International Centre for Diarrhoeal Disease Research, Bangladesh

Glimpse

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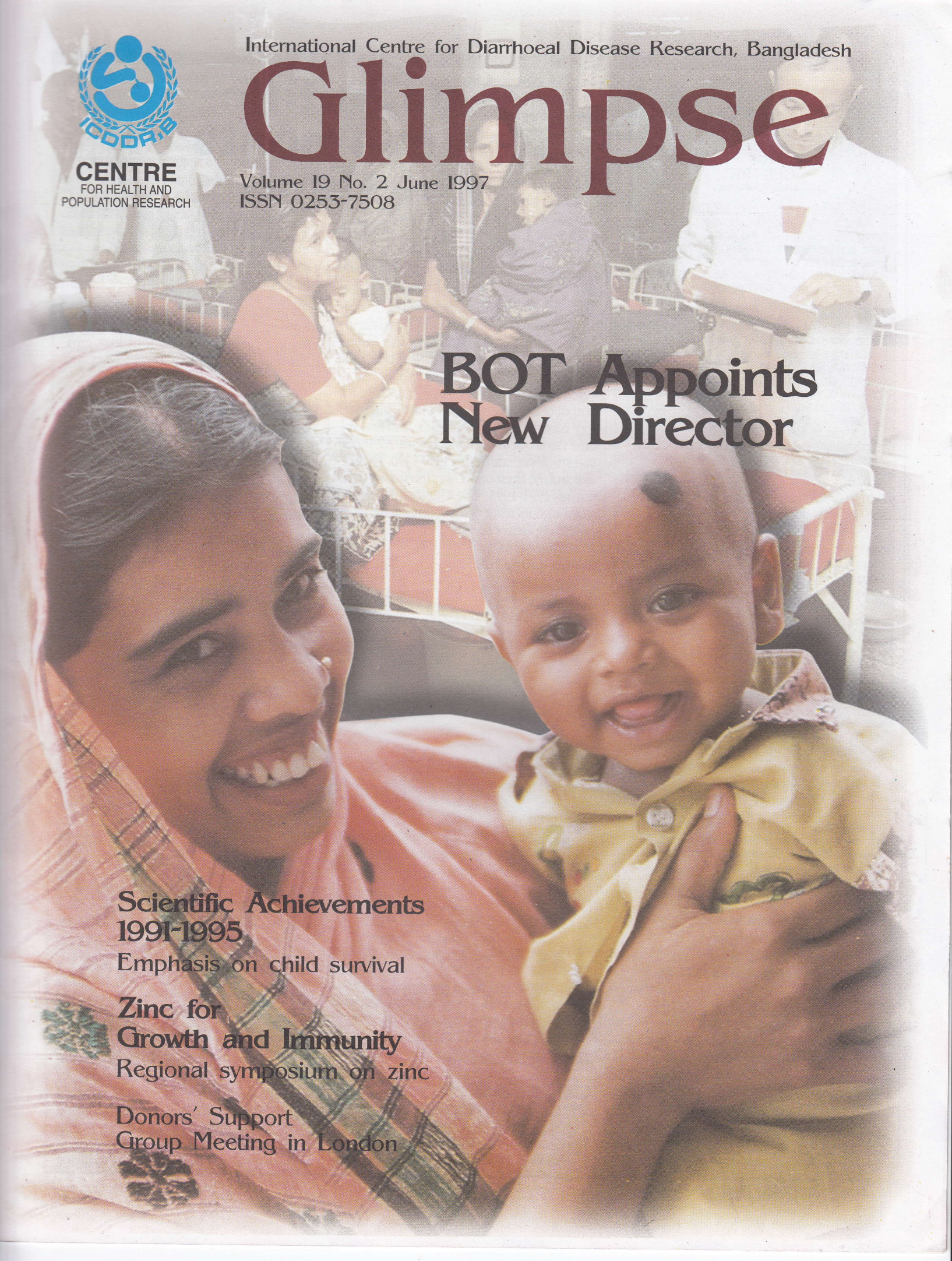
CENTRE FOR HEALTH AND POPULATION RESEARCH

BOT Appoints New Director



Scientific Achievements 1991-1995

Emphasis on child survival

Zinc for Growth and Immunity

Regional symposium on zinc

Donors' Support Group Meeting in London

CENTRE
FOR HEALTH AND POPULATION RESEARCH

The Centre was established in 1978 as successor to the Cholera Research Laboratory which was formed in 1960 to study the epidemiology, treatment, and prevention of cholera. The Centre is an independent nonprofit organization for research, education, and training in population and health, and to provide clinical services.

As the leading international health and population research centre located in a developing country, the Centre has several comparative advantages. Its rural and urban hospitals, backed by state-of-the-art laboratories, allow rapid completion of research on diagnostic techniques, and clinical, pharmaceutical, and nutritional interventions. The Centre has rural and urban community-based extension services and 37 years of experience in meticulous record-keeping and data management. Its surveillance systems for clinical, epidemiological, and demographic data yield an incomparable wealth of information and invaluable opportunities for health, population, and family planning studies. Research findings of the Centre provide guidelines for policy makers, implementing agencies, and health and family planning professionals all around the globe.

The Centre's Strategic Plan: "To The Year 2000" outlines work in three key areas: Child Survival, Population and Reproductive Health, and Application and Policy in improving both supply of and demand for existing health technologies, and in replicating the successful interventions piloted in its projects through health systems research.

The Centre is governed by a distinguished multinational Board of Trustees comprising researchers, educators, public health administrators, and representatives of the Government of Bangladesh. The Board appoints a Director and Division Directors who head the four scientific divisions: Clinical Sciences, Public Health Sciences, Laboratory Sciences, and Health and Population Extension.

Glimpse

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Scientific Achievements of the Centre

1991-1995 in Research on Child Survival

The scientific achievements of a research institution are reflected in the accumulated findings of that institution. ICDDR,B: Centre for Health and Population Research, as a dissemination strategy in its outreach programme, presented the output of important studies with an introductory narrative on those studies. The first volume came out in 1991 which covered important studies conducted in 1979-1990. The second and the latest one covers the studies done during 1991-1995. The Glimpse wishes to share with its readers the following narrative on the important research findings of the Centre during this period.

Research productivity, in terms of the number of original articles published, has increased since 1990. On an average, 86 papers were published each year during the reporting period. This, however, reflects only a part of the total research output of ICDDR,B, grouped into different disciplines:

a. Child Survival in relation to diarrhoeal dis eases, acute respiratory infections, and nutrition (which are reported in this is sue);

b. Population and Reproductive Health in relation to family planning, maternal health, and population studies;

c. Environmental Health; and

d. other studies.

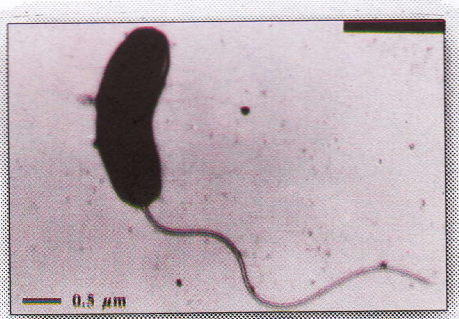
The details are as follows:

Child Survival: Diarrhoeal Diseases

The Centre's research efforts on child survival in relation to diarrhoeal diseases are aimed at both prevention of diarrhoea and improving treatment, involving a range of disciplines, including epidemiology, microbiology, environmental and behavioural sciences as well as medicine.

Vibrio cholerae

The Centre's laboratory scientists established that *Vibrio cholerae*, isolated from Peruvian patients in a cholera epidemic in 1991, was genetically similar to the El Tor Inaba strain from Bangladesh. They also characterized vibrios responsible for a smaller outbreak of diarrhoea in Peru as O10 and O12. The Centre's scientists, in collaboration with others from institutions around the world, contributed substantively to the identification and characterization of a new aetiological agent of cholera. This epidemic strain was found to be different from any of the 138 known vibrio serogroups and was designated O139 Bengal.



Vibrio cholerae O139 Bengal

Detailed biochemical studies elicited that *V. cholerae* O139 has characteristics of both classic O1 and El Tor, but it seemed to be more closely related to the latter. Many features are very similar to O1 El Tor, including genetic elements, the production of cholera toxin, intestinal adhesion, and fimbrial antigens. The major differences are that O139 is encapsulated, which may increase its virulence, and it lacks the O1 polysaccharide antigen. Genetic studies suggest that O139 is a mutant of the El Tor strain.

The cornerstone of the treatment of cholera remains Oral Rehydration Solution (ORS). However, research has continued to try to improve on standard WHO-ORS. In controlled trials, hypotonic ORS was shown to be more absorption-efficient than standard ORS in infants and young children, reducing vomiting and purging. Trials on other compositions, including rice-based ORS, continue to show good results in cholera by reducing

purging and duration. Pre-packaged ready-to-use instant rice-based ORS was determined to be feasible and acceptable to patients with diarrhoea, both at hospital and at home. These packets are now routinely used at the Centre. All types of ORSs were demonstrated to be safe for rehydration of diabetic patients. The lack of oral rehydration therapy, on the other hand, was found to be associated with an increased mortality risk of 57%.

Lessons continue to be learned from cholera vaccine trials in Matlab conducted between 1985-1988. One of the logistical difficulties highlighted by the trials was maintenance of a cold chain, but studies showed that the oral cholera vaccine could remain stable over a wide thermal range. Further analysis suggest that there may be a subgroup of hyporesponsive people for whom a vaccine will not be effective, and other studies have shown an association between blood group O, susceptibility to cholera, and reduced vaccine protection. There is a higher mortality rate amongst those who were ineligible or unwilling to participate in the trials compared with the placebo group, and this has implications for the design of future studies.

Several laboratory tests were modified or developed for identification of *V. cholerae* O139. Monoclonal antibodies to O139 were raised at the Centre and rapid coagglutination and colorimetric tests, with high specificity, were developed for field use. Ribotyping and biochemical fingerprinting were found useful for differentiation of epidemiological strains.

Shigella

Breast feeding is found to confer protection against shigellosis, but infants aged less than three months with *Shigella*-associated dysentery have a two-fold increased risk of dying compared to older children. Asymptomatic carriers may play an important role in maintaining transmission in the community and in one study, 6.4% of children with a non-diarrhoeal illness were found to be infected with *Shigella*.

The Centre undertook several studies to examine the pathophysiological and immune response to pro-inflammatory cytokines and severity of infection, with down regulation of cytokine-specific receptors during the acute phase. *Shigella*-specific IgA antibodies are produced, which can be detected in the faeces due to loss through intestinal damage. *Shigella* causes a protein-losing enteropathy, and is, therefore, associated with low pre-albumin levels. However, trypsin activity has been shown to be unaffected by *Shigella* infection and protein digestion is normal, so feeding can be encouraged to reduce the negative impact on nutritional status.

Complications of shigellosis include the haemolytic-uraemic syndrome (HUS), and studies done at the Centre suggest that reduced prostacyclin may be involved in its development. Endotoxin is also associated with HUS, but not leukaemoid reaction.

An improved rabbit model of shigellosis was developed, which reproduces the characteristics of the disease in humans, and will be useful in immunopathological studies of *Shigella*. A live attenuated oral vaccine against *Shigella* was developed and found to be safe and immunogenic when tested on monkeys. Sequencing studies, however, demonstrated that attenuation was due to a single base-pair substitution, and there is, therefore, the potential for reverting to the wild type.

Monoclonal antibodies to *Shiga*-like toxin have been produced and an ELISA developed for diagnosis of the toxin from *Shigella dysenteriae* type 1 and enterohaemorrhagic *Escherichia coli*. Two new *S. dysenteriae* serotypes have been identified and provisionally designated 14 and 15.

Antibiotic resistance has become a problem, with *S. dysenteriae* type 1 resistant to ampicillin, trimethoprim and nalidixic acid. Gentamycin and cefixime are not effective against *Shigella*, but ciprofloxacin and pivmecillinam were both found to be effective, despite the emergence of plasmid-associated resistance to pivmecillinam in 1992. Transfer of plasmid-associated nalidixic acid resistance from *E. coli* to *S. dysenteriae* type 1 was demonstrated. A few studies have evaluated homeopathic drugs. Aqueous extract of garlic and allicin was found to be effective against *Shigella* in vivo and *E. coli* in vitro. The volatile oil of *Nigella sativa* seeds was also shown to inhibit *Shigella*, vibrios, and *E. coli* in vitro.

Fakrul

Other studies found that 60% of the three-year-olds and 90% of the adults in rural Bangladesh were infected with *Helicobacter pylori*, and that this was associated with an increased susceptibility to cholera in people without natural vibriocidal immunity. Previous exposure to cholera usually confers a degree of immunity, but despite similarities, there is no evidence of cross-protection between *V. cholerae* O139 and El Tor serogroups. This was demonstrated in a rabbit model and is important for vaccine development.

Rotavirus

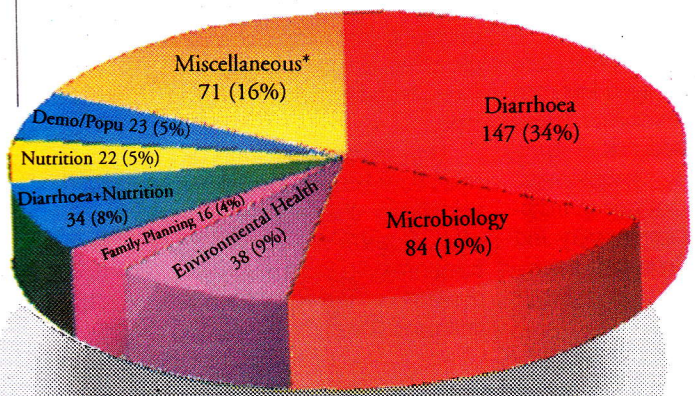
Exclusive breast feeding was found to be protective, whereas partial breast feeding conferred no benefit, implying that the protection is due to lack of contact with the pathogen rather than through maternal antibodies.

A study in Matlab, conducted during 1987-1988, found rotavirus in 15.5% of stool samples from patients presenting with diarrhoea, as determined by polyclonal ELISA, 65% of which could be assigned to a specific serotype. Studies on neonatal rotavirus infection have shown that babies born in hospital in Dhaka are frequently infected, but in agreement with studies from elsewhere, these nursery strains differ from community strains, and

infection is usually asymptomatic or mild.

Diarrhoea due to rotavirus is managed with ORS for associated dehydration, but treatment is possible with colostrum from cows immunized against rotavirus. In a randomized controlled trial, Hyperimmune Bovine Colostrum (HBC) resulted in diarrhoea of reduced duration and severity in young children.

Number of journal articles by subject matter 1991-1995



*Miscellaneous includes: ALRI, maternal health, health education, breast feeding, immunization, anthropology, case studies, and others

Other Diarrhoeal Pathogens

Research at the Centre's laboratories on causative agents of diarrhoea has identified several new pathogens. One of these is *Providencia alcalifaciens*, isolated as the predominant or only organism in three cases and shown to cause diarrhoea in a rabbit model. Another is *Hafnia alvei*, which has a gene sequence homologous with that of enteropathogenic *E. coli*, coding for virulence-associated properties.

Diarrhoeal pathogens identified elsewhere and recognized for the first time in Bangladesh include: *Cyclospora* and *Aeromonas* species, *Bacteroides fragilis* (isolated from children aged over one year) and *Campylobacter jejuni* (isolated from infants). In one study, adenovirus was isolated from 2.8% of the children with acute watery diarrhoea as the predominant or only pathogen.

Some novel cross-reacting organisms have also been isolated, including *Aeromonas caviae* cross-reacting with *S. boydii* 5, *Aeromonas trota* with *V. cholerae* O139 and *Pleisomonas shigelloides* with *Shigella* species. These are important because of their potential for diagnostic reagents and vaccine development.

Several papers have been published on the description and characterization of diarrhoeagenic *E. coli*. There are six recognized categories, of which only enterotoxigenic (ETEC) and enteropathogenic (EPEC) were found to be significantly associated with diarrhoea. An ELISA has been developed for EPEC with sensitivity and specificity of 100%. It has been found that bacterial clump formation at the surface of liquid culture can be used as a rapid test for identification of enteroaggregative *E. coli* (EAggEC).

Other causes of diarrhoea are intestinal parasites. Only 10% of the *Entamoeba* infections cause invasive amoebiasis, and 15% of the giardia infections in infants are associated with diarrhoea. Antigen tests have been developed and evaluated to detect and differentiate invasive *Entamoeba histolytica* from non-invasive *E. dispar*. An ELISA for *Giardia* was evaluated and found to have high sensitivity and specificity for the disease-causing organism. Trials on albendazole in a slum population demonstrated 92% efficacy against *Ascaris lumbricoides* in single dose, but that 400 mg for three days is required for an 80% reduction in *Trichuris trichiura* eggs. A five-day course is as effective as metronidazole in the treatment of *Giardia*.

Child Survival: Acute Respiratory Infections (ARI)

Studies in Matlab between 1986 and 1987 found that 38% of all neonatal deaths and 16% of deaths among children aged 1-4 years were attributable to ARI. Although at this time there were no ARI-specific health interventions, ARI-related mortality was 28% lower in the treatment area than in the comparison area. The reduction in ARI mortality could be attributed to the promotion of exclusive breast feeding, immunization and less crowding, as a result of birth spacing and smaller family size. After the specific interventions (education of mothers and health workers in detection and treatment, with referral for severe cases), the overall ARI mortality was 50% lower in the treatment area.

In a controlled trial on maternal immunization with pneumococcal vaccine for evaluation of passive transfer of IgG antibodies across the placenta and IgA antibodies in breastmilk, infants of mothers who received pneumococcal vaccine in pregnancy had antibody levels two to three-fold higher than control infants at delivery, and over 60% had protective levels at five months.

Child Survival: EPI-Preventable Diseases

Measles

A study in Matlab conducted between 1989 and 1991 showed measles incidence in an unvaccinated population to be 43% in the under-5 age group, with 14% of the cases occurring below the age of immunization. The case-fatality rate was low, probably due to the prescription of antibiotics if concomitant infections, e.g. ARIs, were detected. In a previous study, 31% of the reported measles cases in a vaccinated population were in infants aged less than 9 months. These results lend weight to the argument for earlier vaccination and prompted a study of maternal measles antibody decay in infants.

Several studies were carried out by ICDDR,B in both urban and rural settings to assess factors affecting immunization uptake. Mothers of children who received first immunization during hospitalization and subsequently defaulted from the programme were more likely to come from lower socioeconomic groups, have little education, and cite cost as an obstacle to follow up. In agreement with previous studies, gender bias exists, and boys were found to be immunized more frequently than girls.

Tetanus

In a retrospective study of data from Matlab, where tetanus toxoid was given as a placebo in the 1974 cholera vaccine trial, neonatal deaths between 1975 and 1989 were shown to have declined more rapidly in the group born to immunized mothers compared to those who were not immunized. The effect of a single dose of vaccine was found to last for up to 4 years and up to 15 years with two doses.

The overall reduction in mortality, in the cohort born in Matlab during 1982-1983, was estimated to be around 32% in the under-5 age group, i.e. from 206 to 140 per 1,000 live-births. The decline was due to immunization against both measles and tetanus. This effect was predicted to be more marked in the 1 to 4-year age range than for infants, due to high neonatal mortality associated with prematurity and low birth weight, as well as the timing of measles immunization.

Child Survival: Nutrition

In studies done to remove difficulty in assessing the degree of malnutrition, a mid-upper arm circumference (MUAC) of less than 120 mm was found to be a reliable determinant of mortality. Bioelectrical impedance analysis was also shown to be a simple, non-inva-

sive technique for assessing nutrition status from body composition.

Studies on children in Dhaka slums found 8% of under-5 children to be severely malnourished, 44% to be moderately and 40% as mildly malnourished. The known link between malnutrition and disease is demonstrated by the fact that 75% of the normally nourished children were disease-free compared to only 5% of their malnourished counterparts. Children from better socioeconomic backgrounds achieve standard growth in Bangladesh, and it is estimated that improving dietary intake would have more effect on growth than controlling infection.

In rural Bangladesh, girls were found 2.5 times more likely to die from malnutrition than boys. Mothers working outside the home have five times greater risk of their children being malnourished, possibly due to reduced breast feeding. In a study on breast feeding practices of working women in Dhaka, the median age of starting complementary feeding was 41 days, and only 20% of mothers exclusively breastfed in the first month. Evaluation of breast feeding counselling services to mothers of hospitalized infants found that a significantly greater number of counselled mothers continued to exclusively breastfeed several weeks after discharge, in comparison with the controls.

Trials of a high-protein diet for malnourished children recovering from diarrhoea resulted in increased weight and height, MUAC, serum proteins and insulin-like growth factor 1, compared to a control group receiving an isocaloric normal protein diet.

A trial conducted in a hospital setting found that children with diarrhoea and malnutrition fed on a weaning food of amylase liquefied, energy-dense porridge had 40-50% higher energy intake, compared to those fed on normal weaning foods. Short-term follow-up of children discharged from a slum nutrition project found an increase of 6-10% weight-for-height at 3 and 6 months.

Vitamin A

In several studies undertaken at ICDDR,B to determine the most appropriate technique for vitamin A uptake, the relative dose response (RDR) was found to be more sensitive than the modified relative dose response (MRDR), and conjunctival impression cytology failed to detect subclinical vitamin A deficiency in young children. Using the RDR, 64% of the apparently healthy infants were found to be vitamin A-deficient. Micronutrient deficiency is likely to be prevalent in malnourished children, and a study of children in an urban slum found 6.3% of those with malnutrition to be suffering from night blindness compared to none of the adequately nourished children.

Giving large doses (200,000 IU) of vitamin A to patients with non-cholera watery diarrhoea had no therapeutic effect, but equally no adverse effect either. However, infants of Dhaka and Matlab receiving large doses of vitamin A (either 25,000 or 50,000 IU) at the time of immunization were at increased risk of bulging fontanelle, indicating possible toxicity. Vitamin A is present in breastmilk, and breast feeding was shown to be protective against vitamin A deficiency in infants. However, a study in which vitamin A was given to mothers within a few weeks after delivery, found an increase in infant morbidity, particularly from ARI, although mortality was decreased. Based on research findings, the Centre promoted uptake of leafy green vegetables by young children to enhance their vitamin A requirements from dietary sources.

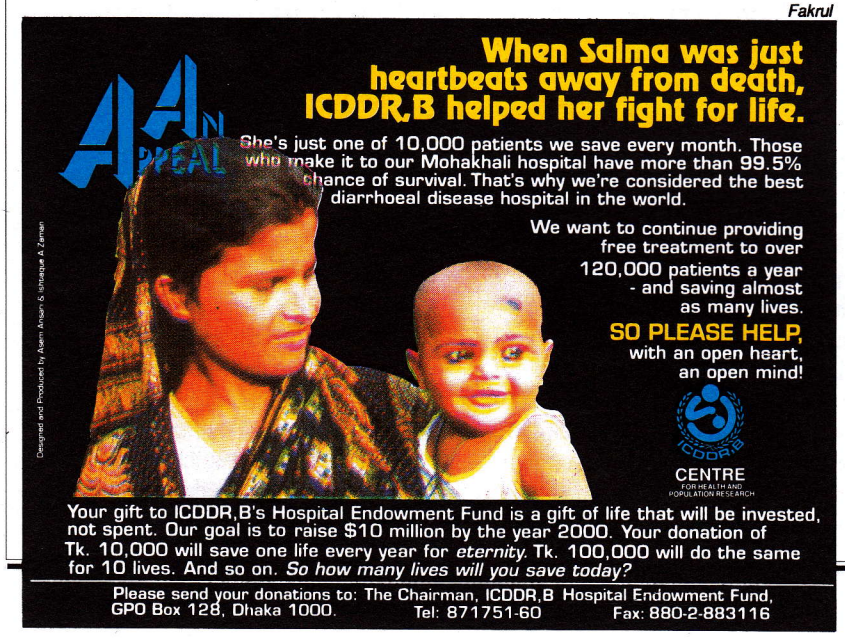
Zinc

A study on the effects of zinc supplementation to children with diarrhoea found that fluid loss was significantly reduced in stunted children with acute watery diarrhoea, and the duration of persistent diarrhoea was reduced in malnourished children.

Another study demonstrated improved mucosal integrity in a group receiving zinc supplementation, which may increase absorption of nutrients in children with persistent diarrhoea. Follow-up studies showed increased growth rate in stunted children and also reduced attack rates for both diarrhoea and ARI in the supplemented compared to the control children. ■

Hospital Endowment Fund News

Every year the Centre's hospitals serve well over 120,000 patients. The dedication and excellence of the scientists working in our laboratories, the doctors managing health care, and the nursing staff attending to the needs of patients, have saved millions of lives at a remarkably low cost. The Centre's Hospital Endowment Fund enables that it continues to be the hospital of excellence for serving the children of Bangladesh. The fund-raising campaign has gained great momentum over the last couple of years. The activities include setting up of Honour Boards to list names of the major contributors to the Endowment Fund. Our goal is to build a fund of US$ 10 million by the year 2000, that will be invested, and not spent. We have so far been able to raise over 4.3 million US dollar. All efforts toward further promotion and contribution are welcome and highly appreciated! ■



Contributed by Hospital Endowment Fund Coordinator Dr Ishtiaque A Zaman

Zinc for Growth and Immunity

ICDDR,B Hosts Regional Symposium

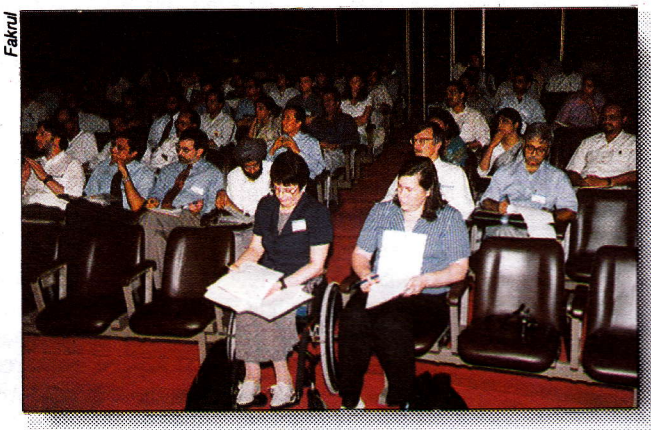
ICDDR,B: the Centre for Health and Population Research conducted a Regional Zinc Symposium from 15 to 16 May 1997. The theme of the symposium was "Zinc and Health in South Asia", and was sponsored jointly by the United Nations Children's Fund (UNICEF); the Sparkman Center of the University of Alabama at Birmingham (UAB), USA, and the Centre. The symposium was attended by 160 participants, including micronutrient specialists and health policy makers from the South Asian countries and internationally recognized scientists from the USA, UK, UNICEF, and WHO.

Zinc is an essential micronutrient for human growth and immunity, while zinc deficiency can result in growth failure as well as impaired immune function. Zinc deficiency is more prevalent in the developing world due to inadequate dietary intake and intake of foods with low zinc bioavailability, foods commonly eaten by young children and women of the South Asian region.

Recent studies in South Asia have demonstrated that zinc supplementation is beneficial in the treatment of acute and persistent diarrhoeas and in reducing subsequent growth failure and morbidity. Other studies have shown zinc supplementation to reduce the incidence of diarrhoeal and respiratory diseases as well as to promote normal growth. However, the results of all studies have not been entirely consistent in demonstrating a beneficial effect or the magnitude of the beneficial effect, probably due to methodological differences in the studies.

There has been a growing interest among scientists, health policy makers, and micronutrient programme leaders in the region to have a symposium or workshop to share the results of studies on zinc supplementation. The main agendum of the symposium was to critically review the regional experiences and implications of these studies in defining the role of zinc in the prevention of growth retardation, treatment of acute and persistent diarrhoeas, and in reducing morbidity resulting from infectious diseases. The aim of the workshop on the following day was to identify future research areas and to define programmatic implications based on current knowledge.

Centre Director Prof. Demissie Habte welcomed the participants at an inaugural ceremony on the first day. He stated that research on zinc had continued for the last 30 years, and the research findings from countries in the South Asian region, including those from ICDDR,B, will further the understanding of zinc-related health problems, particularly of the children in the region. The chairpersons in the different sessions were: Dr. George J Fuchs, Director of the Clinical Sciences Division (CSD) of the Centre (who also was the Chairperson of the Organizing Committee), Dr. Ruth Frischer, Dr. Roger Shrimpton, Dr. D Alnwick, and Dr. Andrew Tomkins. Dr. SK Roy of CSD was the Organizing Secretary of the Committee.



Fakrul

Part of the audience in the Regional Symposium on Zinc

The first day of the programme was an open symposium that focused on summaries of the regional zinc research experience and a few selected reviews and presentations of results from more recently completed studies yet to be disseminated.

Prof. AS Prasad of Wayne State University, USA, a pioneering zinc researcher, emphasized that the protective role of zinc on diarrhoea and other diseases is increased with more zinc in the diet, which was also supported by findings by Dr. Sunil Sazawal of India and Dr. Tasnim Azim of ICDDR,B. Dr. SK Roy of ICDDR,B reported that zinc supplementation increases weight and height of children in Bangladesh, and children recover early from both acute and chronic diarrhoeas. His findings were in agreement with those of Prof. HPS Sachdev of India, Dr. A Hidayet of Indonesia, and Prof. ZA Bhutta of Pakistan. Ms Saskia Osendarp from Wageningen Agricultural University in the Netherlands, through her collaborative work with the MCH-FP Extension Project (Urban) of ICDDR,B, reported on preliminary analyses on the effect of zinc supplementation during pregnancy on pregnancy outcomes.

The symposium was divided into four sessions covering topics on: (a) zinc and immune response, (b) zinc and treatment of acute and persistent diarrhoea, (c) zinc and prevention of diarrhoea and respiratory diseases, and (d) zinc and growth.

The second day was a workshop of invited participants. The workshop concluded with recommendations of policy relevant to programme applications as well as the identification and prioritization of future research needs.

Policy and programme recommendations from the workshop included zinc treatment (20 mg elemental / kg / day) of all children with persistent diarrhoea during the course of illness and for all children with severe malnutrition as recommended by the WHO. The recommendations also encourage governments to set standards for zinc-containing medicinal preparations, and to develop strategies to introduce zinc into community-based projects, such as the Bangladesh Integrated Nutrition Project.

Future research priorities were identified as follows:

a. operations and cost analysis of the use of zinc to treat acute watery diarrhoea;

b. role of zinc in preventing pneumonia and malaria;

c. its use in reducing all causes of morbidity and mortality;

d. its effectiveness in preventing prenatal HIV transmission and in treatment and prevention of HIV-associated infections; and

e. effect of preventive and therapeutic use of zinc on copper status.

Assessment of benefits, costs and risks of zinc supplementation and modelling the impact of zinc therapy on reduction in diarrhoea and respiratory mortality were also recommended for future research. ■

Contd from p.8

in the research agenda and its financial base. Dr. Law emphasized that despite remarkable successes, the Centre continues to be constrained by challenges, most importantly by inadequate resources to carry out its planned programmes.

While discussing the future research agenda of the Centre, Trustee Dr. Ralph Henderson indicated that in spite of the WHO's estimates of an overall decline, infectious diseases still deserve special attention of the researchers, along with studies on antimicrobial resistance, heart disease, and the ill-effects of tobacco. In this connection, Mr. Louis Currat of the Swiss Development Cooperation (SDC) said that the huge infectious disease burden and the changing nature of the microbial threats can be addressed by available cost-effective interventions. He disclosed that only 10-15% of the total global allocation of 56 billion dollar for health research by the public and private sectors are invested for health research on particular concern to the developing world, and he emphasized the need for equitable allocation of global resources with a new vision for health research. Other Trustees asked the Forum to retain the unfinished agenda of child and maternal health, along with infectious diseases and to emphasize nutrition as an area of concern in the future research agenda.

Centre Director Prof. Demissie Habte highlighted the scientific achievements of the Centre in the last twenty years, that included the entire spectrum of health systems research to product development (see Section on Scientific Achievements). For its remarkable accomplishments, he reminded the gathering that it is often suggested that a more appropriate name of the Centre would be "the Centre for Knowledge in Health and Population Research." He urged the participants to agree to form a Futures Committee that would plan and organize a Forum on the future of the Centre to be held in late 1998.

It was agreed that the proposed Forum would build a network of the stakeholders to disseminate knowledge on what the Centre has accomplished and share its vision for the future. New Chairperson of the Board Mr. Jacques Martin, was selected interim Chair of the Futures Committee, and the Baltimore office of the Centre would serve as its Secretariat.

The meeting concluded with some announcements of donations and presentation of a cheque to the Centre Director. US$ 50,000 was donated to the Hospital Endowment Fund (HEF) from Rhône-Poulenc Rorer (RPR). Dr. Georges Boumendil, Ms Liise Palme and Mr. AKM Shamsuddin of RPR mentioned that their mission coincides with that of the Centre. Mr. Jacques Martin, on behalf of SDC, announced an additional amount of two million Swiss franc either to the HEF or the Centre Fund, and Dr. Vincent Orinda indicated that UNICEF would provide US$ 300,000 to the Centre over the next three years.

Mr. Peter McLean and Mr. AG Shillingford of the International Health Solutions Trust reported that the Trust has been created to increase awareness of the Centre and to obtain support from the UK.

Other distinguished participants from the donor community and from the Board, who participated in the discussions were: Mr. Hiroyuki Aratake of the Ministry of Foreign Affairs, Govt of Japan; Trustee Mr. Muhammed Ali, Trustee Prof. Chen Chunming, Trustee Prof. Rita R Colwell, Trustee Prof. Marian E Jacobs, Mr. David Piet of USAID; Mr. John Worley of the Department for International Development, UK; Trustee Prof. Fehmida Jalil; Trustee Prof. Peter F McDonald, Trustee Dr. Yoshifumi Takeda; Mr. David Chiel of the Ford Foundation; Ms Ann Kern of the Australian Embassy; former Director of the Centre Dr. WB Greenough, III; and Dr. David Sack of the Johns Hopkins University. ■

Julie Banfield

Rhône-Poulenc Rorer (RPR) representative Dr. Georges Boumendil presented a cheque for US$ 50,000 to the Centre's Hospital Endowment Fund. The Centre Director Prof. Demissie Habte received the cheque in a simple ceremony during the Board of Trustees and the Donors' Support Group meetings held in London recently. Others who represented RPR were: Ms Liise Palme, Vice-president (Marketing) and Mr. AKM Shamsuddin, Managing Director of RPR Bangladesh. The photo shows (from left to right): Mr. AKM Shamsuddin, Prof. Demissie Habte, Dr. Georges Boumendil, Trustees Dr. Maureen Law and Mr. Jacques O Martin.

Board of Trustees Appoints New Director

TAM Khoja

June BOT Meeting in session

The Centre's Board of Trustees, at its recent meeting in London on 7 June 1997, endorsed the recommendations of the Search Committee to appoint Dr Robert Suskind as the new Director of ICDDR,B. Dr. Suskind is currently the Chairman of Paediatrics of the Louisiana State University, USA, and is expected to assume his responsibilities as Centre Director effective from 1 January 1998. The Board also extended its thanks to Professor Demissie Habte, Dr. Jon Rohde and Dr. Maureen Law for their outstanding contribution to the Centre as members of the Board of Trustees for the last 6 - 8 years. Dr Law was also the Chairperson of the Board from 1993 to 1997, and is replaced by Mr. Jacques O Martin from the Swiss Development Co-operation.

Donors' Support Group Meeting Held

A meeting of the representatives of the donor community supporting the Centre, with members of the Board of Trustees and the Centre Management, was held in London on 8 June 1997. The reason for holding this meeting -- and the preceding Board meeting-- outside Bangladesh was to facilitate more donor participation.

Besides words of appreciation for the Centre's scientific achievement and its impact on the health policies of the host country government and other nations of the developing world, the representatives of the donor community emphasized the "future" of the Centre from different perspectives: change in the research agenda, institution building, and strengthening its financial base.

Dr. David Nabarro of the ODA, UK - now known as the Department for International Development (DfID) - initiated the discussion as the host and referred to the Centre as "a critically important research institution." He also said the British Government will continue its strong commitment to the Centre.

Following Dr. Nabarro's remarks, Board Chairperson Dr. Maureen Law proposed a global Forum for discussion on the Future of the Centre --both regarding changes

Contd .... p. 7

Glimpse

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