.

Summary	2002 FORECAST	2002 BUDGET	INCREASE (DECREASE)
Operating Cash Expenditure	16,438,000	15,103,000	1,335,000
Less Exchange Gain & Other Receipts	736,000	798,000	(62,000)
Net Operating Cash Expenses	$ 15,702,000	$ 14,305,000	$ 1,397,000
Restricted			
Projects / Programs	9,795,000	8,934,000	861,000
Fixed Assets	848,000	548,000	300,000
Endowment Funds	525,000	400,000	125,000
	11,168,000	9,882,000	1,286,000
Project - Indirect	1,402,000	1,403,000	(1,000)
Total Restricted	12,570,000	11,285,000	1,285,000
Unrestricted	2,595,000	2,488,000	107,000
Total Contributions	$ 15,165,000	$ 13,773,000	$ 1,392,000

Restricted Contributions are forecast to increase significantly due to contributions from the Government of Bangladesh, International Vaccine Institute, Sweden-SIDA/SAREC, DFID, WHO, Thrasher, Centre Endowment Fund and spending of Gates-GoB award funds.

Unrestricted Contributions are forecast to increase primarily due to additional support from USAID / Washington.

2002 FORECAST

EXPENDITURE

Operating Cash Expenditure (Tables 3,4,5) which were budgeted at $15,103,000 are forecast to increase to $16,438,000. This increase of $1,335,000, (8.8%) comprises:

	2002 FORECAST	2002 BUDGET	INCREASE (DECREASE)
Summary			
Operating Cash Expenditure	16,438,000	15,103,000	1,335,000
Less: Exchange Gain & Other Receipts	736,000	798,000	(62,000)
Net Operating Cash Expenses	$ 15,702,000	$ 14,305,000	$ 1,397,000
Detail			
Restricted			
Projects / Programs	10,320,000	9,334,000	986,000
Fixed Assets	848,000	548,000	300,000
Total Restricted	11,168,000	9,822,000	1,286,000
Unrestricted			
Projects / Programs	2,612,000	2,747,000	(135,000)
Management	1,922,000	1,676,000	246,000
Total Unrestricted	4,534,000	4,423,000	111,000
Net Operating Cash Expenses	$ 15,702,000	$ 14,305,000	$ 1,397,000

Restricted Expenditure is forecast to increase comparably with restricted revenue.

Unrestricted Expenditure in Projects / Programs decreased primarily due to additional support from the Gates / GoB award funds.

Unrestricted Expenditure in Management increased primarily due to unplanned costs of hiring and recruitment.

Net Cash Deficit excluding depreciation was budgeted at a deficit of $532,000. This is forecast to worsen by $5,000, (0.9%) to $537,000.

Depreciation which was budgeted at $900,000 is expected to increase by $26,000, (2.9%) to $926,000.

Total Expenditure including depreciation was budgeted at $16,003,000 and is expected to increase by $1,361,000, (8.5%) to $17,364,000.

Net Operating Deficit including depreciation was budgeted at $1,432,000 and is forecast to increase by $31,000, (2.2%) to $1,463,000.

Management is developing specific action steps to reduce the forecast deficit to achieve breakeven level for the year.

APPOINTMENT OF AUDITORS FOR 2002

Price Waterhouse, Kolkata and Hoda Vasi Chowdhury & Co, Dhaka were the joint auditors for 2001.

Price Waterhouse, Kolkata have been the Centre's auditors for the past six years and Hoda Vasi Chowdhury & Co, Dhaka for three year.

The Centre's practice is usually to retain auditors for five to seven years to provide continuity in the audits and minimize audit costs.

Management is recommending the reappointment of Price Waterhouse, Kolkata and Hoda Vasi Chowdhury & Co, Dhaka as joint auditors for the year 2002.

Management is recommending that the audit fee not exceed $15,500, same as 2001.

FUNDS

a) Hospital Endowment Fund

The market value of the Hospital Endowment Fund was $5,160,000 at December 31, 2001. Donations and fund raising activities contributed $274,000 to the fund in 2001. Capital loss, net of interest income and gains, was $362,000 in 2001.

At December 31, 2001 the monies were held in these investments: 67% in money market funds, equity mutual funds and fixed income mutual funds managed by TIAA-CREF in USA; 27% in time deposits with American Express Bank in Singapore; and 6% in equities and debentures in Bangladesh.

No funds were transferred to the Centre's operation in 2001.

b) Centre Endowment Fund

The market value of the Centre Endowment Fund including USAID Endowment Fund was $3,418,000 as at December 31, 2001. There were no contributions to this fund in 2001. Capital loss, net of interest income and gains, was $388,000 in 2001.

All of the monies are invested in money market funds, equity mutual funds, and fixed income mutual funds managed by TIAA-CREF in USA.

During 2001, $69,000 of $74,000 carried over from withdrawal in 2000 were expended for developing research programs. The remaining $5,000 together with $120,000 withdrawn in 2001 will be expended in 2002.

c) Reserve Fund

The balance of the Reserve Fund at December 31, 2001 was $2,007,000. Interest income was $85,000 during 2001. The Reserve Fund is held in time deposits as security by American Express Bank against the Centre's overdraft facility. In 2001, $240,000 was transferred to the Operating Fund to reduce the Centre's cumulative operating deficit.

To continue the reduction of the cumulative operating deficit, management recommends that all funds in excess of $2,000,000 be transferred on an on-going basis to the Operating Fund.

d) Operating Fund

The cumulative operating deficit has declined by $996,000 over the past three years from its maximum of $3,922,000 at the end of 1998 to $2,926,000 at December 31, 2001. Much of this decline resulted from transfer of Reserve Fund earnings accumulated over past years. Current economic forecasts predict significantly lower interest rates over the next several years. Thus, it is unlikely that the primary source of past deficit reduction will continue in the near future. If modest surpluses (eg. 0.5% of revenues) can be achieved, the reduction of deficit to $2,000,000 over the next six years would be a reasonable outcome.

OTHER ITEMS

a) Update on Prior Year Issue

At the June 2001 Board of Trustees meeting, the following issue was reported.

> In 2000, an official from the tax assessing authority raised the issue of taxation on payments to employees when they separate from the Centre. The Centre has, along with a tax consultant, responded indicating that we feel this income is tax exempt. However we hope, the matter will be settled satisfactorily.

In July 2001, Finance Department management and its tax consultant met with representatives of the National Board of Revenue concerning this matter. The NBR staff gave verbal assurance that these payments are tax exempt. Written acknowledgement may be forthcoming.

b) Bank Overdraft Facility

The Centre's current $2 million overdraft facility with American Express Bank, which carries no undrawn commitment fees, will expire on July 13, 2002. Interest rates are the bank's prime rate in the USA and the equivalent rate in Bangladesh. The facility is used for the balance of margins on letters of credit and any overdraft. As a result of the large cumulative deficit of the Centre, there will be an ongoing overdraft requirement to cover operating costs. This overdraft facility is secured by term deposits of the Reserve Fund.

In view of this, management recommends renewing the overdraft agreement of $2 million for the year to July 13, 2003.

By way of Board resolution in June 1995, management may borrow from the Hospital Endowment Fund up to a maximum of $750,000 to cover operating cash requirements. No funds were borrowed during 2001.

c) Cheque Signatories

Currently, outside of the Finance Department, three individuals are authorized as signatories of cheques.

Director	:	David A. Sack, M.D.
Associate Director, P & P	:	Prof. Barket-e-Khuda
Associate Director, PHSD	:	Prof. Lars-Ake-Persson

Over the past year there have been several occasions where Finance operations were hampered by absence of these individuals. Management recommends that cheque signing authority be extended to the following persons:

Associate Director, LSD	:	Dr. G. Balakrish Nair
Associate Director, HSID	:	Robert F. Breiman, M.D.
Head, ISD	:	Peter Thorpe

This authorization is in compliance with the Centre's financial policy:

Operations of all bank accounts require two signatories, who are divided into Group 1 and Group 2.

Group 1	Director Chief Finance Officer Controller, Budget and Costing Controller, General Accounts and Payroll
Group 2	Director, Division Directors

Cheques will be signed and counter-signed by one signatory from each group. The Director can sign for either Group 1 or Group 2.

TABLE - 1

ICDDR,B: CENTRE FOR HEALTH AND POPULATION RESEARCH

CONTRIBUTIONS FROM DONORS 2000 - 2002

(IN US$'000)

DONORS	2000 ACTUAL		2001 ACTUAL		2002 BUDGET		2002 FORECAST		2002-STATUS FIRM	2002-STATUS ESTI.
Revenue Contributions :										
AUSTRALIA - AusAID	357	2.6%	258	1.8%	245	1.8%	207	1.4%	207	
BANGLADESH	497	3.6%	654	4.7%	456	3.3%	824	5.4%	824	
BELGIUM - BADC/ BTC	158	1.1%	240	1.7%	186	1.4%	142	0.9%	142	
CANADA - CIDA	204	1.5%	192	1.4%	192	1.4%	100	0.7%		100
EUROPEAN UNION	910	6.6%	758	5.4%	174	1.3%	265	1.7%	189	76
FORD FOUNDATION	309	2.2%	285	2.0%	201	1.5%	221	1.5%	221	
GATES - GoB AWARD							494	3.3%	494	
INTERNATIONAL VACCINE INSTITUTE			118	0.8%	376	2.7%	526	3.5%	526	
JAPAN	658	4.8%	874	6.2%	982	7.1%	1,016	6.7%	1,016	
NETHERLANDS	238	1.7%	1,011	7.2%	1,004	7.3%	1,006	6.6%	1,006	
SWEDEN - SIDA / SAREC	444	3.2%	509	3.6%	679	4.9%	819	5.4%	819	
SWITZERLAND - SDC	836	6.0%	761	5.4%	524	3.8%	518	3.4%	518	
SWISS RED CROSS	243	1.8%	174	1.2%	185	1.3%	175	1.2%	175	
UNICEF	3	0.0%	218	1.6%	255	1.9%	284	1.9%	284	
UNITED KINGDOM - DFID	759	5.5%	828	5.9%	1,253	9.1%	1,366	9.0%	1,366	
USAID/Dhaka	2,762	20.0%	2,233	16.0%	2,612	19.0%	2,064	13.6%	2,064	
USAID/Washington	2,192	15.8%	2,193	15.7%	1,837	13.3%	2,004	13.2%	1,866	138
USA - NIH	888	6.4%	775	5.5%	566	4.1%	409	2.7%	409	
USA - Other Sources	197	1.4%	152	1.1%	184	1.3%	294	1.9%	294	
WORLD BANK - NCoE	973	7.0%	758	5.4%						
WHO	242	1.7%	176	1.3%	169	1.2%	353	2.3%	353	
HOSPITAL ENDOWMENT FUND	200	1.4%			400	2.9%	400	2.6%	400	
CENTRE ENDOWMENT FUND	66	0.5%	69	0.5%			125	0.8%	125	
ARAB GULF FUND	(18)	-0.1%	(109)	-0.8%						
SAUDI ARABIA	52	0.4%	50	0.4%	50	0.4%	50	0.3%	50	
SRI LANKA	4	0.0%	4	0.0%	4	0.0%	4	0.0%		4
OTHERS (See Table - 1A)	656	4.7%	811	5.8%	1,239	9.0%	1,499	9.9%	1,499	
GRAND TOTAL	**13,830**	**100.0%**	**13,992**	**100.0%**	**13,773**	**100.0%**	**15,165**	**100.0%**	**14,847**	**318**

Note: Where necessary 2000 and 2001 figures have been regrouped to conform with 2002 forecast.

TABLE - 1 A

ICDDR,B: CENTRE FOR HEALTH AND POPULATION RESEARCH

CONTRIBUTIONS FROM DONORS 2000 - 2002

(IN US$'000)

	2000 ACTUAL		2001 ACTUAL		2002 BUDGET		2002 FORECAST		2002-STATUS FIRM	ESTI.
OTHERS :										
AMERICAN EXPRESS FOUNDATION			13	0.1%	13	0.1%				
BGS ARGOSS	10	0.1%								
BDG/DGHS/ARI	3	0.0%								
CANADA/CHC-ASCON	15	0.1%					53	0.3%	53	
CDC - ATLANTA			13	0.1%	63	0.5%	95	0.6%	95	
CIRCLE AROUND THE CENTRE			22	0.2%			50	0.3%	50	
CYTOS PHARMACEUTICAL	49	0.4%	25	0.2%	5	0.0%	3	0.0%	3	
DARTMOUTH COLLEGE			11	0.1%			45	0.3%	45	
DUNCAN BROTHERS	10	0.1%	8	0.1%						
FUTURES GROUP	67	0.5%	(46)	-0.3%						
JAPAN - JICWELS	50	0.4%	80	0.6%	98	0.7%	55	0.4%	55	
JAPAN - EMBASSY			78	0.6%						
JAPAN - UNIVERSITY OF TOKYO			42	0.3%	2	0.0%	25	0.2%	25	
MACRO INTERNATIONAL INC.	(1)	0.0%					34	0.2%	34	
NEW ENGLAND MEDICAL CENTRE	66	0.5%	126	0.9%	81	0.6%	139	0.9%	139	
NESTLE RESEARCH FOUNDATION	20	0.1%	24	0.2%	84	0.6%	75	0.5%	75	
NORWAY - NORAD	4	0.0%								
NORTHFIELD LABORATORIES	18	0.1%								
NOVARTIS	12	0.1%	31	0.2%						
NEWCASTLE UNIVERSITY	63	0.5%	68	0.5%	16	0.1%	14	0.1%	14	
PRAXIS	(4)	0.0%								
SAVE THE CHILDREN	(4)	0.0%								

TABLE - 1 A .

ICDDR,B: CENTRE FOR HEALTH AND POPULATION RESEARCH

CONTRIBUTIONS FROM DONORS 2000 - 2002

(IN US$'000)

	2000 ACTUAL		2001 ACTUAL		2002 BUDGET		2002 FORECAST		2002-STATUS FIRM	ESTI .
PLAN INTERNATIONAL	13	0.1%								
PROCTOR & GAMBLE	1	0.0%								
QUINTILES EAST ASIA PTE. LTD.			10	0.1%	168	1.2%	129	0.9%	129	
SMITHKLINE BEECHAM	49	0.4%	51	0.4%	85	0.6%	60	0.4%	60	
THE INDEPTH NETWORK			10	0.1%	4	0.0%	6	0.0%	6	
THE ROCKEFELLER FOUNDATION	6	0.0%	49	0.4%	140	1.0%	140	0.9%	140	
THRASHER	(51)	-0.4%	52	0.4%	162	1.2%	269	1.8%	269	
TOMEN CORPORATION			17	0.1%			12	0.1%	12	
UCB-OSMOTIC/SIDAC	38	0.3%								
UMEA UNIVERSITY							12	0.1%	12	
UNAIDS	4	0.0%	9	0.1%	6	0.0%	5	0.0%	5	
UNIVERSITY OF BASEL			1	0.0%	24	0.2%	48	0.3%	48	
UNOCAL	35	0.3%	70	0.5%	79	0.6%	95	0.6%	95	
DISASTER / EPIDEMIC :										
AusAID	13	0.1%								
UNOCAL, Cairn, Shell & Occidental	79	0.6%	15	0.1%	155	1.1%	82	0.5%	82	
SDC			5	0.0%	7	0.1%	6	0.0%	6	
OTHERS (SS)	91	0.7%	27	0.2%	47	0.3%	47	0.3%	47	
TOTAL OTHERS	**656**	**4.7%**	**811**	**5.8%**	**1,239**	**9.0%**	**1,499**	**9.9%**	**1,499**	

TABLE - 2

ICDDR,B : CENTRE FOR HEALTH AND POPULATION RESEARCH

REVENUE BY SOURCES AND EXPENDITURE BY CATEGORIES - 2000 TO 2002

(IN US$'000)

	ACTUAL 2000		ACTUAL 2001		BUDGET 2002		FORECAST 2002		INC/(DEC) FORECAST 2002 BUDGET 2002	
REVENUE:										
UNRESTRICTED FUNDS	1,732	11%	2,638	18%	2,488	16%	2,595	15%	107	4%
RESTRICTED - INDIRECT	1,404	10%	1,349	9%	1,403	10%	1,402	9%	(1)	0%
RESTRICTED - PROJECTS / PROGRAMS	10,694	73%	10,005	68%	9,882	68%	11,168	70%	1,286	13%
CONTRIBUTIONS BY DONORS	**13,830**	**94%**	**13,992**	**95%**	**13,773**	**94%**	**15,165**	**95%**	**1,392**	**10%**
EXCHANGE GAINS (NET)	133	1%	120	1%	100	1%	100	1%		
OTHER RECEIPTS	700	5%	661	4%	698	5%	636	4%	(62)	-9%
TOTAL REVENUE	**14,663**	**100%**	**14,773**	**100%**	**14,571**	**100%**	**15,901**	**100%**	**1,330**	**9%**
EXPENDITURE:										
LOCAL SALARIES / WAGES	6,166	42%	6,778	46%	6,674	44%	7,487	46%	813	12%
INTERNATIONAL SALARIES	2,451	17%	2,175	15%	2,779	18%	2,827	17%	48	2%
CONSULTANTS	323	2%	226	2%	217	1%	275	2%	58	27%
MANDATORY COMMITTEES	81	1%	99	1%	104	1%	104	1%		
TRAVEL	583	4%	583	4%	729	5%	620	4%	(109)	-15%
SUPPLIES AND MATERIALS	1,890	13%	1,743	12%	1,924	13%	1,922	12%	(2)	0%
REPAIR AND MAINTENANCE	199	1%	191	1%	163	1%	97	1%	(66)	-40%
RENT, COMMUNICATION AND UTILITIES	454	3%	534	4%	471	3%	410	2%	(61)	-13%
PRINTING AND PUBLICATION	270	2%	250	2%	306	2%	315	2%	9	3%
TRAINING AND FELLOWSHIP	224	2%	174	1%	285	2%	272	2%	(13)	-5%
STAFF DEVELOPMENT	143	1%	75	1%	124	1%	115	1%	(9)	-7%
VOLUNTARY SEVERANCE PROGRAM	288	2%								
OTHER EXPENSES	869	6%	840	6%	670	4%	938	6%	268	40%
TOTAL INTERNAL CASH EXPENDITURE	13,941	95%	13,668	94%	14,446	96%	15,382	94%	936	6%
CAPITAL EXPENDITURE	659	5%	914	6%	657	4%	1,056	6%	399	61%
TOTAL OPERATING CASH EXPENDITURE	**14,600**	**100%**	**14,582**	**100%**	**15,103**	**100%**	**16,438**	**100%**	**1,335**	**9%**
NET CASH SURPLUS/(DEFICIT)	**63**		**191**		**(532)**		**(537)**		**(5)**	**1%**
DEPRECIATION	920		964		900		926		26	3%
NET OPERATING SURPLUS/(DEFICIT)	**(857)**		**(773)**		**(1,432)**		**(1,463)**		**(31)**	**2%**

Note: Where necessary 2000 and 2001 figures have been regrouped to conform with 2002 forecast.

TABLE - 3

ICDDR,B : CENTRE FOR HEALTH AND POPULATION RESEARCH

UNRESTRICTED AND RESTRICTED REVENUE AND EXPENDITURE 2000 TO 2002

(IN US$'000)

	ACTUAL 2000			ACTUAL 2001			BUDGET 2002			FORECAST 2002		
	UNRESTR.	RESTRI.	TOTAL	UNRESTR.	RESTRI.	TOTAL	UNRESTR.	RESTRI.	TOTAL	UNRESTR.	RESTRI.	TOTAL
REVENUE:												
UNRESTRICTED FUNDS	1,732		1,732	2,638		2,638	2,488		2,488	2,595		2,595
RESTRICTED - INDIRECT	1,404		1,404	1,349		1,349	1,403		1,403	1,402		1,402
RESTRICTED - PROJECTS / PROGRAMS		10,694	10,694		10,005	10,005		9,882	9,882		11,168	11,168
CONTRIBUTIONS BY DONORS	**3,136**	**10,694**	**13,830**	**3,987**	**10,005**	**13,992**	**3,891**	**9,882**	**13,773**	**3,997**	**11,168**	**15,165**
EXCHANGE GAINS (NET)	133		133	120		120	100		100	100		100
OTHER RECEIPTS	694	6	700	640	21	661	680	18	698	610	26	636
TOTAL REVENUE	**3,963**	**10,700**	**14,663**	**4,747**	**10,026**	**14,773**	**4,671**	**9,900**	**14,571**	**4,707**	**11,194**	**15,901**
EXPENDITURE:												
LOCAL SALARIES / WAGES	1,795	4,371	6,166	2,349	4,429	6,778	2,878	3,796	6,674	2,903	4,584	7,487
INTERNATIONAL SALARIES	927	1,524	2,451	1,023	1,152	2,175	1,601	1,178	2,779	1,627	1,200	2,827
CONSULTANTS	45	278	323	20	206	226	12	205	217	25	250	275
MANDATORY COMMITTEES	81		81	94	5	99	104		104	104		104
TRAVEL	28	555	583	35	548	583	41	688	729	34	586	620
SUPPLIES AND MATERIALS	732	1,158	1,890	747	996	1,743	692	1,232	1,924	639	1,283	1,922
REPAIR AND MAINTENANCE	48	151	199	88	103	191	45	118	163	33	64	97
RENT, COMMUNICATION AND UTILITIES	220	234	454	346	188	534	263	208	471	237	173	410
PRINTING AND PUBLICATION	132	138	270	153	97	250	155	151	306	153	162	315
TRAINING AND FELLOWSHIP	20	204	224	26	148	174	18	267	285	6	266	272
STAFF DEVELOPMENT		143	143		75	75	50	74	124		115	115
VOLUNTARY SEVERANCE PROGRAM	288		288									
OTHER EXPENSES	309	560	869	294	546	840	254	416	670	238	700	938
INTERDEPARTMENTAL SERVICES	(773)	773		(769)	769		(1,019)	1,019		(963)	963	
TOTAL INTERNAL CASH EXPENDITURE	3,852	10,089	13,941	4,406	9,262	13,668	5,094	9,352	14,446	5,036	10,346	15,382
CAPITAL EXPENDITURE	48	611	659	150	764	914	109	548	657	208	848	1,056
TOTAL OPERATING CASH EXPENDITURE	**3,900**	**10,700**	**14,600**	**4,556**	**10,026**	**14,582**	**5,203**	**9,900**	**15,103**	**5,244**	**11,194**	**16,438**
NET CASH SURPLUS/(DEFICIT)	**63**		**63**	**191**		**191**	**(532)**		**(532)**	**(537)**		**(537)**
DEPRECIATION	920		920	964		964	900		900	926		926
NET OPERATING SURPLUS/(DEFICIT)	**(857)**		**(857)**	**(773)**		**(773)**	**(1,432)**		**(1,432)**	**(1,463)**		**(1,463)**

Note: Where necessary 2000 and 2001 figures have been regrouped to conform with 2002 forecast.

TABLE - 4

ICDDR,B: CENTRE FOR HEALTH AND POPULATION RESEARCH

MAJOR DONOR CONTRIBUTIONS BY UNRESTRICTED AND RESTRICTED FUNDS 2000 - 2002

(IN US$'000)

	2000 - ACTUAL				2001 - ACTUAL				2002 - BUDGET				2002 - FORECAST				2002 - STATUS	
	UNRESTR.	RESTR.	TOTAL	%	UNRESTR.	RESTR.	TOTAL	%	UNRESTR.	RESTR.	TOTAL	%	UNRESTR.	RESTR.	TOTAL	%	FIRM	ESTIM.
UNRESTRICTED FUNDS:																		
AUSTRALIA - AusAID	297		297	2.1%	154		154	1.1%	145		145	1.1%	160		160	1.1%	160	
BANGLADESH	191		191	1.4%	186		186	1.3%	186		186	1.4%	176		176	1.2%	176	
BELGIUM - BADC / BTC	(11)		(11)	-0.1%	64		64	0.5%										
CANADA - CIDA	204		204	1.5%	192		192	1.4%	192		192	1.4%	100		100	0.7%		100
NETHERLANDS	214		214	1.5%	1,004		1,004	7.2%	1,004		1,004	7.3%	1,004		1,004	6.6%	1,004	
SWEDEN - SIDA / SAREC	272		272	2.0%	231		231	1.7%	183		183	1.3%	245		245	1.6%	245	
SWITZERLAND - SDC	252		252	1.8%	524		524	3.7%	524		524	3.8%	518		518	3.4%	518	
UNITED STATES - USAID	275		275	2.0%	338		338	2.4%	200		200	1.5%	338		338	2.2%	200	138
ARAB GULF FUND	(18)		(18)	-0.1%	(109)		(109)	-0.8%										
SAUDI ARABIA	52		52	0.4%	50		50	0.4%	50		50	0.4%	50		50	0.3%	50	
SRI LANKA	4		4	0.0%	4		4	0.0%	4		4	0.0%	4		4	0.0%		4
TOTAL UNRESTRICTED	**1,732**		**1,732**	**12.5%**	**2,638**		**2,638**	**18.9%**	**2,488**		**2,488**	**18.1%**	**2,595**		**2,595**	**17.1%**	**2,353**	**242**
RESTRICTED PROJECTS/PROGRAMS FUNDS:																		
AUSTRALIA - AusAID	3	57	60	0.4%		104	104	0.7%	12	88	100	0.7%	5	42	47	0.3%	47	
BANGLADESH	35	271	306	2.2%	63	405	468	3.3%	37	233	270	2.0%	103	545	648	4.3%	648	
BELGIUM - BADC/ BTC		169	169	1.2%		176	176	1.3%		186	186	1.4%		142	142	0.9%	142	
EUROPEAN UNION - BHARP		910	910	6.6%		758	758	5.4%		174	174	1.3%		265	265	1.7%	189	76
FORD FOUNDATION	37	272	309	2.2%	37	248	285	2.0%	26	175	201	1.5%	29	192	221	1.5%	221	
GATES - GoB AWARD														494	494	3.3%	494	
INTERNATIONL VACCINE INSTITUTE					16	102	118	0.8%	71	305	376	2.7%	101	425	526	3.5%	526	
JAPAN	54	560	614	4.4%	104	759	863	6.2%	92	717	809	5.9%	84	681	765	5.0%	765	
NETHERLANDS	5	19	24	0.2%	1	6	7	0.1%						2	2	0.0%	2	
SWEDEN - SIDA/SAREC	15	157	172	1.2%	37	241	278	2.0%	85	411	496	3.6%	89	485	574	3.8%	574	
SWITZERLAND - SDC	57	527	584	4.2%	20	217	237	1.7%										
SWISS RED CROSS	32	211	243	1.8%	23	151	174	1.2%	24	161	185	1.3%	23	152	175	1.2%	175	
UNITED KINGDOM - DFID (See Table - 4A)	96	663	759	5.5%	87	741	828	5.9%	61	1,192	1,253	9.1%	59	1,307	1,366	9.0%	1,366	
UNDP/UNOPS - Japan	(5)	49	44	0.3%		11	11	0.1%		173	173	1.3%		251	251	1.7%	251	
UNICEF		3	3	0.0%	19	199	218	1.6%	22	233	255	1.9%	25	259	284	1.9%	284	
USAID/Dhaka (See Table - 4A)	503	2,259	2,762	20.0%	393	1,840	2,233	16.0%	506	2,106	2,612	19.0%	378	1,686	2,064	13.6%	2,064	
USAID/Washington -do-	348	1,569	1,917	13.9%	340	1,515	1,855	13.3%	292	1,345	1,637	11.9%	300	1,366	1,666	11.0%	1,666	
USA - NIH -do-	3	885	888	6.4%		775	775	5.5%		566	566	4.1%	1	408	409	2.7%	409	
USA - Other Sources -do-	27	170	197	1.4%	23	129	152	1.1%	15	169	184	1.3%	37	257	294	1.9%	294	
WORLD BANK - NCoE	127	846	973	7.0%	99	659	758	5.4%										
WHO	(1)	243	242	1.7%	1	175	176	1.3%		169	169	1.2%		353	353	2.3%	353	
HOSPITAL ENDOWMENT FUND		200	200	1.4%						400	400	2.9%		400	400	2.6%	400	
CENTRE ENDOWMENT FUND		66	66	0.5%		69	69	0.5%						125	125	0.8%	125	
OTHERS (See Table - 4A)	68	588	656	4.7%	86	725	811	5.8%	160	1,079	1,239	9.0%	168	1,331	1,499	9.9%	1,499	
TOTAL RESTRICTED	**1,404**	**10,694**	**12,098**	**87.5%**	**1,349**	**10,005**	**11,354**	**81.1%**	**1,403**	**9,882**	**11,285**	**81.9%**	**1,402**	**11,168**	**12,570**	**82.9%**	**12,494**	**76**
TOTAL CONTRIBUTIONS	**3,136**	**10,694**	**13,830**	**100%**	**3,987**	**10,005**	**13,992**	**100%**	**3,891**	**9,882**	**13,773**	**100%**	**3,997**	**11,168**	**15,165**	**100%**	**14,847**	**318**

Note: Where necessary 2000 and 2001 figures have been regrouped to conform with 2002 forecast.

TABLE - 4 A
ICDDR,B - CENTRE FOR HEALTH AND POPULATION RESEARCH
MAJOR DONOR CONTRIBUTIONS BY RESTRICTED FUNDS 2000 - 2002

(IN US$'000)

	2000 - ACTUAL				2001 - ACTUAL				2002 - BUDGET				2002 - FORECAST				2002 - STATUS	
	UNRESTR.	RESTR.	TOTAL	%	UNRESTR.	RESTR.	TOTAL	%	UNRESTR.	RESTR.	TOTAL	%	UNRESTR.	RESTR.	TOTAL	%	FIRM	ESTIM.
RESTRICTED FUNDS:																		
UNITED KINGDOM - DFID:																		
- DFID / Equitable Health						79	79	0.6%	56	1,155	1,211	8.8%	56	1,273	1,329	8.8%	1,329	
- DFID / HIV	40	128	168	1.2%		11	11	0.1%						9	9	0.1%	9	
- DFID / Health Economist	11	83	94	0.7%	41	187	228	1.6%	5	37	42	0.3%	3	25	28	0.2%	28	
- DFID / Modernization of Matlab DSS	45	452	497	3.6%	46	464	510	3.6%										
Sub-total	**96**	**663**	**759**	**5.5%**	**87**	**741**	**828**	**5.9%**	**61**	**1,192**	**1,253**	**9.1%**	**59**	**1,307**	**1,366**	**9.0%**	**1,366**	
UNITED STATES:																		
- USAID/Dhaka																		
- ORP/FHRP	503	2,025	2,528	18.3%	393	1,608	2,001	14.3%	506	2,046	2,552	18.5%	378	1,586	1,964	13.0%	1,964	
- JSI		234	234	1.7%		232	232	1.7%		60	60	0.4%		100	100	0.7%	100	
Sub-total	**503**	**2,259**	**2,762**	**20.0%**	**393**	**1,840**	**2,233**	**16.0%**	**506**	**2,106**	**2,612**	**19.0%**	**378**	**1,686**	**2,064**	**13.6%**	**2,064**	
- USAID/Washington																		
- Research and Others	328	1,490	1,818	13.1%	340	1,515	1,855	13.3%	259	1,213	1,472	10.7%	263	1,218	1,481	9.8%	1,481	
- Nepal	20	79	99	0.7%					33	132	165	1.2%	37	148	185	1.2%	185	
Sub-total	**348**	**1,569**	**1,917**	**13.9%**	**340**	**1,515**	**1,855**	**13.3%**	**292**	**1,345**	**1,637**	**11.9%**	**300**	**1,366**	**1,666**	**11.0%**	**1,666**	
- USA - NIH																		
- CASE WESTERN RESERVE UNIVERSITY										96	96	0.7%		88	88	0.6%	88	
- SURVEILLANCE		542	542	3.9%		407	407	2.9%		266	266	1.9%		49	49	0.3%	49	
- UNISERSITY OF MARYLAND & BIOTECH. INSTII.		176	176	1.3%		133	133	1.0%		50	50	0.4%		48	48	0.3%	48	
- MASSACHUSETTS GENERAL HOSPITAL		6	6	0.0%		144	144	1.0%		74	74	0.5%		109	109	0.7%	109	
- RAND CORPORATION		24	24	0.2%														
- STANFORD UNIVERSITY						11	11	0.1%		16	16	0.1%		17	17	0.1%	17	
- UNIVERSITY OF CALIFORNIA - DAVIS	6	49	55	0.4%		2	2	0.0%					1	4	5	0.0%	5	
- UNIVERSITY OF ALABAMA		5	5	0.0%		2	2	0.0%										
- UNIVERSITY OF VIRGINIA	(3)	83	80	0.6%		76	76	0.5%		64	64	0.5%		93	93	0.6%	93	
Sub-total	**3**	**885**	**888**	**6.4%**		**775**	**775**	**5.5%**		**566**	**566**	**4.1%**	**1**	**408**	**409**	**2.7%**	**409**	
- USA other Sources:																		
- UNIVERSITY OF PENNSYLVANIA		12	12	0.1%		16	16	0.1%		12	12	0.1%		4	4	0.0%	4	
- HOWARD HUGHES MEDICAL INSTITUTE		3	3	0.0%	5	43	48	0.3%	5	42	47	0.3%	4	40	44	0.3%	44	
- INTERNATIONAL SCIENCE & TECHNO.INSTI.													22	84	106	0.7%	106	
- OFFICE OF U.S FOREIGN DISASTER ASSTN.		43	43	0.3%		1	1	0.0%		74	74	0.5%		84	84	0.6%	84	
- JOHNS HOPKINS UNIVERSITY	27	112	139	1.0%	18	69	87	0.6%	10	41	51	0.4%	11	45	56	0.4%	56	
Sub-total	**27**	**170**	**197**	**1.4%**	**23**	**129**	**152**	**1.1%**	**15**	**169**	**184**	**1.3%**	**37**	**257**	**294**	**1.9%**	**294**	
RESTRICTED FUNDS: - OTHERS																		
AMERICAN EXPRESS FOUNDATION					3	10	13	0.1%	3	10	13	0.1%						
BGS ARGOSS	2	8	10	0.1%														
BDG/DGHS/ARI		3	3	0.0%														
CANADA/CHC-ASCON		15	15	0.1%										53	53	0.3%	53	
CDC - ATLANTA					3	10	13	0.1%	13	50	63	0.5%	19	76	95	0.6%	95	
CIRCLE AROUND THE CENTRE						22	22	0.2%						50	50	0.3%	50	
CYTOS PHARMACEUTICAL		49	49	0.4%		25	25	0.2%		5	5	0.0%		3	3	0.0%	3	
DARTMOUTH COLLEGE						11	11	0.1%						45	45	0.3%	45	

TABLE - 4 A
ICDDR,B - CENTRE FOR HEALTH AND POPULATION RESEARCH
MAJOR DONOR CONTRIBUTIONS BY RESTRICTED FUNDS 2000 - 2002

(IN US$'000)

	2000 - ACTUAL				2001 - ACTUAL				2002 - BUDGET				2002 - FORECAST				2002 - STATUS	
	UNRESTR.	RESTR.	TOTAL	%	UNRESTR.	RESTR.	TOTAL	%	UNRESTR.	RESTR.	TOTAL	%	UNRESTR.	RESTR.	TOTAL	%	FIRM	ESTIM.
DUNCAN BROTHERS	2	8	10	0.1%	2	6	8	0.1%										
FUTURES GROUP	12	55	67	0.5%	(9)	(37)	(46)	-0.3%										
JAPAN - JICWELS		50	50	0.4%		80	80	0.6%		98	98	0.7%		55	55	0.4%	55	
JAPAN - EMBASSY						78	78	0.6%										
JAPAN - UNIVERSITY OF TOKYO					9	33	42	0.3%		2	2	0.0%	5	20	25	0.2%	25	
MACRO INTERNATIONAL INC.		(1)	(1)	0.0%									7	27	34	0.2%	34	
NEW ENGLAND MEDICAL CENTRE	16	50	66	0.5%	30	96	126	0.9%	19	62	81	0.6%	33	106	139	0.9%	139	
NESTLE RESEARCH FOUNDATION		20	20	0.1%		24	24	0.2%		84	84	0.6%		75	75	0.5%	75	
NORWAY - NORAD		4	4	0.0%														
NORTHFIELD LABORATORIES	4	14	18	0.1%														
NOVARTIS	3	9	12	0.1%	8	23	31	0.2%										
NEWCASTLE UNIVERSITY	15	48	63	0.5%	16	52	68	0.5%	4	12	16	0.1%	3	11	14	0.1%	14	
PRAXIS		(4)	(4)	0.0%														
SAVE THE CHILDREN		(4)	(4)	0.0%														
PLAN INTERNATIONAL		13	13	0.1%														
PROCTOR & GAMBLE		1	1	0.0%														
QUINTILES EAST ASIA PTE. LTD.					2	8	10	0.1%	34	134	168	1.2%	26	103	129	0.9%	129	
SMITHKLINE BEECHAM	10	39	49	0.4%	10	41	51	0.4%	17	68	85	0.6%	7	53	60	0.4%	60	
THE INDEPTH NETWORK						10	10	0.1%		4	4	0.0%		6	6	0.0%	6	
THE ROCKEFELLER FOUNDATION		6	6	0.0%	2	47	49	0.4%	21	119	140	1.0%	17	123	140	0.9%	140	
THRASHER	(3)	(48)	(51)	-0.4%	3	49	52	0.4%	10	152	162	1.2%	17	252	269	1.8%	269	
TOMEN CORPORATION					3	14	17	0.1%					2	10	12	0.1%	12	
UCB-OSMOTIC/SIDAC	7	31	38	0.3%														
UMEA UNIVERSITY														12	12	0.1%	12	
UNAIDS		4	4	0.0%		9	9	0.1%		6	6	0.0%		5	5	0.0%	5	
UNIVERSITY OF BASEL						1	1	0.0%		24	24	0.2%		48	48	0.3%	48	
UNOCAL		35	35	0.3%	4	66	70	0.5%	8	71	79	0.6%	16	79	95	0.6%	95	
DISASTER / EPIDEMIC :																		
AusAID		13	13	0.1%														
UNOCAL, Cairn, Shell & Occidental		79	79	0.6%		15	15	0.1%	31	124	155	1.1%	16	66	82	0.5%	82	
SDC						5	5	0.0%		7	7	0.1%		6	6	0.0%	6	
OTHERS (SS)		91	91	0.7%		27	27	0.2%		47	47	0.3%		47	47	0.3%	47	
TOTAL RESTRICTED - OTHER	**68**	**588**	**656**	**4.7%**	**86**	**725**	**811**	**5.8%**	**160**	**1,079**	**1,239**	**9.0%**	**168**	**1,331**	**1,499**	**9.9%**	**1,499**	

TABLE - 5
ICDDR,B : CENTRE FOR HEALTH AND POPULATION RESEARCH
UNRESTRICTED PROJECTS/ PROGRAMS AND MANAGEMENT EXPENDITURE 2000 TO 2002

(IN US$ '000)

	ACTUAL 2000				ACTUAL 2001				BUDGET 2002				FORECAST 2002			
	GROSS COSTS	RECOVERY	NET COSTS	%	GROSS COSTS	RECOVERY	NET COSTS	%	GROSS COSTS	RECOVERY	NET COSTS	%	GROSS COSTS	RECOVERY	NET COSTS	%
PROJECTS/ PROGRAMS																
CLINICAL SCIENCES:																
DHAKA HOSPITAL	1,223	(622)	601	**4.4%**	1,390	(415)	975	**7.1%**	1,457	(653)	804	**5.6%**	1,380	(698)	682	**4.3%**
DIVISIONAL	140	(44)	96	**0.7%**	60	(58)	2	**0.0%**	221	(58)	163	**1.1%**	177	(63)	114	**0.7%**
PUBLIC HEALTH SCIENCES:																
MATLAB CLINICAL RESEARCH	334	(140)	194	**1.4%**	373	(137)	236	**1.7%**	381	(135)	246	**1.7%**	360	(125)	235	**1.5%**
MATLAB ADMINISTRATION	331	(128)	203	**1.5%**	308	(120)	188	**1.4%**	314	(137)	177	**1.2%**	273	(99)	174	**1.1%**
MATLAB COMMUNITY RESEARCH	95	(1)	94	**0.7%**	184		184	**1.3%**	262		262	**1.8%**	221		221	**1.4%**
DIVISIONAL	173		173	**1.3%**	315		315	**2.3%**	386		386	**2.7%**	446		446	**2.8%**
HEALTH & DEMOGRAPHIC SURVEILLANCE	43		43	**0.3%**	30	(1)	29	**0.2%**	80		80	**0.6%**	86		86	**0.5%**
LABORATORY SCIENCES:																
LABORATORY SERVICES	1,010	(1,189)	(179)	**-1.3%**	956	(1,104)	(148)	**-1.1%**	1,253	(1,218)	35	**0.2%**	1,086	(1,122)	(36)	**-0.2%**
DIVISIONAL	120	(120)			120	(120)			113	(113)			120	(120)		
HEALTH & POPULATION EXTENSION/HSID:																
DIVISIONAL					85		85	**0.6%**	364		364	**2.5%**	455	(1)	454	**2.9%**
INFORMATION SCIENCES:																
DISC	206	(25)	181	**1.3%**	280	(21)	259	**1.9%**	281	(37)	244	**1.7%**	275	(30)	245	**1.6%**
TRAINING & DISSEMINATION	147	(137)	10	**0.1%**	153	(108)	45	**0.3%**	137	(222)	(85)	**-0.6%**	146	(211)	(65)	**-0.4%**
COMPUTER SERVICES	94	(76)	18	**0.1%**	162	(108)	54	**0.4%**	163	(92)	71	**0.5%**	145	(89)	56	**0.4%**
TOTAL PROJECTS/PROGRAMS	**3,916**	**(2,482)**	**1,434**	**10.5%**	**4,416**	**(2,192)**	**2,224**	**16.1%**	**5,412**	**(2,665)**	**2,747**	**19.0%**	**5,170**	**(2,558)**	**2,612**	**16.6%**
MANAGEMENT																
DIRECTOR'S BUREAU	336		336	**2.4%**	302	(1)	301	**2.2%**	318		318	**2.2%**	319		319	**2.0%**
EXTERNAL RELATIONS & INSTITUTIONAL DEV.	75		75	**0.5%**	84		84	**0.6%**	215		215	**1.5%**	229		229	**1.5%**
POLICY AND PLANNING	37		37	**0.3%**	149		149	**1.1%**	149		149	**1.0%**	152		152	**1.0%**
BoT & COMMITTEES	100		100	**0.7%**	108		108	**0.8%**	121		121	**0.8%**	119		119	**0.8%**
ADMINISTRATION & PERSONNEL	856	(336)	520	**3.8%**	967	(323)	644	**4.6%**	807	(344)	463	**3.2%**	836	(349)	487	**3.1%**
FINANCE	334	(15)	319	**2.3%**	387	(44)	343	**2.5%**	366	(17)	349	**2.4%**	484	(39)	445	**2.8%**
VOLUNTARY SEVERANCE PACKAGE	288		288	**2.1%**												
OTHER	302	(338)	(36)	**-0.3%**	263	(320)	(57)	**-0.4%**	315	(254)	61	**0.4%**	367	(196)	171	**1.1%**
TOTAL MANAGEMENT	**2,328**	**(689)**	**1,639**	**11.8%**	**2,260**	**(688)**	**1,572**	**11.4%**	**2,291**	**(615)**	**1,676**	**11.5%**	**2,506**	**(584)**	**1,922**	**12.3%**
TOTAL PROJECTS/PROGRAMS AND MANAGEMENT	**6,244**	**(3,171)**	**3,073**	**22.3%**	**6,676**	**(2,880)**	**3,796**	**27.5%**	**7,703**	**(3,280)**	**4,423**	**30.9%**	**7,676**	**(3,142)**	**4,534**	**28.9%**
TOTAL CONTRIBUTIONS			**13,830**				**13,992**				**13,773**				**15,165**	
LESS: UNRESTRICTED FUNDS*			3,073	**22.3%**			3,796	**27.5%**			4,423	**30.9%**			4,534	**28.9%**
RESTRICTED FUNDS*			10,694	**77.7%**			10,005	**72.5%**			9,882	**69.1%**			11,168	**71.1%**
NET OPERATING CASH EXPENSES			**13,767**	**100.0%**			**13,801**	**100.0%**			**14,305**	**100.0%**			**15,702**	**100.0%**
NET CASH SURPLUS/(DEFICIT)			**63**				**191**				**(532)**				**(537)**	

Note: Where necessary 2000 and 2001 figures have been regrouped to conform with 2002 forecast.

* Net of Other Receipts and Exchange Gains.

Minutes of the Finance Committee
Saturday 10 November 2001
1:30pm

Present:

Executive Committee

Prof Marian Jacobs	Chair of the Board
Prof Azad Khan	Chair, Finance Committee
Mr Rolf Carriere	
Prof David Sack	Director

Absent (with regrets):
Dr Ricardo Uauy Dagach

Invited:
Division Heads, CFO, Acting Head HR, Ms Vanessa Brooks (ER&ID), Dr Ishtiaque Zaman (ER&ID), Ms Shamima Moin, Mr M A Samad, Mr SK Abdul Matin (Finance personnel).

Minute Secretary:
Mrs Judith Bennett Henry

Prof Jacobs invited Mr Stephen Sage CFO to present the Finance report.

Mr Sage stated that he was pleased to be at the Centre and thanked the Trustees, Director and staff for their patience and understanding for his delayed arrival. He looked forward to a rewarding relationship with ICDDR,B.

2001 Forecast

The 2001 forecast showed a revenue of US$14,136,000 in donors' contribution which was US$365,000 (2.5%) less than the budget approved in November 2000. For items with a change of more than US$100,000, contributions showed reduced revenues from AusAid, European Union, USAID-Dhaka, oil companies (for disasters), the Hospital Endowment Fund (HEF). This was offset by increased contributions from Netherlands government, SDC-Switzerland, Thrasher Foundation, the Bangladesh government.

Unrestricted contributions for core totalled US$2,738,000 forecast for 2001 compared to US$1,810,000 budgeted for 2001. This showed an increase of US$928,000 (51%). Mr Sage stressed that the Centre must continue to press for unrestricted funds as well as it needs to internally generate core funds.

Expenditures against 2001 budget were US$13,956,000 cash basis which was US$435,000 (3.0%) less than budget. These covered increased vs budget, local salaries and capital expenditures and were offset by international salaries, supplies and materials.

Surplus is forecasted to be $180,000 compared to budget of $110,000 for 2001. This reduces the cumulative deficit to less than $3,000,000 which is a reduction of over $1,000,000 in the past three years.

2002 Budget

The 2002 budget forecast showed revenue from contributions totaling US$13,773,000 which was US$363,000 (2.6%) less than 2001. Contributions to 2002 budget showed reduced revenues vs 2001 from European Union and World Bank which was offset by increased contributions from USAID-Dhaka, DfID, AusAID.

The ten (10) largest donors contributed US$10,313,000 to the 2002 budget which was 75% of the total budget. The same 10 contributed US$9,843,000 in 2001, 69% of the total budget. Mr. Sage urged that the Centre expand its donor base to avoid any possible crisis should a major donor decide to change its funding policy or orientation.

Unrestricted contributions for core for 2002 showed US$2,488,000 budgeted vs US$2,738,000 forecast for 2001, a decrease of US$250,000 (9%).

Expenditures for 2002 were forecast at US$14,305,000 or US$349,000 (2.5%) more than 2001. Mr. Sage stated that for the Centre to break even in 2002, it would need to decrease the deficit by US$532,000. The budget was prepared on a conservative basis including only finalized agreements.

Although the budget shows a deficit, management is confident that projects in progress will yield contributions to the 2002 budget to at least breakeven. This is similar to 1999 and 2000 when deficit budgets were presented the previous November and actual results yielded a surplus.

Hospital Endowment Fund(HEF)

The HEF received contributions of US$252,000 through 30 Sept 2001. A new fund manager was engaged in September 2001 – Morgan Stanley was replaced by TIAA-CREF. The HEF saw an 8% decline in market value; 94% of the HEF is in money market funds pending stability of the market. Management is recommending a withdrawal of $200,000 as of 31 December 2001 for operating costs of the Hospital in 2002.

Centre Endowment Fund

The Fund received no contribution through 30 Sept 2001. A new fund manager was engaged in September. The Fund saw a 13% decline in market value in 2001. The Fund is invested with TIAA-CREF and currently held in money market aaccount. Mr Sage requested Board approval to transfer US$120,000 from Centre Endowment Fund for project development funds. (The reason this fund declined more than the HEF was that more was invested in equities and bonds. Some of the HEF was in time deposits and were protected from the market decline).

Gates/Government of Bangladesh Award

Mr. Sage pointed out that the Gates Award (US$1m) and the Government of Bangladesh matching funds (US$885,000) were not represented in the budget. The Gates fund is invested in short-term time deposits and is projected to earn approx US$14,000 in 2001. The GOB recently released the matching fund. The award monies are being held pending instruction from the Board. A plan for this fund is being presented (see Annex 1).

Strategic Plan

On Strategic Plan issues, the Finance Office is involved in several activities:

- Common operating costs which would be identified in all projects with an indication of portion contributed by project and portion contributed by core funds. This would allow tracking to inform core donors of projects funded by their contributions.
- MIS review to test the capabilities of the finance MIS as well as of the current system and identify improvements needed.
- Audit of indirect costs for USAID reimbursement which is required periodically to maintain ongoing funding and which will effect future common operating costs.
- Plans to service units on a business basis i.e. to identify service support units, develop a business model with the aim to implement with specific support services e.g. transport pool, hospital lab.

It was noted that the local currency of Bangladesh was devalued by 4.8% resulting in some gain to the Centre. However, the grant from the EU was negatively impacted by the weakening of the Euro against the dollar in 2001.

Prof Jacobs thanked Mr. Sage for his presentation.

Discussion:

Prof. Azad Khan stated that the Gates/Bangladesh funds should directly benefit the children of Bangladesh. It was discussed that Mrs. Melinda Gates' statement in her speech at the award ceremony that no child should die of an easily prevented disease should be taken as the guiding principle. It was suggested that the speech should be looked over and a brochure prepared explaining the use of the funds in keeping with the spirit of the award.

It was further discussed that in an effort to diversify funding sources, the Centre may consider using some of the award to create something innovative. It was suggested that corporate as well as individual donors should be targeted. Ms Brooks felt that to advance the profile of the Centre to corporations and individuals, it was crucial that the Centre change its name. It was equally important to avoid quirky or catchy names and to settle on one which projects the Centre in a more sophisticated, international way.

Mr. Sage affirmed that TIAA-CREF did offer accounts targeted to individuals, corporations and organizations with a social and humanitarian agenda and that the endowment funds were to be invested in these funds.

It was suggested that the Centre should give a higher profile to donors of unrestricted funds. Prof Jacobs also suggested that the Centre should institute a mechanism for tracking donor policy. Prof Sack confirmed that the ER&ID office receives electronic mailing with updated information on donor policy.

Prof Jacobs suggested that the Centre consider income-generation activities through sale of services such as the laboratories; rental of accommodation; ICDDR,B guesthouse.

Prof Jacobs thanked Mrs. Moin, Mr. Samad and Mr. Matin for managing the Finance Office until Mr. Sage's arrival. She declared the Finance Committee closed.

Draft resolutions of the Finance Committee

The Committee resolved to present the following draft resolutions to the Board for its approval:

2/BT/NOV/01

The Board authorises Mr. Stephen Sage, acting in his capacity as Chief Finance Officer (CFO) to sign cheques on behalf of the Centre, and the Board withdraws its previous authorisation of Mr. Winklemann as signatory.

3/BT/NOV/01

The Board authorizes the transfer from the Reserve Fund to the operating Fund of all monies in excess of $2,000,000 at December 31, 2001 to further reduce the cumulative deficit.

4/BT/NOV/01

The Board approves that the previously authorised transfer of $200,000 from the Hospital Endowment Fund in 2001 may be carried over into 2002 as deemed necessary by the Director; and also authorises $200,000 to be transferred from the Hospital Endowment Fund to operations in 2002.

5/BT/NOV/01

The Board authorises the transfer of up to $120,000 from the Centre Endowment Fund in 2001 and that such unexpended monies may be carried over into 2002.

6/BT/NOV/01

The Board authorizes opening an account with TIAA-CREF Trust Company for the Hospital Endowment Fund as per the attached certificate (Annex 2).

7/BT/NOV/01

The Board endorses the budget for the award funds (from the Gates Global Health Award and the matching award from the Government of Bangladesh) as presented by the Director in the memo of 4 Nov. Further, it encourages the Centre to utilize these funds and the work carried out as a result to popularize these two awards.

AUDITORS' REPORT

TO THE BOARD OF TRUSTEES OF INTERNATIONAL CENTRE FOR DIARRHOEAL DISEASE RESEARCH, BANGLADESH

We have audited the accompanying Statement of Financial Position of INTERNATIONAL CENTRE FOR DIARRHOEAL DISEASE RESEARCH, BANGLADESH (ICDDR,B) as of December 31, 2001 and the related Statements of Activity (Operating Fund) and Cash Flows for the year then ended. These financial statements are the responsibility of ICDDR,B's management. Our responsibility is to express an opinion on these financial statements based on our audit.

We conducted our audit in accordance with generally accepted auditing standards. Those standards require that we plan and perform the audit to obtain reasonable assurance as to whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial presentation. We believe that our audit provides a reasonable basis for our opinion.

As explained in Note 17, $10,317,620 being the accumulated balance of the "ICDDR,B Employees Separation Payment Fund" at December 31, 2001 and invested with Generali Worldwide Insurance Company Limited of Guernsey, Channel Islands has not been recognised in these accounts.

Except for the matter referred to in the immediately preceding paragraph in our opinion, the financial statements referred to above, together with the notes thereon, present fairly, in all material respects, the financial position of ICDDR,B as of December 31, 2001 and the results of its activities and its cash flows for the year then ended, in conformity with the accounting policies disclosed in Note 2.

Hoda Vasi Chowdhury & Co
Chartered Accountants

Price Waterhouse
Chartered Accountants

Dhaka, March 21, 2002

INTERNATIONAL CENTRE FOR DIARRHOEAL DISEASE RESEARCH, BANGLADESH

STATEMENT OF FINANCIAL POSITION
AS AT DECEMBER 31, 2001

	Note	2001	2000
FIXED ASSETS:			
Cost	3	17,919,222	16,969,270
Less: Accumulated depreciation	3	13,002,578	12,081,245
		4,916,644	4,888,025
CURRENT ASSETS:			
Inventories	4	475,565	460,255
Accounts receivable			
Donors	5	1,698,151	1,138,998
Others	6	584,093	647,140
Hospital Endowment Fund investments	14	5,160,137	5,246,080
Centre Endowment Fund investments	16	3,418,192	3,926,617
Cash and bank balances	7	2,019,380	1,652,375
Deposits with bank against Reserve Fund	8	2,007,408	2,162,147
		15,362,926	15,233,612
LESS: CURRENT LIABILITIES:			
Contributions received in advance	5	5,062,595	3,996,533
Accounts payable	9	2,640,257	3,180,372
		7,702,852	7,176,905
NET CURRENT ASSETS		7,660,074	8,056,707
TOTAL NET ASSETS	US$	12,576,718	12,944,732

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INTERNATIONAL CENTRE FOR DIARRHOEAL DISEASE RESEARCH, BANGLADESH

STATEMENT OF FINANCIAL POSITION
AS AT DECEMBER 31, 2001 (Cont.)

	Note	2001	2000
REPRESENTED BY:			
Fixed Assets Fund	10	4,916,644	4,888,025
Fixed Assets Acquisition and Replacement Fund	11	–	78,107
Hospital Endowment Fund	15	5,160,137	5,246,080
Centre Endowment Fund	16	3,418,192	3,926,617
Reserve Fund	12	2,007,408	2,162,147
Operating Fund	13	(2,925,663)	(3,356,244)
TOTAL FUNDS		US$ 12,576,718	12,944,732

The accompanying notes 1 to 21 are an integral part of these Financial Statements.

Director
ICDDR,B

Member
Board of Trustees

This is the Statement of Financial Position referred to in our report of same date.

Hoda Vasi Chowdhury & Co
Chartered Accountants

Price Waterhouse
Chartered Accountants

Dhaka, March 21, 2002

INTERNATIONAL CENTRE FOR DIARRHOEAL DISEASE RESEARCH, BANGLADESH

STATEMENT OF ACTIVITY (OPERATING FUND)

FOR THE YEAR ENDED DECEMBER 31, 2001

	Note	2001	2000
REVENUE			
Contributions	5	13,992,524	13,830,289
Exchange gains (net)		119,798	132,872
Other receipts	19	660,880	700,334
		14,773,202	14,663,495
EXPENDITURE			
Salaries and benefits - local		6,777,843	6,166,052
Salaries and benefits - international		2,175,830	2,450,536
Voluntary severance package		—	288,019
Consultancy		226,023	322,749
Mandatory committees	18	98,788	80,951
Travel		582,790	582,496
Supplies and materials		1,742,896	1,890,740
Repairs and maintenance		191,114	198,374
Rent, communication and utilities		533,689	454,259
Printing and publications		249,777	270,791
Other expenditure	20	1,089,395	1,236,048
Capital expenditure (net)	2(e)& 10	914,166	659,214
		14,582,311	14,600,229
SURPLUS FOR THE YEAR BEFORE DEPRECIATION		190,891	63,266
ADD: Depreciation for the year	2(e)& 3(b)	(963,964)	(919,906)
DEFICIT FOR THE YEAR AFTER DEPRECIATION	US$	(773,073)	(856,640)

The accompanying notes 1 to 21 are an integral part of these Financial Statements.

Director
ICDDR,B

Member
Board of Trustees

This is the Statement of Activity (Operating Fund) referred to in our report of same date.

Hoda Vasi Chowdhury & Co
Chartered Accountants

Price Waterhouse
Chartered Accountants

Dhaka, March 21, 2002

INTERNATIONAL CENTRE FOR DIARRHOEAL DISEASE RESEARCH, BANGLADESH

STATEMENT OF CASH FLOWS

FOR THE YEAR ENDED DECEMBER 31, 2001

		2001	2000
CASH FLOWS FROM OPERATING ACTIVITIES			
Deficit of revenues over expenses after depreciation		(773,073)	(856,640)
Adjustments to reconcile net cash from operating activities			
Depreciation		963,964	919,906
Loss on disposal of fixed assets		12	—
Decrease/(Increase) in assets			
Accounts receivable			
Donors		(559,153)	7,470
Others		63,047	(69,084)
Inventories		(15,310)	(46,344)
Increase/(Decrease) in liabilities			
Donors' contribution received in advance		1,066,062	(1,107,713)
Accounts payable		(540,115)	999,819
		205,434	(152,586)
Decrease in deferred revenue expenditure		—	288,019
Cash surplus from operating activities		205,434	135,433
CASH FLOWS USED IN INVESTMENT ACTIVITIES			
Acquisition of fixed assets		(992,595)	(659,214)
Interest on Reserve Fund deposits		85,261	97,296
Net cash used in investment activities		(907,334)	(561,918)
CASH FLOWS FROM FINANCING ACTIVITIES			
Capital expenditure out of			
Project funds		763,645	611,709
Central funds		150,521	47,505
Net cash from financing activities		914,166	659,214
Net increase in cash and equivalents	US$	212,266	232,729
Cash and equivalents beginning of year	US$	3,814,522	3,581,793
Cash and equivalents end of year	US$	4,026,788	3,814,522

Director
ICDDR,B

Member
Board of Trustees

This is the Statement of Cash Flows referred to in our report of same date.

Hoda Vasi Chowdhury & Co
Chartered Accountants
Dhaka, March 21, 2002

Price Waterhouse
Chartered Accountants

INTERNATIONAL CENTRE FOR DIARRHOEAL DISEASE RESEARCH, BANGLADESH

NOTES TO THE FINANCIAL STATEMENTS
AS AT DECEMBER 31, 2001

1. NATURE OF ACTIVITIES

The International Centre for Diarrhoeal Disease Research, Bangladesh ("Centre") was established in 1978 by an Ordinance of the Government of The People's Republic of Bangladesh to provide for the establishment of an international Centre in Bangladesh with multinational scientific collaboration and financial contributions to conduct research in diarrhoeal diseases and the directly related subjects of nutrition and fertility with special relevance to developing countries and for matters ancillary thereto. The activities of the Centre are mainly funded by various Governments and international organisations.

2. SIGNIFICANT ACCOUNTING POLICIES

a) These financial statements have been prepared on a going concern basis, in accordance with generally accepted accounting principles on the historical cost convention and in the manner as prescribed and approved by the Board of Trustees.

b) "Revenue" and "Expenditure" of the Centre for the year have been accounted for on an accrual basis.

c) Contributions have been considered as revenue on the following bases:

Central funds have been accounted for to the extent they relate to the current period and those pertaining to future periods have been carried forward.

Project funds received during the year but not expended have been carried forward as contributions received in advance. Correspondingly, amounts equal to the expenses incurred but not yet reimbursed by donors have been treated as contributions receivable. Project funds include overhead recoveries at the rate provided for in the various donor agreements.

d) Grants in kind by way of various services rendered by different donors and those directly paid by donor(s) to other organisation(s) and institution(s) for project/service work carried out by them on behalf of the Centre have not been considered in these accounts.

e) Fixed assets acquired up to August 1981 have been brought to account at material cost only. Subsequent thereto incidental expenses such as labour, freight, insurance, etc. have also been taken into consideration in arriving at the cost of fixed assets. However, in effect the capital expenditure (expenditure on project and central support facilities and equipment) is expensed in the year in which it is incurred and the fixed assets (items costing more than $200) are recognised in the accounts with a corresponding contra account titled "Fixed Asset Fund". Depreciation on fixed assets is calculated on the "Straight line" method based on the estimated useful life of such assets without any effect on the Operating Fund (Refer Note 13).

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2. **SIGNIFICANT ACCOUNTING POLICIES** (Cont.)

f) Inventories are valued at invoice price plus incidental expenses such as labour, freight, insurance, etc. Inventories issued at weighted average cost to service centres are expensed when issued. The stock of such items remaining unconsumed at the year end and not considered significant are not included in the closing stock. However, closing inventories at Matlab Health Complex are accounted for.

g) Endowment Funds:

Investments are valued at cost or market value, whichever is lower.

Interest on investment in government securities is recognised in the accounts on realisation basis.

The Board of Trustees may authorise the amount of funds to be withdrawn from the endowment funds to a maximum of five percent of the balance of the funds at the end of the previous year.

h) Currency conversion of non-US currencies to US dollars:

Advances, liabilities and cash and bank balances are translated into US dollars at the prevailing year end exchange rates.

All items other than those stated above are translated into US dollars at the rates of exchange prevailing at the beginning of that month.

The exchange rates used for the currency conversion are calculated on the prevailing average of the buying rates of "Telegraphic Transfer Clean" and "On Demand Transfer" as published by Centre's bank and are as follows:

Currency	Average monthly exchange rate	Year end exchange rate	
	2001	2001	2000
	Taka	Taka	Taka
US $ 1.00	55.3442	56.3625	53.7200
UK £ 1.00	79.5216	81.1508	79.8011
EURO 1.00	48.8813	48.9678	49.8038

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3. **FIXED ASSETS**

PARTICULARS		COST At January 1 2001	COST Additions/ (Adjustments) in 2001	COST At December 31, 2001	DEPRECIATION At January 1 2001	DEPRECIATION Additions/ (Ajdustments) in 2001	DEPRECIATION At December 31, 2001	NET At December 31, 2001
Freehold land		85,508	-	85,508	-	-	-	85,508
Buildings		5,555,654	19,612	5,575,266	2,499,839	108,744	2,608,583	2,966,683
Equipment		9,911,424	749,509	10,660,933	8,378,807	771,794	9,150,601	1,510,332
Furniture		162,182	6,297	168,479	150,548	3,497	154,045	14,434
Vehicles		1,236,038	(40,963)	1,195,075	1,052,051	37,298	1,089,349	105,726
		16,950,806	734,455	17,685,261	12,081,245	921,333	13,002,578	4,682,683
Capital work in progress		18,464	215,497	233,961	-	-	-	233,961
2001	US$	16,969,270	949,952	17,919,222	12,081,245	921,333	13,002,578	4,916,644
			(a)			(b)		
2000	US$	16,310,056	659,214	16,969,270	11,161,339	919,906	12,081,245	4,888,025

(a) External additions and disposals/write offs of fixed assets in the year comprised $992,595 and $42,643 respectively.

(b) External additions and disposals/write offs for depreciation for the year comprised $963,964 and $42,631 respectively.

Two plots of land measuring 4.10 and 0.51 acres situated at Mohakhali (Dhaka) and at Matlab (Chandpur), received as donations from the Government of the People's Republic of Bangladesh and a private individual respectively, have not been valued and therefore not incorporated in these accounts.

Cost of buildings includes an amount of $103,488 spent by the Centre on the extension of the Institute of Public Health building, owned by the Government of the People's Republic of Bangladesh and which is at present partly accommodating the Centre.

4. **INVENTORIES**

		2001	2000
Supply stores		408,044	368,642
Maintenance stores		64,060	64,666
		472,104	433,308
Stores in transit		17,553	42,956
		489,657	476,264
Less: Provision for obsolete and slow moving stock		14,092	16,009
	US$	475,565	460,255

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5. CONTRIBUTIONS

Donor		2001 (Due)/ Advanced at 1.1.2001	2001 Received during the Year	2001 (Due)/ Advanced 31.12.2001	2001 Income for the Year	2000 Income
Central Funds (Unrestricted)						
Arab Gulf Fund		(109,091)	-	-	(109,091)	(18,248)
Australia- AusAID		-	154,530	-	154,530	296,711
Bangladesh		(93,000)	180,000	(99,026)	186,026	191,500
Belgium – BADC/BTC		-	-	(64,614)	64,614	(11,243)
Canada – CIDA		(16,505)	256,360	48,070	191,785	203,506
Netherlands		-	1,003,742	-	1,003,742	213,617
Saudi Arabia		-	-	(50,000)	50,000	52,843
Sweden – SIDA/SAREC		-	230,559	-	230,559	271,950
Switzerland –SDC		-	524,044	-	524,044	252,206
Sri Lanka		-	4,000	-	4,000	4,000
United States – AID		-	338,167	-	338,167	275,000
Gates Award for Global Health		-	1,000,000	1,000,000	-	-
Bangladesh- Gates Award Match Fund		-	885,000	885,000	-	-
Centre Endowment Fund (Note 16)		74,155	120,000	125,512	68,643	65,845
Hospital Endowment Fund		-	-	-	-	200,000
Total Central Funds	US$	(144,441)	4,696,402	1,844,942	2,707,019	1,997,687
Project Funds (Restricted)						
Australia-AusAID		-	103,020	(1,037)	104,057	59,829
Bangladesh – WB & BINP		(22,565)	414,750	(76,051)	468,236	305,872
Belgium – BADC/BTC		218,240	34,187	75,972	176,455	169,140
European Union		(32,915)	680,218	(110,697)	758,000	910,483
Ford Foundation		527,367	-	242,851	284,516	309,061
Howard Hughes Medical Institute		41,921	45,000	39,088	47,833	3,079
International Vaccine Institute (IVI)		-	372,275	254,140	118,135	-
Japan		262,322	827,156	87,767	1,001,711	614,022
Japan-JICWELS		57,973	-	(21,957)	79,930	50,334
MGH and Harvard Medical School (a)		(6,176)	171,719	21,484	144,059	6,176
Netherlands		(3,788)	-	(11,079)	7,291	23,909
New England Medical Center (NEMC)		25,712	30,000	(70,172)	125,884	65,797
Sweden – SIDA/SAREC		3,226	274,324	(95)	277,645	171,612
Switzerland – SDC		236,720	-	-	236,720	584,532
Swiss Red Cross		(22,820)	-	(196,864)	174,044	242,985
The Johns Hopkins University (a)		62,183	33,668	8,477	87,374	139,284
The Rockefeller Foundation		215,635	-	166,139	49,496	6,240
Thrasher Research Fund		(5,000)	173,861	116,822	52,039	(51,084)
United Kingdom – DFID		560,296	1,082,765	763,988	879,073	808,876
United States – AID etc.		(391,348)	4,236,195	(794,031)	4,638,878	5,531,052
UNICEF		207,729	150,000	140,067	217,662	3,537
University of Basel		-	48,976	48,442	534	-
University of Newcastle- DFID		71,133	31,803	34,578	68,358	63,456
University of Virginia (a)		(43,230)	103,760	(15,688)	76,218	78,505
UNOCAL Foundation		65,335	80,000	75,355	69,980	34,665
WHO		152,095	149,724	126,131	175,688	242,452
World Bank		457,511	300,000	(66)	757,577	972,583
Disaster Fund (UNOCAL, Shell, Cairn & Others)		187,619	-	167,966	19,653	91,764
Others (b)		176,801	459,630	447,972	188,459	394,441
Total Project Funds	US$	3,001,976	9,803,031	1,519,502	11,285,505	11,832,602
Total Contributions	US$	2,857,535 (c)	14,499,433	3,364,444 (c)	13,992,524	13,830,289

a) Includes subcontracts from the National Institute of Health (NIH), USA.

b) Contributions in 2001 from 'Others' for project funds were received from American Express Foundation, Canadian HC-LFMO, CDC- Atlanta, Cytos Pharmaceuticals Inc., Dartmouth College, The Indepth Network, International Atomic Energy Agency, Nestle Foundation, Novartis - Nutrition Research AG, Quintiles East Asia Pte. Ltd., Self Sustaining Units, UNAIDS, UNOPS, University of Alabama and University of Pennsylvania.

c) (Due)/advanced contributions comprise as follows:

	2001	2000
(Due)	(1,698,151)	(1,138,998)
Advanced	5,062,595	3,996,533
Net US$	3,364,444	2,857,535

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6. ACCOUNTS RECEIVABLE - OTHERS		2001	2000
Advances to employees:			
Investment loan		99,653	119,730
Festival advance		140,099	146,768
Others		103,135	148,535
		342,887	415,033
Operating advances to projects		11,582	24,780
Advances to suppliers and others		226,919	204,328
Deposits and other receivables		2,705	2,999
	US$	584,093	647,140

7. CASH AND BANK BALANCES			
Cash in hand		3,142	3,860
Cash at banks:			
Taka accounts			
Current accounts		3,456	432,319
Current account (convertible)		24,932	39,080
Time deposit		620	651
		29,008	472,050
US$ accounts			
Current account		59,388	1,093,633
Time deposit		1,885,000	–
		1,944,388	1,093,633
EURO current account		4,847	59,524
UK£ current account		37,995	23,308
	US$	2,019,380	1,652,375

8. DEPOSITS WITH BANK AGAINST RESERVE FUND			
Time deposit (Note 12)		2,004,000	2,159,000
Current account		3,408	3,147
	US$	2,007,408	2,162,147

9. ACCOUNTS PAYABLE			
Supplies and materials		45,891	53,867
Expenses and other		2,483,166	2,217,566
Advance from Institute of Public Health against procurement		32,800	837,378
Security and other deposits		71,997	62,278
Current account with Hospital Endowment Fund		6,403	9,283
	US$	2,640,257	3,180,372

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		2001	2000
10. **FIXED ASSETS FUND**			
Balance as at January 1		4,888,025	5,148,717
Add: Capital expenditure out of			
Project funds		763,645	611,709
Central funds		150,521	47,505
Fixed Assets Acquisition and Replacement Fund (Note 11)		78,429	–
		5,880,620	5,807,931
Less: Depreciation for the year		963,964	919,906
Transferred to Operating Fund (Note 13) written down value of fixed assets sold		12	–
	US$	4,916,644	4,888,025

The fund reflects contributions from donors and Centre's expenditure for fixed assets and is equal to the net book value of fixed assets.

11. **FIXED ASSETS ACQUISITION AND REPLACEMENT FUND**			
Balance as at January 1		78,107	78,107
Add: Transfer from Operating Fund (Note 13)		322	–
Less: Funds utilized for acquisition of fixed assets (Note 10)		78,429	–
	US$	–	78,107

The fund was established by the Board of Trustees in 1990 to provide for the acquisition or replacement of equipment and facilities. It was the intention to build the fund up to an amount equal to the provision for depreciation by donor contributions, by annual transfers from the Operating Fund and by interest income on investment of funds in separate interest bearing account distinct from the Centre's general and other earmarked funds. The fund has been utilized fully in this year for acquisition of facilities.

12. **RESERVE FUND**			
Balance as at January 1		2,162,147	2,364,851
Add: Net interest earned on deposits		85,261	97,296
		2,247,408	2,462,147
Less: Transferred to Operating Fund(Note-13)		240,000	300,000
	US$	2,007,408	2,162,147

The fund was established to enable the Centre to attain better financial stability and to enable it to retain a satisfactory level of work in case of uneven flow of resources beyond its control. The fund comprises donations, transfers from operating account and income earned on investment of the fund.

Time deposit against this fund is under lien to American Express Bank Ltd. to the extent of the Centre's overdraft facility of $2,000,000.

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		2001	2000
13. OPERATING FUND			
Balance as at January 1		(3,356,244)	(3,719,510)
Add: Deficit for the year after depreciation		(773,073)	(856,640)
Transferred from Reserve Fund (Note 12)		240,000	300,000
Depreciation for the year		963,964	919,906
Transferred from Fixed Assets Fund (Note 10) written down value of fixed assets sold		12	–
		(2,925,341)	(3,356,244)
Less: Transferred to Fixed Assets Acquisition and Replacement Fund (Note 11)		322	–
	US$	(2,925,663)	(3,356,244)
14. HOSPITAL ENDOWMENT FUND INVESTMENTS			
Quoted on the Dhaka Stock Exchange (a)			
Shares		73,364	100,673
Debentures		9,558	19,272
		82,922	119,945
Government securities (unquoted) Bangladesh Sanchayapatra and Protirakkha Sanchayapatra		217,710	172,980
Overseas investment (b) With TIAA-CREF Trust Company FSB (c)		3,471,565	3,633,505
Cash on time deposit and at bank		1,387,940	1,319,650
	US$	5,160,137	5,246,080

(a) Market value of quoted investments on Dhaka Stock Exchange as at December 31, 2001 $103,471; (2000: $137,519).

(b) Market value of overseas investment portfolio as at December 31, 2001 $3,471,565; (2000: $3,617,453).

(c) In September 2001 the Centre transferred overseas investment from Morgan Stanley & Co. Incorporated, USA to TIAA-CREF Trust Company FSB.

15. HOSPITAL ENDOWMENT FUND		2001	2000
Investment Capital Account			
Donations			
Balance as at January 1		4,440,372	3,415,584
Received during the year		232,937	1,024,788
Balance as at December 31		4,673,309	4,440,372
Fund raising activities			
Balance as at January 1		73,116	52,350
Net fund raised during the year		40,663	20,766
Balance as at December 31		113,779	73,116
Profit/(loss) on sale/valuation of investments			
Balance as at January 1		284,734	261,104
Net capital gain/(loss) for the year		(453,774)	23,630
Balance as at December 31		(169,040)	284,734
	[A]	4,618,048	4,798,222

15. **HOSPITAL ENDOWMENT FUND** (Cont.)

		2001	2000
Investment Income Account			
Income			
Balance as at January 1		1,183,348	1,075,658
Net income		91,351	107,690
Balance as at December 31		1,274,699	1,183,348
Less: Distribution to hospital			
Balance as at January 1		726,207	526,207
During the year		–	200,000
Balance as at December 31		726,207	726,207
	[B]	548,492	457,141
Current Account With Centre	[C]	(6,403)	(9,283)
	[A+B+C] US$	5,160,137	5,246,080

The Hospital Endowment Fund was established to raise money through donations and other fund raising activities and to use the income earned on the investment of those funds for patient care in the Centre's hospitals. The responsibility of the fund administration is with the Director.

16. **CENTRE ENDOWMENT FUND**

Balance as at January 1		3,926,617	3,841,691
Add: Net capital gain/(loss) on sale/valuation during the year		(437,425)	167,332
Add: Revenue income (net)		49,000	57,594
		3,538,192	4,066,617
Less: Contribution to project fund (Note 5)		120,000	140,000
Balance as at December 31	US$	3,418,192	3,926,617

The fund was established to raise donations from governments, their agencies, foundations, corporations and individuals. The income earned from the investment of these funds will be used in supporting new research initiatives and provide a stable financial base for the Centre's ongoing activities. The investment of funds is monitored by the Centre Fund Finance Committee in USA. In September 2001 the Centre transferred overseas investment from Morgan Stanley & Co. Incorporated, USA to TIAA-CREF Trust Company FSB. Included in these funds are a USAID contribution of $1,000,000 (market value as at December 31, 2001 $1,262,555; 2000: $1,422,821). The total market value of the funds as at December 31, 2001 was $3,418,192; (2000: $4,016,397).

17. **EMPLOYEES RETIREMENT FUND**

The Centre operates a retirement fund called "ICDDR,B Employees Separation Payment Fund" for all national employees under an agreement with the Generali Group of UK. During the year the Centre and staff members contributed 14.8% and 7.4% of the base pay respectively to the fund. The amounts so accumulated were remitted, net of employee settlements, to Generali Group on a quarterly basis by the Centre. The Generali Group is empowered to invest the fund available with them as considered profitable by them and at the end of each calendar year the profits earned from these investments are distributed among the staff members' accounts.

This accumulated fund which at December 31, 2001 was estimated at $10,317,620 (2000: $9,280,189) is not reflected in the books of account as it is not directly related to the Centre's activities.

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18. **MANDATORY COMMITTEES**

The expenditure include an amount of $6,030 (2000:$9,606) paid as honorarium to the members of the Board of Trustees.

19. **OTHER RECEIPTS**		2001	2000
Laboratory tests		367,509	405,670
Transport and equipment rental		55,013	58,886
Interest		35,598	11,462
Tuition and dissemination		15,435	27,842
Guest house and cafeteria (net of expenditure $91,280; 2000: $136,850)		41,299	25,532
Miscellaneous		146,026	170,942
	US$	660,880	700,334

20. **OTHER EXPENDITURE**		2001	2000
Training and dissemination		173,947	223,601
Staff development and training		74,888	143,280
Contractual services		359,693	368,797
Other services		300,838	281,214
Hospital patient expenses		105,761	137,522
Bank charges and interest		3,626	34,616
Legal and professional fees		70,642	47,018
	US$	1,089,395	1,236,048

21. **GENERAL**

The previous year's figures have been rearranged and regrouped, wherever considered necessary, to conform to the current year's presentation.

Figures appearing in these financial statements have been rounded off to the nearest US dollar.

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ICDDR,B

Member
Board of Trustees

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5/BT/JUNE 2002

PERSONNEL AND SELECTION COMMITTEE

BOARD OF TRUSTEES MEETING
June 2002

CENTRE
FOR HEALTH AND
POPULATION RESEARCH

PERSONNEL AND SELECTION
COMMITTEE MEETING

PERSONNEL AND SELECTION COMMITTEE MEETING
Saturday, 8 June 2002

Agenda

1. Approval of agenda

2. Approval of the minutes of November 2001 meeting

3. Staffing:

   3.1 Overview of the staffing status and total numbers by categories

   3.2 Status of recruitment of international professional staff:
   - a. Associate Director, D1, Clinical Sciences Division
   - b. Chief Finance Officer, P5, Director's Division
   - c. Head, Nutrition Research Programme, P4/P5, Clinical Sciences Division
   - d. Head, External Relations & Institutional Development, P4, Director's Division
   - e. Operation Research Scientist, P4, Health Systems and Infectious Diseases Div.
   - f. Health Economist, P4, Health Economics Unit, Public Health Sciences Division

   3.3 Renewal of contract
   - a. Executive Assistant to Director, P1, Director's Division
   - b. Head, Reproductive Health Programme, P5, Public Health Sciences Division

   3.4 Information on new international professional staff
   - a. Associate Director, D1, Laboratory Sciences Division

   3.5 Status of seconded staff contracts
   - a. Demographic Researcher, P4, Public Health Sciences Division
   - b. Senior Scientist, P5, Laboratory Sciences Division

   3.6 Information on new Adjunct Scientists
   - a. Adjunct Scientist, Laboratory Sciences Division

   3.7 Completion of tenure at international professional post
   - a. Senior Scientist, P5, Public Health Sciences Division

   3.8 Reclassification of international professional post
   - a. Social Scientist and Head, SBSU, P4, Public Health Sciences Division

   3.9 Change in status for international professional post
   - a. Associate Director and Head, PHSD, D2

   3.10 Establishment of new international professional posts (to be distributed at meeting)
   - a. Deputy Director, D2, Director's Division
   - b. Pathologist, P4, Laboratory Sciences Division
   - c. Grants Administrator, P4, Director's Division

4. Promotion of Bangladeshi Scientists to international levels

5. Selection of members of the Board of Trustees

6. Any other business
   6.1 Update on the ongoing Human Resources agenda

Minutes of the Personnel & Selection Committee
Saturday 10 November 2001
2:30pm

Present:

Executive Committee

Prof Marian Jacobs	Chair of the Board
Prof Azad Khan	
Mr Rolf Carriere	Chair, P&S Committee
Prof David Sack	Director

Absent (with regrets):
Dr Ricardo Uauy Dagach

Invited:
Division Heads, CFO, Acting Head HR, Ms S Nahid Sultana (Personnel)

Minute Secretary:
Mrs Judith Bennett Henry

Mr Carriere requested the Executive Committee's approval of the minutes of the Personnel and Selection Committee meeting of June 2001. Prof Jacobs moved; Prof Sack seconded. He then invited Acting Head HR Mr Wahabuzzaman Ahmed to present the report of the Personnel Office.

Staffing overview

During the reporting period 1 April-30 September 2001, the Centre had 45 separations and 57 additions. Fixed term staff belonging to all categories increased by 12 – these were hired mostly for project positions. The Centre continues to follow the policy of restricting external recruitment of fixed-term staff.

International staff by continent: As of 30 September 2001, Asia – 9 (38%); N. America – 7 (29%); Europe – 5 (21%); Australia – 1 (4%); Africa – 1 (4%); S.Amer – 1 (4 %). These numbers include fixed-term, seconded and short-term staff.

Staffing status by gender:

Total international professional (incl FT/ST/Seconded)	-- 24
Male	--18 (75%)
Female	-- 6 (25 %)
Total national officers (incl FT/ST)	--173
Male	-- 133 (77%)
Female	-- 40 (23%)
Total General Services (incl FT/ST)	-- 932
Male	-- 546 (59%)
Female	-- 386 (41%)
Total community health workers	-- 19
Male	-- 6 (32%)

Female	-- 13 (68%)
Total volunteers	--72
Male	-- 1 (1%)
Female	-- 71 (99%)
Total trainees	-- 27
Male	-- 18 (67%)
Female	-- 9 (33%)
Total CSA (contract)	-- 379
Male	-- 120 (32%)
Female	-- 259 (68%)
Grand Total	1626
Male	-- 842 (52%)
Female	-- 784 (48%)

Discussion:

Gender policy

It was discussed that the Centre needs gender balance. This requires pro-active recruitment and the commitment to set a trend and be seen to create a conducive environment. It was important to open up the recruitment process. A strong gender policy is needed.

It was also discussed that the Centre should institute a mentoring system for female scientists. It was suggested a public health fellowship to train female scientists in the research field and provide on-the-job training.

New international professional staff

Head, Information Sciences Division, P5. Mr Peter Thorpe, a British national, joined the Centre on 1 August 2001 to head the newly established Information Sciences Division.

Chief Finance Officer, P5, Director's Division. Mr Stephen Sage, a US national, joined the Centre on 21 August 2001.

Recruitment of international professional staff

Associate Director of the Centre and Head, Laboratory Sciences Division (D1). The position was advertised in The Lancet, ASM News, New England Journal of Medicine and the Centre website. Two (2) candidates-- Dr Andrej Weintraub and Prof Antoine Andremont -- were shortlisted and interviewed. At the June meeting, the Board gave approval to extend an offer to either one of the candidates. Offers were made to both but personal and professional commitments prevented their acceptance. Dr G Balakrish Nair, who is currently acting Head LSD, indicated his interest in assuming the position. Centre management will recommend to the Board the confirmation of Dr Nair as Head of LSD.

Associate Director and Head, Clinical Sciences Division (D1). One (1) candidate was shortlisted for the position – Dr Pearay Ogra, who was unable to accept the offer until late 2002. Dr Charles Larson, a candidate for a position with the FHRP project, has indicated his interest in the position. Dr M A Salam is currently Acting Head, CSD.

Renewal of contracts

Associate Director, D1, Policy and Planning. Prof Barkat e Khuda's contract will end on 19 June 2002. He will complete almost 5 years of service as international professional staff. The Centre recommends that Prof Barkat e Khuda's contract be extended to complete six years.

The recommendation was noted by the Executive Committee and will be addressed in the Closed Session of the meeting.

Head, Health and Demographic Surveillance Programme, P5, PHSD. The contract of Dr Peter Kim Streatfield will expire on 17 July 2002. The Centre recommends that Mr Streatfield's contract be extended by another full term of three (3) years under the existing terms and conditions. Prof Lars Ake Persson made a strong recommendation for extension of Dr Streatfield.

Director, ADG. The three-year secondment contract of Prof David Sack expires on 30 September 2002. He was seconded from Johns Hopkins University.

Clause 13.1 of the ICDDR,B Ordinance 1978 (Ordinance No. LI of 1978) stipulates 'a Director who shall be selected and appointed by the Board for a term which may be renewable for another term'.

It was agreed that Executive Committee members would discuss with Prof Sack in Closed session and submit its recommendations to the Full Board.

Seconded staff contracts

Dr Jozef Bogaerts, Senior Scientist, P5, Laboratory Sciences Division, will leave the Centre on 21 December 2001. He was seconded from the Belgian Technical Cooperation. It was not yet known whether the agency will send a replacement.

The contract of Dr Robert Breiman, Medical Epidemiologist and Acting Head, Health Systems Research Division, will expire on 21 July 2002. He was seconded from CDC Atlanta and US Embassy Dhaka. Centre management will request approval of an extension of contract and his confirmation as Head of the Division. Prof Sack reported that he had made formal request to the Surgeon General for approval of Dr Breiman's extension.

The contract of Mr Carel Van Mels, Demographic Researcher, Health and Demographic Surveillance, PHSD, will expire on 28 December 2001. He was seconded from the Ministry of Foreign Affairs, Government of the Netherlands. Prof Sack reported that formal request for extension was submitted through the Dhaka Embassy and is awaiting a formal response but initial indicators are favourable for his continuation.

The contract of Dr Yukiko Wagatsuma, Scientist, P4, Epidemic Control Preparedness Programme will expire on 16 January 2002. She was seconded from Johns Hopkins University and is expected to continue at the Centre.

Dr Abdullah Brooks, Scientist, P4, HSRD, completed his assignment under a secondment from Johns Hopkins under the Child Survival Fellow Programme on 31 May 2001 and commenced his new tenure as a Scientist on secondment from Johns Hopkins University effective 1 July 2001 for a period of 2 years.

Completion of tenure at International Professional level

Dr AKM Siddique, Epidemiologist and Head, Epidemic Control Preparedness Programme, P4, PHSD, will complete 6 years at international level on 30 June 2002. As per Centre rules, and as noted at the June 2001 Board meeting, he may remain under the policy of promotion of Bangladeshi scientists to international level. Further to this, he has attained the age of 60 and under the provision of the Staff Rules, can continue on a renewal basis yearly until age 65. It was suggested that an understudy be engaged for eventual hand-over of the ECPP.

Dr Radheshyam Bairagi, Senior Scientist, P5, PHSD completed six years of tenure on 14 June 2001. He was extended for one year under the policy of promotion of Bangladeshi scientists to international level, as noted at the June 2001 Board meeting. He may be renewed on a yearly basis based on satisfactory performance as well as availability of funds, not exceeding age 65, as per rule.

Establishment of new international posts

The establishment of a new position of Head, Nutrition Research Programme, P4/P5, CSD, is needed urgently to provide effective leadership to the ongoing and highly expanding nutrition research, training and service activities of the Centre.

The post of Head, External Relations and Institutional Development (ER&ID), P2, was established at the 1998 November BoT meeting. Following announcements and receipt of applications, it was decided to postpone the process until the arrival of the Director to assess the needs of the post.

It was decided to rename the post as Programme Officer and seek an early recruitment. The job description was revised to suit the needs of the ER&ID office. Centre management is requesting the Board to approve recruitment for the post.

Mr Zaman highlighted to the Committee the number of vacant posts in the list of established international professional posts:

Director's Division: Head, ER&ID (P2), Internal Auditor (P1), Associate Director (P4).

PHSD: Environmental Specialist (P4), Health Economist (P4), Demographer (P4), Maternal Health Specialist (P3).

CSD: Assoc Director (D1), Health & Child Survival Fellow, International Fellow.

LSD: Assoc Director (D1)

HSRD: Management Scientist (P4), Health Scientist (P4), Administrative Director (P5), Sr Adviser & Head, HPED (FHRP) (D1), Operations Research Scientist (P4), Visiting Scientist (P4).

Selection of members to the Board of Trustees

Currently, all members are in place. However, the tenure of Prof Marian Jacobs as a member will expire in November 2002 and BoT members should submit names of possible candidates to the Director. When Prof Jacobs leaves the Board, a new Chair will need to be appointed.

Scientific Promotions update

It was reported that the Centre instituted a new policy for Bangladeshi scientists to apply for promotion to the international level. Scientists must be at least at an NOC level and should submit their applications with CVs and list of publications to Division Heads who will then make recommendations to the Promotions Committee following which the applications will be sent for external review. The process takes at least 3 months. There are currently 5 applications under review. This policy allows for outstanding scientists to receive promotions, but it is intended for only a few.

Discussion:

Prof Jacobs asked whether non-scientific staff were eligible under the policy. She suggested that the Centre look at the financial implications. It would send a positive signal to the staff that their work is recognized as important as the scientific staff. She further suggested that the Centre identify selected posts as key posts and provide salary enhancement.

Dr Sack commented that the current policy of Bangladeshi staff promotion to international status is relevant only if the scientist is able to bring in additional support through competitive grants. Thus, this mechanism may not fit non-scientist positions.

It was discussed that the scientists who apply for promotions are screened not only for scientific production but also for their skill in clinical or other professional services in areas where the Centre is active. Evidence of scientific/clinical performance, training and advocacy are some of the criteria by which scientists should be judged.

Prof Sack reported that Human Resources was 80% through the re-classification of posts. It is expected to be completed in several months. A new personnel evaluation system is being reviewed.

Home leave policy

Mr Zaman presented for the Committee's information, a revised home leave policy. The policy states that eligible staff members will be entitled to one home leave every eighteen months during their contract. In exceptional cases, home leave may be advanced with approval from the Director, provided that the staff member has served a minimum period of qualifying service.

Prof Sack explained that the previous rule stated that leave could be taken after 24 months which was not practical for someone with a three-year contract. In fact, the new home leave policy represents no significant change from the previous one except for being more adaptable to the Centre's situation.

Duration of Contracts

It was further noted that a 3-year contract was not a sufficient timeframe for developing programmes or for staff to settle into the programmes and build a strong base of interaction with other related projects/collaborators/fellow researchers. It was suggested that Prof Sack review the issue and develop options for career structure for next BoT meeting. Note: The Executive Committee stressed that renewal of contracts should be submitted through Division Heads who would then forward the approval/non-approval to the Director.

Education grant policy

Dr Sack pointed out that staff members' children attend different international schools in Dhaka and these follow a different grading system which causes difficulty in assessing eligibility for education grant allowance. He felt that the policy should be revised to make it age-specific. The Board was informed that the staff rule was revised to state that a child will be eligible after the first full term that begins after the child's 5th birthday. It was recommended that the policy be retroactive to 1 August 2001 to include the beginning of the current school year.

Salaries

It was discussed that the Staff Welfare Association would be making the request for a salary increase and the Executive Committee would need to consider this in Closed Session. It was noted that the Board approved salary increases in November 1999 and November 2000.

On a closing the meeting, members agreed to move the presentation and discussion of the Strategic Plan to the following day, 11 November, at 8:30am.

Draft resolutions of the Personnel & Selection Committee

The Committee resolved to present the following draft resolutions to the Board for its approval:

8/BT/NOV/01

The Board approves the extension of the current employment contract of Prof Barkat e Khuda for the period 20 June 2002 to 31 July 2003 under the same terms and conditions.

9/BT/NOV/01

The Board approves the extension of the current employment contract of Dr Kim Peter Streatfield by another term of three (3) years effective 18 July 2002 under the same terms and conditions.

10/BT/NOV/01

The Board approves the extension of the secondment employment contract of Prof David A Sack for a further term of three (3) years.

11/BT/NOV/01

The Board approves the establishment of the post of Head, Nutrition Research Programme (P4/P5) of the Clinical Sciences Division.

12/BT/NOV/01

The Board approves the recruitment of Head, External Relations and Institutional Development (P4) rather than the P2 position suggested in the HR report.

13/BT/NOV/01

The Board approves salary increases of 6% for General Services staff, 8% for National Officers and 6% for International Professional staff, effective 1 January 2002. The benefits provided to IPO staff should be consistent with the UN system and the total increase (salary plus benefits) should be 6%.

14/BT/NOV/01

The Board approves the selection of Dr Rob Breiman as Head of the Health Systems and Infectious Diseases Division, and Associate Director of the Centre. Dr Breiman is serving at the Centre under secondment from the Centers of Disease Control and Prevention in the USA. He will be equated to a level of D1, step 2 (see note from Prof Sack).

15/BT/NOV/01

The Board authorizes a three-year contract with Dr Charles Larson as Senior Operations Research Scientist at P5 or as Head of the Clinical Sciences Division at D1 level (see note from Prof Sack).

Notation: The Board notes that several Bangladeshi scientists have applied for an international position under the Bangladeshi Scientists to International Level Policy, and further notes that it was not possible to complete the evaluation of these applications prior to the November meeting. The Board is willing to evaluate these applications using electronic media prior to the next meeting of the Board in order to speed the process of promotion as needed.

Overview of the staffing situation

There were 69 separations and 43 additions during this reporting period (October 01, 2001 – March 31, 2002). The total number of Centre fixed-term staff belonging to all categories thus decreased by 26 as shown in Table 1 below. The net separations of 26 were mostly for the project positions. The Centre however, continues to follow the policy of restricting external recruitment of fixed-term staff as far as practical.

Table 1

OVERVIEW OF STAFFING SITUATION
October 2001 – March 2002

Separations/Additions of Staff

	Restricted		Unrestricted		Total		Net Change
	Sep	Add	Sep	Add	Sep	Add	
International	--	--	--	--	--	--	--
Research (Scientific Support & Field)	(51)	+29	(7)	+4	(58)	+33	-25
Research (Administration)	(6)	+6	(4)	--	(10)	+6	-4
Administration & Human Resources	--	--	--	+3	--	+3	+3
Finance	--	--	(1)	+1	(1)	+1	--
	(57)	+35	(12)	+8	(69)	+43	-26

Net separation : 26

ICDDR,B

OVERVIEW OF THE STAFFING STATUS

CF - Core funded
PF - Project funded

Functional Area	2001 (Mar 31)		2001 (Sep 30)		2002 (Mar 31)	
-International Professional staff	13		15		15	
-Research (Scientific, Support & Field)	604	CF 196 PF 408	614	CF 199 PF 415	589	CF 196 PF 393
-Research (Administration)	353	CF 131 PF 222	360	CF 138 PF 222	356	CF 134 PF 222
-Support Services & Human Resources	100	CF 100 PF 0	100	CF 100 PF 0	103	CF 103 PF 0
-Finance	38	CF 38 PF 0	31	CF 31 PF 0	31	CF 31 PF 0
Sub Total	**1108**		**1120**		**1094**	
-International Seconded Staff	8		7		6	
-Short term staff (Int'l, NO & GS)	2		2		2	
-Community Health Worker	20		19		18	
Sub Total	**30**		**28**		**26**	
Health Worker	**69**		**72**		**92**	
Fellows	**27**		**27**		**30**	
Contractual Service Holder	**376**		**379**		**331**	
Daily Wagers	**158**		**274**		**231**	
GRAND TOTAL	**1768**		**1900**		**1804**	

Table-2
BOT/P&S/Jun 2002

NUMBER OF FIXED-TERM UNRESTRICTED, RESTRICTED & INTERNATIONAL PROFESSIONAL STAFF

Functional Area	**2001 (Mar 31)**	**2001 (Sept 30)**	**2002 (Mar 31)**
Unrestricted	465	468	464
Restricted	630	637	615
International Professional	13	15	15
Total	**1108**	**1120**	**1094**

Table-3
BOT/P&S/Jun 2002

STAFFING STATUS
FIXED-TERM

As of March 31, 2002

Sl. No.	Location	International Professional			NO	GS	Total
		Fixed Term	Short Term	Seconded			
1.	Director's Division	4	1	1	15	125	146
	-Director's Office	2	-	1	-	2	5
	-Human Resources	1	-	-	3	9	13
	-Finance	1	-	-	6	25	32
	-ER&ID	-	1	-	2	1	4
	-Support Services	-	-	-	4	87	91
	-SWA	-	-	-	-	1	1
2.	Public Health Sciences Division	8	-	4	59	369	440
3.	Clinical Sciences Division	-	-	-	31	157	188
4.	Laboratory Sciences Division	2	-	-	25	115	142
5.	Health Systems and Infectious Diseases Division	-	-	1	32	123	156
6.	Information Sciences Division	1	1	-	8	20	30
	Total	**15**	**2**	**6**	**170**	**909**	**1102**

Table-4
BOT/P&S/Jun 2002

STAFFING STATUS
(SECONDED, SHORT-TERM, CHWs & HEALTH WORKERS)

As of March 31, 2002

Sl. No.	Location	Seconded Staff (Int'l)	Short-term			CHWs	Total	HW
			Int'l	NO	GS			
1.	Director's Division	1	1	-	-	-	2	-
2.	Public Health Sciences Division	4	-	-	-	18	22	-
3.	Clinical Sciences Division	-	-	-	-	-	1	92
4.	Laboratory Sciences Division	-	-	-	-	-	-	-
5.	Health Systems and Infectious Diseases Division	1	-	-	-	-	-	-
6.	Information Sciences Division	-	1	-	-	-	1	-
	Total	**6**	**2**	**-**	**-**	**18**	**26**	**92**

NO : National Officer
GS : General Services
CHW : Community Health Worker
HW : Health Worker

Table-5
BOT/P&S/Jun 2002

LIST OF INTERNATIONAL PROFESSIONAL STAFF
As of March 31, 2002

FIXED-TERM

Sl. No.	Name	Country	Job Title	Pay Level	Contract Start Date	Contract End Date
1.	ARIFEEN, Dr. Shams El	Bangladesh	Head, Child Health Programme	P3	21.11.2000	20.11.2003
2.	BAIRAGI, Dr. Radheshyam	Bangladesh	Demographer	P5	15.01.1998	30.06.2002 *
3.	BENNETT HENRY, Ms Judith G.	Trinidad & Tobago	Executive Assistant to Director	P1	01.10.1999	30.09.2002
4.	BHUIYA, Dr. Abbas Uddin	Bangladesh	Social Scientist	P4	01.07.1994	31.12.2004 *
5.	BLUM, Dr. Lauren S.	USA	Anthropologist	P4	23.01.2000	22.01.2003
6.	HILL, Ms. Diann M.	USA	Head, Human Resources	P5	30.04.2000	29.04.2003
7.	ISLAM, Dr. Sirajul	Bangladesh	Environmental Microbiologist	P4	01.07.2001	30.06.2004 *
8.	KHUDA, Dr. Barkat-e-	Bangladesh	Associate Director and Head, Policy & Planning	D1	01.08.1997	31.07.2003
9.	KILLEWO, Prof. Japhet Z. J.	Tanzania	Head, Reproductive Health Programme	P5	27.10.1999	26.10.2002
10.	NAIR, Dr. Gopinath Balakrish	India	Associate Director and Head, LSD	D1	09.04.2000	12.12.2004
11.	PERSSON, Prof. Lars Åke	Sweden	Associate Director and Head, PHSD	D2	01.03.1999	28.02.2005

* per Policy of promotion of Bangladeshi Scientists to International Level

contd.....

Table-5
BOT/P&S/Jun 2002

LIST OF INTERNATIONAL PROFESSIONAL STAFF
As of March 31, 2002

FIXED-TERM

Sl. No.	Name	Country	Job Title	Pay Level	Contract Start Date	Contract End Date
12.	SIDDIQUE, Dr. A. K. M	Bangladesh	Epidemiologist	P4	01.07.1996	30.06.2003*
13.	STREATFIELD, Dr. Peter K.	Australia	Head, Population Sciences Programme	P5	18.07.1999	17.07.2005
14.	SAGE, Mr. Stephen E.	USA	Chief Finance Officer	P5	21.08.2001	20.08.2004
15.	THORPE, Mr. Peter	UK	Head, Information Sciences	P5	01.08.2001	31.07.2004

* per Policy of promotion of Bangladeshi Scientists to International Level

Table-6
BOT/P&S/Jun 2002

SHORT-TERM

Sl. No.	Name	Country	Job Title	Pay Level	Contract Start Date	Contract End Date
1.	ALAM, Dr. A. N.	Bangladesh	Head, Training & Education Dept.	P4	01.05.96	29.03.2003
2.	BROOKS, Ms. Vanessa J.	USA	Grants Administrator	P4	01.10.97	31.03.2002

Table-7
BOT/P&S/Jun 2002

LIST OF SECONDED STAFF
As of March 31, 2002

Sl. No.	Name	Country	Job Title	Pay Level	Contract Start Date	Contract End Date	Seconding Institution
1.	BREIMAN, Dr. Robert F.	USA	Associate Director & Head, HSID	D1	01.08.2000	09.07.2004	CDC/US Embassy
2.	BROOKS, Dr. W. Abdullah	USA	Scientist	P4	01.07.2001	30.06.2003	JHU
3.	DIELTIENS, Dr. Greet	Belgium	Technical Advisor	P4	09.01.2001	08.01.2004	BTC
4.	MELS, Mr. Carel T. van	Netherlands	Demographic Researcher	P4	29.12.1999	01.07.2002	NFA
5.	SACK, Dr. David A.	USA	Director	ADG	01.10.1999	30.09.2005	JHU
6.	WAGATSUMA, Dr. Yukiko	Japan	Scientist	P4	17.01.2000	31.12.2002	JHU

CDC : Centre for Disease Control
JHU : The Johns Hopkins University
BTC : Belgian Technical Cooperation
NFA : The Netherlands Ministry of Foreign Affairs

LIST OF ADJUNCT SCIENTIST
As of March 31, 2002

Sl. No.	Name	Country	Job Title	Contract Start Date	Contract End Date
1.	BAQUI, Dr. Abdullah H.	BANGLADESH	Adjunct Scientist	01.07.2001	30.06.2004
2.	TAKEDA, Prof. Yoshifumi	JAPAN	Adjunct Scientist	14.02.2002	13.02.2005

3.2 Status of Recruitment of International Professional Staff

Agenda 3.2a Associate Director, D1, Clinical Sciences Division

After the November 2001 Board of Trustees meeting, it was decided that Dr. Charles P. Larson would be offered the position of the Senior Operations Research Scientist at pay level P5 (Resolution 15/BT/Nov/01). As such a further decision was made to re-advertise the position of the Associate Director, Clinical Sciences Division at pay level D1. This was done and as of now 9 (nine) applications have been received including 3 (three) from within the division itself. These are being scrutinized and a report on this recruitment will be made during the meeting. In the meantime – Dr. M. A. Salam, Chief Physician is acting against this post and has been receiving the acting allowance since 01 October 2001.

Agenda 3.2b Chief Finance Officer, P5, Director's Division

On 15 April 2002, Mr. Stephen E. Sage, Chief Finance Officer announced that he will not be able to continue with his services at the Centre beyond mid-September next, for family reasons. This announcement has thus, necessitated an immediate search for his replacement. The post was advertised on 27 April 2002 in The Economist, SEEK Communication, Drum Beat Magazine website and the ICDDR,B website. The closing date for the advertisement is 27 May 2002. The status of this recruitment will be reported during the meeting.

Agenda 3.2c Head, Nutrition Research Programme, P4/P5 Clinical Sciences Division

As per BOT resolution 11/BT/Nov/01 the position of the Head, Nutrition Research Programme, at pay level P4/P5 of the Clinical Sciences Division was announced in various journals and websites. As a result, a total of 7 (seven) applications have been received.

3.2 Status of Recruitment of International Professional Staff

Agenda 3.2d **Head, External Relations & Institutional Development, P4**
Director's Division

As per resolution (12/BT/Nov/01) of the November 2001 BOT meeting, the reclassified post of the Head, External Relations & Institutional Development under the Director's Division was advertised at pay level P4. This announcement resulted in a total of 28 (twenty eight) responses. The applications are being reviewed for short-listing and the status of this recruitment will be provided during the Board meeting. In the meantime, Dr. Ishtiaque A. Zaman who has been acting in this position since 01 October 2001 has been granted the acting allowance at pay level P4 effective 01 January 2002 which will end on 30 September 2002.

Agenda 3.2e **Operations Research Scientist, P4, Family Health Research Project**
Health Systems and Infectious Diseases Division

This established position of the Operations Research Scientist at pay level P4 for the Family Health Research Project was announced after the November 2001 BOT meeting in all the leading journals and through other established channels of Centre's recruitment process. There have been 3 (three) responses which are being scrutinized for interview and finalization.

Agenda 3.2f **Health Economist, P4, Health Economics Unit**
Public Health Sciences Division

At the request of the Public Health Sciences Division, the established position of the Health Economist to head its Health Economics Unit at pay level P4 has been announced in the Economist and the Lancet and through other standard vacancy announcement procedures including the various websites. The closing date for the advertisement is 27 May 2002.

3.3 Renewal of Contracts

Agenda 3.3a **Executive Assistant to Director, P1, Director's Division**

Mrs. Judith G. Bennett Henry who joined the Centre on 01 October 1999 as the Executive Assistant to the Director on a three years contract will have completed her tenure of service on 30 September 2002.

Discussions regarding the renewal of her contract are currently taking place.

Agenda 3.3b **Head, Reproductive Health Programme, P5, Public Health Sciences Division**

Prof. Japhet Z. J. Killewo, Head, Reproductive Health Unit, P5, Public Health Sciences Division joined the Centre on 27 October 1999 on a three years contract. His contract thus expires on 26 October 2002.

Discussions regarding the renewal of his contract are currently taking place.

3.4 Information on new International Professional Staff

Agenda 3.4a Associate Director, D1, Laboratory Sciences Division

As discussed at the November 2001 meeting of the Board of Trustees, Dr. G. Balakrish Nair was offered the post of Associate Director and Head, Laboratory Sciences Division at pay level D1. He accepted the appointment and joined his new assignment effective 13 December 2001 for a period of three years.

This is for the information of the Board.

3.5 Status of seconded staff contracts

Agenda 3.5a Demographic Researcher, P4, PHSD

The current secondment employment contract of Mr. Carel T. van Mels, Demographic Researcher of the Health and Demographic Surveillance Unit of the Public Health Sciences Division, from the Government of the Netherlands, will expire on 02 July 2002. The Centre is expecting the finalization of a secondment agreement with the Netherlands Interdisciplinary Demographic Institute (NIDI) to be completed shortly.

Agenda 3.5b Senior Scientist, P5, LSD

Dr. Jozef Bogaerts who was on secondment from the Belgian Administration for Development Cooperation left the Centre in December 2001 after five years of service.

3.6 Information on new Adjunct Scientists

Agenda 3.6a Adjunct Scientist, LSD

In line with the Adjunct Scientists policy, the Centre has offered a contract to Prof. Yoshifumi Takeda, Professor Emeritus, Faculty of Human Life Sciences, Jissen Women's University, Tokyo, Japan and a former member of the Board of Trustees, for collaborative studies, initially with the Laboratory Sciences Division of the Centre; for a period of three years effective 14 February 2002.

3.7 Completion of tenure at international professional posts

Agenda 3.7a **Senior Scientist, P5, Public Health Sciences Division**

Dr. Radheshyam Bairagi, currently on contract under the policy of promotion of Bangladeshi Scientists to international level, will be leaving the Centre upon completion of his contract 30 June 2002.

This is for the information of the Board.

3.8 Reclassification of international professional post

Agenda 3.8a Social Scientist and Head, SBSU, P4, PHSD

Dr. Abbas U. Bhuiya was hired as a Social Scientist, P4 in 1994. Then in July 1998, he was designated as the Head of the Social and Behavioral Sciences Programme (SBSP), which at the time was a P5 level post. However, Dr. Bhuiya remained at a P4 level and subsequently was made acting Head of the Health Economics Programme after the departure of its Head.

In addition to being a productive and innovative scientist in the field of public health and social aspects on health and disease, he has been managing all these units very effectively in addition to his own Chakoria Community Health Project.

As such, it is recommended that the current post of the Social Scientist and Head, Social and Behavioural Sciences Unit at pay level P4, be approved for reclassification to pay level P5. The Centre also requests that in recognition of the highly satisfactory services rendered by Dr. Abbas U. Bhuiya be appointed to the reclassified post (up to the end of his present contract) under the policy of promotion of Bangladeshi Scientists to international levels, which he presently holds.

Draft resolution:

The Board resolves to approve the Centre's request to reclassify the post of the Social Scientist and Head, Social and Behavioural Sciences Unit, PHSD at pay level P5, and the appointment of Dr. Abbas U. Bhuiya to the reclassified post.

3.9 Change in status for international professional post

Agenda 3.9 Associate Director and Head, PHSD

In recognition of Professor Lars Ake Perrson leadership and scientific productivity to the Centre and the Division, his contract was renewed for up to three years at a D2, step 4 level. This was made effective on 1 March 2002.

3.10 List of established international professional posts

Division	Job Title	Grade	Date Post Established	Current Incumbant	Abolish Post	Other Action
Director's Div	Director	ADG	Jan-82	Dr David A Sack	Retain	
	Associate Director and Head, Policy & Planning	D1	Jul-00	Dr Barkat-e-Khuda	TBD	
	Head, Human Resources	P5	Apr-00	Ms Diann M Hill	Retain	
	Chief Finance Officer	P5	Sep-88	Mr Stephen E Sage	Retain	
	Head, External Relations and Institutional Development	P4	Nov-01	Vacant	Retain	Currently Recruiting
	Executive Assistant to Director	P1	Jan-82	Ms Judith G Bennet Henry	Retain	
	Internal Auditor	P1	Nov-98	Vacant	Abolish	TBD
PHSD	Associate Director and Head, PHSD	D2	Jan-82	Prof Lars Ake Persson	Retain	
	Head, Population Sciences Programme	P5	Nov-95	Dr Kim S Streatfield	Retain	
	Head, Reproductive Health Programme	P5	Jul-97	Prof Japhet J Killewo	Retain	
	Demographer	P5	Jan-89	Dr R Bairagi	Abolish	At retirement or at end of contract
	Scientist	P4	Jan-00	Dr Lauren S Blum	Retain	
	Epidemiologist	P4	Jul-96	Dr AKM Siddique	Abolish	At retirement or at end of contract
	Social Scientist, Head, SBSU	P4	Jul-94	Dr Abbas Bhuiya		Reclassify at P5
	Head, Child Health Programme	P4	Nov-00	Dr Shams El Arifeen	Retain	
	Environmental Specialist	P4	Jun-97	Vacant	Abolish	
	Health Economist	P4	Jan-97	Vacant	Retain	Currently Recruiting
	Demographer Researcher	P4	Dec-99	Vacant	Abolish	
	Maternal Health Specialist	P3	Oct-94	Vacant	Abolish	
CSD	Associate Director and Head, CSD	D1	Jan-82	Vacant	Retain	Currently Recruiting
	Head, Nutrition Research Programme	P4/5	Nov-01	Vacant	Retain	Currently Recruiting
LSD	Associate Director and Head, LSD	D1	Jan-82	Dr G B Nair	Retain	
	Senior Scientist	P5	Jan-96	Vacant	Abolish	
	Research Microbiologist	P4	Jul-82	Vacant	Abolish	
HSID	Associate Director and Head, HSIRD	D1	Nov-01	Dr Robert F Breiman	Retain	
	Sr. Operations Research Scientist	P5	Nov-01	Dr. Charles Larson	Retain	
	Operations Research Scientist	P4	Feb-89	Vacant	Retain	Recruiting
ISD	Head, ISD	P5	Aug-01	Mr Peter Thorpe	Retain	
	Head, Training & Edu. Dept. (ST)	P4	May-96	Dr A N Alam	Retain	

New Posts*	Job Title	Grade	Date Post Established
Director's	Deputy Director	D2	Oct-97
	Grants Administrator	P4	Oct-97
LSD	Pathologist	P4	Jun-02

* Based on the availability of funds

4.0 Promotion of Bangladeshi Scientists to international level

As reported in the November 2002 Board meeting, four scientists have applied for promotion to international level. Their applications were sent for external review and recommendations for promotions will be made at the Board meeting.

A copy of each candidate's application package along with the external review results will be available at the meeting. A copy of the policy for the Promotion of Bangladeshi Scientist to international level is included.

Agenda 5 BOT/P&S/Jun 2002

Selection of members of the Board of Trustees

Action Required

1. To consider replacement of 1 Board member: Prof Marian E Jacobs
2. To reappoint: Dr Ricardo Uauy Dagach and Dr Tikki Pang

NOMINATIONS FOR TRUSTEES – JUNE 2002

Developing Country:

1. Dr Zein El Abdeen Abdul Rahim Karrar (Sudan)
2. Dr Samia Ahmed Gumaa (Sudan)
3. Dr Nahid Kamel (Egypt)
4. Dr Farida Mohammed A Al Awadi (Kuwait)
5. Prof Chitr Sitthi-Amorn (Thailand)

LIST OF BOARD MEMBERS
WITH NATIONALITY, DISCIPLINE, JOINING AND ENDING DATES

(As at June 2002)

Name	Country	Discipline	Joining/Ending date
Mr Rolf Carriere	UNICEF	Management/ Int'l Health	1997/2003
Dr Ricardo Uauy Dagach	Chile	Nutrition	1999/2002
Prof N K Ganguly	India	Public Health & Nutrition	2000/2003
Dr Maimunah B A Hamid	Malaysia	Public Health	2001/2004
Dr Terence H Hull	Australia	Demography	2001/2004
Dr Nobukatsu Ishikawa	Japan	Social Medicine	2001/2004
Prof Marian E Jacobs	South Africa	Child Health	1996/2002*
Prof AK Azad Khan	Bangladesh	Gastroenterology	1999/2002
Prof Jane Anita Kusin	Netherlands	Public Health & Nutrition	2000/2003
Dr Claudio Franco Lanata	Peru	Nutrition/ Epidemiology	2001/2004
Prof Tikki Pang	WHO	Infectious Disease, Research & Policy	1999/2002
Vacant	Bangladesh (GoB)	Civil Servant	2002/
Mr M Fazlur Rahman	Bangladesh (GoB)	Civil Servant	2001/
Prof David A Sack	USA	Infectious Diseases	1999/
Dr Marcel Tanner	Switzerland	Tropical Medicine	2001/2004
Prof Carol Vlassoff	Canada	Public Health Trop. Diseases	1998/2004*
Dr I Kaye Wachsmuth	USA	Public Health & Sci.	2001/2004

Unable to serve another term without a break

Target membership: 11 members at large
3 GoB
1 Director, ICDDR,B
1 UN
1 WHO

Total: 17 members

Current composition:

Developed Country	Region	Developing Country	Region
David A Sack (USA) Director	Nth America	AK Azad Khan (BD)	Asia
I Kaye Wachsmuth (USA)	Nth America	Vacant (BD)	Asia
Terence H Hull (Aus)	Pacific	M Fazlur Rahman (BD)	Asia
Jane Anita Kusin (Netherlands)	Europe	Claudio Franco Lanta (Peru)	S. Am
Marcel Tanner (Switzerland)	Europe	NK Ganguly (India)	Asia
Nobukatsu Ishikawa (Japan)	Asia	Maimunah BA Hamid (Malaysia)	M/East
Carol Vlassoff (Canada)	Nth America	Marian Jacobs (RSA)	Africa
UNICEF: Rolf Carriere		Ricardo U Dagach (Chile)	S.Am/Carib
		WHO: Prof Tikki Pang	
Total: 8		Total: 9	

Total: 17

Of 15 (excluding WHO and UNICEF) more than 50% must be from developing countries (including Bangladesh). Not less than 1/3 from developed countries.

As per above table:

8/15 (53%) are from developing countries (50%=8)
7/15 (47%) are from developed countries (2/3=7)

Gender: M=14
F= 3

BD = Bangladesh

Ordinance 8 (3): At any given time, the Board shall be so composed that, not counting the members nominated by the World Health Organization, more than 50% must come from the developing countries, including the members nominated by Bangladesh, and not less than one-third from developed countries. The Director shall be counted as coming from the developed or developing countries depending upon nationality.

Any other business

Agenda 6.a **Update on the ongoing Human Resources agenda**

6/BT/JUNE 2002

STRATEGIC PLAN
TO THE YEAR 2010

Awarded the first-ever Gates Award for Global Health, May 2001

Centre for Health and Population Research

...where service and advanced science fit together to save lives and build a healthy future

Strategic Plan to the year 2010

By 2010...

- The population of the city of Dhaka will exceed 20 million and that of Bangladesh will be about 154 million.
- Those over 60 years will multiply from 6.8 million to 65 million, raising the elderly from 5% of the population to 26%.
- Bangladesh will have had to respond to at least one major natural disaster.
- *V. cholerae* O139 will spread in epidemic manner to other countries in Asia and Africa.
- Numbers of patients with HIV-AIDS will begin an exponential increase with massive increase in the burden of tuberculosis.
- There will be epidemics of cholera, shigellosis, dengue, and influenza that will the assistance of the Centre.
- At least one new communicable disease that we do not currently know about will be discovered in Bangladesh for the first time.
- The health effects of arsenic will cause a large increase in cancer, diabetes and heart disease rates in rural Bangladesh.
- The race between poverty and health will remain in the balance and will depend on what we do now.

But by 2010, through the work of the Centre, in cooperation with the Government and other organizations, Bangladesh can lead the way toward a healthy future

Acknowledgements

This Strategic Plan represents the collective work of the scientists and staff of the ICDDRB: Centre for Health and Population Research along with the members of the Board of Trustees, and with input from donors. Many of the contributors may not be aware of their input in the Plan since many of the concepts were formulated during unofficial as well as official discussions relating to the Centre. We appreciate all of these contributions.

Table of contents

Foreword

In just a few years, in 2010, Bangladesh will be a different place for the 154 million people who will be living here. It will also be different for the other millions who live in other less developed countries. The difference might be a rapid deterioration of the recent health and population gains of the last decade, or it could be a dramatic improvement in the survival, health, nutrition, and personal development. The ICDDR,B: Centre for Health and Population can play a major role in making the difference between deterioration and improvement, and the difference will come about because of what scientists are able to learn and how this knowledge can be used. Here are a few examples of what we will know by the year 2010, and how this knowledge can be used to make Bangladesh and the developing world a better place for the children, mothers and families of the next generation.

Neonatal Health: *e will know the major causes of deaths during the first few days of life and will have learned ways to prevent these through treatment of infections, better delivery care, and early breast-feeding. We will then share this knowledge with others.*

Nutrition During Pregnancy And Lactation: *We will know the power of nutritious foods and micronutrients for pregnant and lactating mothers to improve the growth and health of their children. Based on this knowledge, we can help the governments and development partners plan better programmes.*

Immunization During Pregnancy: *We will know if immunizing pregnant mothers with vaccines will protect their infants from pneumonia and neonatal sepsis. We can use this knowledge to develop programmes in our field areas and encourage policy makers to consider this strategy for wider application.*

Zinc Supplements: *We will know how to produce easily soluble zinc tablets in cooperation with a local pharmaceutical company, and will assist in distributing and popularizing the use of these tablets for children with each episode of acute illness such as diarrhea and respiratory infection.*

Super ORS: *We will know how to prepare a better "super ORS" that includes anti-secretory properties as well as rehydration properties. We will then assist others in its preparation.*

Control of the 8th Pandemic: We will learn how to deal with 8th pandemic of cholera and will assist other countries as they face this new pandemic

Antibiotic-Resistant, Epidemic Shigellosis: We will learn how to deal with a major epidemic of antibiotic resistant shigellosis and will assist other countries as they face similar epidemics.

Herd Immunity For Measles: We will know how to improve the coverage for EPI vaccines, and especially improve the coverage for measles vaccine in order to achieve herd immunity.

New Vaccines for Immunization Programmes: We will know which new vaccines should be introduced into routine immunization programmes and understand how to make this recommendation.

Rotavirus Vaccine: We will know if rotavirus vaccine will prevent severe rotavirus diarrhea in Bangladesh. Assuming it does, we will demonstrate its public health utility, expecting it will reduce overall admissions for diarrhea by at least 30%.

Equity Of Rotavirus Vaccine: We will monitor the equity benefit of rotavirus vaccine since the vaccine can be given to nearly all infants, even those who would not normally access treatment when they become ill. Since rotavirus infects all strata of society, the vaccine but not all have equal access to treatment, the vaccine will be a test case for equity.

Equity Of Health Interventions: We will know how to monitor health interventions for equity characteristics and will use this knowledge to prioritize new programmes.

Enterotoxigenic *E. Coli* Vaccine: We will know if a vaccine for enterotoxigenic *E. coli* is effective in preventing severe *E. coli* diarrhea. Assuming it does, we will demonstrate its public health utility with the expectations that this will further reduce overall admissions for diarrhea by 20% (above that provided by rotavirus vaccine).

Easily preventable Deaths: We will know how to identify those common acute life-threatening illnesses of

facilities; skills and resources are needed to prevent these deaths. We will have a model facility for treatment of these illnesses and we will use these as a teaching facility.

IMCI: *We will know if the IMCI (integrated management of childhood illness) approach is useful and effective, and we will use our evaluation of IMCI to simplify and improve its effectiveness in the treatment of sick children.*

Child Development: *We will know how to improve the mental and physical development of children through stimulation and better nutrition.*

Exclusive Breast Feeding: *We will know how to influence families to practice exclusive breast-feeding for the first six months of their babies' lives with the goal of implementing national programmes for breast-feeding promotion.*

Health Consequences Of Arsenic: *We will know the quantitative relation between arsenic concentration in drinking water and illnesses, and we will have tested strategies to reduce arsenic consumption. With this knowledge, we will know how to reduce the rates of these arsenic-related diseases.*

Oral Cholera Vaccine: *We will know how to produce an oral cholera vaccine that is low cost and can be readily introduced into cholera endemic areas, and we will share this knowledge with others to prevent and reduce seasonal peaks in cholera.*

Case Management Of Dengue: *We will learn how to improve the case management of patients with severe dengue infection using oral rehydration solution. This improvement will have special importance to rural areas where IV fluids may not be available.*

Fertility Reduction: *We will know why the reduction in fertility has leveled, and we will learn what steps will be needed to reduce fertility to replacement levels. We will use this knowledge to inform policies and programmes.*

Micronutrients: *We will know which micronutrients are needed and how to provide these through food fortification, through supplements, and through locally available, micronutrient-rich foods.*

Health Cooperatives: *We will have gained experience with "health cooperatives" as a way to provide community-directed primary health services.*

Reducing STD's: *We will have identified effective strategies for minimizing spread of sexually-transmitted infections through behavior change and treatment.*

HIV-AIDS Transmission: *We will know the major transmission routes for spread of the HIV-AIDS virus, and we will know how to interrupt these routes in order to limit the HIV epidemic in Bangladesh.*

Treatment of HIV-AIDS patients: *We will learn how to use anti-retroviral drugs, in concert with voluntary testing and counselling, to help HIV infected people and to limit the transmission of the virus in this low prevalence country.*

Tuberculosis control: *We will know the epidemiology of tuberculosis in Bangladesh and will know the magnitude of antibiotic resistance where and when multiple antibiotic resistance occurs.*

Rapid diagnosis: *We will know how to diagnose important common illnesses (e.g. cholera, malaria, shigellosis) using rapid field tests, like dipsticks, and will be able to use these to carry out low cost surveillance for these infections.*

Training and Out-reach: *We will learn how to prepare electronically-based training materials and how to effectively use them in cooperation with face-to-face, hands-on training, out-reach, and consulting services. The training will be conducted in several sites in Bangladesh as well as some additional sites in the region.*

Improved management: *We will have a management information system in place with coordinated information from finance, human resources, and projects in order to improve efficiency at the Centre.*

Gender Equity: *We will have achieved gender equity at each level of the organization.*

Future Leadership: *We will attract and develop young national scientists through structured programmes to become future leaders for the Centre and the international scientific community.*

Medical Ethics for Developing Countries: *We will be advocates, providing a voice for developing country institutions toward the discourse on medical ethics. We will continue to conduct scientific and medical projects in an ethical manner respecting national norms and upholding international standards.*

Master Plan for the Physical Plant: *The construction on the main building will be complete and the construction of the office tower will be underway. The main building will house new space for hospital patients, laboratories, library and training, and offices.*

An International Institution: *We will continue to be an international centre with international and Bangladeshi staff and scientists working side by side.*

Financial Sustainability: *We will be deficit free, and we will have a Centre Endowment of US$ 10 million and a Hospital Endowment of US$ 20 million.*

This is a long and ambitious list, but each of these are feasible and realistic if the Centre is able to secure the resources needed to complete the studies that are needed. Being a research institute, the Centre hopes to create the new knowledge to bring new ideas to life, and to use this knowledge to turn them into products and strategies that lead to better lives.

Mission, Values And Vision

Mission

The mission of the Centre is to develop, test, and disseminate solutions to major health and population problems facing the world, with emphasis on simple and cost-effective methods of prevention and management. The Centre carries out this mission through caring for patients and communities, advanced research, training, and communication, leading to policy and programmes.

Values

The Centre's guiding values are:

- Excellence and high ethical standards in science and service
- Fairness to and respect of staff, patients, communities and partners
- Gender equity
- Responsible and efficient use of resources
- Responsiveness to emerging issues.

Vision

The Centre's vision is

- To be a premiere centre for global health sciences, attracting the finest minds from Bangladesh and other developing and industrialized countries, to conduct excellent and relevant health research, service and training.
- To remain responsive to, and be an advocate for, the health research needs of vulnerable populations,
- To be a leader and a partner in national, regional and global efforts to improve the quality of life in developing countries.
- To understand current population trends, and anticipate future challenges in order to plan for a brighter tomorrow.

Executive Summary

The ICDDR,B: Centre for Health and Population Research (The Centre), and recipient of the first-ever Gates Award for Global Health, is a maturing health research and service institution based in Bangladesh, but with a global sphere of influence.

The Centre, founded in 1960, originally focused on cholera control through improving case management and testing cholera vaccines. These objectives required the establishment of a clinical research ward and laboratories in Dhaka, and a large, population-based field area in Matlab Thana. These facilities have grown considerably since 1960, and the Centre has continued to evolve toward addressing a much-expanded agenda dealing with critical problems of health, population and nutrition that are common in poor countries. While maintaining a focus on problems of the most vulnerable, it is also an "institute for global health sciences" with its state-of-the-art laboratories and data management systems.

As the Centre moves into its next phase, it retains many of the features of the original institution, i.e. importance of excellence in clinical research to improve treatment for patients with common and severe health conditions; modern laboratories to support the clinical research, while providing fundamental knowledge about these conditions; and population-based studies to understand the epidemiology of ill-health while devising interventions.

The Centre has however progressed considerably in expanding its research agenda. Originally focussed on cholera and diarrhoea, it now encompasses a **full spectrum of issues related to child health, reproductive health, infectious disease and vaccine sciences, nutrition, population sciences, health systems research, safe water, and HIV-AIDS**. Additionally, it has greatly expanded its research tools to include disciplines of anthropology, economics, medical geography, and other social sciences. In each of these "new" areas of research, the Centre took into consideration which aspects could best contribute to the overall improvement in health for vulnerable populations.

...the Centre now encompasses a full spectrum of priority health issues

A tenet of the Centre's approach is the **interdisciplinary and inter-divisional research** in which the clinical and laboratory research interacts with epidemiologic, social sciences, and health systems research. Thus, findings from the clinical studies can quickly be applied to field situations and the lessons from these field studies can be "scaled-up" into programmes. Similarly, the observations from the field and programmes provide guidance for the clinical and laboratory studies. Mechanisms for facilitating this cross-disciplinary interchange include the Scientific Council,

...the Centre takes an interdisciplinary and inter-divisional approach to research

the inter-divisional Programmes, the weekly Centre Scientific Forum (CSF) and other seminars as well as working groups on specific topics.

Priority-setting at the Centre represents a complex interaction of numerous factors, but begins with the "life cycle" approach to define the different stages and the vulnerable periods in the life cycle when cost-effective interventions are most likely to improve the health of populations. Key factors in priority-setting includes the mission of the Centre, the relative strengths of the Centre in terms of its scientific/medical and logistic resources, global priorities by international agencies, interactions with the Government of Bangladesh (GoB), and funding opportunities. The Centre primarily attempts to carry out applied and down-stream research but it does not shy away from using state-of-the-art tools to provide a better understanding of the issues it studies. For example, studies on cholera range from molecular studies of the bacterial genes, to clinical studies on new treatments, epidemiologic and vaccine studies, and economic analyses.

Some major new initiatives which have recently begun, include projects to a) evaluate the efficacy of the Integrated Management of Childhood Illness (IMCI), b) understand causes for low birth weight and evaluate strategies for decreasing rates of low birth weight and increasing survival, c) evaluate interventions for neonatal mortality, d) develop strategies for reducing maternal mortality, e) improve referral systems for maternity care, f) improve family planning services, g) characterize the problem of sexually-transmitted infections, h) improve health services at primary clinics for women with gynaecologic symptoms, i) carry out surveillance for HIV-AIDS in high-risk groups, j) develop strategies for recognizing and managing severe malnutrition in the community, k) develop programmes for zinc supplements to children, l) increase rates of exclusive breast feeding, m) evaluate new vaccines for enteric infections (cholera, enterotoxigenic *E. coli*, and rotavirus), n) evaluate new vaccines for respiratory infections (*H. influenzae* and *S pneumococcus*, influenza), o) understand population dynamics of Bangladesh, especially the slowing of fertility rate decline, p) improve health equity and improve our understanding of the relations between poverty and health, q) improve the Essential Services Package (ESP) in Bangladesh through operations research, r) control morbidity and mortality due to acute respiratory disease, tuberculosis, dengue, kala azar and malaria.

...the Centre is the only international health research institute based in a developing country

The Centre is international in character and is the only such health research centre based in a developing country. It is international in several respects. It is governed by an international Board of Trustees and is able to recruit professional staff from around the world. Global health priorities as well as national ones guide it. It publishes its findings in internationally-recognized, peer-reviewed journals, and its results are of

international quality. Its financial accounting and its ethical standards meet or exceed international standards. Trainees come from around the world (over 20,000 trainees from 78 countries).

It is also a local institution. About 97% of the scientific staff are Bangladesh nationals. It provides medical services to over 120,000 local patients per year in its hospitals, and provides services to many others in the community. It provides technical assistance to the Government of Bangladesh and non-governmental agencies (NGOs) in Bangladesh. Thus, the Centre qualifies both as an international and a national organization.

...the ICDDR,B way combines research with service and community partnership.

The "ICDDR,B research way" characterizes the Centre's methods for research. Unlike projects carried out by many other research-oriented agencies who piggy-back their projects onto other's services, most of the Centre's research projects ensure that participants in the research and their communities benefit through provision of medical services appropriate to the study being conducted. Sometimes this results in projects that seem more expensive in the short term, but the concept of "partnering" with communities results in long-term benefits both in the creation of new knowledge and to the communities who participate. And, the Centre feels this is the ethical way to conduct research among vulnerable populations.

The Centre is organized into five scientific Divisions and six cross-divisional Programmes. Each of the Divisions has responsibilities for certain aspects of the infrastructure of the Centre. They host the cross-divisional Programmes, and they foster the scientific and technical research of their scientists. They also, increasingly, take responsibility for the financial integrity of the Centre by promoting and marketing their key activities and research. Thus, the Divisions provide the administrative organization for the Centre. The cross-divisional Programmes however, better describe the scientific agenda by defining the scientific goals. These current Programmes include Child Health, Reproductive Health, Infectious Diseases and Vaccine Sciences, Nutrition, Population Sciences, and Health and Family Planning Systems. The Centre anticipates the formation of two additional programmes on Safe Water and HIV-AIDS. Each of these programmes has a "home" in one of the Divisions, but are clearly Centre-wide in their scope.

...the Centre has five scientific divisions and six cross-divisional programmes

The administration of the Centre is managed through five offices within the Director's Division: Finance, Human Resources, Policy and Planning, External Resources & Institutional Development and General Administration. During the last few years, there was some consideration for a complete re-organization for the Centre's management system, but after careful exami-

nation of the options, a more evolutionary approach was applied. The changes in the former organizational chart include the following:

- Creation of the Division of Information Sciences bringing together DISC[1], the Computer Information Services (CIS) and the Training & Education Unit (TEU) into a combined division to better coordinate the production, organization and dissemination of knowledge at the Centre.
- Establishment of defined programmes to foster cross-divisional collaboration.
- Increasing decentralization of responsibility for the scientific agenda to the Divisions and Programmes.
- Direct reporting of Finance, Human Resources, and General Administration to the Centre's Director rather than through a Head of Finance and Administration.

...the Centre believes cross-divisional programmes produce good science

A theme of this reorganization structure has been decentralization of authority, stimulating individual initiative while encouraging cooperation and cross-cutting activities. **Good science and good programmes work together**, and the Centre encourages this synergy. Decentralization implies that scientists and public health professionals become increasingly responsible for the defining the work of the Centre as well as generating the financial support for the Centre. The challenge is thus to encourage this decentralization, while still maintaining the coordination and cooperation needed for a coherent programme.

This Strategic Plan depends on adequate finances to carry out the research, service, and training. Traditionally, the Centre has relied on significant financial input from government donor agencies of the United States, the UK, Bangladesh, the Netherlands, Japan, Switzerland, Canada, Belgium, Sweden, Australia and others. Other funds have come from foundations such as Ford Foundation, Rockefeller, and more recently Gates Foundation. Project funds have come from other agencies, foundations, companies, and significant funding is now coming from grant support from the National Institutes of Health (NIH) and the World Health Organization (WHO). Recently, private companies such as UNOCAL have also provided significant funding.

...the Centre's "unrestricted" funding dropped from 50% to only 13% during the last 6 years.

Considerable changes have occurred in donor-funding at the Centre in recent years. Firstly, because of a shift in donor policy, core (unrestricted) funding has decreased dramatically in favour of project funding. **For example, in 1994, about 50% (or US$**

[1] Dissemination and Information Services Centre includes the library, publications, and audio-visual unit.

4 million) of the total income was unrestricted, but this decreased to 13% (or US$ 2 million) in 1990. On the other hand, the total income increased from US$ 8 million in 1994 to over US$ 13 million in 1990, reflecting a marked increase in project funding. Some, but not all, of the project funding included payment for common institutional costs[2], but many of the projects did not pay their full share to be completely funded. (Not all donors have moved to project funding; notably the governments of the Netherlands and Switzerland have increased their funding to core.) In the future, when the full level of the common institutional costs is not funded, the Centre must identify funding sources from core donors who are willing to co-fund the project. Acknowledgement will be given to these core donors as co-funders.

...the Centre anticipates an increase in activity equivalent to US$ 1 million each year over the next five years

Based on the projects being anticipated, the Centre will increase its activities by about US$ 1 million each year during the next five years. The increase is anticipated because of the defined projects that are underway as well as other projects that are likely to start soon. For many of the new projects, funding has already been identified. Thus, the annual budget for 2002 is expected to be about US$ 15 million and by the year 2006, is likely to be about US$ 20 million. We anticipate that the funding from government aid agencies will remain stable or will increase somewhat, but that the majority of the increase will be from research granting agencies (e.g. NIH), foundations, companies, and individual donors. The Centre initiated programmes: "Circle Around the Centre" for individual contributions and "Corporate Sponsors Group" for companies to support the Centre.

...the Centre's endowments are presently valued at about US$ 9 million

In addition to the annual income to the Centre, endowments have been formed for the Centre as a whole, as well as specifically for the Dhaka Hospital. **At present, the total value of the endowments is about US$ 9 million.** There is currently a special effort to obtain contributions to the Hospital Endowment Fund (HEF), and with prudent investments, a goal of US$ 20 million by the year 2010 has been set.

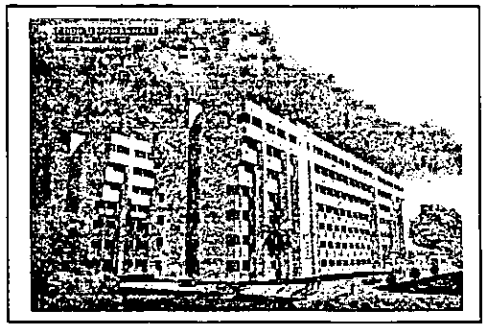
During the last decade (between 1994 and 1999), the Centre accumulated a significant deficit of about US$ 4 million caused by the rapid shift of donors from core to project funding, along with the cost incurred to maintain hospital services in Dhaka and Matlab. The Centre was not able to adapt to this rapid shift in donor funding as quickly as the donors were able to change their pattern of funding. The unfortunate accumulation of this deficit has had considerable negative impact on the creativity and flexibility of the Centre's programme. Since 1999, the Centre has balanced its annual accounts and has been able to

[2] Common institutional costs are sometimes referred to as indirect costs.

decrease the accumulated deficit, according to a plan adopted by the Board of Trustees that year. By the end of 2001, the deficit had decreased to less than US$ 3 million (reducing the deficit by 25% in three years). **By the year 2010, the plan is for the deficit to be eliminated. However, the more critical concern is for the Centre to continue to carry out its life-saving and scientifically-creative mission while managing its resources in a responsible manner.**

...the Centre aims to eliminate its deficit by 2010, while continuing to carry out vital resaerch and managing its resources responsibly

During the next five years, the Centre will upgrade its physical facilities in several ways as outlined in the Master Plan currently being developed. A new outpatient clinic building has been completed and this houses the PSKP[3] clinic, as well as additional space for the Centre's Clinical Sciences Division and the Nutrition Programme. Additional physical changes include additional space for STD and virology laboratories, renovation of the diagnostic unit, renovation of the staff clinic and the crèche, renovation of other offices and conference rooms, and improvement of the grounds and gardens.



The major project for the Master Plan however will be the completion of the Centre's main building in Mohakhali that will be extended to eight floors from its current three floors. This expansion will accommodate the overcrowded hospital inpatient wards, short-stay wards, and outpatient facilities. It will also house a new and expanded library, new laboratories, additional office space, expanded training and computer facilities, and dining and activity facilities. A utilities building will be needed to house the maintenance units and new electrical generation equipment. During a subsequent building phase, a second building will be constructed to house the additional offices. This new building will replace several temporary buildings that have already outlived their expected life by many years.

....the Centre will upgrade its physical facilities over the next five years

Some expansion will also be needed in Matlab to accommodate increased activity there. The Centre also owns a large office and guesthouse in Chakaria as a base for its fieldwork in this region, and it continues to own facilities in Teknaf. The Teknaf property is currently leased to an NGO for a nominal fee, but could represent an additional resource for the Centre in the future.

...the Centre will introduce a new human resources management system

Management of human resources will be changed during the next five years. Originally the system has used the system of the United Nations (UN) as the basis for a human resources system. This had the benefit of using an established and

[3] Progati Samaj Kallyan Pratisthan (PSKP), an NGO supported by John Snow International (JSI).

stable system with tested personnel rules. However, the UN system has had frequent changes in its pay scale, as well as its rules and procedures that are difficult for the Centre to adopt, and in some cases are inappropriate. Also, the UN system fits better with a civil service career structure with a stable revenue source rather than a research organization that must be more adaptable to rapid changes in scientific and funding opportunities. **The Centre's new human resources management system will be a hybrid of that found in the private sector and a UN organization, but it will certainly be more merit-based, flexible, and market-driven.** The Centre will attempt to hire and retain excellent staff and to be among the best employers in Bangladesh at about the 75 percentile of the market, but it can no longer use the UN system as its only benchmark.

...the Centre will continue to emphasise staff development

Staff development has been a major part of the Centre's programme and this will continue in the future. A change in staff development policies will be to gear the staff development programme more toward the anticipated future scientific and technical needs of the Centre rather than viewing staff development as a "benefit" for long service at the Centre. The numbers of scientists with advanced degrees have increased, and there will be a greater need for sabbaticals to maintain advanced skills rather than doctoral training to develop junior researchers, as has been the need in the past.

The Centre has recently adopted new policies regarding the status of the international level of Bangladeshi staff in an attempt to retain the highly valued senior scientific staff. Previously, international staff members were limited to six years of international service. The new policy allows such scientific staff to remain at the Centre at an international level, but with a salary that depends on the grants being raised by project donors. It is anticipated that this incentive system will stimulate productivity, will help the Centre retain key leaders, but will protect the Centre from financial risk.

Some of the changes in the Strategic Plan will require modifications to the ordinance. The major change needed is a change in the official name of the Centre. It is proposed that the name be changed to International Centre for Health and Population (ICHAP), while keeping the same logo. The other major change is to release the Centre from the reference to HR policies and salaries comparable to the UN scale, since this is not an appropriate standard for a research institution such as ICDDR,B. Since the ordinance is an official document from the Government of Bangladesh, an amendment will require passage through Parliament.

Looking Forward

The Centre has matured over the last 40 years and it continues to look forward to a bright future. One might expect the job of the Centre to be finished within the next few years, that "health for all" will have been accomplished, and that there would be no need for the Centre to continue. Unfortunately, this is unlikely and the coming years will present even greater challenges than those of the past. In fact, the success of the Centre will depend, in great part, on the ability of the Centre's scientists to forecast problems of the future, and to adapt to the changing needs of Bangladesh and other developing countries. Some of the new challenges that will certainly be important will include:

- Control of HIV-AIDS, tuberculosis and malaria in a changing environment,
- Rapidly evaluating new vaccines that may be useful for developing countries in a manner that will assist policy makers determine their utility,
- Incorporating the newest molecular methods (e.g. genomics and proteonomics) into research that is relevant for developing countries,
- Continuing increase in antimicrobial resistance among infectious diseases,
- Adapting to a rapidly increasing population, even if fertility rates decline,
- Problems of an aging population with increasing rates of disability,
- Health impacts related to urbanization and industrialization,
- Managing the long term effects from arsenic exposure,
- Managing the increasing utilization of community clinics and maternity centres,
- Creating a model for sustainable facilities for easily treatable, common, acute life-threatening illnesses,
- Adapting to new systems for providing health care, likely to be increasingly based on self-sustaining, fee-for-service and insurance systems.

...the Centre's Strategic Plan may involve a change in the ordinance

The challenges of improving health in developing countries will continue throughout the next century, and we expect that the mission of the Centre will continue and expand for a very long period.

Background

The Board of Trustees (BoT), at its June 2000 meeting, asked the Centre to develop a Strategic Plan for the next five years. In July 2000, the Centre Director set up a Strategic Planning Core Group (SPCG), headed by the Associate Director and Head, Policy and Planning, and comprising two representatives from each of the four scientific Divisions and four representatives from the Director's Division, to work under the overall guidance of the Centre Director. The SPCG had a number of meetings, and finalized two sets of questionnaires, one to be completed by the Principal Investigators and the other by the Associate Directors and Programme Heads. Subsequently, the SPCG developed checklists to generate additional information and reach consensus on some major issues such as the Centre's mission, vision, and priorities.

The basic approach adopted for the development of the Strategic Plan included three stages: (1) situation analysis; (2) formulation of vision statement and future directions; and (3) formulation of Strategic Plan/proposed actions. The Strategic Plan development process comprised: (i) major activities under each of the above three key aspects, (ii) methods and processes for accomplishment of the proposed activities, and (iii) timelines and responsibilities for the proposed activities.

With the finalization and approval of the Strategic Plan by the BoT, the process of developing a mechanism to assess the performance of the Strategic Plan would be initiated: (i) to examine whether the Centre is on the right track, (ii) to be responsive to major change(s) that could not be foreseen while preparing the Strategic Plan, and (iii) to assess how implementation of the Strategic Plan affects the institutional and financial sustainability of the Centre.

At the June 2001 BoT meeting, the draft Strategic Plan was presented. Useful discussion followed, and the draft plan was modified accordingly. There was further discussion at the November BoT meeting and the revised plan will be shared with the Government of Bangladesh (GoB). Based on inputs and suggestions from all concerned, the draft Strategic Plan will be considered at the June 2002 BoT meeting. A salient feature of the Strategic Plan is its participatory nature, with the involvement of the Centre staff at different levels, the BoT, the GoB and the donors.

Brief History

In 1960, the Cholera Research Laboratory (CRL) was created under the Pakistan-SEATO agreement to study the epidemiology, treatment and prevention of cholera. In 1963, a field site was opened in Matlab, rural Bangladesh, and a series of cholera vaccine trials was initiated. In 1966, the Demographic Surveillance Sys-

tem (DSS) was set up, and in 1968 the first successful clinical trials of Oral Rehydration Solution (ORS) were completed. Indeed, the CRL conducted research that now forms the core of the global knowledge on diarrhoeal diseases, and led to the development of ORS which is now used world-wide for the treatment of diarrhoeal diseases, and is estimated to save three million lives annually. The pioneering work of the Centre in the development of ORS has been acclaimed worldwide, and in June 2001 the Centre received the first Gates Award for Global Health.

In 1978, the Government of Bangladesh (GoB) passed an Ordinance, making the CRL an international institution, and renaming it the International Centre for Diarrhoeal Disease Research, Bangladesh (ICDDR,B), hereinafter referred to as the "Centre". Under the Ordinance, an international Board of Trustees (BoT) was set up to provide overall governance for the Centre. With the internationalization of the Centre, its focus broadened to include not only cholera and diarrhoeal diseases but also family planning, fertility and nutrition; and over time child health, reproductive health, health systems research and environmental health. In addition to conducting basic and applied research, the Centre runs a large hospital in Dhaka caring for over 100,000 patients annually and provides training to scientists and public health professionals from around the world. Furthermore, it provides valuable technical assistance to the GoB and NGOs. Thus, it has evolved from being primarily a research institution to one that also provides clinical and laboratory services, training, and technical assistance (Annex I gives a brief history of the evolution of the Centre).

Over the years, the Centre has attracted scientists from all parts of the world, including Bangladesh. This has resulted in a powerful cross-fertilization of ideas and approaches, thereby contributing considerably to the productivity of the Centre. The publication record of the Centre (over 2000 scientific publications in peer-reviewed journals and numerous working papers and other special publications since 1978) provides evidence of the level of research that is being carried out at the Centre. The Centre has trained over 20,000 health and family planning professionals from 78 countries in five continents across the globe, who have applied what they have learned at the Centre in their own countries. In addition, the Centre has provided valuable technical assistance to the GoB and NGOs in Bangladesh in the design of a number of important programme interventions. In short, the Centre has used science and technology to develop solutions to major health and population problems in Bangladesh, with global application. Indeed, the work of the Centre is often cited as the authority for important health and population-related decisions taken by governments and development agencies throughout the world. Also, the Centre takes pride in the fact that many of its alumni are influential policymakers in their respective agencies.

Organization and Management

Board of Trustees

A 17-member international Board of Trustees, comprising distinguished researchers, public health professionals, representatives of the GoB and the private sector, governs the Centre. A majority of the members are nationals of developing countries including three from Bangladesh. The Board also includes one representative from the World Health Organization and one from another UN agency, currently UNICEF. The Board is a self-selecting body, and members serve for three-year terms, and they may serve for a maximum of two terms. While there is no specific geographic representation, the Board has traditionally represented different regions of the world. The Board appoints a Director and approves the selection of all staff at the rank of P5 and higher, including the Associate Directors who head the scientific Divisions.

An international Board of Trustees governs the Centre

Divisions

There were 1,117 permanent staff as of July 2001 including 12 international staff. The staff work in one of five scientific/technical Divisions or in one of four administrative offices within the Director's Division.

Clinical Sciences Division (CSD)

This division conducts hospital- and community-based clinical research in diarrhoeal diseases, respiratory infections, nutrition and child development. The Division operates the Dhaka Hospital of the Centre that provides treatment to around 120,000 patients each year (about 60% of them are children under the age of five) with uncomplicated and complicated diarrhoeal diseases, and associated health problems including malnutrition and pneumonia. Prevention strategies such as immunization of children and women, education of mothers on prevention and home management of diarrhoeal diseases and malnutrition, and counselling to lactating mothers on exclusive breastfeeding are also undertaken at the hospital. Provision of theoretical and hands-on training on case management of diarrhoeal diseases and associated health problems, and research methodology are also important activities of the division.

Five scientific/technical divisions supervises the research, service and training.

Public Health Sciences Division (PHSD)

The PHSD is organised through seven units, namely, reproductive health, child health, health and demographic surveillance, Matlab health research, epidemic control preparedness, health economics, and social and behavioural sciences. PHSD evaluates and tests community-based interventions to improve the health of the

population, particularly of the poor. Major current studies include integrated management of childhood illnesses (IMCI), essential services package, safe motherhood, family planning, nutrition and reproductive health interventions. The Division has broadened its agenda by conducting research on low birth weight, tuberculosis, arsenic contamination of ground water, and interaction of poverty and health. PHSD operates the unique Matlab field site including a small hospital and clinics and the Health and Demographic Surveillance System (HDSS) that has been running for 35 years covering a population of over 200,000. The other field sites include Chakaria, a remote rural area in the southeast coast of Bay of Bengal.

Laboratory Sciences Division (LSD)

The LSD conducts laboratory-based research to adopt, develop and use the best scientific technology to address infectious diseases and related health problems of disadvantaged populations in partnership with other divisions of the Centre and with national, regional and international institutions that share our commitment to maintain healthy populations. It has several state-of-the-art laboratories including laboratories for Enteric and Respiratory Microbiology, Environmental Microbiology, Immunology, Molecular Genetics, Nutritional Biochemistry, Parasitology, Reproductive Tract Microbiology, Tuberculosis, Virology and Clinical Diagnostic laboratories. In addition, LSD has taken up activities on HIV surveillance, voluntary counselling and testing and other research projects for investigating the dynamics of a possible HIV epidemic. Some recent discoveries involve the molecular and genetic mechanisms for pathogenesis of enteric bacteria, increasing antibiotic resistance of enteric, respiratory and sexually-transmitted organisms, immune mechanisms of amoebiasis, and changing serotypes of rotavirus. The mandate of the Division is to apply high quality science to alleviate diseases.

Health Systems and Infectious Diseases Division (HSID)

The HSID, in cooperation with the Government of Bangladesh, conducts community-based family health research in maternal and child health, communicable diseases, immunization, nutrition, reproductive health, and health-delivery systems. The HSID maintains large urban field areas in Dhaka and rural field areas in Mirsurai and Abhoynagar where large-scale effectiveness studies are carried out. Current activities include trials of new vaccines, tests of nutritional interventions, studies on the appropriate management of sexually transmitted infections, and epidemiology of dengue fever. The Division hosts the programmes on Infectious Diseases and Vaccine Sciences and the Health and Family Planning Systems.

Information Sciences Division (ISD)

The ISD facilitates the two-way transfer of knowledge in and out of the Centre. The Dissemination and Information Services Centre

(DISC) provides library and information services to the Centre staff and external users who have library membership and is responsible for the production of the Centre's publications, including the quarterly *Journal of Health, Population and Nutrition*, two newsletters, *Annual Report*, working papers, scientific reports, and special publications. The Training and Education Unit (TEU) arranges national and international courses on the clinical management and laboratory diagnosis of diarrhoeal diseases, reproductive health and family planning, child health and survival, nutrition, epidemiology, and research methods. The Computer Information Services (CIS) is responsible for maintaining and developing the local computer network and for access to email and the Internet, and for assistance in developing new software and applications, and data storage and manipulation.

The Director's Division

The Director's Division provides the administrative and infrastructural support essential for the efficient functioning of the research, service, training and technical assistance activities of the Centre. The Director's Division currently consists of offices for Policy and Planning, External Relations and Institutional Development, Human Resources, Finance, and General Administration. The Director's Division also houses the secretariat for the Ethical Review Committee (ERC) and the secretariat for the Asian Scientific Conference on Diarrhoeal Diseases and Nutrition (ASCODD).

The administrative functions are carried out by the offices within the Director's Division

Programmes

With a view to better position the Centre to respond to the emerging priorities in the health and population sector as well as of the donor community and realizing the need for greater synergies and coordination among the activities of the scientific divisions, the Centre, over the last few years, has set up several cross-divisional Programmes. These are: Child Health, Reproductive Health, Nutrition, Infectious Diseases and Vaccines, Health and Family Planning Systems, and Population. These crosscutting programmes are aimed at enabling the scientists from one Division to work closely with their colleagues in other Divisions and to move research findings from basic findings to their application in an efficient manner.

Six cross-divisional programmes help to define the research priorities, and facilitate moving research from a basic finding to useful knowledge.

Child Health

The mandate is to contribute to the development of cost-effective child health and survival programmes by enhancing the understanding of the causes of childhood morbidity and mortality and by testing cost-effective public health interventions. Major emphasis is given to decreasing mortality during the neonatal period, and to implementation of the integrated management of childhood illnesses.

Reproductive Health

The mandate is to address issues related to reproductive health research with major emphasis on safe motherhood and reducing maternal mortality, improving family planning acceptance and performance, and prevention and treatment of sexually transmitted infections. Major emphasis is given to including adolescents and men into reproductive health programmes.

Nutrition

The mandate is to improve the overall nutritional status and address other nutritional issues applicable to the population by conducting relevant research and translating the research results into meaningful action. Major emphasis is given to prevention of and treatment of severely malnourished children, evaluation of micronutrients such as zinc, and reducing the adverse consequences from low birth weight.

Infectious Diseases and Vaccine Sciences

The mandate is to facilitate and focus on the Centre's expanding role in the prevention and control of infectious diseases relevant to Bangladesh and other impoverished settings globally, with particular emphasis on epidemiology, clinical and laboratory research, and vaccine evaluation. Major emphasis is given to evaluation of vaccines for enteric and respiratory infections and control of tuberculosis, dengue, HIV-AIDS, and malaria.

Health and Family Planning Systems

The mandate is to conduct research relevant to national health and family planning programmes through identification of priority problems; design, implementation, evaluation and replication of cost-effective and sustainable interventions; and provision of technical assistance that will deliver maximum health benefits to the community, making optimal use of available knowledge, solutions and resources. Major emphasis is given to supporting studies of practical value to improving the Essential Services Package (ESP), evaluation of government and NGO programmes, development of evaluation tools, providing technical assistance, and understanding issues of health equity.

Population

The mandate is to understand demographic trends in Bangladesh and to assist with development of policies and programmes that will decrease fertility and mortality while respecting individuals' desires and expectations. Special emphasis is given to studies to understand the levelling of the fertility rates at a level above replacement rates and to factors affecting increasing urbanization, as well as the health impacts of the lowering fertility and urbanization.

New Programmes

The Centre expects to form at least two new programmes in the near future including one for safe water and another for HIV-AIDS. The programme on safe water will coordinate those activities that are involved with provision of bacteriologically-safe water, arsenic contamination in water, and operations research related to provision of safe water. The HIV-AIDS Programme will greatly expand the ongoing activities already started to control the impending HIV epidemic in Bangladesh.

Existing Activities

The activities of the Centre fall in four broad categories: research, training, technical assistance and services.

As of early 2001, the Centre had a total of 85 ongoing research and technical assistance projects. These projects fall under nine themes: nutrition, child health, health systems, emerging and re-emerging infectious diseases, clinical case management, reproductive health, social and behavioural sciences, vaccines, and population dynamics. The ongoing projects cover various topics, including, for example, prevention, pathogenesis and risk factors, treatment and management, molecular epidemiology, diagnostics, immune response, effectiveness and impact; and strengthening of knowledge, service delivery, support systems, and financial sustainability. The ongoing projects are divided into 12 major types of studies, with community-based trials/interventions being the most frequent type, followed by clinical trials, cohort or follow-up studies, surveillance/monitoring, and cross-sectional/descriptive studies.

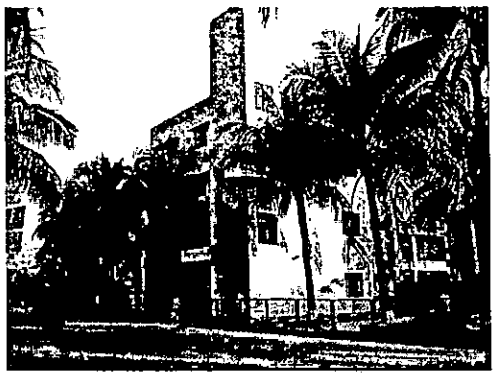
Insert map of field areas for the Centre

The Centre has several field sites, spread across different parts of the country. The majority of the ongoing studies are carried out at the Dhaka Hospital, followed by Matlab, rural Family Health Research Project (FHRP) sites (Abhoynagar and Mirsarai), selected urban sites, and a few in other specific areas. (See map).

The Centre operates two hospitals that constitute the infrastructure for clinical research, patient care, and research and case management training. In addition to supporting research activities, the two hospitals provide patient services for the treatment of diarrhoeal diseases, malnutrition, and acute respiratory infections and, at the Matlab facility, reproductive health services including emergency obstetric care. The hospital-based clinical and laboratory facilities provide information to the Government of Bangladesh on trends and patterns in the epi-

demiology of diarrhoeal diseases through a hospital surveillance system.

At the Dhaka Hospital, about 120,000 patients are treated annually: 85 percent are children and 60 percent are under five. At Matlab, over 20,000 patients are treated annually of whom over 80 percent are children and 60 percent are under five. Children under five represent the most vulnerable population for mortality and morbidity from diarrhoeal diseases, vaccine preventable diseases, acute respiratory infections and related issues of malnutrition. Most of the Dhaka patient population lives in the urban slum areas and most are the poorest of the poor.



Starting in March 2000, the Centre implemented the first phase of its plan to "franchise" its Dhaka hospital services with John Snow International (JSI) and Progati Samaj Kallyan Pratisthan (PSKP), a JSI-supported NGO[4]. The expected outcomes of this initiative include reduced patient load and financial pressure on the Centre's Dhaka hospital; improved health care delivery (decentralization, improved case management of diarrhoeal disease and malnutrition within a package of comprehensive health care services); and a new infrastructure for the Centre to undertake operations research and surveillance.

The clinical laboratory services unit provides diagnostic support to the Dhaka Hospital, the staff clinic, and paying users; enables scientists to carry out research and provide research support to protocols of LSD and other divisions; and supports training programmes organized by the Centre. The clinical laboratories services were opened to private paying users in 1990, and since then the demand for its services has been constantly rising. The total amount of cash revenue earned from paying users from 1990 to 2000 was over US$ 3.0 million. It is generally felt that the revenue from the clinic can be increased further.

The Centre's Training and Education Unit (TEU) provides training facilities to Bangladeshi and other nationals in areas in which the Centre has a comparative advantage. The TED offers short-term national and international training courses primarily on the clinical management and laboratory diagnosis of common diarrhoeal diseases, and health systems research.

Since 1978, nearly 20,000 scientists, physicians, laboratory personnel, programme managers, trainers and students from various countries have received training at the Centre. The Centre's Training Department has contributed towards the strengthening of national Control of Diarrhoeal Diseases (CDD) programmes in developing countries.

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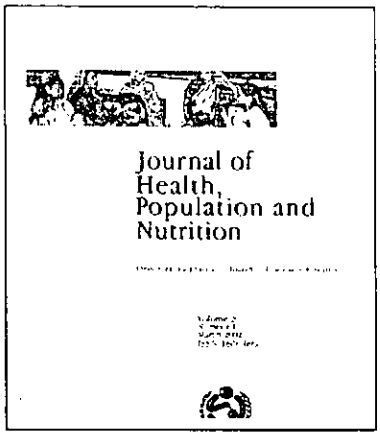
[4] Funded through USAID

The Dissemination and Information Services Centre (DISC) disseminates research findings and manages information resources. To support this activity, DISC maintains one of the richest libraries in the country. DISC is composed of the Information Services Branch, Publications Services Branch, and Audiovisuals Unit.

The Library has a collection of over 45,000 books, journals, reprints, documents, and audiovisuals, and receives over 300 current journals. The library provides a full range of modern information services.



The Publications Services Branch produces the Centre's Annual Report, Journal of Health, Population, and Nutrition (JHPN), Glimpse, working papers, scientific reports and other documents.

The Audiovisual Unit supports the Centre's communication activities through visual aid development, graphics and artwork, photography, tape-slide preparation and projection, recording of tape-slide presentations and sound mixing, and video shooting.

The major tasks of the Computer Information Services (CIS) are to: (i) provide services on all host computers and Internet connections; (ii) provide IT services to all scientific and support division and units; (iii) maintain, administer and manage all LANs in the Centre as well as the backbone network of over 500 networked PCs and 10 servers; and (iv) maintain Internet services for email, world wide web, and interoffice communications.

Collaborations

The Centre has wide-ranging collaboration with universities and research institutions, both in Bangladesh and abroad. Collaboration within Bangladesh is conducted through relevant government agencies, NGOs, universities and research institutions. The nature of collaboration includes material support, scientific and technical assistance, expert advice and exchange of ideas, technology transfer, and financial support. Over the years, the Centre has entered into collaborative agreements with many of the world's leading international health research institutions. These agreements provide the basis for international collaboration and partnership in health and population research activities as well as staff development for the Centre's scientists.

Collaboration within the region is expanding and includes collaborative work in Nepal and India and Thailand. An example of the regional collaboration includes the South Asian Association for Regional Co-operation (SAARC) fellows programme, the hosting of the ASCODD secretariat at the ICDDRB, joint protocols with the National Institute for Cholera and Enteric Diseases (NICED) in Kolkata, India, a technical assistance project in microbiology in Nepal, and joint research projects with scientists in Thailand. The Centre also has collaborative links with several UN agencies such as

WHO, UNICEF, UNAIDS and UNFPA. Further, the Centre collaborated with the International Union for the Scientific Study of Population (IUSSP) and Partners in Population and Development (PPD) in hosting the International Seminar on Family Planning Programmes in the 21st Century.

Health Situation as a Context for the Centre

Global Setting

In 1998, the world's population was growing at 1.3 percent per year, or an annual net addition of 78 million people. Ninety seven percent of the world population increase takes place in the less developed countries. Sixty percent of the world population increase is contributed by only 10 countries, with 21 percent contributed by India and 15 percent by China. Every year, the population of Asia increases by 50 million, the population of Africa by 17 million, and that of Latin America and the Caribbean by nearly 8 million. In 2000, the world population was 6.1 billion people. It is projected to increase to 7.2 billion in 2015, and further increase to 8.9 billion by 2050. Therefore, the developing countries still have a continuing need to pursue strong family planning programmes and research in issues relating to cost-effective and sustainable population strategies.

Financing of these important activities is a major problem. Expenditure on family planning in developing regions was US$ 9.9 billion in 1996, of which about 8.0 billion was contributed by national governments and US$ 2.0 billion by donors. Funding requirements will rise about three-fold to US$ 21.7 billion by the year 2015, as the number of eligible couples increases (Bulatao, 1999).

The global demography trends are exhibiting new challenges for both the developed and developing countries. For the developing countries, some of the key emerging issues relate to rapid urbanization, environment degradation, malnutrition and notable increase of older people in the overall population structure. If not properly addressed, in combination with underdevelopment and limited resources, both human and financial, such problems can become almost insurmountable and tie countries down in vicious cycles of further poverty and violence.

The era of globalization is presumably opening many opportunities for millions of people around the world. Increased trade, new technologies, foreign investments, expanding media and Internet connections are expected to fuel economic growth and human advance. All this offers enormous potential to eradicate poverty and create an enabling environment for people to enjoy long, healthy and creative lives. However, experience of the last two decades indicates that most of the low-income countries have been unable to realize the opportunities of economic and technological globalization. These countries are becoming even more

marginalised. Inequality has been rising in many countries since the early 1980s. Globalization was predicted to result in convergence; in fact, disparities have been widening between the developing and developed economies. For instance, by the late 1990s, one-fifth of the world's population had 86 percent of the world's GDP, while the bottom one-fifth had only 1 percent. In 1993, just 10 countries accounted for 84 percent of global research and development expenditures and controlled 95 percent of the US patents of the past two decades (Overview: Globalization with a Human Face, Human Development Report 1999).

Since the 1978 Declaration of Alma Ata, which followed the promise of "Health for All by the Year 2000", there has been progressive physical and social deterioration of communities, countries and the environment, with increasing polarization of wealth distribution. This has resulted in a decline in the health of the world's poor, characterized by a high burden of disease, death and disability associated with a number of new and re-emerging conditions including AIDS, drug-resistant malaria and tuberculosis. For the majority of people, this has been accompanied by lack of access to decent affordable health care.

The dismal state of the health of the poor takes place against a background of political uncertainty, social and economic upheavals and cultural change. At the same time, rapidly increasing globalization, and the revolution in information and communications technology, has made this world a global village which means that what happens in one country potentially affects every other.

Nowhere is this clearer than in health where the rapid spread of communicable diseases has emphasized once again our interdependence – and vulnerability – in the face of these global threats. At the same time, major scientific development and breakthroughs, such as the human genome project, innovative technologies that have accelerated drug and vaccine development, and the crucial evaluative frameworks now available to appraise health reform efforts and the performance of national health systems (WHO, 2000) hold the promise of more effective prevention, management and treatment for an array of critical health problems. However, the inherent danger in the powerful and inexorable forces of globalization, and similarly with the revolutionary applications now arising from new genetic understanding, is their potential to accentuate inequality. While their fruits are enjoyed by those nations and groups with the means of access, they are generally not available to the world's poor who, instead, progressively crowd the margins behind barriers that are ever more difficult to penetrate (International Conference on Health Research for Development – Conference Report, Bangkok, October 2000).

The resources devoted to health systems are very unequally distributed, and not at all in proportion to the distribution of health problems. Low- and middle-income countries account for only 18

percent of world income and 11 percent of global health spending (US$250 billion or 4 percent of GDP in those countries). Yet, 84 percent of the world's population live in these countries, and they bear 93 percent of the world's disease burden. These countries face many difficult challenges in meeting the health needs of their populations, mobilizing sufficient financing in an equitable and affordable manner, and securing value for scarce resources (The World Health Report 2000, WHO). Overall, the world macroeconomic situation appears to be quite dismal. Poor countries are becoming poorer, debt burdens are soaring, and it is becoming increasingly difficult for them to retire and service the debts. As a result, they are forced to slash their budgets and expenditure, and health and social services are the usual casualties in this exercise.

Added to the above are the issues of allocative inefficiency. Global spending on health research for both the public and private sectors amounts to about US$56 billion per year (1992 estimate). However, less than 10 percent of this is devoted to 90 percent of the world's health problems – a misallocation often referred to as "the 10/90 gap." It has been estimated that pneumonia, diarrhoea, tuberculosis and malaria, which together account for more than 20 percent of the global disease burden, receive less than 1 percent of the total public and private funds devoted to health research. The human and economic costs of such misallocation of resources are enormous (The 10/90 Report on Health Research 2000).

Understanding how countries finance their health care systems is of critical importance for developed and developing countries alike. The methods used to mobilize the resources that support basic public health programmes, provide access to basic health services, and configure health service delivery systems affect people's economic and political well-being.

In 1994, global spending on all health activities totalled US$2,330 billion, or about 9 percent of global income. Of this, high-income countries accounted for 89 percent of the total health expenditure, while their populations accounted for just 16 percent of the global population. The extreme disparity between the amount of resources that low- and middle-income countries and high-income countries devote to health care reflects the widely varying capacities of these country groups to provide health services.

Average per capita health expenditures range from US$16 in low-income countries to US$1,468 in the high-income countries – about a hundred-fold difference. Developed countries also spend more on health as a percentage of GDP. Low-income countries spend about 4 percent of GDP on health, while the high-income countries spend about 7 percent. South Asia spends the least on health as a percentage of GDP (3.7%).

To close the resource gap, developing countries will have to make sizeable investments in health services and increase spending at rates faster than those of high-income countries. Thus, policymak-

ers will continue to face the perpetual challenge of raising sufficient revenue for the health sector in an equitable and efficient way. Although most countries recognize that health care is a right of all citizens – as embodied in the WHO goal of "Health for All by the Year 2000" – there are no clear guidelines on how this objective translates into health service delivery, and whether such services are affordable (Innovations in Health Care Financing, World Bank Discussion Paper No. 365, 1997).

The gap between rich and poor nations is even more dramatic, when the distribution of the global disease burden is considered. Of the estimated 1.4 trillion Disability Adjusted Life Years (DALYs) lost in 1990, industrial countries accounted for just 7 percent. Of these, 81 percent were attributable to non-communicable diseases. Developing countries, which accounted for 93 percent of the global disease burden, had a rather different disease profile. Except for countries in Europe and Central Asia, which have demographic and epidemiological profiles similar to those in industrial nations, nearly half of the DALYs lost in developing countries were caused by communicable diseases, mainly among children.

Aging populations and the rising incidence of non-communicable diseases will continue to raise the cost of patient care. In industrial countries, a large portion of health spending is used for a small percentage of patients in the final years of their lives. Most of these patients are suffering from some form of non-communicable disease. Over the next three decades, developing countries will undergo a major demographic and epidemiological transition, with significant increases in the burden of injuries and non-communicable disease. Epidemics of non-communicable diseases such as cardiovascular diseases, neuro-psychiatric conditions, and chronic respiratory infections, as well as the growing burden of violence and injuries, are increasing in low-income countries (The 10/90 Report on Health Research 2000). These diseases are more expensive to treat and harder to prevent. This transition will reorient demand for health services, including research, and increase pressures for new investment in health care and health systems development.

Bangladesh Setting

Most developing countries, including Bangladesh, face difficult challenges caused by poverty, malnutrition, and poor health, poor performance of health systems, and inadequate and/or unsustainable health care financing. More detail of the Bangladesh setting is discussed in World Bank, Health Futures in Bangladesh: Some Key Issues and Options. (draft, June 2001) and the Demographic Health Survey, 1999-2000 released in 2001.

Bangladesh is the eighth most populous country in the world with a population of around 130 million. The country has the highest

population density in the world. It is one of poorest countries in the world with a per capita income of around US$ 380. As a result of overcrowding, poverty, and poor access to health services, infectious diseases and malnutrition are common.

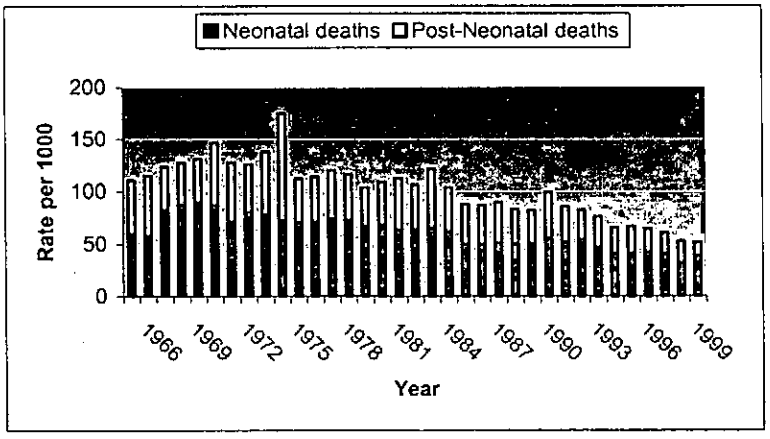
Cholera and all other known forms of diarrhoeal disease are endemic to Bangladesh. The Centre's two hospitals and its state-of-the-art laboratories, coupled with the existing surveillance systems and field sites, offer unique opportunities for research, training, services and technical assistance. Such opportunities enable scientists to carry out comprehensive studies on cholera and other enteric diseases, together with other public health concerns, in the environment in which they thrive, with access to both hosts and agents.

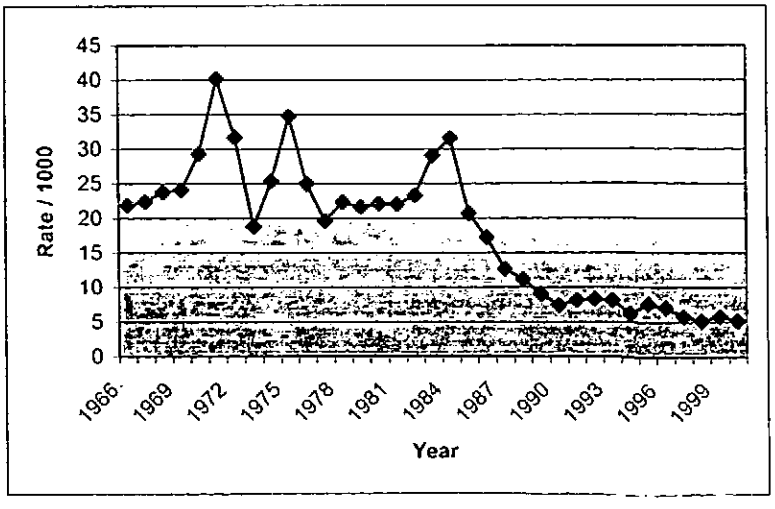
Seventy-five percent of total DALYs in Bangladesh is accounted for by seven conditions: respiratory diseases, perinatal conditions, diarrhoeal diseases, accidents, malnutrition, cardiovascular diseases, and child birth related complications. Although infant and under-five mortality rates have declined considerably, they are still high. The maternal mortality rate in Bangladesh is one of the highest in the world.

Malnutrition is a major cause of Years Lived with Disability in Bangladesh. Half of all babies born are of low birth weight, about half of children are moderately malnourished, and about 12 percent are severely malnourished. As a result, 1 in 40 deaths is due to poor nutritional status. In addition, half of all women are malnourished.

Among the infant deaths, those that occur during the first month represent an increasing proportion as child health interventions have been more effective for the older infants and children above age one year. Among interventions that have been targeted to the neonates, the one with most impact has been immunization of mothers with tetanus vaccine to prevent neonatal tetanus.

Childhood infections have declined considerably in Bangladesh in recent decades due to the widespread immunization programme. Communicable diseases now





Childhood mortality (1 to 4 year) in Matlab from 1968

account for about 38 percent of DALYs. However, respiratory and diarrhoeal diseases are still the most common causes of death among children under five, accounting for about 40 percent of all Years of Life Lost. Tuberculosis is the second most common cause of death among adults. Tuberculosis causes about 70,000 deaths per year, with 300,000 new cases each year.

Non-communicable diseases are also major causes of death in Bangladesh, accounting for half of the Years of Life Lost. Deaths associated with complications of childbirth continue to be a major cause of concern.

There are marked health inequalities in Bangladesh. The probability of dying among infants in poor households is 1.7 times higher compared to that in richer households. Also, under-five mortality is higher in poor than rich households. Twice as many children in poor than in rich households suffer from stunted growth, and severe under-weight is five times as pronounced among poor children than among rich children. Communicable as well as non-communicable diseases are more prevalent in poor households.

Population growth is also a major development challenge in Bangladesh, and places a heavy burden on health care and social services. The current average fertility level in Bangladesh is over three children per woman of reproductive age, and has reached a plateau over the last several years. Although contraception has increased, the dropout rate is quite high. Also, the relative share of longer-acting methods has declined.

With demographic transition taking place, the disease patterns of the past century are changing. An important point to note is that in the future, communicable, perinatal and pregnancy-related complications as causes of death will decline in Bangladesh from about half of deaths to less than one-third of all deaths. By contrast, non-communicable diseases will account for over half of all deaths.

Thus, the Centre is located in a setting that provides itself with immense scope for research, training and services on diseases that not only affect Bangladesh but most of the developing world. In other words, the setting enables the Centre to bring science to where the problems exist.

Comparative Strengths

Infrastructure

The hospitals and clinical resources in Dhaka and Matlab provide a large patient population typical of those who will benefit from the advances in our research. Although only a small proportion participate in actual research protocols, those who do assure timely completion of studies on new drugs, vaccines, nutritional interventions, new rehydration solutions, and other new strategies for treating diarrhoeal disease, pneumonia and malnutrition. The

hospitals' Hospital Surveillance System (HSS) in Dhaka records information on every 50th patient, and every patient coming from the Health and Demographic Surveillance System (HDSS) area in Matlab. The surveillance records data on etiologic agents, physical findings, anthropometrics, socioeconomic, demographic characteristics, feeding practices, and the use of drugs and fluid therapy at home. This system thus allows scientists and physicians to improve care and preventive measures, as well as to monitor changes in disease patterns, including drug sensitivity.

The laboratories provide opportunities and facilities to study health problems commonly encountered in developing countries, using state of the art equipment. Also, the Centre has excellent laboratory animal facilities, including provision for inbred strains, as well as larger animals for media reagents.

The Centre's extensive rural and urban community-based health and family planning interventions, together with its excellent working relationships with the GoB and NGOs, provide exciting opportunities for social, behavioural and health systems research in a variety of settings. Years of experience and meticulous record keeping have given the Centre an invaluable wealth of information and data sets, enabling scientists to undertake high-quality research. Longitudinal data sets enable scientists to examine changes over time. The longitudinal data is included in the HDSS database. About 100 field workers collect this data from the 215,000 residents of the Matlab field area, and the data is computerized as a resource for the Centre's scientists as well as others who collaborate with the Centre. Previously, the demographic data was collected separately from the health information, but the two systems have now been merged into a single surveillance system.

In other urban and rural "extension areas", the Centre maintains demographic surveillance systems. These extension areas were funded by USAID through the Operations Research Project (ORP), but with the transition to the new Family Health Research Project (FHRP), these extension areas are funded more generally by ongoing research projects.

Modern computer systems, based on a 500+ user local area network, with a dedicated satellite link and microwave link to Matlab ensures rapid compilation and analysis of the extensive data collected by Centre researchers. The Centre's library, data archives, and publication facilities allow for rapid and effective exchange and dissemination of information.

The Centre's training facilities at Dhaka include a 192-seat auditorium (with the help of funds from the Sasakawa Foundation) and two large seminar rooms equipped with modern audio-visual equipment. The Centre also has a residential training facility at Matlab where groups can stay for several days while participating in hands-on experience in this rural area.

The Centre operates an Epidemic Control and Preparedness Programme (ECPP) that enables the Centre to assist the Ministry of Health and Family Welfare (MOHFW) during outbreaks of diarrhoeal disease, and to characterize disease and drug resistance patterns throughout the country. This programme continues to yield useful nationwide information on existing diseases as well new, emerging pathogens.

Since 1998, a second generation surveillance system for HIV has been conducted annually. So far, the Centre has conducted three rounds of serological surveillance. The total sample size is around 8,000, and includes sex workers, male-on-male sex partners, injecting drug users, STD patients and bridging populations such as truckers, rickshaw-pullers and dockworkers. The serological surveillance is coordinated with a behavioural surveillance, and is jointly published in cooperation with the office of the Director General Health Services. This serological and behavioural data thus forms the basis for action programmes to control or prevent the expected HIV epidemic in Bangladesh.

Multi-Disciplinary Human Resources

The breadth of disciplines among the Centre's scientific staff allows the Centre to address health and population problems from a wide variety of complementary approaches. For example, laboratory scientists and epidemiologists help scientists identify pathogens and disease patterns affected by emerging and re-emerging diseases such as dengue, TB, STD and malaria, while social scientists examine the changes in human behaviour and demographers analyze the effects on population. The results of their work are then fed into health care delivery systems, which are then refined and optimized by means of health systems research. The ability to draw on this diverse expertise allows researchers at the Centre to develop a comprehensive understanding of health and population problems and their potential solutions for Bangladesh in particular and developing countries in general.

Review Mechanisms

The Centre is committed to ensure that its research agenda is relevant and is at the forefront of international health. Furthermore, to ensure its scientific excellence and relevance and that the research agenda falls within the Centre's strategic areas of interest and competence, each **research protocol is subjected to internal and external peer reviews.** In addition, to maintain the highest standards of propriety, the Centre's **Ethical Review Committee** (ERC) critically examines the ethics of any proposed protocol.

The **Programme Committee** of the Board of Trustees meets biannually to review the scientific activities of the Centre and their implementation. In addition, the BoT commissions external reviews of the divisions on a regular basis.

With these mechanisms, the Centre ensures that its activities are well-organized and directed to the major health and population issues within its expertise, while maintaining the flexibility to respond to the changing needs and new discoveries that characterize health and population research.

Financial systems

The finance system provides a completely computerized accounting of all income and expenditure that allows the Centre to generate financial reports as needed for each donor. The Centre's accounts are audited annually jointly by a reputable multinational audit firm (currently Price Waterhouse) in association with a well-recognized local audit firm. In addition, special audits are conducted as needed for specific grants. Also as needed, audits are conducted to review specific financial actions within the Centre (e.g. interdepartmental charges, risk management of the financial system, etc.) In addition to the general audit, a specific audit is conducted of the "common institutional costs" (sometimes called indirect costs).

Ethical Reviews

The Ethical Review Committee (ERC), established through provision in the Centre's Ordinance, subjects each protocol involving human subjects to a review. The ERC reports to the Board of Trustees, but its members serve in their individual capacity with the exception of the Bangladesh Medical Research Council (BMRC) that must be represented on the ERC. Approximately one-third of the members of the ERC are scientists of the Centre, but the others are respected members of the local community, including both scientists and non-scientists. The membership includes women, members of the religious community, and legal professionals. The ERC has a Multiple Project Assurance (MPA) with USAID, and a Federal Wide Assurance (FWA 00001468) with the United States government. It uses the Helsinki Accord as its standard, and has formed its own set of procedures. The Committee meets monthly, but may hold extraordinary meetings if needed. Its meetings are recorded in official minutes.

Future Directions

Revision of mission statement

A review of the previous mission statement identified a few issues that needed to be addressed to ensure that the statement(s) adequately reflected the purpose of the Centre's existence, outlined its "business", and provided a statement of values that guide the accomplishment of the

Mission: *The mission of the Centre is to develop, test, and disseminate solutions to major health and population problems facing the world, with emphasis on simple and cost effective methods of prevention and management. The Centre carries out this mission through caring for patients and communities, advanced research, training, and communication, leading to policy and programmes.*

Centre's mission. Thus, the statement has been re-formulated into three sections: a mission statement, a values statement and a vision statement.

Priority Setting

The basis for setting priorities is provided by the Centre's broad mission statement, a well-defined vision for the future, a multi-disciplinary skills pool, long-standing evidence-based research experience, patient and field populations, and funding prospects. These aspects are combined with an evaluation of the cost-effectiveness of the activity, the feasibility of potential resulting interventions, and emerging new problems.

Values:

- *Excellence and high ethical standards in science and service*
- *Fairness to and respect of staff, patients, communities and partners*
- *Gender equity*
- *Responsible and efficient use of resources*
- *Responsive to emerging issues*

In setting its priorities, the Centre's guiding principles are: Global Health by the year 2020, the regional burden of disease/DALYs, and the local burden of disease.

"Life Cycle" Approach

[Insert figure of life cycle] In general, the "life cycle" approach conceptualizes the health, development, and research issues of individuals and families, and suggests intervention points where significant improvements can be implemented. The Centre places a great deal of emphasis on the periods immediately prior to pregnancy, the pregnancy itself, the delivery of the newborn infant and the period during infancy. In addition, the Centre places emphasis on critical periods of vulnerability, especially from common illness that are preventable or treatable using cost-effective methods. This is not, however, to exclude other periods of life (later childhood, adolescence, later adult years), but it does focus the Centre's resources on these particu-

Vision:

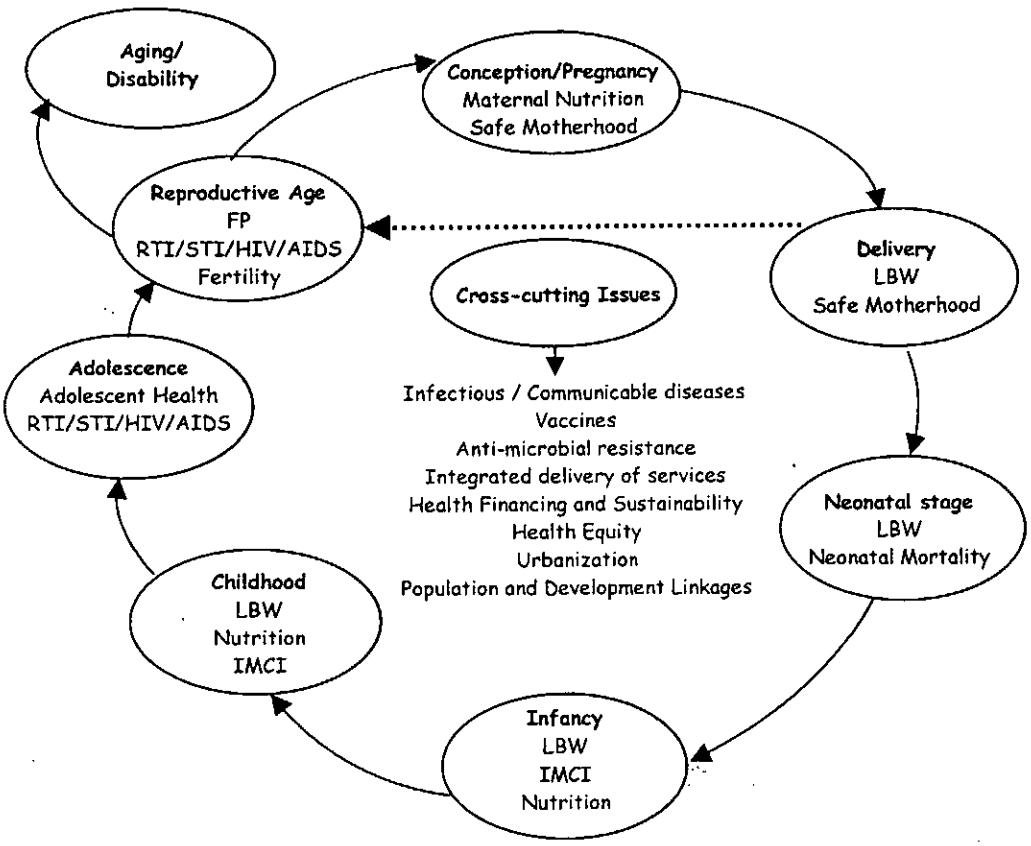
To be premiere centre for global health sciences, attracting the finest minds from Bangladesh and other developing and industrialized countries; to conduct excellent and relevant health research, service and training.

To remain responsive to, and be an advocate for, the health research needs of vulnerable populations,

To be a leader and a partner in national, regional and global efforts to improve the quality of life in developing countries.

To understand current population trends, and anticipate future challenges to plan for a brighter tomorrow.

Life Cycle Approach to Prioritization of ICDDR,B Research



larly vulnerable periods. It seems that interventions during the defined vulnerable periods will have the greatest payoff in terms of cost-effective and long-term improvements in health and development. The "life cycle" approach also suggests that the rewards of intervening at these crucial periods are likely to have payoffs in future generations.

The major challenges for the health research in the developing regions include population growth, emerging and re-emerging infectious diseases resulting from globalization and ecological changes, and non-communicable diseases with the rapid growth of medical technology and their implications on the costs of the health systems. The major research priorities of the Centre, at different stages of the life cycle are shown in the table.

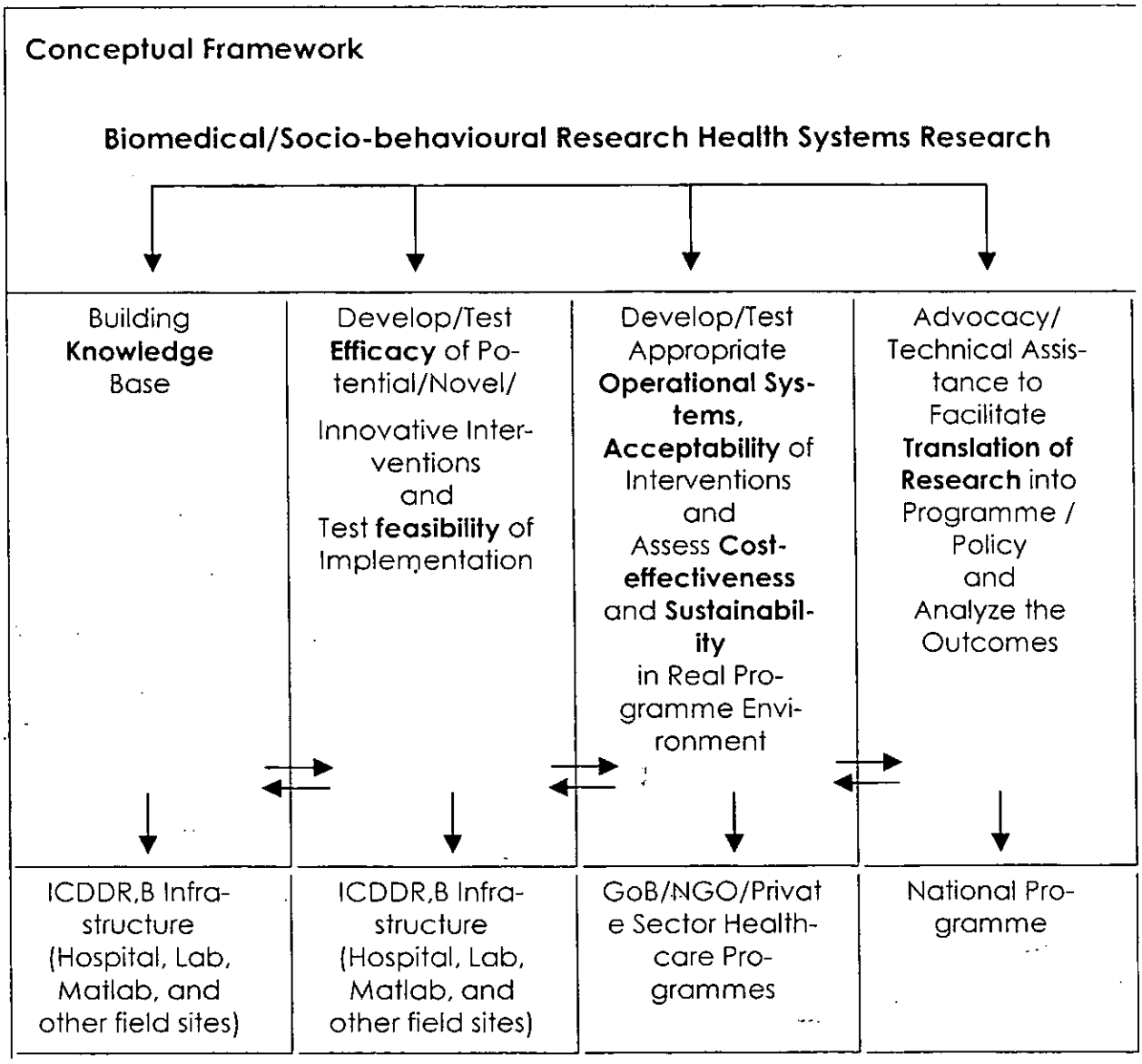
Major Research Priorities at the Different Stages of the Life-Cycle		
Maternal nutrition	Maternal nutrition	Low birth weight
Neonatal mortality	Childhood nutrition	Integrated management of childhood illness
Adolescent health	RTI/STI/HIV-AIDS	Family planning and fertility

The Major Cross-cutting Research Issues		
Infectious / communicable diseases	Vaccines	Anti-microbial resistance
Population and development linkages	Integrated delivery of services	Safe water
Health equity	Urbanization	Health financing and sustainability
Research findings to policy and programmes		

In conducting this priority research, the Centre will follow the conceptual framework, as shown.

Conceptual Framework

Biomedical/Socio-behavioural Research Health Systems Research



Programme Priorities

Annex II gives the key research priorities by their current strengths, comparative advantages and time frame. The research questions, performance indicators, resource needs, benefits to the Centre, and expected policy/programmatic impact are described in Annex III. These priorities and directions for research are grouped according to the programme area; however, it should be clear that these are "Centre priorities" that have been recommended by the different Programmes. Therefore, the specific activities may, or may not be actually carried out through that Programme.

Child Health

Problems identified

Although infant mortality rates have decreased in recent years, they are still much too high. The largest share of infant deaths occurres during the first few days of lives, and specific treatment methods are needed to help these neonates. Many also start out life much too small: 45% of newborn infants in Bangladesh weigh less than 2500 grams. Since child survival is directly linked with birth weight, the high incidence of low birth weight is viewed as a major obstacle to improving child health and development. Large-scale nutrition programmes attempt to improve nutrition of pregnant mothers with a goal to increase birth weight, but the efficacy of such programmes and the optimal nutritional supplements are not well defined.

Medical services for infants and children are also deficient. Families in Bangladesh cannot access paediatricians, and high-level care is generally not accessible. An approach to providing good medical care to children is now being introduced, called IMCI (integrated management of childhood illness) that describes standard care that can be provided through primary health systems for the most common and important medical conditions.

Opportunities

It now seems that many neonatal deaths can be prevented if proper treatment is given in a timely manner. Many of the deaths are due to infections, aspiration, birth trauma, and improper handling of the newborn. We feel that community based strategies are possible to reduce risk of infection, reduce birth trauma, improve newborn care and treat aspiration. We also feel that community workers can recognize and treat neonatal infections and begin early treatment. Also, low birth weight can be increased, but more importantly, it appears that the ill effects of low birth weight can be minimized through nutritional interventions aimed toward the mother and child.

Relative strengths

The Centre has many resources to address issues of child health. It has field areas where strategies can be tested and their success documented. Through NGO partners, specific interventions for recognizing and treating neonatal infections can be developed. The Matlab field area, with its community based programmes and demographic surveillance system is absolutely unique for testing strategies for increasing birth weight and for assessing nutritional interventions on the subsequent health of the children. Its relations with the Ministry and local health programmes allow for testing the efficacy of IMCI strategies in a manner that is not possible in any other site in the world. This will allow for further refinement and adaptation of the IMCI strategy for Bangladesh.

The Centre's hospital and laboratory facility provides an ideal setting for conducting clinical trials of new agents, new drugs and new ORS solutions.

Priorities

Based on the continuing problems of child health, opportunities, and relative strengths, the Centre has identified several priorities for improving child health. Firstly, it will continue to maintain surveillance for indicators of child survival and ill health. It will also conduct studies to evaluate the power of nutritional supplements to increase birth weight and to improve child survival. It will test strategies to reduce neonatal mortality through community-based strategies to recognize and treat neonatal infection at a very early stage.

- Child Survival And Development Indicators
- Nutritional Supplements
- Low Birth Weight
- Neonatal Health
- IMCI
- Management Of Easily Treated Life Threatening Illnesses

The Centre will continue to improve treatment of children with common acute life threatening illnesses. The prototype of this category of illness is acute diarrhoea, but other acute illnesses that also should be included are pneumonia, dengue, malaria, typhoid and severe malnutrition. We have shown that a treatment costing US $5 can save the life of a patient with diarrhoea who would otherwise have died. We will examine how to treat these other life threatening illnesses in a similar cost effective way, by determining the needs of facilities, treatments and training needed to accomplish this. The Centre will then establish a model facility where these methods can be taught.

The Centre will continue to improve on clinical treatments for common childhood illnesses by testing improved ORS solutions, anti-secretory drugs and antibiotics.

Reproductive Health

Problems identified

Although the Centre has, for many years, been involved in increasing rates of contraceptive methods, it now recognizes that reproductive health encompasses a wide variety of issues that are important to families. High maternal mortality rates continue in Bangladesh and about 90% of deliveries take place at home. While there are goals to increase the numbers of facility-based deliveries attended by skilled birth attendants, a majority of deliveries will continue to take place in the home.

Most families wish to limit the number of children or to space their pregnancies using contraceptives, but many families still experience difficulty in using them. This is seen in a high proportion of families who discontinue their family planning method, sometimes because of perceived side effects. Unintended pregnancies are still common. Family planning programmes now approach this issue as a way to assist families achieve their desired family size rather than as a method for "population control"; however, the issue of providing appropriate family planning services is obviously of crucial importance to national strategies to achieving replacement fertility in the near future.

Because of unwanted pregnancies, abortions will continue. Unfortunately, complications from abortion are common and there is need to improve management of post-abortion complications like infection, perforation and bleeding. On the other hand, high quality family planning programmes reduce rates of abortion in Bangladesh, and this is likely to occur globally.

Sexually transmitted diseases are becoming more commonly recognized. While STI are especially common among commercial sex workers, they are also occurring in families not normally considered high risk. While about 35% of sex workers were positive for syphilis, about 4% of pregnant women attending a prenatal clinic in Dhaka were similarly positive. Along with STI, antibiotic resistance is increasing. The proportion of *N. gonorrhea* isolates resistant to ciprofloxacin (the most commonly recommended antibiotic) has risen from 7% to 78% in the last 5 years; this rate of resistance is among the highest in the world.

HIV-AIDS is a major threat in Bangladesh because of the high-risk behaviour in many groups. Networks of persons exist in Bangladesh that share needles, and purchase sex commercially and many of these also have spouses suggesting that the virus may rapidly spread from the high risk to the general population. These networks have already led to the development of high rates of syphilis and hepatitis C, and will likely lead to an explosive HIV epidemic in the near future.

Opportunities

Although deliveries generally take place at home, women are willing to use delivery facilities, especially for emergencies. Our projects have demonstrated how to improve basic obstetric facilities and to make them acceptable and effective at low cost. These improvements prepare families for possible obstetric emergencies, including post abortion complications.

Most families are now using contraceptives, but they need assistance in using them appropriately. There is opportunity for improving the method mix to more closely adapt to the changing needs of families (e.g. long acting methods for those who have completed their families).

Sexually-transmitted infections will require behaviour changes and increased use of condoms, but the treatment of current infections will also be required. Antenatal clinics will need to begin screening women for STI's in order to prevent complications (pelvic infections and transmission of infection to the newborn).

Adolescents are eager to learn about reproductive health and the new awareness of the need to educate the younger generation provides a new opportunity to improve the lives of the next generation.

Regarding HIV-AIDS, Bangladesh has a real opportunity to avoid the epidemic if the issue can be addressed rapidly. The nation already has a good surveillance system in place, and through coordinated interventions, the HIV epidemic might be avoided, but the window of opportunity is rapidly closing.

Relative strengths

The Centre has considerable expertise in developing successful family planning programmes. More recently, it has acquired skills in the range of reproductive health and has developed a model reproductive health programme in Matlab that can be used to test strategies for and improving services and reducing maternal mortality. Being in Matlab, it can then be used for training and extension of the lessons learned to other areas of the country. The Centre has also acquired considerable expertise in adolescent health, especially with relation to communications and reproductive health education.

The laboratories of the Centre are excellent resources for documenting the burden of disease, and these laboratories are not available elsewhere in the country. Furthermore, the Centre is able to partner with many of the NGO's working with CSW's to help them improve their programmes.

- Maternal Mortality And Safe Motherhood
- Improved Family Planning Services
- Adolescent Reproductive Health
- Sexually Transmitted Infections
- HIV/AIDS

Priorities

The priorities for reproductive health include improving emergency and essential obstetric care and safe motherhood, improving family planning services including developing services to men as well as women, meeting the needs of adolescent's reproductive health, prevention and treatment of STI/RTI/HIV-AIDS, minimizing the need for and improving post-abortion care, new born care, and violence against women.

Nutrition

Problems identified

Bangladesh faces many nutrition-related health problems. Being among the poorest countries, with incredible population pressure, and a rapidly growing population in the city slums, malnutrition is central to most health issues, especially related to those of child health. Most acute infectious diseases occur in children who are malnourished, and the treatment of the infection must include the treatment of the malnutrition as well as the infection.

Protein energy malnutrition (PEM) is the most obvious, but other specific deficiencies are also common, including iron, zinc and iodine deficiency. Unfortunately, many families do not recognize PEM as a problem since it is so common. Similarly, health care workers do not recognize children as malnourished when they come for treatment of common illnesses. Vitamin A is a needed supplement, and the national programme is effectively distributing this to most children under five years.

Opportunities

Our experience has shown that malnutrition is a condition that can be addressed. Severe malnutrition can be treated effectively and at very low cost, both in the hospital and in the community. Children are healthier and mortality is reduced if they can be provided with zinc; and the Centre has shown at least one practical strategy for accomplishing this. Studies at the Centre have also shown that it is possible to dramatically increase rates of exclusive breastfeeding.

Relative strengths

The Centre has clinical (including a metabolic balance ward) and field resources for identifying and treating children with malnutrition, and developing new strategies for addressing the needs of families with malnourished children. It also has an excellent nutrition biochemistry laboratory for conducting nutrition research. Based on the successful experience with managing severe PEM, the Centre has opportunities for training and extension of the successful methods.

- *Micronutrients, their impact on health and development*
- *Management of severely malnourished children*
- *Increasing Rates of exclusive breast feeding*
- *Interaction of nutrition and infections*

Priorities

The priorities for nutrition include improving maternal nutrition and decreasing rates of low birth weight, increasing exclusive breast-feeding, prevention and management of severe and moderate malnutrition, improving child feeding, the interaction of nutrition and child development, provision of appropriate micronutrients, and building the knowledge of the interaction between infectious diseases and nutrition.

Infectious Diseases and Vaccine Sciences

Problems identified

While there has been much progress, infectious diseases continue as the major cause of morbidity and mortality in Bangladesh. As a result of extreme poverty, high population density, poor sanitation, malnutrition, and disease transmitting insect vectors, there is further need for enhanced prevention, diagnosis and management of a wide array of diseases with infectious etiologies including pneumonia, diarrheal diseases, tuberculosis, measles, vector-borne diseases like dengue, malaria, visceral leishmaniasis (kala azar) and filariasis, and sexually transmitted infections. Emergence of HIV/AIDS will exponentially increase the impact of many of these diseases. Drug-resistant infectious diseases will continue to strain resources and threaten existing methods for effective therapy. Of added concern, serious diseases for which effective prevention strategies already exist remain a problem for much of Bangladesh, like with measles (for which existing affordable vaccines are underutilized) and with *Haemophilus influenzae* type B (Hib), Hepatitis B, and pneumococcal diseases (for which safe and effective vaccines exist, but cost is a barrier to their introduction, acceptance, and use).

Opportunities

Childhood and adult mortality can be reduced dramatically through improved management of infectious diseases and prevention via introduction of vaccines and behaviour modification New technology is providing opportunities for rapid, practical diagnostic tests which will improve management, vaccines which can provide prevention opportunities and options for treatment, including enhanced "super ORS" and novel antimicrobial therapies.

Relative strengths

Bangladesh is unfortunately home to many of the infectious diseases of importance, and these occur at high rates in the field areas of the ICDDR,B. Thus, the Centre has a unique epidemiological strength to conduct studies on disease incidence, disease burden, as well as to study prospective interventions to control the diseases. It also has excellent laboratory facilities and laboratory scientists who can carry out the basic and applied studies to de-

scribe in a comprehensive manner, the epidemiological, clinical and pathophysiologic characteristics of the disease pathogens. The presence of several field areas, the epidemiologic expertisea and the laboratories, gives the Centre a distinct advantage for conducting all phases of vaccine evaluations for enteric, respiratory infections, and likely it will soon have this advantage for tuberculosis and dengue.

Priorities

The priorities for infectious diseases and vaccine sciences include improving surveillance for and management of selected infectious diseases including diarrhoea, ALRI (pneumonia), sexually transmitted diseases including HIV/AIDS, tuberculosis, dengue, malaria, Kala Azar, drug-resistant infections, and enhancing the capacity to investigate study and manage outbreaks of communicable diseases in the region. High priority is also given on evaluating promising new vaccines for enteric and respiratory infections and defining disease burdens of selected infectious diseases to better define the need for selected vaccines and to be prepared to evaluate vaccines for rotavirus, enterotoxigenic *E. coli*, cholera, pneumonia/meningitis, dengue, tuberculosis, and malaria.

Health and Family Planning Systems

Problems identified

Medical services are sorely needed, yet the resources available are extremely limited. The funds for medical services through the government are about $4 per capita per year. Thus, most medical services are obtained from non-government sources. Often the services that are provided are of low quality, and are not equitable. Most services are especially inaccessible for the poorest segments of society even though they are intended to reach the poor.

The services are limited, but they are also undergoing some major transitions in an attempt to make them more cost-effective and sustainable. Adapting to these changes is extremely difficult and much effort is needed to make the new systems effective.

Past programmes, especially the family planning programmes were delivered "at the door step." These were effective but were also too expensive to continue. Thus, community clinics are being implemented in an attempt to provide services in the community in a more cost-effective manner.

Opportunities

The national programmes are undergoing changes that have the potential for great improvement. Eventually the health and population sectors will merge, community clinics will begin functioning,

and the changes that are occurring provide hope that the Centre can play an active role.

Relative strengths

The Centre has considerable experience in conducting operations research to strengthen health and family planning services, and in evaluating these services. Building on the lessons from intensive studies in the hospital and field areas (e.g. Matlab), programmes can then be developed and extended to fit into the government programme. These can then be scaled up, evaluated, improved, and then scaled up further through the Ministry system and through NGOs. This has been the case with ORS, family planning and can now be true for other interventions. The success of ORS and family planning provides some assurance that programmes can be successful.

Priorities

Priorities for health and family planning systems include defining service strategies, economic analysis of various delivery options, measurement of health equity at the local level, private and public partnerships, translation of research findings into policy and programmes, improving medical information systems to make them useful for local health authorities. High priority is given to economic analysis for understanding the relation between poverty and health, and ways to monitor health equity.

Population Sciences Programme

Problems Identified

Bangladesh is the world's most densely populated agricultural country. While the national family planning programme has contributed to a substantial fertility decline and consequent reduction in growth rate, available evidence suggests that the population will finally stop growing at double the present size. If fertility could be reduced to below replacement level soon, the final population could be as much as 60 million fewer than otherwise. Much needs to be understood about the obstacles to further decline in fertility levels, and what policies may alleviate the future impact of population momentum stemming from the youthful population age structure.

Regarding family planning, what can be done to increase public confidence in long acting, low cost clinical methods of contraception, currently showing low and declining use. Can better quality services, better staff training, and strengthened management improve continuation rates among temporary methods? Regarding social policy, can increased opportunities for young women to be educated, and employed in the formal sector, result

in delayed commencement of childbearing and overall lower fertility? What other policies might have a similar impact?

The decline in fertility, while beneficial through slowing population growth, has other less desirable consequences. The elderly population (over 60 years) will multiply almost ten-fold, from 6.8 million to 65 million, raising the elderly from 5% of the population to 26%. The (dependency) ratio of working age to elderly population will decline from eleven to two creating an enormous burden on the workers. This will project the health and other support needs of the adult and elderly population very much into the forefront of health and social policy for the 21st century.

One important consequence of this dramatic increase in proportion of the elderly population is in adult diseases, which tend to be more non-communicable than diseases among the young. In the two decades from 1990 to 2010, the proportion of deaths due to non-communicable diseases is expected to rise from 40% to 60%, and this rising trend will continue. The significance is that non-communicable diseases tend to cost more to manage and treat, and can be more difficult to prevent than infectious or communicable diseases. For example, if current patterns prevail, it may be expected that annual numbers of cardiovascular deaths among the elderly (60+) will increase from 117,000 to 1.3 million during the century, and this does not include the morbidity burden that will fall on the health system.

Arguably the major demographic phenomena of this century will be the massive increase in the numbers of urban poor. This global migration is driven by a search for employment as in the rural areas demand for agricultural labour levels off, or declines with expanding mechanization. In rural areas the shift from extended to nuclear families results in absence of support for elderly generations, in shortage of household labour, and in safety and security problems. In 'receiving' areas, the growth of slums tends to produce many of the hazards of rural living - infectious diseases, and limited access to affordable health services - compounded by problems of family instability, alienation, lawlessness, drug use, lack of land tenure, etc., conditions which typify slums worldwide. Much needs to be understood about survival strategies used by such families and households, about how rural families adapt themselves to these conditions, and how appropriate health services can be delivered to them.

Opportunities

The infrastructure of the Centre's field surveillance sites offers an opportunity to continue to be productively involved in studies on

improved family planning services, and increasingly on non family planning approaches to delaying marriage and early childbearing. The health service delivery infrastructure and the surveillance are also well suited to the study of adult health problems, and interventions to deal with them.

The routine monitoring of migration together with family structure and household change generates vital information which, when strengthened with more economic data, will enable greater insight into the forces motivating rural-urban migration.

Relative strengths

The ICDDR,B has several major rural field sites with regular surveillance of households and families. The surveillance collects data on vital events including births, and also on factors that affect fertility such as marriage, family planning use, abortion, etc. This is a very valuable resource for better understanding the complex relationships described above.

The surveillance routinely collects data on selected morbidities and mortality. The system is currently being upgraded to focus more on adult health, especially non-communicable diseases. The existing network of sub-centres and hospital will play a part in this system in Matlab.

The surveillance can provide unique longitudinal data giving unmatched insight into the bi-directional relationship between poverty and health. That is, how poverty places families at greater risk of ill health, and how ill health can plunge families either directly or indirectly, into poverty. The surveillance can also be used to illuminate the dynamics of families making decisions on when and where to move, on the economic forces driving their decisions to migrate, and on the outcomes of the migrations of selected family members (remittances, employment, living arrangements, etc., in the urban areas).

Priorities

The priorities for the Population Science program include investigations of the fertility decline in Bangladesh, understanding how to reduce fertility rates to replacement level or below, and how to minimize the impact of population momentum through social interventions. A second priority is to work with colleagues to better understand adult health problems, especially non-communicable diseases. This includes how families provide the necessary resources, both in terms of financial and social support, to deal with the growing health demands of an ageing population. The third major priority is to strengthen the focus on economic forces motivating out-migration from Matlab. This needs to be combined

with monitoring of changes in family structure, especially in terms of social and financial support for family members remaining behind in the rural communities. The fourth priority is to work with other surveillance systems, through the In-Depth network, to improve the capacity of such systems to develop and monitor interventions for better managing health and population challenges.

The priorities for population include investigations of the fertility decline in Bangladesh, understanding how to reduce fertility rates to replacement levels, to characterizing the consequences of higher fertility rates as well as understanding why fertility rates have levelled off. They also include understanding the relation between family planning programmes and abortion in order to minimize the latter. New priorities include characterizing patterns of ill health in adults, especially related to disabilities, and understanding health equity in relation to rapid population growth and urbanization.

Translation of Research Findings into Policy and Action

The Centre is principally involved in research leading to new knowledge to promote health; however, it has limited scope and resources to implement policy actions without the direct involvement of the government, NGOs, or a relevant regulatory body. Efforts are underway to develop a strategy to make this possible. Translation of research findings is an important task, and will lead to increasing GoB and donor interest and attention. To achieve this, the Centre will identify its products and services that would lead to health promotion, and try to attract the attention of relevant bodies for practical implementation. Special efforts will be made by the Centre to develop communication with policy makers, NGO officials, donors and UN agencies. The Centre will have a strong policy and advocacy unit to undertake these activities.

The Centre will provide support and due recognition to the scientists (in terms of salary and other support) for the time that is required for such translation, and appropriate funding will be allocated to research projects which involve activities which are aimed at translating research findings into policies.

Although the Centre's future research will be policy-oriented, basic research will not be discouraged. Not every research finding is immediately translatable, but we would continue to seek opportunities for practical applications of the research.

New Initiatives

Internationalization

The Centre currently has major collaborations with institutions globally, but does not have many actual projects outside Bangla-

desh. As an international centre, it has the potential to expand its activities beyond the boundaries of Bangladesh but this depends on the willingness of other governments to accept our assistance and funding mechanisms to support such projects. The Centre plans to actively seek opportunities for projects within the region. Such activities might include providing consultants, training and technical assistance, joint research projects with universities or other research organizations, subcontracting with primary health care projects that need our expertise, and development of expertise for investigating outbreaks in the region in collaboration with the World Health Organization. The Centre feels that these activities can be carried out in the spirit of South-South collaboration and will benefit both institutions.

Marketing products and services in Bangladesh and the region

In addition to the collaborative projects identified, the Centre also plans to generate income through marketing its products through appropriate channels. These might include, for example the rice-based oral rehydration solutions, new vaccines under development, as well as surveillance and survey systems. It will also provide consultation services to agencies who need such expert assistance in the region.

A new name for the Centre

The name International Centre for Diarrhoeal Disease Research, Bangladesh no longer describes the mission or activities of the Centre and a new name has been strongly suggested by many stakeholders. The name that has the most support is the International Centre for Health and Population (ICHAP) though other names have also been suggested. The Board emphasized that the word "International" should remain in whichever name that is eventually decided on. A name change will require a change in the Ordinance.

Further strengthening of the Centre's infrastructure and services

Dhaka Hospital

The Dhaka Hospital was originally established as a clinical research centre where clinical studies involving patients with cholera and other diarrhoeal diseases could be conducted. Over the years, it became increasingly popular because of the high quality and dependable service with low case fatality rates, and no hidden charges. Meals and medicines are provided free of charge. The cost per patient has remained extremely low (about $10 per patient treated), and the number of patients whose lives have been saved is incredibly high – estimated to be

Photograph of a ward

about 10 to 15,000 patients per year. Thus, the treatment is very cost-effective; however, because of the high patient volume, the total costs have been high – about US$1.2 to $1.5 million per year. Unfortunately, in spite of the excellent, low-cost and life-saving care provided, donors have shown little interest in supporting the costs of the Hospital since they believe that the host government should absorb the costs of running such a facility, and they are concerned about open-ended commitments. The Government of Bangladesh provides some support, but not nearly enough to support the Hospital; hence, other strategies must be employed to either reduce the costs of the Hospital by decreasing the quantity of services, identifying other donors, or developing another strategy to bring the Hospital costs in balance.

A recent analysis of the patients coming to the Dhaka Hospital suggests a division into two major groups: adults and children who have severe illness coming from the entire Dhaka metropolitan area, and children with mild illness who come from the immediate adjacent areas of the city. The lives saved are those of the first group, but the others with mild illness should ideally be going to primary health care centres rather than to the Dhaka Hospital.

Common, Treatable, Life-Threatening Illnesses.

The Dhaka Hospital is a key part of the health care system in Dhaka. One of the lessons learned from the Hospital is that there are certain illnesses (e.g. severe diarrhoea) that are common, life threatening, but are easily and inexpensively treated once the appropriate case management system has been developed. Other illnesses, however, also fit these criteria of being common, potentially fatal, easily treated, and having low cost for case management. The other illnesses include pneumonia, severe malnutrition, malaria, and dengue[5]. A concept espoused by Melinda Gates in her speech awarding ICDDR,B the Gates Award for Global Health was that "no child should die of an easily treatable disease," and it is the intent of the Centre to take this message and put into practice. Thus, we intend that the Hospital should develop a model for treating, with a very low cost, these common, life-threatening diseases. At the same time, the Hospital is unable to take responsibility for additional patient care unless the Government and the NGO providers provide the actual treatment. The Hospital can, however, develop the treatment model for these illnesses.

This new role implies that the Hospital will evolve from being a "diarrhoea hospital" to a new form of treatment centre that provides a level of care between that of a primary health care facility and that of a full service hospital, perhaps more like a specialized urgent care facility.

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[5] Maternity care could be added to this list, but is not included here to avoid confusion with regard to the focus on child health.

Complex cases that require extensive or prolonged care, surgical and maternity facilities, etc., would need to be referred to other area hospitals, but a large number of patients with life-threatening illness could be treated at low cost, and discharged within a day or two.

This model of an urgent care facility fits well with the model being developed for emergency maternity care; that is, there is plans to have one Emergency Obstetric Care (EOC) facility to serve as a referral centre for several primary health care centres.

In order for the Centre's diarrhoea hospital to evolve into a facility for these illnesses, several pre-requisites have to be considered. These include:

- Provision of proper physical facilities to manage patients with ALRI and severe malnutrition
- A decrease in the number of diarrhoea patients to make room for the patients with other conditions
- A patient reimbursement scheme that will make the new facility more self-sustaining
- Training of providers to this new strategy for care
- Franchising the treatment for diarrhoea, ALRI and severe malnutrition to other NGO clinics in Dhaka
- Referral system which allows the new ICCDR,B "urgent care" facility to send patients needing hospital care to other hospitals
- Marketing of the new treatment facility to inform the potential clients of the changes in services provided
- Clear statement of goals of the new facility as a research and model clinic, such that the Ministry of Health understands that the ICDDR,B will be unable to assume responsibility for the care of all patients in Dhaka who may choose to come
- A strategy for converting from the current hospital to the new urgent care facility

Financial Plan For New Treatment Facility

The new facility will need to plan for efficient conduct of research, minimum costs, maximum cost-effectiveness, cost recovery, and logistics. These are needed, not only to make it sustainable for the ICDDR,B, but also to make it adaptable to the MOHFW and NGOs. Thus, when developing the facility, a business manager will be need to be recruited to assist in the design and to monitor personnel, medical records, quality assurance, costing, and efficiency. It is planned that the budget for the facility will not exceed US$ 1 million annually for patient care activities. Research costs will be in addition to this amount, but will be covered by specific research projects.

To cover the costs of the patient care, we anticipate the following income[6]:

Income from Hospital Endowment Fund	200,000
Income from the Diagnostic Centre	350,000
Income from surcharge on research studies	100,000
Income from patient recovery	50,000
Income from Government of Bangladesh	500,000
Total	**1,100,000**

This facility requires a separation of budgets from those of the current Clinical Sciences Division (CSD) and those of the Hospital (but without administrative separation). To explain, the Head CSD will remain in charge of the Hospital, and will supervise a manager of the Hospital. In addition, the Head of the CSD will be in charge of the clinical research activities of the Division. As the Hospital requires physician time, this will be "purchased" from the physicians in the Division. However, the Hospital will only pay for the actual physician requirements that it needs to care for the patients. As is the present case, nurses and paramedics can carry out much of the work of the Hospital, and the provider mix will be determined in order to maximize the cost-effectiveness of the re-designed hospital. This may result in an assessment that the Centre currently has more physicians than it requires for the Hospital. If not justified by the patient care requirements, the physicians will need to have research protocols, consulting, or technical assistance projects to cover their salaries.

It is anticipated that the MOHFW will more actively purchase medical services for its citizens through contract mechanisms. Most certainly, the contracts will require the services to be low cost. The Centre will position itself to successfully obtain these contracts and should then be able to obtain significant funding to provide the care administered through the Hospital.

In March 2000, the Centre introduced a patient registration fee of 10 Taka. There are no other charges, either for food or medicine, and this registration fee only pays a token amount toward the real cost of the treatment given. This charge has recently been increased to 20 Taka and we will encourage those who are financially able to contribute an extra amount, and we will consider whether specific fees should be introduced to cover the costs of medicine and food more adequately.

Referrals to other hospitals

This plan will only be successful if there are other hospitals to which the excess patients can be referred. This referral system must be developed with the MOHFW. However, this would seem to be no

[6] To adjust for inflation, the hospital endowment will need to increase to 10,000,000 USD, providing up to 400,000 per year

different than the problems that the NGO primary clinics have now when dealing with patients, other than the patient expectations may be different when coming to the ICDDR,B.

The most logical plan is to assist organizations to start similar urgent care facilities based on the lessons learned from the ICDDR,B. To assist with the development of these other urgent care facilities, the ICDDR,B will have to conduct operations research into the way in which to make these facilities function using minimal resources. The NGOs may not have the same financial resources as ICDDR,B (e.g. from the endowment and the Diagnostic Centre), and thus, will need to have solid economic data that will convince the MOHFW to invest in these facilities.

The urgent care model is not intended to be an alternative to the primary care clinic but rather as a facility where many patients with life-threatening illnesses can find care when they need an alternative to a hospital. Currently, there are no other facilities like ICDDR,B other than general hospitals, but it is widely agreed that these hospitals are unable to manage the large number of patients who need treatment, added to which, their patient care treatment is very costly.

Other clinical services that interact with the treatment facility
Currently, the Centre operates a clinical laboratory facility that carries out routine tests. These tests are provided on a fee-for-service basis for research protocols as well as to paying clients who choose to use the laboratory at the Centre because of its high reputation. The Centre is in the process of improving these facilities into a "diagnostic centre," to make it more user-friendly, and to expand the range of diagnostic tests being performed. It is expected that the diagnostic facility can subsidize the hospital costs to some extent, while continuing to increase its range of tests.

There have been suggestions that the Centre have private cabins with an enhanced level of personal services for patients who are able to pay the necessary cost. Preliminary evaluations have found that such a system would be unlikely to be cost-beneficial for the Centre unless a large number of such beds were available. Further, it may distract from the stated mission of the Centre. This suggestion for private paying beds will therefore need further review and evaluation.

Another suggestion is to provide clinical services for employees of other companies. The Centre's staff clinic has developed an excellent reputation for providing excellent preventive care and general medical care for the staff and immediate families of the Centre at minimal cost. Furthermore, the system that has been put into place for more complex care, using a pre-paid medical plan model, has been successfully established. Other companies have expressed interest in purchasing this service from our staff clinic. The Centre could decide to offer employee health services to

other companies, embassies, etc., and this would provide additional income that would subsidize the Hospital. Additionally, it would direct some of the laboratory specimens to our laboratory and increase this activity as well.

Thus, using the Centre's experience in clinical research and its expertise, within its overall mission, the Hospital would have the ability to earn significant income in order to subsidize its costs. During the next year, a decision will be reached on which of these is more appropriate.

Interaction of Hospital with Clinical Research

A central mission of the Hospital is to conduct clinical research. Thus, the patients coming to the Hospital must be the types of patients needed for the Centre's mission. Currently, a very small proportion of the patients (less than 1%) is included in a research protocols. This represents a mismatch between the patients served and the research needs of the protocols that have been developed. Either the categories of patients being treated need to change, or the protocols being developed need to better fit the patient mix. It is assumed that both types of changes are needed, and in fact it is possible to learn of the true research needs by studying the characteristics of the patients being treated.

Adapting the research to the patients has two advantages. Firstly, the research will be more relevant to the needs of Bangladesh and to the poor in general and secondly, it will be financially beneficial to the Centre since the research protocols will increasingly benefit the Centre's financial situation.

Laboratory Services

Clinical Laboratory and Diagnostic Unit (CLDU)

The clinical laboratory tests specimens for research studies, specimens from the Hospital for clinical care, and specimens for patients who come to the Centre on a fee-for-service basis. In the near future, the clinical laboratories will be incorporated into a new Clinical Laboratory and Diagnostic Unit (CLDU) that will include the resources for the current tests, but it will be expanded to include sonography, radiology, endoscopy, histopathology and cytopathology, as well as testing of purity of water and food samples for arsenic and pathogenic bacteria. The range of clinical tests will continue to expand depending on the demand for such tests (e.g. serum lead levels for children). The concept of the Centre is to provide services to the greater Dhaka area and to generate some revenue to subsidize the Hospital.

The clinical laboratory is one unit of the Centre that is currently profitable. There is general agreement that there is much more demand for these services. Therefore, if the Centre were to provide additional services, patients will be eager to use them, and to pay for them. The reason for the popularity of the Centre's

Photograph of the new diagnositic unit

laboratory is the reliability of the results and the reasonably good service.

The Centre is renovating space on the ground floor where the services can be expanded. It is expected that the new space will be more user-friendly, and will allow for faster service. If there continues to be increased demand, additional neighbourhood centres for specimen collection may be needed in Gulshan, Dhanmondhi and Mirpur. Specimens will still be sent to the Centre's main clinical laboratory, but the results will be faxed or sent by modem to the neighbourhood centre.

The CLDU will likely require a full-time pathologist to be head of the unit. Consultant specialists will need to be recruited for sonography, ECG and radiology. The new CLDU will need to continue to upgrade its equipment, and the new equipment will be justified on the basis of a business-like approach in terms of "return on investment."

A specific additional requirement will be to anticipate the laboratory requirements for managing the patients with HIV-AIDS. Currently, the Centre's laboratory is one of the few laboratories with reliable HIV serology (including confirmatory western blot tests), and it will likely need to establish polymerase chain reaction assays and flow cytometry. The latter equipment has been ordered and will be operational during early 2002.

Research Laboratories

The laboratories conduct studies in a variety of fields including enteric and respiratory microbiology, STI/RTI, environmental microbiology, immunology, parasitology, bacterial genetics, and nutritional biochemistry. These laboratories have been extremely productive, but some capabilities need to be added, especially in the areas of additional molecular biology, arsenic, and serology laboratories where GCP methods can be carried out for vaccine trials. Key for this is a modern serum bank with computerized and well-characterized specimens.

The research laboratories require more space to accommodate the additional protocols under way and being planned. Some space (six units) are in the process of renovation on the second floor to provide this extension, but even more space will be needed when added floors are built. The laboratories also need additional equipment, and the new lab equipment is expensive. A flow-cytometer has been added recently, but additional big-ticket items are needed (e.g. electron microscope, and sequencer).

Photograph of flow cytometer lab

Urban and rural field areas

Matlab

Matlab remains as the major rural field area of the Centre. The station boasts over 35 years of history and data collection on a current population, and it remains a major resource for the Centre and for research on health issues of developing countries. Many of the questions of crucial importance to public health can only be answered definitively in Matlab, and these issues are ones that were never anticipated even five years ago. The Centre has recently embarked on a major study on low birth weight, testing nutritional interventions in an attempt to reduce low birth weight and improve health and survival. Other interventions are reproductive health, including subcentre-based emergency obstetric care and male involvement, community-based IMCI, water filtration to prevent cholera, as well as determining the epidemiology of tuberculosis in rural Bangladesh. Additional research projects include characterization of family planning successes and constraints, contraceptive use dynamics, defining the relationship between abortion and family planning, and understanding why fertility rates have not declined in recent years in spite of increasing contraceptive prevalence rates. Anticipated studies include vaccine efficacy trials for cholera, enterotoxigenic *E. coli* and rotavirus. An unanticipated opportunity was the need for a population database on which to evaluate the safety of routinely administered vaccines. There is no other site like Matlab for conducting this evaluation in terms of its large sample size, long-term follow-up, and data quality.

A major effort went into combining the demographic surveillance system (DSS) and the record keeping system (RKS). The first recorded demographic data while the latter recorded illness and health care service events, especially related to health of children and mothers. These two systems are now combined and ongoing data are collected and organized within one HDSS database.

Photograph of speed boat

Matlab is only 35 miles away from Dhaka, but has felt separated from Dhaka by the 3-hour trip required to travel by car and speedboat. This distance has been effectively made closer by the microwave link that was established during 2001 allowing data and voice transmission between Dhaka and Matlab and Internet access for Matlab. We anticipate that it will also allow for video-conferencing between Dhaka and Matlab.

Plans for Matlab include completing some needed expansion to the hospital building, completing the EOC facilities in cooperation with the Government of Bangladesh, and continuing to plan and implement new interventions that can then be scaled up for implementation in other parts of the country.

Other Rural Field Areas

The Centre works in several other field areas in addition to Matlab and each of these adds much-needed capabilities and resources. The largest of these are the rural extension areas that are part of the Family Health Research Project (FHRP), but other areas include the very innovative self-help project in Chakaria, the Epidemic Control and Preparedness Project sentinel surveillance sites, and BINP sites, the new site for neonatal interventions in Sylhet and Mirzapur and other areas. At all of these sites, the Centre works in collaboration with the Ministry of Health and Family Welfare and / or NGOs.

The newly-designed FHRP provides some resources for the extension area, but these sites will need to identify other donors to continue their operations. They are expected to be sufficiently useful for other projects that will make them sustainable based on this project support.

Urban Field Areas

The Centre's urban major community projects are located in Kamalapur and Mirpur. The first, with its population of 140,000 is located close to the train station in a slum area and is rapidly becoming an "urban Matlab." It has been extremely useful for studies on pneumonia, and is now the site for studies on shigellosis, influenza vaccine, and dengue and we anticipate that it will be useful for additional studies of communicable diseases as well as health systems research. In cooperation with the Urban Family Health Project, this area will be used for studies on urban health, including how best to provide health services, how best to set up referral systems, and how to finance urban health programmes. The Kamalapur area will also be used for studies on new vaccines when a large urban field area is needed.

Photograph of Kamalapur

The other urban area in Mirpur has been used for smaller but intensive studies of cohorts of children. For example, studies on the epidemiology of amoebiasis using molecular techniques, Phase I/II studies of new vaccines for enterotoxigenic *E. coli* and rotavirus, and community-based interventions for malnutrition are currently ongoing. It is anticipated that this field area will continue as the site for other intensive community-based studies.

Information Sciences Division (ISD)

The Division was formed in 2001 as a way to bring together the Computer Information Services (CIS), the Dissemination and Information Services Unit (DISC) and the Training and Education Unit (TEU) as well as to upgrade the information services to the Centre, e.g data archiving, data management, etc. Each of these units

remains as units within the Centre but it is anticipated that they will act increasingly as a coordinated Division.

Training and Education Unit (TEU)

The TEU plays a key role in the Centre's strategy to disseminate its research findings to health professionals in developing countries. Since 1978, the TEU has been offering short-term training courses, usually lasting two weeks, in the clinical management and laboratory diagnosis of diarrhoeal diseases, nutrition, family planning and reproductive health, biostatistics, epidemiology and research methods. This unit also coordinates short-term fellowship programmes. To date, over 20,000 researchers, physicians, laboratory personnel, managers, trainers and students from 78 countries have received training at the Centre. Most come from the developing world, but trainees from North America, Europe and Japan have also participated.

Photograph of training session

The objectives of the training programme are to promote human resources development by strengthening capacity in:

- Research techniques
- Management of diarrhoeal diseases and family planning services
- Responding to new and emerging issues in health and population.

The TEU's strategy for development over the next five years focuses on:

- The development of tools and techniques for making the Centre's courses available by distance learning to trainees around the world. This will initially concentrate on producing printed training modules, and then making these available on the Internet and on CD-ROM. Additional reference materials to assist trainees will also be added.
- Collaboration with national and regional universities to enable participants at the Centre's courses to gain credits for degree-level qualifications. The courses offered are in great demand and highly valued by trainees and their employers and the additional benefit of degree-level credits would make them even more attractive. The contacts established with the universities concerned will also have the ancillary effect of enlarging the number of resource persons available to participate in the courses.

- Developing new training courses in areas in which the Centre has world-class expertise, such as demographic surveillance and severe infant malnutrition. The training programme must keep pace with changes and developments in the Centre's research programmes, as well as with requests from potential participants, collaborating institutions and donors.

Photo of new computer lab

- The re-introduction of a training fellowship scheme, enabling trainees to participate in Centre projects and so gain first-hand experience of the Centre's methods and techniques. There is a continued demand from the region for more long-term training in the methods and techniques used at the Centre. In the past, the Centre has provided scholarships for training fellows to be attached to a particular project or unit to work with Centre staff and so gain first-hand experience and hands-on training. At present, there are few funds available for this type of training. The training programme will endeavour to identify funding to support the re-introduction of such a scheme.
- Making the training programme self-sufficient, by promoting and marketing the training courses to donors and potential participants around the world.

Dissemination and Information Services Centre (DISC)
DISC is the central gateway to the Centre for the two-way flow of information, both incoming and outgoing. It includes sub-units concerned with information provision (library), publications and audiovisuals.

The mission of DISC is to diffuse the results of global health, nutrition and population research to solve common problems, especially in the context of the developing world. It aims to achieve this by:

- Serving as an effective information management and dissemination centre in the fields of health, population, nutrition and related subjects
- Optimizing the application of improved practices of information storage, retrieval, publication and dissemination
- Encouraging the free flow of information, so helping to avoid duplication of research efforts
- Preparing and publishing the Centre's periodicals and reports
- Providing audiovisual and photographic services
- Developing and maintaining computerized databases on publications and contacts.

During the next five years, DISC's strategy is to:

- Evolve into an electronic information store by creating digitized archives of the Centre's publications, selected papers published by Centre authors elsewhere, research project proposals and related materials, and training materials in support of the distance learning programme. These archives will be searchable both within the Centre and on the Internet. Digitization serves two purposes – preservation and accessibility. The older printed material relating to the establishment and history of the Centre are in danger of deterioration beyond repair. Digitization will preserve them for the future. At present, only users in the library can consult these materials -- digitization enables copies to be held in several different locations and even to be purchased and used by individuals and institutions around the world.

- Provide increasing access for Centre staff to periodicals and external reports in electronic format via the Internet and CD-ROM. At present, 70 percent of the periodicals subscribed to by the library are available in electronic form on the Internet, and this percentage will only increase. By subscribing to more electronic versions, DISC will overcome the problem of printed versions being lost in the mail in transit. Access to electronic journals and the acquisition of site licenses for campus-wide access, will ensure better and appropriate use.

- Develop additional bibliographic databases, such as a bibliography of Centre authors' external publications and a bibliography of material on Bangladesh related to health, population and nutrition, and make these available on the Internet. There is a decreasing need for the detailed databases, containing abstracts of material selected from incoming journals and reports, once maintained by libraries. This information is now generally readily available on the Internet. Effort is better expended on developing more specialized databases in which the Centre has a comparative advantage.

- Rearrange the layout in the library to provide programme information areas in which the main books and journals will be grouped together. There are indications that several programmes will be employing librarians or information officers in the near future. By rearranging the library stock in this way, this project will be facilitated and service to users improved.

Photo of library

- Provide upgraded computer facilities for library users, enabling them to access DISC resources and the Internet. Library users can find the answer to most, if not all of their queries by consulting material on CD-ROMs and in the various da-

tabases developed by DISC. Some users may also be allowed access to the Internet in the library. In view of these developments, up-to-date computers would need to be installed in the library to assist users in their search for information.

Computer Information Services (CIS)

CIS is responsible for the provision of modern IT services, including email and Internet, to all scientific and support divisions in the Centre. This includes maintenance and management of the local area network (over 500 PCs connected), development and maintenance support for applications used in the Centre, training and assistance to users.

The broad objectives of CIS are to:

- Develop a fully integrated IT infrastructure, based on existing and recognized technology standards and which is capable of managing and delivering information throughout the Centre in accordance with defined requirements;
- Provide end-users with a seamless interface and connectivity to all applications; and
- Provide direction and strategy in fulfilling these requirements.

CIS's future plans over the next five years focus on:

- The development of an integrated management information system to provide the Centre's managers with predefined reports to assist in decision-making, monitoring and control.
- The introduction of a data warehouse, an Internet application that will allow registered users to access and download special datasets derived from the Centre's demographic surveillance work. In addition, a donor area in the warehouse would provide access for donors to specific reports and audit requirements. This facility will facilitate access to data held in the Centre by our collaborators and donors.
- Enhancement of the Centre's Internet presence by providing features such as forms, database interfaces and distance learning modules on the Centre web pages. This will involve working closely with other Divisions in the Centre to enable web interfaces to existing systems to be developed. In this way, information from the Centre will be made more easily available to users around the world.
- Standardization of the software and hardware used by Centre staff for common office automation tasks and the provision of regular training courses, in cooperation with TEU. The limited resources available in CIS to support and maintain both software and hardware and the desire for standardization within the Centre necessitate this decision.

Human Resources Management

The Centre's Ordinance specifies that the personnel system be similar to that of the United Nations. Over the years, it has become clear that the UN system is not ideally suited to the needs of a large research and health service provider like the ICDDR,B. Unlike the UN, there is no guaranteed revenue each year, the work is primarily academic / research and not administrative. The market place for research does not allow for a civil service system like that of the UN. Also, for international posts, the UN assumes a career structure while the Centre does not have a career structure for international professional officers (IPOs).

The Board of Trustees asked the management to evolve toward a personnel system that is based on merit, and increasingly based on the market. The Centre is now proceeding to identify a rational HR system and is nearing completion of reclassification of all jobs at the Centre. The new system will adapt some components of a merit system, but will not completely abandon the UN system at present. For positions that are in high demand, however, the newer system will be more adaptable to market forces. For Bangladeshi scientists who have exhibited a keen sense of innovativeness and productivity, the Centre has instituted a plan that allows them to have international salaries in proportion to the grants they secure.

The HR agenda also aims to increase emphasis on internal training, cross training, development of career tracks ("job families"), and staff development to allow professionals and skilled workers to reach their full potential. At the same time, the agenda encourages economy of human resources so that more productive work is accomplished with fewer staff. This can be accomplished by cross training, out-sourcing, increasing automation, and selection of highly qualified staff.

Certain financial aspects of the human resources are also under review. Specifically, the costs for personnel benefits (medical benefits, taxes, end of service payments, etc.) are now included in the personnel costs charged to the projects rather than to the common operating cost (indirect cost) pool.

The Centre formerly followed a "six-year rule" for international staff that was interpreted that IPO staff may serve for a maximum of six years, at which point, they must leave the Centre or revert to a local staff salary. This rule has now been changed for Bangladeshi scientists and is now being reviewed for staff at international rank. Further, the "six-year rule" was effectively modified to a "nine-year" rule for the Director with an amendment to the Ordinance in 1996.

A major need in the HR agenda is an improved management information system (MIS) to manage both finance and human resources in a unified fashion. A decision will be made during the next year to adopt such a system.

Financial management of the Centre

The financial health of the Centre will depend on the adequacy of the financial resources provided to the Centre by its donors (resource mobilization), the income from its endowment, the efficiency of the Centre's management, and the Centre's productivity. The Centre has an excellent reputation for financially sound management and transparent accounting practices, and it places great emphasis on maintaining this trust. The goals of the financial management of the Centre are to utilize the resources made available in a manner that is responsible, and to make full efficient use of these resources in keeping with the mission, values and vision of the Centre.

Resource Mobilization

The broad objectives of this Resource Mobilization Strategy are to expand the Centre's resources through the following mechanisms:

- Strengthening institutional relationships between the Centre and its traditional donors
- Expanding our base of non-traditional donors from public and private foundations, the corporate sector and the local business sector
- Increasing support from Centre alumni
- Expanding knowledge of the Centre through contacts nurtured by the Centre's Board of Trustees, alumni and supporters
- Structuring our project budgets to ensure full recovery for the total costs of the project
- Attracting new funds through better use of information technology that can publicize the Centre's programmes and skills to a much wider audience of professionals, researchers and practitioners in the global health community
- Broadening the range of activities for our professional staff to include technical assistance, consultations, and evaluation projects
- Increasing income from fee-for-service activities (e.g. clinical laboratory and patient fees)
- Increasing support to the endowments
- Ensuring that our senior management team, international scientists and senior-level national scientists know how to: (a) identify new resources, (b) utilize appropriate channels to secure new resources and, (c) present to the donor community a consistent and unified picture of the Centre's unique qualities such as its location, its state-of-the-art research capabilities, its wealth of human resources, and its scientific excellence.

This strategy will require additional resources for the office of External Relations and Institutional Development and training of the scientific staff to increasingly become responsible for the development of successful programmes.

Centre endowments

The Centre's endowments, raised during the last ten years, total about US$ 9 million, but need to grow to at least US$ 30 million. The goal for the next five years is to reach a goal of US $20 million by 2010. The additions to the endowment will depend on gifts from organizations, foundations and individuals who share our goals, and believe that a strong and stable Centre will continue to meet the challenges of the future. The intent of the endowment is to provide stability, flexibility and responsiveness, and to become less dependent on donors. Only with a strong financial base can the Centre respond quickly to new opportunities, and new emergencies.

The endowment funds are invested conservatively and only a modest amount (not exceeding 5% of the principal) of interest earned is taken into revenue. Thus, the endowment is intended to grow over time. A fund management committee, appointed by the Board of Trustees, oversees the fund that is currently managed by TIAA-CREF, one of the largest investment firms in the US.

Common institutional costs

Each activity at the Centre has a budget formulated at the time the project is defined, and this budget is designed to anticipate the actual costs of the project. All direct costs associated with the project are itemized, and the project director or principal investigator has authority and responsibility to manage this account within the rules of the Centre, and under the supervision of the Division Head and the Director. Some costs, however, are more difficult to itemize (e.g. the costs for the administrative offices, procurement, the Director's Office, or costs for the Board of Trustees, etc.) These costs are, thus, categorized as the common institutional costs that are currently calculated to be about 32% in addition to the directly itemized cost, but can vary slightly from year to year. These rates are actually low when compared to similar rates for US universities[4], and are much lower than for-profit organizations.

The Centre receives income in the form of both project as well as unrestricted[5] support. The unrestricted donations are available for the Centre to use in the most effective way for the overall benefit of the programme of the Centre. Project funds, however, are designated for specific projects, and all costs for these projects are tracked to validate the appropriate use of the funds. Most donors

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[4] US universities typically have indirect costs of about 60 to 80%.

[5] Sometimes referred to as "core" support.

who provide project-funding pay the full cost of the project, including the common institutional costs, but a few donors have rules that do not allow these common costs, or set a cap on the percent that can be included as common institutional costs. When a project donor provides less than the full cost of the project, the core donors must co-fund the project in order for the project to be completed. Thus, in the future, the additional costs for these common costs will be acknowledged in publications, and will be reported to the core donors. Using this mechanism, the Centre will be able to track the value of the core donors. In fact, the Centre will show that the core donors make it possible to carry out the work of the Centre, and that many of the projects would not be possible without this core support. Likely, some projects may not be possible if the primary donor is not willing to pay common institutional costs, if there are not sufficient funds from unrestricted sources to co-fund the project.

Financial efficiency and reporting

The Centre's financial management is one of the Centre's great strengths as its computerized system accurately records each transaction and makes it possible to provide reports to donors as required. During the coming years, the Centre, however, will be adopting a new computerized financial package, coordinated with the HR section, to manage all of its financial and HR functions.

A critical feature of the financial system is to have information on which to base sound management decisions. As a part of the Strategic Plan, each of the units of the Centre will be reviewed to examine ways in which to cut costs and so make the Centre as cost-efficient as possible. The Centre underwent a downsizing process in 1998, resulting in a reduction of about 200 permanent positions, and the Centre continues to carefully monitor cost, and this cost efficiency has paid off in terms of balanced annual budgets during the last three years.

Monitoring Mechanisms for implementing the Strategic Plan

The Strategic Plan serves many functions including informing all the stakeholders, on the priorities, activities, and goals of the Centre. It is meant to be a dynamic instrument that allows for some changes when absolutely needed, but should ideally be a guide for the Centre. To operate effectively, the Plan will be monitored regularly to determine if the activities are on track. The tracking of activities will be done by means of log frame, showing means of verification for each performance indicator identified. Also, each Programme will develop annual work plans, which will serve as an additional basis for monitoring its activities. Further, each Programme will identify new areas of research, not included in the Strategic Plan, for consideration of the Scientific Council, as to which of the new activities should be included as additional priori-

ties of the Centre. The monitoring activity will consist of a report of each protocol activity and matching this report with the Strategic Plan. These reports will be prepared every six months by each Principal Investigator and unit head, and reviewed at the Scientific Council. These reports will then form the basis for reporting to the donors, and the Board of Trustees. When the actual activities differ significantly from the Plan, these will be carefully evaluated to determine if they should be included in the Plan, or if they should be reconsidered for de-emphasis. Also, when there are problems in effective implementation of activities, the Scientific Council will provide guidance regarding the optimal solutions.

Annex I: A BRIEF HISTORY OF ICDDR,B

1960	Pakistan-SEATO Cholera Research Laboratory established.
1963	Matlab field station started. First of a series of cholera vaccine trials launched.
1966	Demographic Surveillance System established.
1968	First successful clinical trials of Oral Rehydration Solution.
1969	Relationship between stopping breast-feeding and resumption of menstruation demonstrated.
1971	Independence of Bangladesh.
1973	Shift from Classical to El Tor cholera identified.
1977	Maternal Child Health and Family Planning interventions began in Matlab.
1978	Government of Bangladesh Ordinance establishing ICDDR,B signed.
1981	New Dhaka hospital built. Urban Volunteer Programme initiated.
1982	Classical cholera returned. Field-testing of cereal Oral Rehydration Solution began. MCH-FP Extension Project began.
1983	First issue of the Journal of Diarrhoeal Disease Research published. Epidemic Control Preparedness Programme initiated.
1984	ICDDR,B received UNICEF's Maurice Pate award.
1985	Full Expanded Programme of Immunization activities tested in Matlab. WC/BS cholera vaccine trial launched.
1987	ICDDR,B received USAID's "Science and Technology for Development" award.
1988	Treatment of and research into Acute Respiratory Infection began.
1989	The Matlab record-keeping system, specially adapted for government use, extended to the national family planning programme.
1990	The new Matlab Health and Research Centre opened
1991	ICDDR,B scientists assist in the response to the diarrhoeal disease epidemics after the cyclone in southern Bangladesh, and the cholera epidemic in South America.
1992	ICDDR,B-Bangladesh Rural Advancement Committee study commenced. New Sasakawa International Training Centre built.
1993	New laboratories built and equipped New *Vibrio cholerae* 0139 – Bengal identified and characterized.
1994	ICDDR,B celebrated the 25th anniversary of the first successful clinical trial of ORS.
1997	Operations Research Project (ORP), following the merger of the former MCH-FP Extension Project (Rural and Urban), was set up as the sole source for the entire National Integrated Population and Health Project (NIPHP), funded by USAID for 1997-2004.
1998	Nutrition Centre of Excellence (NCOE) was set up under a World Bank grant to undertake operations re-

	search in nutrition as part of Bangladesh Integrated Nutrition Programme (BINP).
2000	Major initiatives in infectious diseases began with studies / interventions on dengue, malaria and TB.
	WHO recommends use of oral cholera vaccine based largely on studies carried out at the Centre in 1985.
	Journal of Diarrhoeal Disease Research is re-launched as the Journal of Health Population and Nutrition
2001	Centre is awarded the first ever Gates Award for Global Health. Government of Bangladesh provides matching funds to create Gates-Bangladesh fund at the Centre.
	Low birth weight study starts to define potential interventions to reduce low birth weight and improve child health and development
	Operations Research Project converted to Family Health Research Project to support Essential Services Package
	Arsenic and health outcomes project starts
2002	Major studies on neonatal health are started.
	First report of mortality benefit from supplemental zinc
	Centre celebrates 40 million children saved from ORS at event at UN in New York

Annex II: EXAMPLES OF COLLABORATIONS OF THE CENTRE

	Bangladesh	International
CSD	INFS/DU, Dhaka Medical College (DMC)	JHU, USAID, SDC, Institute of Child Health, UCL, Univ California, Davis, industrial partners
HSID	MOHFW, DGHS, DFP, DCC, NIPHP Partners, IHE/DU	Partners in Population and Development (PPD), NIH-USA, CDC-Atlanta, International Vaccine Institute –Korea, industrial partners
LSD	DMC, Salimullah Medical College, Shishu Hospital, GoB, NGOs, (BWHC, Concern)	University of Leuven, Karolinska Institute, National Institute of Child Health and Human Development, Maryland, JHU, SMI- Stockholm, Sweden, National Institute of Cholera and Enteric Diseases, - India, National Institute of Infectious Diseases –Japan, CDC - Atlanta, Emory University, University of Edinburgh, industrial partners
PHSD	MOHFW, DGHS, DFP, DHC, Birdem, Universities, BIDS, Bangabandhu Medical University, Holy Family Red Crescent Hospital, NGOs	JHU, PRISMA, Peru, Univ Maryland, London School of Tropical Medicine, INDEPTH, NIDI-Netherlands, Cornell Univ

- **Centre-wide Collaboration:** World Bank, UNICEF, WHO, UNAIDS, UNFPA, PPD

- **Nature of collaboration**
  - Material Support
  - Scientific
  - Technical Assistance
  - Expert advice
  - Exchange of ideas
  - Financial support
  - Technology transfer to the Centre

Annex III: KEY RESEARCH ISSUES BY CURRENT EXPERTISE, COMPARATIVE ADVANTAGE AND PRIORITY

Child Health

RESEARCH ISSUES	CURRENT EXPERTISE[6]	COMPARATIVE ADVANTAGE[1]	EXPECTED PRIORITY[2]		
			2000	2005	2010
1 Surveillance and management of common childhood illnesses ⇒ Levels, trends and patterns of childhood illness and death ⇒ Management of childhood illnesses (IMCI) ⇒ Prevention and management of childhood illness in the community	++	+++	++	+++	++
2. Improving perinatal / neonatal health ⇒ Levels, trends and causes of neonatal death ⇒ Management of neonatal sepsis ⇒ Newborn care ⇒ Prevention and management of asphyxia ⇒ Pregnancy and delivery based interventions	+	+++	+	+++	+++
3. Strengthening and expansion of immunization programmes ⇒ Strengthen routine immunization programmes ⇒ Disease burden and cost-effectiveness evaluation for new childhood vaccines ⇒ Disease control and reduction targets	+	++	+	+	+
4. Childhood growth and development ⇒ Improving caring practices in the community ⇒ Incorporating nutritional interventions in child health services ⇒ Childhood development interventions ⇒ Preventing foetal growth retardation	+	+	+	++	+
5. Strengthening health systems for the delivery of child health services ⇒ Improving child health services ⇒ Improving health services in support of IMCI ⇒ Impact and cost-effectiveness of IMCI ⇒ Alternative service delivery strategies	++	+++	+	++	++
6. Understanding and responding to emerging childhood health problems ⇒ Prevention of childhood injuries ⇒ Levels, trends, patterns and consequences of non-communicable morbidities in children	++	++	+	+	+

[6] + indicates some, ++ moderate, and +++ high level of current expertise/comparative advantage
[2] 0 indicates no, + low, ++ moderate, and +++ high level of priority

Reproductive Health

RESEARCH ISSUES	CURRENT EXPERTISE[8]	COMPARATIVE ADVANTAGE[1]	EXPECTED PRIORITY[9]		
			2000	2005	2010
1. Safe motherhood ⇒ Determine cost-effective, acceptable, affordable interventions to reduce maternal mortality ⇒ Develop strategies to train, deploy and sustain skilled attendants during delivery ⇒ Measure progress towards improvement of maternal health	+	+++	++	+++	+++
2. Family Planning ⇒ Determine the most cost-effective, acceptable and affordable interventions to further reduce fertility to reach replacement levels ⇒ Develop strategies to access them	++	++	++	++	++
3. Adolescent health ⇒ Determine factors responsible for health risk behaviour among adolescents ⇒ Develop appropriate health indicators for behavioural change in unmarried adolescents ⇒ Develop service delivery approaches for reproductive health services for adolescents	+	++	+	+	+
4. STI-RTI / HIV-AIDS ⇒ Determine impact of interventions on STI – RTI / HIV-AIDS/Sexual health in preventing further transmission ⇒ Develop public health interventions to prevent / combat HIV/AIDS in a low prevalence country like Bangladesh	++	+++	+	+++	+++
5. Maternal nutrition ⇒ Explore causes for poor nutrition in women, especially during pregnancy ⇒ Determine effect / impact of maternal nutrition/nutrition supplementation on maternal morbidity, pregnancy outcome and birth-weight	+	+++	+	+++	+++
6. Abortion care ⇒ Develop strategies to reduce abortion-related mortality and morbidity	+	+	+	+	+
7. Violence against women ⇒ Assess magnitude, type and reasons for violence against women ⇒ Develop strategies to reduce violence against women	+	+	+	+	+

[8] + indicates some, ++ moderate, and +++ high level of current expertise/comparative advantage
[9] 0 indicates no, + low, ++ moderate, and +++ high level of priority

Nutrition

RESEARCH ISSUES	CURRENT EXPERTISE[10]	COMPARATIVE ADVANTAGE[1]	EXPECTED PRIORITY[11]		
			2000	2005	2010
1. Newborn health and breast feeding ⇒ Develop strategies to reduce neonatal mortality and to increase exclusive breastfeeding ⇒ Determine barriers to appropriate breastfeeding	+	++	+	+++	+++
2. Maternal Malnutrition and LBW ⇒ Strategies to improve maternal nutrition and adolescent nutrition ⇒ Strategies to understand determinants of maternal and adolescent nutrition ⇒ Strategies to improve and manage LBW	++	+++	+	+++	+++
3. Severe and Moderate Malnutrition ⇒ Understanding the determinants of moderate and severe malnutrition ⇒ Clinical studies to improve treatment of complications of severe malnutrition ⇒ Extend treatment of severe malnutrition to the community	++	+++	+++	+++	++
4. Infant and Child Feeding ⇒ Strategic studies to improve breast feeding practices ⇒ Understanding and behavioural study on complementary feeding ⇒ Improving complementary feeding and child growth	+	++	++	++	++
5. Child Development ⇒ Studies on physiology, magnitude and determinants of development ⇒ Studies on improving child development with malnutrition with different biological and social implications	+	+	+	++	++
6. Micronutrient Research and Intervention ⇒ Impact and determinants of micronutrients deficiencies ⇒ Test strategies for improving micronutrient malnutrition	++	+++	++	+++	+++
7. Infectious Disease and Nutrition interaction ⇒ Impact, magnitude and determinant studies on infection-malnutrition ⇒ Strategic studies on prevention and curative measures of infection-malnutrition cycle.	+	+	+	+	+

[10] + indicates some, ++ moderate, and +++ high level of current expertise/comparative advantage
[11] 0 indicates no, + low, ++ moderate, and +++ high level of priority

Infectious Diseases and Vaccine Sciences

RESEARCH ISSUES	CURRENT EXPERTISE[12]	COMPARATIVE ADVANTAGE[1]	EXPECTED PRIORITY[13]		
			2000	2005	2010
1. Evaluate promising vaccine candidates	++	+++	++	+++	+++
⇒ Diarrhoeal diseases					
⇒ Respiratory diseases					
⇒ Dengue and vector-borne					
⇒ TB					
2. Define disease incidence and burden of disease	+++	+++	+++	+++	+++
⇒ Diarrhoeal diseases					
⇒ Respiratory diseases					
⇒ TB					
⇒ Vector-borne diseases					
⇒ Sexually-transmitted infections					
3. Define risk factors, clinical, sociologic, nutritional, and other characteristics when developing strategies for prevention and control	++	+++	+++	+++	+++
⇒ Diarrhoeal diseases					
⇒ Respiratory diseases					
⇒ Vector-borne diseases					
⇒ Sexually-transmitted infections					
⇒ Newly emerging diseases					
4. Identify, implement and evaluate strategies for reducing morbidity and mortality from infectious diseases	+	+	+	+++	+++
⇒ Treatment regimens					
⇒ Community interventions/awareness					
⇒ Improved management					
5. Enhance Centre-wide focus on research of the priority infectious diseases: Diarrhoeal diseases, respiratory infections, vector-borne diseases, TB, STD's (including HIV)	+	+++	+	+++	+++
6. Enhance capacity to investigate infectious disease outbreaks in Bangladesh and the region to use scientific methods to develop and implement strategies for outbreak control	+	++	+	+++	+++
⇒ Lab "surge potential"					
⇒ Epidemic response teams (national)					
⇒ Other out-breaks					
⇒ Regional response team					

[12] + indicates some, ++ moderate, and +++ high level of current expertise/comparative advantage
[13] 0 indicates no, + low, ++ moderate, and +++ high level of priority

Health and Family Planning Systems

RESEARCH ISSUES	CURRENT EXPERTISE[14]	COMPARATIVE ADVANTAGE[1]	EXPECTED PRIORITY[15]		
			2000	2005	2010
1. Service delivery for integrated package of essential health and family planning services (ESP) ⇒ Cost-effective and sustainable strategies and operational sub-systems for ESP delivery through government, NGO and commercial programmes ⇒ Appropriate strategies for incorporating new/ efficacious interventions ⇒ Strengthening quality of services and strategies for meeting client satisfaction ⇒ Strategies for use of monitoring/evaluation tools and results for local level planning of ESP programme	++	++	++	+++	+++
2. Economic analyses and financing of health and family planning systems ⇒ Demand, costing and cost-effectiveness analyses ⇒ Strategies for health financing and improved financial sustainability	+	+	++	++	++
3. Health equity ⇒ Mechanisms to analyse/monitor types, extent and causes of inequities ⇒ Design and testing pro-equity intervention(s)	++	+++	++	+++	++
4. Public-private partnership ⇒ Design and testing effective strategies for public-private partnership in ESP delivery	+	++	+	++	++
5. Meeting additional (emerging) health and family planning needs of the communities ⇒ Appropriate methods/tools to identify additional needs by involving local communities ⇒ Design and testing additional health and FP needs identification methodologies	+	+	++	++	++
6. TA for translation of research findings into policy and action ⇒ Communication/advocacy skills and appropriate steps for translation of research into policy and action ⇒ TA for cost-effective and sustainable replication of successful research findings	++	++	+++	+++	+++

[14] + indicates some, ++ moderate, and +++ high level of current expertise/comparative advantage
[15] 0 indicates no, + low, ++ moderate, and +++ high level of priority

Population

RESEARCH ISSUES	CURRENT EXPERTISE[16]	COMPARATIVE ADVANTAGE[1]	EXPECTED PRIORITY[17]		
			2000	2005	2010
1. Fertility decline in Bangladesh ⇒ Understand the levelling of fertility decline ⇒ Focusing new interventions to overcome the resistance to further fertility decline.	+++	+++	+++	+++	+++
2. Contraceptive use dynamics ⇒ Understanding relation of discontinuation and choice of contraceptives ⇒ Understanding high discontinuation rates	+++	+++	++	++	+
3. Interrelation between abortion and contraceptive use ⇒ Determine how to maximize family planning programmes to avoid unintended pregnancy ⇒ Transfer lessons from Matlab to the GoB ⇒ Identify families with high risk of abortion	+++	+++	+++	++	+
4. Health & Demographic Surveillance System ⇒ Maintain the HDSS ⇒ Archive cohorts from past for future analysis ⇒ Begin comparative studies with others in the In-Depth network ⇒ Validate rapid demographic methods	+++	+++	+++	+++	+++
5. Ageing and adult health issues ⇒ Characterize adult health issues ⇒ Quantify burden of disease from disability	++	++	+	+++	+++
6. Education and family size ⇒ Characterize relation between education, other SES factors, and demographic events	++	++	+++	++	+
7. Poverty and rapid population growth	++	++	+++	++	++
8. Urbanization and rural-urban migration ⇒ Characterize the push and pull factors for urbanization	+	++	++	+++	+++
9. Utilization of health and family planning services ⇒ Urban areas ⇒ Rural areas	++	++	++	++	+
10. Health equity, poverty and population ⇒ Develop methods for measuring equity in programmes ⇒ Describe characteristics of equitable and non-equitable interventions	++	++	+++	+++	+++

[16] + indicates some, ++ moderate, and +++ high level of current expertise/comparative advantage
[17] 0 indicates no, + low, ++ moderate, and +++ high level of priority

ANNEX IV: RESEARCH PRIORITIES, QUESTIONS, AND RELATED INFORMATION

Child Health

Priority Areas	Key Research Questions	Performance Indicators	Resource Needs	Benefit to Centre/ mission	Expected Policy/ Programmatic Impact	Current Strengths and Comparative Advantages
1. **Surveillance and management of common childhood illnesses**	· What are the levels, trends and patterns of childhood illness and cause of death? Can monitoring tools be improved? · Can the recognition, assessment and management of childhood illnesses be improved? Can IMCI case management guidelines be improved and what impact do they have? · What strategies can be used for the prevention and management of childhood illness in the community? How can we improve caring and care-seeking practices? What community-based nutrition/micronutrient programmes are effective and can be incorporated into programmes?	umber of projects developed, funded and implemented. ollaborative links established. umber of publications, dissemination activities, conferences and workshops. ngoing dialogue with policy-makers, stakeholders, government and non-governmental agencies, international agencies and scientific community to determine key research needs, interpret research findings and initiate policy change trategies, tools and protocols developed and evaluated	uman resources having training and experience in public health, programme management, epidemiology, paediatrics, and social sciences. ractical skills in health systems research, community-based observational and intervention studies, and clinical trials ore expertise in data processing and management. omputer, and other related office and communication equipment. ccess to communities and facilities with necessary research infrastructure. unding support	ain new knowledge and skills mproved childhood illness management in ICDDR,B osition ICDDR,B as a key player and resource rovide ICDDR,B capacities to achieve its mission	xpanded scientific knowledge and understanding ontribute to the development of cost-effective and sustainable health interventions and strategies. mpróved family health, reduction in childhood mortality and morbidities, especially in socio-economically disadvantaged sub-populations.	xtensive skills and experience in child health research ccess to study populations with high childhood morbidity and mortality levels entre's work in child health is well regarded

Annex IV

Priority Areas	Key Research Questions	Performance Indicators	Resource Needs	Benefit to Centre/ mission	Expected Policy/ Programmatic Impact	Current Strengths and Comparative Advantages
2. **Improving perinatal and neonatal health** **[Cross-cutting with Infectious Diseases and Vaccine Sciences, and Reproductive Health Programmes]**	- What are the levels, trends and causes of neonatal deaths? Can verbal autopsy techniques be improved? What aetiological agents are associated with neonatal sepsis? - What strategies can be used for the management of neonatal sepsis? - What strategies can be used for routine newborn care? - What strategies can be used for the prevention and management of asphyxia? - What pregnancy and delivery based interventions will improve neonatal health?	ame as in previous section and evaluated	ame as in previous section	ame as in previous section	ame as in previous section.	ccess to study populations with high neonatal morbidity and mortality levels istory of success in building partnerships and collaborations with institutions with complementary skills and experience

Priority Areas	Key Research Questions	Performance indicators	Resource Needs	Benefit to Centre/ mission	Expected Policy/ Programmatic Impact	Current Strengths and Comparative Advantages
3. **Strengthening and expansion of immunization programmes** **[Cross-cutting with Infectious Diseases and Vaccine Sciences Programme]**	- How can we strengthen routine immunization programmes, improve coverage and completion rates, reduce vaccine wastage, and integrate with other health services? What alternative vaccine delivery strategies can be adopted? - What new vaccines can be incorporated in routine immunization programmes: assessment of disease burden and cost-effectiveness evaluation? - How can we achieve disease control and reduction targets? What operational issues need to be investigated?	ame as in previous section	ame as in previous section	ame as in previous section	ame as in previous section	istory of working closely with the government trong foundation in epidemiology, laboratory procedures and operational research

Priority Areas	Key Research Questions	Performance Indicators	Resource Needs	Benefit to Centre/ mission	Expected Policy/ Programmatic Impact	Current Strengths and Comparative Advantages
4. **Childhood growth and development** **[Cross-cutting with Nutrition Programme]**	· How can we improve caring practices; and achieve better understanding of practices? What strategies can be used for improving practices in the home and the community · How to incorporate nutritional interventions in child health services (development and evaluation) and address issues of integration? · How to improving childhood development and measurement tools? What are the levels and determinants of development and what interventions are effective in improving the situation? · How to prevent and manage foetal growth retardation? • What are the levels, determinants and consequences of foetal growth retardation? • What interventions will be effective in reducing foetal growth retardation? • How to strengthen caring practices for a growth retarded newborn?	ame as in previous section	ame as in previous section	ame as in previous section resource	ame as in previous section	entre of excellence in nutrition research eveloping skills in child development ubstantial experience in conducting community studies

Priority Areas	Key Research Questions	Performance Indicators	Resource Needs	Benefit to Centre/ mission	Expected Policy/ Programmatic Impact	Current Strengths and Comparative Advantages
5. **Strengthening health systems for the delivery of child health services** **[Cross-cutting with Health and Family Planning Systems Programme]**	- What are the critical operational issues in implementing child health services: drug supply, recording and reporting systems, referral systems? - How can we achieve health service improvements in support of IMCI? - What is the impact and cost-effectiveness of IMCI and what implementation issues need to be addressed? - What alternative service delivery strategies can be adopted?	ame as in previous section	ame as in previous section	ame as in previous section	ame as in previous section	apacity for health systems research is strong and versatile istory of working closely with the government

Priority Areas	Key Research Questions	Performance Indicators	Resource Needs	Benefit to Centre/ mission	Expected Policy/ Programmatic Impact	Current Strengths and Comparative Advantages
6. Understanding and responding to emerging childhood health problems	- What is the prevalence and cause of childhood injuries and how can they be prevented? - What are the levels, trends, patterns and consequences of non-communicable morbidities in children (e.g., lead exposure)? How can we prevent and manage them?	ame as in previous section	ame as in previous section	ame as in previous section	ame as in previous section	apacity for cross-disciplinary research istory of being responsive to health needs of the population ith declining infections, non-infectious morbidities are becoming increasingly prominent. Centre's credibility makes it ideal for it to expand into emerging problems.

Reproductive Health

Priority Areas	Key Research Questions	Performance Indicators	Resource Needs	Benefit to Centre/ mission	Expected Policy/ Programmatic Impact	Current Strengths and Comparative Advantages
1. Safe motherhood	What are the most cost-effective, acceptable and affordable interventions to reduce maternal mortality? What are the strategies to train, deploy and sustain skilled attendants during delivery? What are the ways to measure progress towards improvement of maternal health?	Presence of functioning basic and comprehensive EOC services at H&FWC as well as at Upazila health complex Availability and acceptability of services assessed and documented. Cost-effectiveness of birthing strategies assessed. Validity of indicators of progress assessed. Service utilization increased. Number of community midwives trained and taking up private delivery work in the homes	Scientists as well as supporting staff. Government staff for carrying out the interventions. Transport, equipment, computers and stationery and other supplies. Researchers, administrative staff, fieldworkers, community midwives, safe delivery kits, training cost, stationery and other supplies	Increased research capacity to deal with safe motherhood issues Knowledge-base on safe motherhood expanded	Increased utilization of services by those in need and reduction of maternal mortality. Rational allocation of resources to meet the need Adoption and scaling up of strategy found to be cost-effective Increased utilization of services by those in need and reduction of maternal mortality Increased access to skilled delivery services at home and in health facilities	RHP has a multidisciplinary team of researchers and has collaborative arrangements that can provide required expertise. The existence of a well-established health and demographic surveillance system in Matlab, the first of its kind in the world. Data management officers already available to handle the large data sets. Programme has previous experience with functioning community midwives.

Priority Areas	Key Research Questions	Performance Indicators	Resource Needs	Benefit to Centre/ mission	Expected Policy/ Programmatic Impact	Current Strengths and Comparative Advantages
2. Family planning **[Cross-cutting with Health and Family Planning Systems Programme]**	- What are the most cost-effective, acceptable and affordable interventions to further reduce fertility to reach replacement levels? - What are the strategies to access them?	Increasing number of vasectomies, increasing number of condom users, increased number of patients attending male clinics with RH problems Indicators of progress available, documented in literature and used Strategies for accessing interventions available and documented	Project staff in various scientific disciplines as well as supporting staff. Transport, equipment, computers and stationery and other supplies	Establishment of male clinics will improve the infrastructure of the Matlab sub-centres. There will be increased resources for dealing with male involvement issues. Knowledge-base expanded	To scale up the successful elements in other areas of Bangladesh.	RHP has a multidisciplinary team of researchers and has collaborative arrangements that can provide required expertise

Priority Areas	Key Research Questions	Performance Indicators	Resource Needs	Benefit to Centre/ mission	Expected Policy/ Programmatic Impact	Current Strengths and Comparative Advantages
3. **Adolescent reproductive health** **[May be cross-cutting with Nutrition Programme]**	- What factors are responsible for health risk behaviour among adolescents? - What are the most appropriate health indicators to measure behavioural change in unmarried adolescents (long and short term)? - What service delivery approaches are best for improving reproductive health services for adolescents and how can they be improved?	Identification of risk and protective factors to take health risks Identification of appropriate reproductive health indicators to track behavioural changes among unmarried adolescents Appropriate service delivery approaches identified	Human resources having institutional as well as practical training in social science and public health research Computer and other related office equipment Field workers Transport	Increased research capacity for the Centre to deal with adolescent reproductive health and hence creation of new knowledge.	Centre's ongoing and planned activities on adolescent reproductive health will contribute to the development of appropriate strategies to improve reproductive health status of adolescents	Experience of ICDDR,B, as one of the leading organizations in conducting research in adolescent health Existing multi-disciplinary scientists in ICDDRB including social scientists, epidemiologists, demographer, anthropologist, statistician etc ICDDR,B has long experience in conducting collaborative research with national and NGO programmes
4. STI-RTI / HIV-AIDS Sexual health **[May be cross-cutting with Infectious Diseases and Vaccine Sciences Programme]**	- What is the impact of interventions on STI-RTI / HIV- AIDS / Sexual health in preventing further transmission? - What are the public health interventions to prevent HIV-AIDS in a low prevalence country like Bangladesh?	Rates of HIV infection and prevalence of STDs among population groups with high risk behaviour Public health interventions available	Scientists Lab staff Field staff Support staff Lab equipment and space	Increased research capacity for the centre to deal with STI-RTI / HIV-AIDS and hence creation of new knowledge.	The prevalence rates will be fed back into policy and provide guidelines for directing resources for prevention activities	Serological surveillance has been conducted successfully for three years so that the methodology is established The surveillance has been recognised internationally Competent and trained staff are available Potential for expanding to other areas of research and service e.g. establishing a VCT centre and cohorts of specific population groups for possible vaccine development.

Priority Areas	Key Research Questions	Performance Indicators	Resource Needs	Benefit to Centre/ mission	Expected Policy/ Programmatic Impact	Current Strengths and Comparative Advantages
5. Maternal nutrition **[May be cross-cutting with Nutrition Programme]**	- What are the reasons leading to poor nutrition among women in general and particularly pregnant women? - What is the effect/impact of maternal nutrition/nutrition supplementation on maternal morbidity, pregnancy outcome and birth-weight?	Reasons obtained and documented Indicators of maternal depletion improved and proportion of low birth-weight decreased	Senior Medical Officer Medical officers Consultant Supporting staff Field workers Scientists to analyse data.		Improved maternal nutrition and neonatal health	Nutrition programme in place within ICDDRB. Collaboration of the two programmes will be advantageous.
6. Abortion care	- What are the strategies to reduce abortion-related mortality and morbidity?	Reduction of abortion-related mortality (deaths)	Project staff including researchers and field workers.	Increased research capacity to deal with safe motherhood issues	Increased resource allocation for abortion care	Programme is already working on ways to reduce maternal mortality in general, i.e. increasing access to skilled attendance at deliveries
7. Violence against women	- What are the magnitude, type and reasons for violence against women? - What are the strategies to reduce violence against women?	Reduction in incidence of violence against women	Project staff including researchers on gender issues and field workers able to collect sensitive information.	Increased research capacity to deal with gender issues		

Nutrition

Priority Areas	Key Research Questions	Performance Indicators	Resource Needs	Benefit to Centre/ mission	Expected Policy/ Programmatic Impact	Current Strengths and Comparative Advantages
1. Newborn health and breastfeeding **[May be cross-cutting with Child Health Programme]**	- What are the strategies to reduce neonatal mortality and to increase exclusive breastfeeding? - What are the barriers to appropriate breastfeeding?	Reduction in neonatal mortality and increased duration of exclusive breastfeeding	Project staff including researchers in neonatology and field workers. Also consultants, computers and stationery.	Increased research capacity to deal with child survival issues	Improved newborn and infant health	Programme is already working in related safe motherhood projects

Priority Areas	Key Research Questions	Performance Indicators	Resource Needs	Benefit to Centre/ mission	Expected Policy/ Programmatic Impact	Current Strengths and Comparative Advantages
2. Maternal Nutrition and Low Birth weight **[Cross-cutting with Reproductive Health, and Child Health Programmes]**	- Can combined intervention with food, micronutrients and treatment of bacterial vaginosis reduce LBW? - Can nutrition education and food demonstration improve adolescent nutrition, maternal nutrition and complementary feeding practices? - Can simplification of therapeutic management of low birth weight and neonates improve neonatal outcome? - What are the benefits of maternal dietary supplementation on immune status and growth of infants? - Can community based nutrition programme (NNP) improve sustainable nutritional status of women and children population?	Improved maternal nutrition is likely to reduce maternal morbidity and mortality, Reduce low birth weight infants, reduce neonatal and infant mortality Management protocol developed Reduced morbidity and mortality of LBW and neonates New information generated to provide programme tools NNP outcomes of interventions on maternal health, birth weight, health of adolescent girls, food security	Centre has expertise and credibility to undertake research in the aforementioned areas. Existence of trained, qualified clinical and community/public health nutritionists, epidemiologist, nutritional biochemists, immunologist and anthropologists. Need capacity building, funds	Gain new knowledge, develop expertise, develop laboratory capacity, equipment, gains in image internationally Develop expertise, draw interest from national and international donors and policy makers Improve case management at Centre's Hospital Centre helps GoB directly, new research gives credits and develops expertise for large scale nutrition programme	Research results from these studies will have immense impact to improve maternal mortality and reducing LBW. Indeed the GoB is looking forward to incorporate the findings in its national programme (NNP). As LBW is also a major public health problem in the whole of south Asia, results of this study will have regional programmatic implication.	Centre had already been conducting much research in nutrition and produced some state-of art research in this area. The Nutrition Programme has evolved as a crosscutting programme of the Centre, and started functioning for last five years. This Programme has members and involvement from all the scientific divisions and many research studies are being undertaken using the multi-disciplinary approach Variety of field sites where interventions can be tested. Collaboration with GoB, NGOs, national and international institutes, international agencies.

Priority Areas	Key Research Questions	Performance Indicators	Resource Needs	Benefit to Centre/ mission	Expected Policy/ Programmatic Impact	Current Strengths and Comparative Advantages
3. Severe and moderate malnutrition **[Cross-cutting with Child Health, and Health and Family Planning Systems Programmes]**	- What is the efficacy of therapeutic intervention with antibiotics and micronutrients in nutritional rehabilitation of severely and moderately malnourished children recovering from diarrhoea? - What is most effective community-based management strategies and impact on body composition of the severely and moderately malnourished children? - What are the pathophysiology and determinants of malnutrition and measures for programmes for preventive strategies of moderate and severe malnutrition? - How can the management of severe malnutrition in Urban areas be strengthened?	Improved management of severe malnutrition will have direct impact on infant and child mortality Results available to modify policy at Centre or global considerations Projects are undertaken, Results available for application for GoB policy and international use Social, clinical, and biochemical measures identified	Funding mobilization	Centre improves in capacity building, gains credit of new therapeutic development, helps fund flow to Centre's clinical and nutrition Improves case management, enhances global impact Centre credited for new strategies for PEM Management and prevention in community. Centre may get additional funding for the project. Improves relationship with the GoB Improves capacity building, Improves clinical and social strategic ability	Centre has already taken the lead to reduce the mortality of severely malnourished children. Further research to improve management of severe malnutrition and operations research to incorporate these findings in health programme will improve child survival. The findings are expected to have national and regional policy and programmatic implications.	Same as previous section

Priority Areas	Key Research Questions	Performance Indicators	Resource Needs	Benefit to Centre/ mission	Expected Policy/ Programmatic Impact	Current Strengths and Comparative Advantages
4. **Infant and child feeding** **[Cross-cutting with Child Health, Reproductive-Health, and Health and Family Planning Systems Programmes]**	- Can breastfeeding counselling by community counsellors, and/or trained fieldworkers and establishment of community clinics improve infant feeding practices? - How to develop culturally acceptable, low cost, micronutrient-rich complementary foods? - Does appropriate nutrition education with BCC reverse malnutrition in all communities? - What are the key determinants of child malnutrition and effective remedial strategies related to complementary feeding and beyond 2 years of age?	Appropriate infant and child feeding practices are available Data on child growth, and infant feeding available. Formula and strategy available to apply BCC material and techniques are generated Results available for policy and programme for complementary feeding.	Maintaining the core and research infrastructure will be required to sustain these activities.	Improved knowledge base. Training skills increased More recognition in nutrition field attracts more fund and collaboration with WHO, UNICEF, WB etc. Centre improves in large scale BCC expertise, improved capacity for giving training internally and nationally More funds can be attracted Contribute in a high priority area for GoB and other developing countries	Appropriate breastfeeding practices are one of the key interventions for improved child survival. Previous studies from ICDDR,B have already shown that trained community counsellors can improve infant feeding practices. Further research in this area will lead to programmatic implementation and incorporation in the existing GoB health programme/system.	Same as in previous section

Priority Areas	Key Research Questions	Performance Indicators	Resource Needs	Benefit to Centre/ mission	Expected Policy/ Programmatic Impact	Current Strengths and Comparative Advantages
5. Child Development **[Cross-cutting with Child Health Programme]**	- What is the impact of psychosocial stimulation and parental counselling to malnourished children on cognitive functions in national programme? - Does micronutrient supplementation improve cognitive function in malnourished children? - What is the impact of malnutrition on academic and social development?	Improved child growth, improved cognitive function, school performance, skilled human resource in future. Results available for evaluation Results available to make policies Data available for evaluation and consideration for policy	Training and expansion of skills Need expertise and training Expand lab capacity	Gains new knowledge and capacity building and expertise in child development, New knowledge is generated, more credit is earned for child health and nutrition, funds move to Centre	Childhood malnutrition and poor cognitive function have been identified as an obstacle to development of skilled human resource. UNICEF and other international agencies have put major emphasis in this area. The GoB National Nutrition Programme (NNP) has shown interest to incorporate some simplified interventions to their existing programme to improve child development.	Same as in previous section

Priority Areas	Key Research Questions	Performance Indicators	Resource Needs	Benefit to Centre/ mission	Expected Policy/ Programmatic Impact	Current Strengths and Comparative Advantages
5. Micronutrient research and Intervention **[Cross cutting with Infectious Diseases and Vaccine Sciences, Child Health, Reproductive Health, and Health and Family Planning Systems Programmes]**	- What is the micronutrient status of different age groups? - Can a cost-effective strategy of dietary diversification be identified and implemented to address micronutrient deficiencies? - What are the acceptability, safety, and effectiveness of multi micronutrient paediatric supplementation? - What are the strategies for use of different micronutrients to enhance health, economic and social outcome?	Reduction of anaemia, Vitamin A deficiency, reduction in iodine deficiency disorder, reduction in infant, child morbidity and mortality Availability of projects and reports on time frame, development of policy from research results Research results helps to formulate policy Results available for evaluation	Good collaboration with GoB (through BINP/NNP, Dhaka City Corporation) Laboratory capacity, Training need of food composition data base	Knowledge gain, Recognition to contribution to policy formulation , Improves case management in Centre's work Better case management in Centre, get more recognition from donors and policy makers	Micronutrient deficiencies such as iron, iodine, zinc and vitamin A are widely prevalent in Bangladesh as well as in South Asia. Positive impact of micronutrient supplementation to infant, children and women has already been shown in different studies worldwide and also at ICDDR, B. Further research and the findings from these studies will help GoB to improve overall micronutrient status of infant, children and women and morbidity related to these deficiencies.	Same as in previous section

Priority Areas	Key Research Questions	Performance Indicators	Resource Needs	Benefit to Centre/ mission	Expected Policy/ Programmatic Impact	Current Strengths and Comparative Advantages
6. Infectious Disease and Nutrition interaction **[Cross-cutting with Infectious Diseases and Vaccine Sciences, and Child Health Programmes]**	- Does dietary management improve outcome of infectious diarrhoea and ARI? - What is the effect of micronutrient supplementation on diarrhoea outcome and growth in children? - What is the effect of micronutrient supplementation on vaccine efficacy? - Have HIV and other infections during pregnancy any effect on birth outcome, breast-feeding, growth, and immunity?	Improved management of diarrhoea and ARI. Improved vaccine efficacy, improved child survival Trials are in place/ results available HIV subjects identified, projects in place /results available	Good collaboration with leading NGOs and their field sites Trials and resources needed	Impact of new knowledge in scientific world Saves money for hospital in Dhaka and Matlab Develop expertise and get impact from consultancy Improved laboratory capacity New knowledge on HIV Human resources developed	Research in this area will increase our understanding of malnutrition and infection interaction. An effective strategy to reduce infectious disease and its morbidity by nutritional intervention may have positive impact on child survival.	Same as in previous section

Infectious Diseases and Vaccine Sciences

Priority Areas	Key Research Questions	Performance Indicators	Resource Needs	Benefit to Centre/ mission	Expected Policy/ Programmatic Impact	Current Strengths and Comparative Advantages
1. Evaluate promising vaccine candidates against key infectious diseases and disease syndromes **[Cross-cutting with Child Health and Health and Family Planning Systems Programmes]**	- Can a substantial proportion of diarrhoeal disease be prevented with a package (system) of vaccines against key etiologies for severe diarrhoeal disease? - Can a substantial proportion of severe respiratory infection be prevented with a package (system) of vaccines against key etiologies for severe respiratory infection? - Can dengue and dengue hemorrhagic fever be prevented through immunization? - Can new vaccines for tuberculosis prevent pulmonary TB more effectively than BCG?	Conduct efficacy studies, ethnographic and economic assessments integral to introducing new vaccines.	Need core expertise for vaccine evaluations, including vaccinologists/epidemiologists, vaccinologists in training, data management team, data entry team, clinical research review team, economist, ethnographer/ anthropologist, policy specialist. Funding for projects	Will contribute to development of cost-effective prevention strategies	Could lead to accelerated introduction of safe and effective vaccines to prevent priority diseases resulting in reduction in mortality.	Highly credible Centre with substantial experience with vaccine evaluation in field settings with high incidence of disease

Priority Areas	Key Research Questions	Performance Indicators	Resource Needs	Benefit to Centre/ mission	Expected Policy/ Programmatic Impact	Current Strengths and Comparative Advantages
2. Define disease incidence and burden for major disease syndromes and key etiologies **[Cross-cutting with Child Health, and reproductive Health Programmes]**	- What are the incidence rates and burden of disease (key indicators) for principal causes of enteric disease including cholera, rotavirus, ETEC, *Campylobacter*, *Shigella* and typhoid? - What are incidence rates and burden of disease (key indicators) for principal causes of respiratory disease, including *Streptococcus pneumoniae*, *Haemophilus influenzae*, respiratory syncytial virus, influenza, and *Mycoplasma pneumoniae?* - What is the incidence of disease for tuberculosis and multi-drug resistant tuberculosis in rural (3 years) and urban areas? - What is the incidence of priority vector-borne diseases including dengue (2 years), malaria (5 years), leishmaniasis (5 years), filariasis (5 years), and Japanese encephalitis? - What is the incidence of key sexually transmitted infections?	Completed studies with data disseminated to Bangladesh government health authorities, NGOs and development agencies, as well as globally through publications.	Funding to carry out projects Improved laboratory methodology for key indicators More fully developed field sites	Will help to set priorities for research and use of resources so that they are based on magnitude of the public health problem. Centre will be a resource for global health organizations who need to set priorities and to optimally target resources.	Focused disease control and prevention activities of Ministry on diseases with highest incidence and mortality.	Centre's field settings and laboratory capacity and epidemiological skills ideal for conducting burden of disease studies

Priority Areas	Key Research Questions	Performance Indicators	Resource Needs	Benefit to Centre/ mission	Expected Policy/ Programmatic Impact	Current Strengths and Comparative Advantages
3. Define risk factors, clinical, sociologic, and other epidemiological characteristics of priority diseases for use in developing cost-effective strategies for prevention and control **[Cross-cutting with Child Health, and Reproductive Health Programmes]**	• Define risk factors for disease and for poor outcome for disease for: a) Diarrhoeal diseases b) Respiratory diseases, including bacterial, viral and mycobacterial infections c) Vector-borne diseases d) Sexually-transmitted diseases e) Newly-emerging diseases, like Nipah	Identify modifiable risk factors for key diseases. Define characteristics of at-risk population for targeted intervention strategies? Data are used by global, regional or national public health authorities in developing or implementing prevention and control strategies	Funding to carry out specific projects. Training of laboratory and epidemiological personnel to accomplish specific tasks.	Will contribute to development of cost-effective prevention strategies	Could lead to new algorithms for treatment and prevention. Could contribute to prevention and control strategies.	Disease incidence is high, making epidemiological and clinical studies feasible. Clinical, epidemiological, and laboratory expertise foundations are strong resulting in optimal use of additional training to boost capacity Substantial experience in conducting similar studies

Priority Areas	Key Research Questions	Performance Indicators	Resource Needs	Benefit to Centre/ mission	Expected Policy/ Programmatic Impact	Current Strengths and Comparative Advantages
4. Identify, implement and evaluate treatment and prevention strategies effective for reducing morbidity and mortality from infectious diseases **[Cross-cutting with Child Health, and Health and Family Planning Systems Programmes]**	- Can new antimicrobial regimens be identified which are practical, affordable and effective at reducing morbidity and mortality from key infectious diseases? - Can we implement an effective risk factor reduction programme through community interventions to prevent key infectious diseases? - Can we improve early diagnosis and appropriate treatment to reduce impact of priority diseases?	Effective strategies identified and/or evaluated at the Centre are implemented nationally, regionally, or globally. There is a measurable reduction in morbidity and mortality as a result of this work.	Support for field sites capable of epidemiological and translation (operational) research	Will contribute to development of cost-effective prevention strategies	Enhance existing approaches for reducing morbidity and mortality from infectious diseases and allied conditions.	Substantial experience in conducting operational research and following science from the bench to the field.

Priority Areas	Key Research Questions	Performance Indicators	Resource Needs	Benefit to Centre/ mission	Expected Policy/ Programmatic Impact	Current Strengths and Comparative Advantages
5. Create or enhance Centre-wide focus on research of the following priority infectious diseases: Diarrhoeal diseases, respiratory infections, vector-borne diseases, TB, sexually-transmitted diseases (including HIV)	- Can we utilize more optimally Centre-side staff and expertise to address Centre's mission? (ongoing) Form scientific teams for modest strategic planning (i.e. priority setting, key objectives, and identify donors for specific projects) and collaborative work for each priority infectious disease area. Teams have already been established for respiratory infections and TB. Among vector-borne diseases, teams have been established already for dengue and leishmaniasis.	Thriving set of highly focused activities cross-cutting through the Centre. Measurable through increased number of integrated projects which are coherent with overall programme priorities.	Increased staffing to organize and focus workgroups.	Ensure optimal use of Centre resources.	More efficient use of Centre resources	Centre needs coordination of vast areas of interest and expertise, especially as it expands its domain and mandate.

Priority Areas	Key Research Questions	Performance Indicators	Resource Needs	Benefit to Centre/ mission	Expected Policy/ Programmatic Impact	Current Strengths and Comparative Advantages
6. Enhance capacity to investigate outbreaks of infectious diseases in Bangladesh and the region to use scientific methods to develop and implement strategies for outbreak control	- How can Laboratory Sciences Division contribute to capacity to investigate and respond to outbreaks? - What is needed to develop capacity and to identify scientists and technicians who will be part of epidemic response team (depending upon likely etiology)? - How can existing Epidemic Control Preparedness Programme within PHSD enhance capacity to address outbreaks? Is this adequate? Do we need to involve other Divisions and Units? - How can ISD contribute. In particular, can Training and Education Unit disseminate methods for investigation and response to various regions/settings?	Demand for our services for response to outbreaks from GoB and from scientists and authorities (like WHO) outside the country.	Increased laboratory and epidemiologist staffing to provide surge potential; Training for lab and epi staff on outbreak investigations. Pool of emergency funds which can be appropriated during emergency (outbreak) situations.	Centre will function as a global resource for investigating new and emerging problems. Centre will be in a position to recognize outbreaks in Bangladesh and assist authorities in prevention and control measures to reduce morbidity and mortality.	Improved perception of ICDDR,B by public and Ministry and internationally as a state-of-the-art centre which responds to emerging problems of local concern and global importance.	Given dense population, malnutrition, close interaction of animals and humans, wide range of diseases, the potential for outbreaks of new and emerging diseases in Bangladesh is substantial. Centre is most credible scientific facility for investigating outbreaks of new diseases.

Health and Family Planning Systems

Priority Areas	Key Research Questions	Performance Indicators	Resource Needs	Benefit to Centre/ mission	Expected Policy/ Programmatic Impact	Current Strengths and Comparative Advantages
1. Develop strategies/ operational sub-systems for efficient, cost-effective and sustainable delivery of an integrated package of essential health and family planning services (ESP). **[Cross-cutting with Child Health, Reproductive Health, Infectious Diseases and Vaccine Sciences, and Nutrition Programmes]**	- What additional strategies/modifications are needed to further strengthen ESP provision within the national programme (government, NGO and commercial sector)? - What institutional/ programmatic arrangements are needed to incorporate the efficacious/new interventions on reproductive health, child health, RTI – STD / HIV-IDS and other communicable diseases, mother and child nutrition, and adolescent healthcare in the national programme? - What interventions/ activities are critical to further improve quality of health and family planning services within the various ESP programmes (government, NGO, etc)? - How to make the service-delivery systems more responsive to community needs and to better meet client satisfaction?	- Appropriate service delivery tiers defined; specific services to be provided from each of these tiers ascertained; guidelines/manuals on the service delivery strategies/systems and operational sub-systems such as management information, logistic and supplies, training, etc. developed/ modified/tested/ finalized and disseminated. - Feasible strategies and related operational sub-systems for integration of new interventions into the existing programmes developed/ tested/ finalized and disseminated; guidelines/manuals/ documentation and reports generated and disseminated. - Simple and cost-effective approaches for quality improvement of service(s) and appropriate/needed job-aids/ manuals developed/ tested/ finalized and disseminated. - Community perceptions on satisfactions with the service delivery strategies/systems assessed; manuals/ guidelines for providers to address client satisfaction issues developed/ tested/finalized and disseminated.	• Human resources having training in public health, medicine, demography, economics and other areas of social sciences and biomedicine. • Practical skills in operations research, health systems developed and good understanding of the national programme and ongoing health reform programmes in various countries. • Computer and other related office equipment and accessories. • Government and NGO programme sites with necessary research infrastructure and surveillance systems.	• New solutions, strategies and appropriate technologies for sustainable, cost-effective and equitable delivery of an integrated package of essential health and family planning services developed and available with the Centre. • Centre's applied research capacity strengthened further. • Centre would be better positioned to address the practical issues in implementing an integrated package of essential health and family planning services.	• Documents on functional, cost-effective and sustainable strategies/ systems for the integrated delivery of essential health and family planning services made available for the national programme. • Increased coverage of essential health and family planning services. • Improved family health, reduction in fertility and mortality and morbidities, especially for women, children and socio-economically disadvantaged sub-populations. • Clear-cut policies on implementation of sustainable, cost-effective and equitable delivery of an integrated package of health and family planning services (ESP).	• Long-standing experience of ICDDR,B and the Programme on Health and Family Planning Systems in conducting operations/ health systems research of programmatic and policy relevance. • National and global recognition of ICDDR,B in conducting high-quality operations/ health systems research. • Multi-disciplinary skills experienced in operations research and field sites along with monitoring/evaluation facilities and other necessary infrastructure available with the Programme/ICDDR,B. • In response to the ICPD and the ongoing health sector reforms in various countries across the globe, practical issues relating to operationalization of cost-effective, sustainable and equitable strategies for an integrated delivery of a broader package of reproductive health (including family planning) and other essential family health services have evolved as important areas of research.

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2. Undertake economic analyses and develop health-financing mechanisms (e.g., user-fees, insurance schemes) for the integrated service delivery programmes.	- What are the cost and effectiveness implications of the various ESP interventions and programmes? - What health financing strategies/ schemes are viable to adopt to improve the financial sustainability of the service delivery systems, without adversely affecting utilization?	Cost-effectiveness and cost benefit ratios worked out for the various intervention(s) on integrated service delivery strategies. Viable health financing schemes and related manuals/ guidelines developed/ tested/ finalized and disseminated.	Same as in previous section	Appropriate strategies and approaches for improved financial sustainability of the integrated health and family planning service delivery programmes developed and available with the Centre. Centre's research capacity for economic analysis of health and family planning systems strengthened further. Centre would be better positioned to address the practical issues of economic analysis and financial sustainability of the integrated health and family planning service delivery systems.	Reports on cost, cost-effectiveness and other economic analyses (demand- and supply-side factors) of the service delivery programmes. Appropriate approaches for cost recovery and improved financial sustainability of the programmes, with "safety net" measures for the poor. Clear-cut policies on cost recovery and revenue utilization.	Same as in previous section

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3. Conduct equity analyses of the integrated service delivery programmes. **[Cross-cutting with Child Health, Reproductive Health, Infectious Diseases and Vaccine Sciences, and Nutrition Programmes]**	- What are the existing types and causes of inequities in health service utilization and how to measure/ monitor those effectively? - What effective strategies can be identified and implemented to redress inequities in the healthcare systems?	Gender, socio-economic status and other variable-specific disparities assessed. Pro-equity intervention(s)/ action(s) designed/ tested/finalized and disseminated.	Same as in previous section	Appropriate strategies and approaches for equitable delivery of integrated health and family planning services developed and available with the Centre. Centre's research capacity for equity analysis of health and family planning systems strengthened further. Centre would be better positioned to address the practical issues of equity (monitoring equity effects and implementing pro-equity interventions) in the delivery of integrated health and family planning services.	Report(s) on equity effects of the service delivery programmes. Strategies/actions for an equitable delivery of health services.	Same as in previous section

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4. Develop strategies for private-public partnership in the delivery of essential health and family planning services.	- What should be the optimal private-public mix in the provision of ESP? - What are the effective strategies for private-public partnership?	Feasible strategies for private-public partnership ascertained. Intervention(s) on private-public partnership piloted/ finalized and documented.	Same as in previous section	Appropriate strategies and approaches for effective private-public partnership in the integrated delivery of health and family planning services developed and available with the Centre. Centre's research capacity on improvement of financial sustainability of health and family planning systems through private-public partnership strengthened further. Centre would be better positioned to address the practical issues of private-public partnership in the integrated delivery of health and family planning services.	Appropriate approaches for an effective private-public partnership. Policy guidelines for private-public partnership.	Same as in previous section

Priority Areas	Key Research Questions	Performance Indicators	Resource Needs	Benefit to Centre/ mission	Expected Policy/ Programmatic Impact	Current Strengths and Comparative Advantages
5. Develop simple and cost-effective evaluation methods/ techniques for the integrated service delivery programmes.	- What evaluation methods and rapid assessment techniques are feasible and cost-effective for periodic measurement of the process/output/outcome indicators of the integrated service delivery systems? - Can these tools and results be used effectively to enhance programme performance?	Tools/techniques for simple/rapid evaluation/assessment developed and piloted. Manuals/ guidelines to conduct programme evaluation/assessment by local managers/ communities developed and piloted. Strategies/manual on use of evaluation/ assessment results for local level planning and monitoring of the health programmes by stakeholder developed/ tested and documented.	Same as in previous section	Appropriate strategies and approaches for cost-effective and rapid evaluation techniques for integrated health and family planning service delivery systems developed and available with the Centre. Centre's research capacity for programme evaluation strengthened further. Centre would be better positioned to address the practical issues of cost-effective, reliable and rapid programme evaluation techniques.	Simple and rapid monitoring/ evaluation methods/techniques for the programmes. Guidelines on utilization of the monitoring/ evaluation results for local level planning and organization of health services.	Same as in previous section

Priority Areas	Key Research Questions	Performance Indicators	Resource Needs	Benefit to Centre/ mission	Expected Policy/ Programmatic Impact	Current Strengths and Comparative Advantages
6. Identify the additional (emerging) health and family planning needs of the communities. **[Cross-cutting Child Health, Reproductive Health, Infectious Diseases and Vaccine Sciences, and Nutrition Programmes]**	- What are the additional (emerging) health needs in the communities that require to be incorporated/ addressed within the programmes for essential family health services? - What are the effective ways of involving the local communities in this process?	Additional (emerging/re-emerging) health needs in the ESP programme areas assessed. Strategies/ guidelines on involvement of the stakeholders in assessing the additional health needs developed/tested and documented.	Same as in previous section	Appropriate strategies and approaches for identification of additional health needs with the involvement of programme managers and local communities developed and available with the Centre. Centre's research capacity on effective ways to identify the emerging additional health needs of local communities strengthened further. Centre would be better positioned to address the practical issues in identification and implementation of new interventions for the additional health needs.	Report(s) on additional (emerging) needs of the health and family planning programmes. Guidelines on programmatic and policy actions to address the additional health and family planning needs.	Same as in previous section

Priority Areas	Key Research Questions	Performance Indicators	Resource Needs	Benefit to Centre/ mission	Expected Policy/ Programmatic Impact	Current Strengths and Comparative Advantages
7. Advocacy/TA in the translation of research findings into appropriate programmatic and policy changes. **[Cross-cutting with Child Health, Reproductive Health, Infectious Diseases and Vaccine Sciences, and Nutrition Programmes]**	- What capacities and skills are critical in sensitising/ involving policy-makers and programme managers for speedy translation of the successful research findings into policy and action? - What sort of technical assistance ensures cost-effectiveness and sustainability of this translation process?	Practical ways of involvement/ ownership of the programme managers/ policy-makers in the design, implementation and dissemination of the research findings ascertained. Limited and time-bound TA plan (manual/ guidelines) developed to facilitate the replication/ translation process and ensure its sustainability within the government and NGO programmes.	Same as in previous section	Appropriate skills and approaches for translation of research findings into policy and action developed and available with the Centre. Centre would be better positioned to address the practical issues in effecting programmatic and policy changes through its research.	Adaptation/ replication of research findings into programmes and national policies.	Same as in previous section

Population

Priority Areas	Key Research Questions	Performance Indicators	Resource Needs	Benefit to Centre/ mission	Expected Policy/ Programmatic Impact	Current Strengths and Comparative Advantages
1. Fertility declin in Bangladesh	- Why has the fertility decline of the 1980s stalled at above 3 children per women? What is likely to happen in the future? What are implications for attaining replacement fertility by 2005? - Although expressed desired family size exceeds the level of replacement fertility, it is well below current fertility? Is that inevitable, or does it reflect inefficient FP use and FP failure?	The major outcomes or outputs from the research should of course be a better understanding of the issues and the underlying factors contributing to the problem or issues being studies. Ideally this greater understanding should lead to new or modified and more efficient interventions, depending on the issue.	Many of these studies require similar resources, namely skilled researchers with access to the necessary data. Of course research infrastructure needs to be in place, but in an institution which has been doing this work for four decades, that is reasonably clear.	Issue of great national importance. Findings will receive widespread attention. Requires the application of research skills, and datasets for analysis, not widely available outside ICDDR,B Will highlight the high value of longitudinal demographic data which ICDDR,B has been collecting for several decades.	A better understanding of the causes of the stalling of the fertility decline, with guidance as to how this can be overcome.	Many of these current research issues are based on the needs of Bangladesh, viewed in conjunction with the information which is currently available through the ICDDR,B's data collection systems. These include the various longitudinal surveillance systems which generate relatively unique data of a wide variety of health conditions and related behaviours, as well as providing settings for conducting well-designed studies.

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2. Contraceptive use dynamics	- Why does contraceptive discontinuation continue at such high levels? - What can be done about improving quality of services to ensure more satisfactory FP use? - What can be done to reduce contraceptive failure?	Same as in previous section	Same as in previous section	Findings should lead to greater cost efficiency in national FP Program. Will highlight the high value of longitudinal demographic data which ICDDR,B has been collecting for several decades.	Lead to improved contraceptive use rate.	Same as in previous section
3. Interrelation between abortion and contraceptive use	- Does the provision of high quality, effective contraceptive services reduce the demand and use of abortion services? - Why did abortion rates rise in parallel with rising use of contraception? Is it that awareness of the capacity to control fertility produces an initial rise in all mechanisms to limit fertility, and only later do couples cease resorting to abortion as they become more efficient in using FP?	Same as in previous section	Same as in previous section	Induced abortions contribute to maternal morbidity and mortality, so the issue of whether or not effective FP services can reduce demand for abortion is of great importance, for both health and ethical reasons.	Lead to improved services with reduced reliance on abortion.	Same as in previous section

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4. Health and Demographic Surveillance System	- The maintenance of the HDSS, which forms the basis of many research studies, is a critical activity of the Centre.	Timely production of health & demographic data. Production of HDSS annual reports. Provision of datasets requested by other researchers.	Same as in previous section	The HDSS provides the platform of high quality longitudinal data essential for many of the studies undertaken by Centre research staff.	Better understanding of longitudinal demographic, health, and socio-economic processes. Outcomes of other studies based on HDSS.	Same as in previous section
5. Ageing and adult health issues	- Are chronic diseases taking a growing proportion of the overall burden of disease, as a result of population ageing or other factors, with substantial implications for health service financing? - How much of the growing proportion of the population described as 'old age' is simply related to declining numbers of births, and how much is directly due to improved survival of older people? And, what are the implications in relation to changing family structures (towards more nuclear)?	Same as in previous section	Same as in previous section	The Bangladesh health system needs to evolve to take account of changing patterns of disease, and previously neglected conditions which restrain the advancement of health. The current MOHFW surveillance systems are not intended to provide the necessary information on morbidity and mortality which ICDDR,B can do.	A better understanding of the true nature and levels of adult diseases will assist the Government in designing future health services, and the associated needs for training, equipment, facilities, etc.	Same as in previous section

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6. Education and family size	- How much is the rapidly increasing provision of education for girls and young women linked to reductions in desired and achieved family size?	Same as in previous section	Same as in previous section	The mission is to throw light on major social changes which affect population growth and poverty reduction in Bangladesh. Understanding changes in female education is part of that process.	A better understanding of how development interventions, such as increasing female education, can be expected to affect future marriage and childbearing patterns.	Same as in previous section
7. Poverty and rapid population growth	- Does limitation of family size result in improved economic status for individual families, or does this proposed development effect only work at the community or national level?	Same as in previous section	Same as in previous section	Nations can benefit from population policies which are promoted to individual families. These families do not always benefit individually. Policies need to take this into account.	Better understanding of how macro level changes in the national population affect individual families who adopt new family building strategies for the national good.	Same as in previous section

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8. Urbanization *and rural*-urban migration	- What are the implications of urbanization for family support, both economic and in other areas, as well as how changing family structures, due to declining fertility and mortality, are playing a role in this movement? - What strategies do rural families use to decide who should migrate and when? - How do the aspirations of young people change as a result of various development interventions such as growing employment in the textile sector for young women, and how are marriage and childbearing behaviours influenced by these evolving expectations?	Same as in previous section	Same as in previous section	The most important demographic process at present is not overall population growth but rapid urbanization. The nation needs to better understand what forces are driving this in order to predict future trends, and to plan services and policies to minimize the negative aspects of such a process.	Urban growth needs to be slowed, so a better understanding of the push factors driving such migration to the cities will hopefully lead to programmes which encourage rural dwellers to remain there.	Same as in previous section

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9. Utilization of health and family planning services	- As modernization has proceeded, is there still a need for such high density, proximate services, and can the Ministry of Health reasonably expect that families will seek out preventive and curative services wherever and however they may be offered? - How has the provision of preventive and curative health services greatly reduced the gender disparities of mortality for male and female children?	Same as in previous section	Same as in previous section	Bangladesh has widely accessible health services, but they are not fully utilized. In order to maximize the benefits of such services, a better understanding of users motivations, needs and experiences is required.	Cost-effective provision of health and FP services to all who require them is a desirable goal of the national health and population sector programme. This work should contribute to achieving greater efficiency in this.	Same as in previous section
10. Health equity, poverty and population	- How major development and health interventions are differentially benefiting different sectors of the population?	Same as in previous section	Same as in previous section	Overall improvements in health can sometimes conceal disadvantaged groups, particularly the poorest. This work will extend recent approaches to measuring equity to ensure policies result in equitable services and health benefits.	The HPSP is explicitly pro-poor, but better refinement is needed to be certain that the programmes and interventions are actually reaching the poor, and poorest.	Same as in previous section