INVESTING IN SOLUTIONS AT THE HEART OF THE PROBLEM



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Alumni Association Approves Charter, Bylaws, and Officers

Over 150 former employees of ICDDR,B joined the inauguration ceremony of the ICDDR,B Alumni Association. They voted for its Charter and Bylaws, and elected representatives on 2 December 2004..

Newly-elected officers of the Association for the next two-year term include: Mr MR Bashir-President; Dr KMS Aziz and Dr M Badrud Duza-Vice Presidents, Mr MA Wahed-General Secretary, Mr AKM Abdus Samad-Treasurer, Mr Subash Chandra Saha and Mr AM Sardar-Joint Secretaries. Members of the Committee are: Mrs Jean Sack, Mr M Shamsul Islam Khan, Mrs Obaidah Kabir, Mr Muhammad Mujibur

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Rahman, Dr ASM Hamidur Rahman, Mr Jyotsnamoy Chakraborty, Dr Aliya Naheed, and Dr Sufia Islam.

Ex-officio members of the Alumni Association Executive Committee include the Executive Director of the Centre, the President of the Staff Welfare Association (SWA), and the SWA Vice President from Matlab. The Committee will meet regularly to plan functions, produce literary and historical publications, network with members in academia, and work for the development of ICDDR,B. The external Chapters of the ICDDR,B Alumni Association may nominate representatives to encourage communications with overseas alumni.

The alumni enjoyed songs, dances, and a drama organized to celebrate the reunion. The day ended with a dinner and raffle draws on the rooftop pavilion. Inauguration paperweights were presented to each alumnus. Centre's Executive Director Professor David Sack presented crests to all members of the alumni present at the event.

An illustrated souvenir was published that displayed historic photos and stories including memorials for many alumni who have passed away since 2000.

Life-time registration for membership in the Association can be obtained from the ICDDR,B Alumni Secretariat, GPO Box 128, Dhaka 1000, Bangladesh Phone/fax: 880-2-9899225 Email: alumni@icddrb.org; and Web site at http://www.icddrb.org/ alumni/requestForm.jsp

HIV in Bangladesh: Recent Scenario

World AIDS Day is commemorated around the globe on 1 December. Along with other countries of the world, Bangladesh also observed the Day by re-affirming its promise to confront the AIDS epidemic. Widespread inequalities in gender and other dimensions of life have made Bangladeshi women particularly vulnerable to HIV/AIDS. Conforming to the theme of this year's World AIDS Day -"Women, Girls, HIV and AIDS"-ICDDR,B restates its pledge to address the structural dynamics of the AIDS epidemic through research and action. The Centre is committed to address inequality, respect diversity, and fight discriminations.

On the eve of World AIDS Day 2004, the Government of Bangladesh released the summary results of the Fifth Round of HIV Surveillance on 22 November.

The data from the 5th round of the serological surveillance confirm the fears from the previous 4th round that there is an impending epidemic among the injecting drug users (IDUs) in Central Bangladesh, and one neighbourhood in that city is already experiencing an epidemic.

The HIV epidemic in Bangladesh, from an epidemiological perspective, is evolving rapidly. While still a low-prevalence country for overall HIV rates, a small pocket of IDUs under second-generation surveillance has shown an HIV prevalence increase from 1.4% to 4% to 8.9% (in one locality) over the past three years. Simultaneously, data from the recent Behavioural Surveillance Survey (BSS) indicate an increase in risk behaviours, such as sharing of injecting equipment and a decline in consistent condom use in sexual encounters between IDUs and female sex workers. BSS data also indicate that the IDU population is wellintegrated into the surrounding urban community, socially and sexually, thus raising grave concern about the spread of HIV infection

Over the rounds, the total HIV prevalence remained below 1% (Table 1).

Bangladesh is a low-prevalence nation for HIV and therefore, according to the guidelines of the second-generation surveillance system for HIV, surveillance should concentrate on selected groups of individuals who are known to be most at risk of HIV and some of the population

Table 1: HIV prevalence over the rounds

Surveillance round	Numbers tested	HIV (%)	
First round (1998-1999) Second round (1999-2000) Third round (2000-2001) Fourth round (2002)	3886 4634 7063 7877	<1% (0.4) <1% (0.2) <1% (0.2) <1% (0.3)	
Fifth round (2003-2004)	10445	<1% (0.3)	

groups that may bridge the epidemic into the general population. Therefore, during all rounds of surveillance conducted so far in Bangladesh, including the 5th round, the population



ICDDR, B observed the International Candlelight Memorial Day on 16 May 2004 by lighting candles on the entrance circle of the Centre. The Day is observed worldwide to remember those who died of AIDS, those who are living with AIDS, and to raise awareness about AIDS

groups selected were confined to those considered to be most vulnerable and some bridging populations.

The most at-risk populations: injecting drug users

Injecting drug users had the highest rate of HIV infection with 4% prevalence in Central Bangladesh and in one neighbourhood of Central A, 8.9% of IDUs were HIV-positive. While HIV prevalence in IDUs increased significantly in one specific area (Central Bangladesh),



there were no changes between the 4th and the 5th round in the rest of the country. Bangladesh, therefore, still remains a low-prevalence nation for HIV. Furthermore, active syphilis rates declined significantly in IDUs over the rounds in Central Bangladesh. However, hepatitis C virus (HCV) prevalence in IDUs remained high.

HCV prevalence was high among IDUs from most sites. The highest rates were recorded in IDUs from Northwest B2. The HCV rates were surprisingly low in two sites: Northwest F and Central H. In Central A where HIV prevalence was 4%, HCV prevalence was 59.2%. Overall, out of a sample of 1619 IDUs, 54.2% tested positive for HCV (Table 2).

The 5th round BSS showed that needle/ syringe sharing continued to be routine among IDUs, especially among those in Central A region. However, sharing was comparatively lower in the Northwest region than in Central A region. Most IDUs used other modes of taking drugs before they started injecting. A large proportion of IDUs had commercial and



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Table 2. Prevalence of hepatitis C virus among injecting drug users

Study populations, geographical location (numbers tested)	Hepatitis C virus n (%), 95% CI
Injecting drug users: NEP, Central A (404)	239 (59.2), 54.2 – 64.0 32 (29.9), 21.4 - 39.5
NEP, Central E (107)	7 (5.7), 2.3 - 11.5
NEP, Central H (122)	264 (67.0), 62.1 - 71.6
NEP, Northwest A (394)	184 (77.0), 71.1-82.2
NEP, Northwest B (239)	43 (55.1), 43.4 - 66.4
NEP, Northwest B1 (78)	39 (83.0), 69.2 - 92.4
NEP, Northwest B2 (47)	7 (8.2), 3.4 - 16.2
NEP, Northwest F (85)	17 (29.8), 18.4 - 43.4
NEP, Northwest F1 (57) NEP, Southeast D (86)	45 (52.3), 41.3 – 63.2
Total (1619)	877 (54.2), 52.3 - 57.2

non-commercial female sex partners, and condom use was infrequent. A proportion of IDUs (4.3-6.7%) sold blood last year. IDUs were highly mobile. IDUs from other cities travelled to Central A where they injected drugs. Injecting drugs while abroad was more commonly reported by IDUs from Northwest B and B1 regions (10-12%).

A considerable proportion of heroinsmokers injected in the last six months and most shared needles/syringes during their last injection. More than half of the heroin-smokers had commercial and non-commercial female sex partners last year, and they had multiple sex partners. Condom use, both in the last sex act and consistently in the last month, was very low with both commercial and non-commercial partners.

Comparison over previous surveillance rounds: injecting drug users

Over the rounds of the serological surveillance, there has been a significant rise in HIV prevalence (p=0.007) in Central A as shown in Fig 1. The changes are also significant between the 2^{nd} and the 4^{th} rounds (p=0.042) and between the 2^{nd} and the 5^{th} rounds (p=0.043) of surveillance (Fig. 1).

Among the street-based sex workers from Central A region, significant declines in active syphilis rates were observed over the five rounds (p<0.001) (Fig 2). Between the 4th and the 5th round in Southwest A region, a significant decline in active syphilis rate (p=0.01) was also observed. However, the changes in the active syphilis rates were not significant for the hotel-based sex workers in Central A region. HIV prevalence was low in males who have sex with males (MSM), male sex workers (MSW), Hijras, and partners of Hijras. In Central A region, changes in the active syphilis rates in MSM and MSWs over the rounds were not significant.

Almost all of the MSWs and Hijras reported that they had new clients in the last week. Some MSW sold sex to females last month. Hijras reported more clients in the last week than MSWs while condom use was low in this group.

All groups of sex workers reported violence in the last year. Both being raped and beaten was most commonly reported by Hijras and female street-based sex workers from Central A region. Violence was reported to have been committed by both police and mastans.

Comparison over the surveillance rounds: MSM

In Central A region, changes in the active syphilis rates in MSWs were insignificant

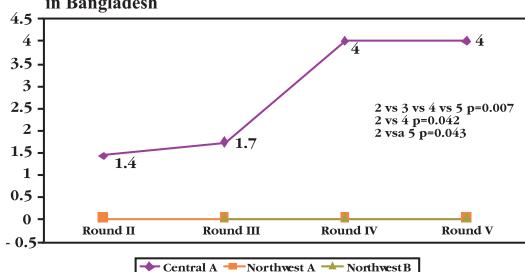
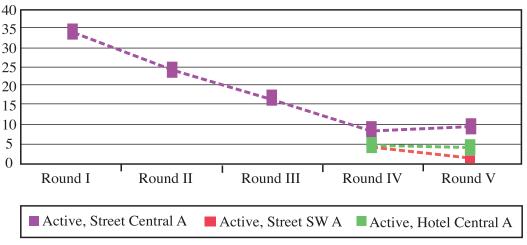
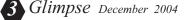


Fig 1. HIV in IDUs over the rounds of serological surveillance in Bangladesh

Fig 2. Syphilis in street- and hotel-based sex workers over the rounds of serological surveillance





control. Policy makers and programmers within the Government of Bangladesh,

bilateral agencies, national and

international NGOs have a key role to

play in recognizing the urgency of the

situation and taking immediate action.

ICDDR,B on behalf of the Government

Government of Bangladesh, DFID, IDA,

and Family Health International. Family

of Bangladesh and was funded by the

The surveillance was conducted by

Health International also provided

technical support to the behavioural

Contributed by HIV/AIDS Programme

9 8 7 6 5 4 3 2 1 0 Round III Round IV Round V ••• MSM, Current syphilis •••• MSW, Current syphilis

Fig 3: Syphilis in MSWs from Central A region over the rounds of serological surveillance

The relatively low level of HIV in Bangladesh today does not guarantee low prevalence tomorrow. Experience teaches us that early epidemics do not show their magnitude at first and place few demands on the health sector. All the risk factors which give birth to explosive HIV epidemics are present in Bangladesh today. In the absence of good quality and high coverage intervention programmes, HIV prevalence may jump to very high levels within months. Once HIV prevalence crosses the 10% level, epidemics become very difficult to

Interview with Dr Fatema Parveen Chowdhury

Glimpse interviewed Dr Fatema Parveen Chowdhury, Director, Centre for Medical Education and Line Director, National AIDS/STD Programme (NASP) and Safe Blood Transfusion Programme (SBTP) of the Government of Bangladesh, to know the recent status of HIV/AIDS infection in the country as revealed in the last (5th round) surveillance. In her response, she also covered information on syphilis.

Glimpse: Bangladesh has recently completed the 5th round of HIV surveillance. What were the significant findings of the surveillance and what was the role of *ICDDR.B* in the surveillance?

Dr Fatema Parveen Chowdhury:

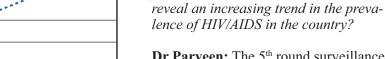
Although HIV prevalence rate (0.3%) is still less than 1% in Bangladesh, protective behaviour like consistent condom use and not sharing needles/syringes is

still far from optimum. Syphilis shows a declining trend but did not decrease significantly. HIV is found among the heroin-smokers. and risk behaviours are common among them. There is widespread violence among male and female sex workers. injecting drug users (IDUs)

surveillance.







Dr Parveen: The 5th round surveillance did not reveal any significant rise in HIV among IDUs countrywide but a cluster of IDUs in the central region of Bangladesh has a higher HIV prevalence. HIV prevalence rates are similar in all groups to those of the 4th round. Syphilis rates have not declined in sex workers since the 4th round. Sharing of injecting equipment (needles/syringes) has increased in Central A but not in other sites. In the 5th round, HIV was detected in 0.8% of heroin-smokers. Female sex workers have similar numbers of clients per week except for those in hotels of Central A where numbers have declined. Consistent condom use in female sex workers has remained similar in all sites other than the streets of Central A where condom use has increased considerably. Although consistent condom use is shown to have increased in male sex workers, active syphilis rates have risen, and consistent condom use has declined in Hijras; syphilis rates are similar. Sex workers along border-areas are considerably mobile and sell sex across the border.

of central region have a tendency of mo-

ICDDR,B conducts the serosurveillance

Glimpse: *How would you compare the*

findings from the 4th round with those from the 5th round? Did the last round

bility within and outside the country.

in coordination with different stake-

holders, including NASP.

Glimpse December 2004

IDUs from other cities travel to Central A and inject drugs.

Glimpse: What attempts or steps, in your opinion, can avert the suspected HIV/ AIDS epidemic in Bangladesh?

Dr Parveen: The following steps, in my opinion, should be taken to avert the suspected HIV/AIDS epidemic:

- (1) Maintain the nationwide coverage of targeted interventions to keep the momentum for achieving sustained behaviour change.
- (2) Strengthen the national programming capacity.
- (3) Quality improvement of targeted interventions through continued monitoring and technical assistance.
- (4) Develop standardized protocols for targeted interventions and the general population.
- (5) Continue and strengthen the emerging Government-NGO coordination mechanism.
- (6) Introduce capacity development elements, like VCT, ARV treatment.
- (7) Integrate HIV/AIDS into tuberculosis control, family planning, RTI/STI and MCH care programmes.
- (8) Undertake comprehensive initiatives to promote human rights of the marginalized group and people living with HIV and AIDS.
- (9) Males having sex with males, external migrant workers, and other vulnerable groups should be included in the targeted interventions.

Glimpse: *ICDDR,B established a voluntary counselling and testing centre called JAGORI in its Dhaka campus. Do you think services rendered by JAGORI are useful?*

Dr Parveen: JAGORI is providing voluntary counselling to different groups of people. It is the most comprehensive counselling centre in the country equipped with appropriate human resources. Along with providing services, it is acting as a model site of VCT centres for large-scale replication.

Dr Tahmeed Ahmed Receives Gold Medal from Bangladesh Academy of Sciences

Bangladesh Academy of Sciences (BAS) awarded their Dr Sultan Ahmed Choudhury Gold Medal to Dr Tahmeed Ahmed, a prominent scientist of ICDDR,B for his outstanding contribution to medical science. Dr Tahmeed is now Acting Head of the Nutrition Programme.

The gold medal was presented to Dr Ahmed by Professor Dr Iajuddin Ahmed, Hon'ble President of the People's Republic of Bangladesh in a ceremony held at Hotel Sonargaon on 16 March 2004.

Dr Ahmed was rewarded for his work in child nutrition. While reading the citation in the ceremony, Professor Dr M Shamsher Ali, Vice President of the Bangladesh Academy of Sciences, specifically lauded the research of Dr Ahmed in reducing mortality among children with severe malnutrition and in disseminating the results of the study done in ICDDR,B both within Bangladesh and in other countries of the world where childhood malnutrition is a major public-health problem. In his speech as Special Guest at the ceremony, Dr Moyeen Khan, Hon'ble Minister for Science. Information and Communication Technology, Government of the People's Republic of Bangladesh, also lauded the efforts of Dr Ahmed in improving the management of childhood malnutrition.

For his work in the area of child nutrition, Dr Ahmed had earlier received the International Health Research Award for 1999 from the Ambulatory Pediatric Association in the Congress of the Pediatric Societies of America.

In response to a query, Dr Tahmeed Ahmed explained his work at the Centre. After joining the Clinical Sciences Division of the Centre in 1985, he undertook training in paediatrics at the Dhaka Children's Hospital and the University of Tsukuba Hospital, Japan. One of his major responsibilities at the Centre is to take care of children with severe malnutrition and infectious illnesses, including tuberculosis and pneumonia.



These are the illnesses that cause most of the childhood deaths in the world. His field of research is principally focused on the management of these illnesses. His initial work included development and implementation of a standardized management protocol for severelymalnourished children with diarrhoea, and a diet protocol for rapid catch-up growth during nutritional rehabilitation using low-cost, effective diets. These initiatives have been successful, and the results have already been implemented in other centres within and outside Bangladesh. The research initiatives have also resulted in training opportunities for health professionals within and outside the country. Dr Ahmed works closely with the World Health Organization to train health professionals in various regions of the world, including



Dr Tahmeed Ahmed receiving the BAS Gold Medal from the Hon'ble President of Bangladesh Professor Dr Iazuddin Ahmed

Afghanistan, Uganda, and Cambodia, on the management of severe malnutrition. However, a lot more needs to be done to further improve and simplify the management of children with severe malnutrition, he said.

Currently, Dr Ahmed is concentrating his research efforts on issues that include rationalizing the use of antimicrobials, simplifying the provision of micronutrients, sustainable domiciliary and community management of severely-malnourished children, and the management of childhood tuberculosis.

Glimpse congratulates Dr Tahmeed Ahmed on being awarded the gold medal.

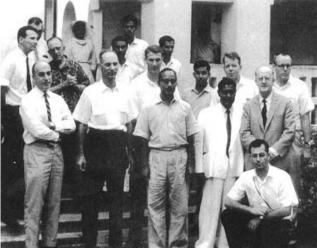
First Experiences in Dacca, 1962-1965 William B. Greenough, III

[Last year ICDDR,B celebrated its 25th Anniversary of the internationalization. On this occasion, an illustrated book titled *Smriti: ICDDR,B in Memory* was published. The book contains reminiscences of our senior staff and alumni. Some important pieces of these reminiscences, be they interesting personal accounts or stories that feature institutional history, will be reproduced in Glimpse. In Volume 25 Number 3-4, we reproduced one reminiscence by Dr Henry Mosley, Director (1977-1979). Another piece of such reminiscence by Dr William B Greenough, Director (1979-1985) is reproduced here in this issue. Both Dr Mosley and Greenough were instrumental in the process of internationalization of the Centre during the late 1970s]

On Labor Day, September 1961, I received a telephone call from Bob Gordon (Robert S. Gordon, Jr). I was in Barrington, Rhode Island and when he asked me if I would like to go to Dacca I thought he meant Dakkar, Africa. Such was my level of ignorance. I agreed to join the nascent Pakistan-SEATO Cholera Research Laboratory (CRL) as soon as I completed my senior residency at the Peter Bent Brigham Hospital in Boston. I read about cholera, which had never made it into my medical school studies or 5 years of postgraduate education. The first book I found in the Harvard library was by Dr S N De of Calcutta who proposed that V. cholerae caused disease by an exotoxin-considered an outrageous idea in 1961. When interviewed at the National Institutes of Health early in 1962. Dr Joseph Smadel told me that it might be possible to replace fluid losses in cholera patients with an oral electrolyte solution. By this time, I knew cholera patients could lose close to their body weight in diarrhoea over several days and were weak and vomiting. The idea of oral replacement seemed farfetched to me at the time.

Arriving in Dacca in July of 1962 (neither my wife nor I had been anywhere east of Paris, France and our 4 young children had never been out of the northeastern USA), we settled in Dhanmondi, which had no paved roads and a few low houses in lush green fields. Mirpur Road was unpaved, as well as was the road to the Institute of Public Health in Mohakhali where the original CRL was housed. All was green and lush and strange to us, but very beautiful.

O Ross McIntyre, now retired after chairing the Department of Hematology and Oncology at Dartmouth Medical School, was soon to be evacuated back to the USA for hepatitis, but was still present when I arrived. Abram Benenson was Director and Bob Gordon was Scientific Director. Dr KA Monsur was in charge of the Institute of Public Health, but still worked in the lab at CRL where he developed Monsur's medium to rapidly identify cholera colonies when stool was plated. He was, in my view, extraordinarily helpful, wise and friendly, and he



1961-1962 Pak-SEATO Cholera Research staff with the author (Middle row, 3rd from left)

certainly can take credit for much of the early success of CRL. Before we began treating cholera patients in Mohakhali in November of 1962, we spent a lot of time looking for animals, which might have served as carriers of cholera. Many trips were made to the Mirpur animal market on Saturdays. I do not know what the local vendors and patrons thought of us as we took rectal swabs of goats and cattle. I remember when we decided to purchase some young cows that Dr Mahmud, the first CRL veterinaian, made me hide so the price would be reasonable. Clearly, my presence would have greatly inflated the price. Dr Mahmud also gave me my first lessons in holding down a cow and taking jugular vein blood samples. This process was done in the market place with large audiences of curious bystanders so we could get the samples to the laboratory promptly. The herding of livestock from Mirpur to Dacca often took most of the day.



Glimpse December 2004

The first cholera patients came to Mohakhali in late November 1962. We carried them by ambulance from Mitford Hospital in Old Dhaka. I served initially as the ambulance driver and CRL ward physician. The ambulance was a Dodge with very stiff springs that we not so

affectionately called 'leaping Lena.' I remember nights spent on the wards of CRL in Mohakhali not only for the amazing intravenous fluid requirements of our patients, but also for the large packs of jackals that ran through the IPH grounds with their howling and barking. Soon Bangladeshi physicians joined me and my life became much easier. I particularly remember with gratitude the work of Dr Rafigul Islam, Dr Jamiul Alam, and Dr Rezia Laura Akbar, our first woman physician. I also remember how we had to prepare our own intravenous solutions using reagentgrade chemicals, Metler balances, and a Barnstead still. We struggled with the first patients because of the complications of prolonged acidosis

and renal failure losing several patients with what we now call ARDS (acute respiratory distress syndrome), but then it was pulmonary oedema and shock. The early nursing staff was remarkable in their care and good spirit. I particularly remember Mrs. Madhabi Ghose, Suruthan Nessa, Bernadette Gomes, and Pashi.

With the first cholera season over in the spring of 1963, we turned our attention to establishing a field site for testing the injected cholera vaccine, which at that time was required by international law of all who traveled. After several helicopter trips to Narikelbari and Gopalganj in Faridpur district, it was Dr Fahimuddin who persuaded Dr Benenson and Dr Gordon to select Matlab Bazaar as the best location. Dr Fahimuddin was a small, active, wiry man of great wisdom and quiet persuasion. We are all greatly indebted to his foresight and wisdom.

Festive Concert for Flood Relief



Organizers of the festive concert held at the American International School Auditorium handing over the earnings of over 105,000 taka to the Centre's Executive Director Prof David Sack and Director of Finance Mr Aniruddha Neogi

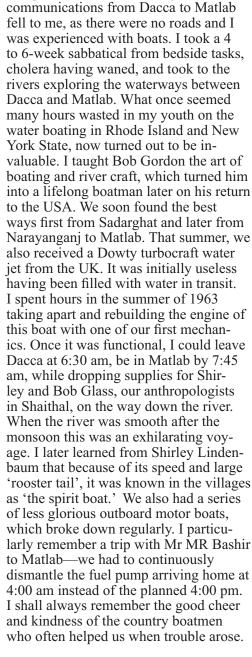
Three choirs, a harpist, and a string ensemble performed for a sell-out audience at the Festive Concert for Flood Relief held in the American International School Auditorium on 3 December 2004. The event was organized by two local choirs Cantemus and Morning Sky and was coordinated by Mrs Jean Sack, Medical Informatics Consultant.

Over 105,000 taka from the ticket proceeds was donated to the ICDDR, B Local Flood Relief Fund. The Dhaka community learned that strong local support for cholera treatment, community feeding, safe water, ORS packet distribution, and education is needed both during and months after a disaster. The next Dhaka fundraising event is the Annual Hospital Charity Ball to be held at the Sonargaon Hotel on 11 March 2005.



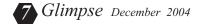
Dr Shafiqul A Sarker, Scientist, Clinical Sciences Division (right) and MA Wahed, Head, Nutritional Biochemistry, ICDDR,B (left) are seen with Professor Tara Gopaldas (middle), a renowned nutritionist working in the area of energy-dense food for children, They, among others, attended a workshop on Micronutrient Deficiency Disorders organized jointly by All India Institute of Medical Sciences,

Indian Public Health Association, Indian Association of Preventive and Social Medicine, Nutrition Society of India, and Indian Academy of Sciences, on 13-15 September 2004. Following the techniques developed by Professor Gopaldas, a good number of studies were carried out at ICDDR, B. Mr Wahed also chaired a scientific session.



The pleasant task of working out river

I lost my job as boatman rather quickly as we taught our Bangladeshi mechanics to use outboards. Our Burmese master mechanic, Razzak, took over the water jet boat trips. He could make the trip to Matlab even quicker than I. Dr Gordon later established the Boston Whaler as our standard craft, which continues to serve Matlab well, however wet and uncomfortable it may be during the monsoon. Many lives have been saved in the course of Matlab's development, both by the field workers transported and patients transferred to the treatment centre over the years. In the course of all this I felt greatly blessed and fulfilled to be able to blend recreational and medical skills while serving the villages of rural Bangladesh.



Training of NGO workers in post-flood health problems

Two hundred health workers from Bangladesh Women's Health Coalition, Shimantik, Population Services & Training Centre, and the Urban Primary Health Care Project received training at ICDDR,B on 3-26 October 2004 on how to address post-flood health problems. The course was designed to give local NGO workers an opportunity to improve their knowledge and skills in the treatment of patients suffering from diarrhoeal and other health problems that show up during and after floods. The training programme, held in eight sessions, was funded by the Government of Japan.

The participants had been providing flood relief services in the sub-urban area to the east of Dhaka city. Practical performance of the trainees will be



Health workers from four local NGOs receiving hands-on training at ICDDR,B on addressing post-flood health problems

evaluated during follow-up visits to their own clinics and field sites by the training team.

The course contents included: coordination in emergencies; management of acute watery diarrhoea and assessment of dehydration and rehydration; cost-effective approach in water purification; clinical presentation and management of dysentery with rational use of drugs; management of malnutrition and complementary feeding, with anthropometric measurements for assessment of malnutrition; management of common respiratory tract infections, and

management of common post-flood skin diseases, such as impetigo, scabies, taeniasis, and pediculosis.



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