ACME LABORATORIES LTD. BILL & MELINDA GATES FOUNDATION ACTIONAID INTERNATIONAL JAMES P GRANT SCHOOL OF PUBLIC HEALTH, BRAC UNIVERSITY TULANE UNIVERSITY CARE BANGLADESH CANADIAN INTERNATIONAL DEVELOPMENT AGENCY (CIDA) **EMORY UNIVERSITY** COLUMBIA UNIVERSITY UPPSALA UNIVERSITY AUSAID MAHIDOL UNIVERSITY INDEPTH NETWORK DEPARTMENT FOR INTERNATIONAL DEVELOPMENT (DFID), UK **EMBASSY OF FRANCE** BIRDEM PATH CHILD HEALTH AND NUTRITION RESEARCH INITIATIVE (CHNRI) DUTCH-BANGLA BANK FOUNDATION EMBASSY OF THE KINGDOM OF THE NETHERLANDS (EKN) GLOBAL FORUM FOR HEALTH RESEARCH ERASMUS UNIVERSITY ROTTERDAM GLOBAL FUND FOR AIDS, TB AND MALARIA (GFATM) INTERNATIONAL ATOMIC ENERGY AGENCY (IAEA) US AGENCY FOR INTERNATO OHN'S HOPKINS BLOOMBERG SCHOOL OF PUBLIC HEALTH SWEDISH INTERNATIONAL DEVELOPMENT COOPERATION AGENCY (SIDA) POPULATION COUNCIL NATIONAL INSTITUTES OF HEALTH (NIH) WORLD HEALTH ORGANIZATION (WHO) THRASHER RESEARCH FUND GOVERNMENT OF THE PEOPLE'S REPUBLIC OF BANGLADESH INSTITUT PASTEUR UNIVERSITY OF CALIFORNIA CENTERS FOR DISEASE CONTROL AND PREVENTION (CDC) MASSACHUSETTS GENERAL HOSPITAL (MGH) INSTITUTE OF EPIDEMIOLOGY, DISEASE CONTROL AND RESEARCH (IEDCR) SWISS AGENCY FOR DEVELOPMENT AND COOPERATION (SDC) BANGLADESH WOMEN'S HEALTH COALITION (BWHC) MINISTRY OF HEALTH AND FAMILY WELFARE, GOB HARVESTPLUS DHAKA MEDICAL COLLEGE AND HOSPITAL UNIVERSITY OF TSUKUBA PATHFINDER INTERNATIONAL FAMILY HEALTH INTERNATIONAL KUMUDINI HOSPITAL AUSTRALIAN NATIONAL UNIVERSITY KAROLINSKA INSTITUTE INTERNATIONAL ORGANIZATION FOR MIGRATION (IOM) NOVARTIS CONSUMER HEALTH SA, SWITZERLAND INSTITUTE OF PUBLIC HEALTH (IPH), GOB BANGLADESH LIVESTOCK RESEARCH INSTITUTE VANDERBILT UNIVERSITY MARIE STOPES CLINIC SOCIETY DHAKA SHISHU HOSPITAL INSTITUTE OF MOTHER AND CHILD HEALTH (IMCH)

volume 32 | number I | an ICDDR,B newsletter

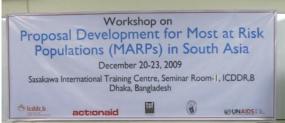
# glimpse



## 50 years of partnering to save lives







TSF South Asia





ICDDR,B has established, over the years, a strong and multi-pronged chain of collaborations with more than 120 diverse organizations. These organizations, both local and international, range from multi-lateral development partners and government aid agencies to research institutions, universities, foundations, public and private bodies, professional associations, and philanthropic private businesses with corporate social responsibilities. Glimpse is committed to highlighting these partnerships—academic, financial, or technical which help us achieve our mission to develop and promote realistic solutions to the major health, population and nutrition problems facing the poor people of Bangladesh and other settings through research, training, and clinical services.

2010, ICDDR,B celebrates its golden anniversary—50 years of saving lives. Glimpse this year will bring for you snapshots of some of the unique collaborations over this time, showcasing the teamwork involved as ICDDR.B strives towards a future of healthier people and better lives through the application of evidence-based solutions.

We welcome your feedback and suggestions for how we can feature your collaboration with ICDDR.B.

Please write to us at glimpse@icddrb.org. We welcome your stories.

Editors

www.icddrb.org

Editor-in-Chief Alejandro Cravioto acravioto@icddrb.org

Managing Editor M Shamsul Islam Khan msik@icddrb.org 880.2.8822467

MA Rahim rahim@icddrb.org

Contributors Joanna Grzelinska . Kazi Jamil Sumona Liza

Design and Layout Syed Hasibul Hasan

Photography ICDDR,B file photos







Erasmus MC is the medical centre of Erasmus University Rotterdam—an internationally-recognized centre for high-quality, compassionate care and fundamental and translational scientific research. In terms of research, innovation, and the creation of new scientific knowledge as reflected in objective scientific output and societal-impact criteria, Erasmus MC is the leader among university medical centres in The Netherlands and has high ambitions to be in the top twenty research institutions worldwide.

Erasmus MC has broadened its horizon and scope of research and education in particular, and further internationalization of its activities is an important new strategic goal. With an aim to develop expertise at Erasmus MC through a strong collaboration with renowned international research institutions that will offer opportunities for exchange of students, scientists, and teaching staff, a new special chair in Tropical Microbiology has been created, with emphasis on Bacteriology at the Department of Medical Microbiology and Infectious Diseases, in addition to the existing chairs in Medical Microbiology and in Molecular Microbiology. The development of Tropical Bacteriology will contribute to the course for International Research Masters in Infection and Immunity at Erasmus MC. ICDDR,B has been selected to act as the founding institution for this new special chair.

#### ICDDR.B and Erasmus share a common vision and mission...

Both are committed to the acquisition and implementation of new knowledge and know-how, along with aspirations to play a leading role in health-related issues worldwide. Since 2007, Erasmus has seconded its senior staff member Dr Hubert Ph Endtz from the Department of Medical Microbiology and Infectious Diseases to ICDDR,B, and in March 2009, Dr Endtz was announced as the inaugural ICDDR,B Chair in Tropical Bacteriology at Erasmus.

Dr Hubert Ph Endtz, a Dutch/French national, joined ICDDR,B in August 2007 as Director of the Laboratory Sciences Division. He is a well-known medical researcher specializing in bacterial diarrhoea,

epidemiology and pathogenesis of *Campylobacter* infections, including the pathogenesis of the Guillain-Barré syndrome, antimicrobial resistance, and diagnostic microbiology.

The creation of an ICDDR,B chair in Tropical Bacteriology at Erasmus will further strengthen the collaboration between the two organizations and also will reinforce the work with other international research and training institutions.

Before his appointment in ICDDR,B, Dr Endtz was working as laboratory chief, infectious disease consultant, and vice-chairman of the Department of Medical Microbiology and Infectious Diseases at the Erasmus Medical Centre in Rotterdam, the largest medical faculty and university medical hospital in The Netherlands. He was also Director of the Medical Microbiology Residency Training Programme at the same medical centre.

The primary focus of the new chair will be on:

- bacterial diamhoeal disease, including *Campylobacter* infections and its complications
- bacterial respiratory infections, including pneumococcal disease and tuberculosis
- innovative research, including the development of new diagnostic tools and therapeutic interventions in diarrhoeal and respiratory diseases
- microbial discovery and the development of local capacity in `hotspots' for infectious disease outbreaks.

The tasks of the new chair are mainly in the areas of research, training, and education. ICDDR,B seeks to develop a scientifically-literate and empowered world community of (junior) scientists; the career development of new scientists needs to be supported. As the leading international institution involved in health sciences in Bangladesh,



ICDDR,B attracts each year the most talented excelling students from its national universities. Through its human resource development programme, it is committed to providing maximum opportunities to these bright young scientists to obtain further postgraduate education. Each year ICDDR,B sends a number of its staff members to pursue Masters, PhD, or post-doctoral fellowships in leading institutions and universities in the world to create a new and dynamic new generation of top scientists. Longstanding relations and programmes exist with institutions, such as Johns Hopkins University and Harvard University. The new International Research Masters Programme in Infection and Immunity, and other Masters programmes in Rotterdam, offer excellent opportunities for exchange and enrollment of young and talented Bangladeshi scientists and ICDDR,B research/teaching staff.

One of the goals is to create more opportunities for short training courses for medical students in foreign universities and institutions. Vice-versa, graduate and post-graduate students and teaching staff from these foreign universities and institutions will be encouraged to enroll in Erasmus MC programmes. Institutional exchange programmes should be formalized with foreign research institutions to ensure the continuity and sustainability of these exchanges. ICDDR,B, although formally not part of the national educational system in Bangladesh, is a world-renowned leading international research and training institution in the tropics. The exchange of students and (junior) scientists between Erasmus MC and ICDDR,B, is envisaged and will be an added value in the partnership between the institutions.



## New MSc course in Infection and Immunity at Erasmus MC

Erasmus MC began a new international research MSc course in Infection and Immunity in 2009. This two-year programme trains national and international students in translational research at the crossroads of infection and immunity. It combines intensive training in fundamental and advanced immunology and microbiology with extensive training in clinical and population-based research, and offers excellent opportunities for exchange and enrollment of young and talented students from Bangladesh as well as involvement of excellent research/teaching staff from ICDDR,B. The new chair contributes to the international reputation of this Masters and creates unique training opportunities at Erasmus MC for young and future ICDDR,B scientists.

#### Some collaborative milestones between ICDDR,B and Erasmus MC

In teaching and training

- This year, two Bangladeshi students enrolled in the new MSc in Infection and Immunity at Erasmus MC
- The first PhD student from ICDDR,B will defend his thesis at Erasmus University in the summer of 2010
- Since 2009, 4th-year medical students from Erasmus MC successfully pursue a six-month elective research fellowship in Bangladesh as part of their medical training
- Starting from 2010, fellowships will be provided for Erasmus MC medical residents in medical microbiology and infectious diseases for a 3 to 6-month training at ICDDR,B.

#### In research

- Five joint papers in peer-reviewed journals in the highest 25% percentile of Science Citation Index were published in 2009
- Productive research line started on Campylobacter infections and the Guillain-Bamé syndrome (GBS) in collaboration with Dhaka Medical College
  and Hospital and Erasmus MC. Introducing a new non-invasive diagnostic test will increase capacity in collaborating institutions and help to better
  target therapeutical interventions for those who will benefit most
- A new, extremely-potent cholera toxin-binding synthetic sugar molecule in different animal models has been evaluated. The compound
  inhibits 100% of the biological activity of cholera toxin in the rabit ileal loop model of infectious diarrhoea. This appears to be a breakthrough
  intervention based on cutting-edge chemistry in collaboration with Erasmus MC and University Utrecht and Wageningen in The Netherlands
- ICDDR,B established collaboration with Erasmus MC, TB Hospital, and Shyamoli Clinic (in Dhaka) and an innovative company in The Netherlands for the development of rapid point-of-care tests for tuberculosis diagnosis. An 'electronic nose' that detects volatile substances in air samples from patients with various diseases appears to be a breakthrough discovery. A pilot ICDDR,B study showed very promising results in patients with pulmonary tuberculosis, and a new and larger study is planned for 2010. The development and implementation of a new, sensitive and rapid point-of-care test for tuberculosis may have a huge impact on the global fight against TB.

#### Others

- Construction of platforms for microbial (including viral) discovery of new and emerging pathogens causing health problems, for example respiratory and gastrointestinal diseases
- Surveillance and molecular epidemiology of antimicrobial resistance
- Development of sensitive and specific luminex-based assays for detection, characterization and better understanding of the immune response against *Streptococcus pneumoniae* and other relevant organisms.



On 22 December 2009 in Rotterdam, Dr Hubert Ph Endtz delivered his inaugural lecture as the new Professor in Tropical Bacteriology at Erasmus MC. Some highlights from his oration, called Children's Comer, are cited below.

As severe acute respiratory syndrome (SARS) and avian and swine flu have shown us, the potential for new emerging infectious diseases is growing. Yet government agencies face budget-cuts due to the economic downtum. And many countries simply cannot afford an effective disease surveillance system and are struggling with the international health regulations. Improving public-health infrastructure through pandemic planning does have immediate and lasting benefits, increasing the overall response capacity for all threats to public health. But we should not allow one issue to dominate over all others, and global preparation for new pandemics is dominating the international political agenda at the expense of other, possibly more immediate, threats. Acute bacterial diarrhoea and respiratory diseases, including the rapid spread of antimicrobial resistance around the world and various neglected tropical diseases, are causing a tremendous health-related burden, particularly among the young and the poorest of the poor in sub-Saharan Africa and South- and South-East Asia.

Scientific discovery often starts with a commitment to basic and applied research from our top scientific institutions. Top-down planning is not always a secure road to discovery. The development of new knowledge is a bottom-up process that originates in the mind of an individual scientist, often at the interface of various disciplines, and in the absence of administrative fuss. One of the greatest challenges for the scientific endeavour today is the lack of funding to support basic scientific research. Although the public, private and the non-profit sectors often join hands together, it is the public sector that should, in my opinion, take the core responsibility of funding basic science and research.

Universities play an increasingly important role in addressing global health problems. Renowned universities, like Johns Hopkins, Harvard, Duke, and Oxford, have extended their focus from local problem-solving to facing global challenges. The focus of these universities is also changing from local and regional, to international. Various new international ventures explore and initiate research and aim to train a new generation to collaborate across international boundaries in the health sciences. Mono-disciplinary or oligodisciplinary stay-at-home research is gradually being replaced by cross-disciplinary, international research and training in other parts of the world.

Erasmus has widened its educational horizon by increasing the number of overseas students in Masters degree programmes and by increasing the options to complete traineeships and fellowships abroad. Seize those opportunities. Spread out your wings and travel. Work in other medical or research institutions. Learn and try to understand the challenges faced by your generation, not just here, but over there as well. Learn about the enormous gap between the rich and the poor, about the consequences for the underprivileged children in developing countries. Go to where the problems lie. Learn about climate change and about its implications for health. These can be life-changing and life-shaping experiences that will help you grasp the challenges of our global village. Over three hundred and fifty thousand children are born every day, almost four every second. Their future is in your hands.

## Australian Youth Ambassadors at ICDDR,B

#### An Australian Government, AusAID initiative

The Australian Youth Ambassadors for Development (AYAD) programme aims to strengthen mutual understanding between Australia and countries in the Asia-Pacific region to make a positive contribution to development. The programme places skilled young Australian professionals on assignments in developing countries in the Asia-Pacific region. AYAD volunteers work with local counterparts in host organizations to achieve sustainable development outcomes

through capacity-building, skills transfer, and institutional strengthening. The Australian Government has long been a great supporter of ICDDR,B, having funded the Centre's activities in various capacities since 1978. These days AusAID is one of our key partners through its role in the Core Donors Group. AusAID has also been supporting AYAD placements at ICDDR,B since 2005. It also supports ICDDR,B through a scholarships programme and through the Australian Development Research Awards.

Rachel Payne First Secretary (Development Cooperation) Australian High Commission, Dhaka

There are currently 17 Australian Youth Ambassadors for Development working in a variety of institutions and organizations across Bangladesh. The programme provides a valuable opportunity for learning and sharing of experiences between young Australians and Bangladesh institutions. The Australian Government is very proud to support ICDDR,B. Just as I hope ICDDR,B has benefited from the experience of hosting AYADs, I am certain that Scott, Alison, and previous volunteers have also learnt a great deal from their experience at ICDDR,B and of living in Bangladesh.



#### Meet the AYADs at ICDDR,B

In 2009, AusAID funded two AYAD positions at ICDDR,B. Scott Rippon, an IT specialist, worked for the year in Human Resources, and nurse Alison Moebus in the Dhaka Hospital.

#### Scott Rippon\_

Building capacity in information and communications technologies

An organizational Training Needs Assessment conducted in 2006 identified huge needs in information and communications technologies (ICT) for staff members. Due to the huge scale of such an initiative and the lack of a suitably-qualified workforce, a post for an ICT officer became apparent, says ABM Mahabubul Alam, Senior Manager, Human Resources.

As ICT Officer, Scott worked in the Human Resources Development team developing and implementing ICT training programmes. During 2009, Scott developed training manuals, slides, and workshop exercises for Microsoft Office software, based on the syllabus for the International Computer Drivers License (ICDL). Participants came from a wide range of areas across the Centre, and all appreciated the new skills they learned.



I have been working with computers for a long time but after completing the course, I realized I had so much more to learn about using MS Office 2007 more efficiently. This course was really helpful to me, and I hope other staff members will also benefit from this. We expect more courses from this team in future

A course participant

Scott is presently completing a Masters of International Development and Environmental Analysis at Monash University, Australia, and this is the first time he has lived and worked abroad, gaining valuable international experience.

I've had an incredible time here in Bangladesh and at ICDDR,B. I've really enjoyed making some really great friends, learning a new culture, learning Bangla, and travelling the region.

Mahabubul Alam commented on ICDDR,B's mutually beneficial association with the AYAD programme since the very beginning. He said "In this alliance, Scott has been a valuable addition, providing training to develop computer skills among the staff members. His training sessions received a very good response from participants, contributing to the development of our human resources at ICDDR,B. He is consistent, enthusiastic, a pleasant team-player and actively engaged in discovering our culture."

#### Allison Moebus.

Committed to nurses' professional development

Allison came to ICDDR,B as a nurse from the Royal Children's Hospital in Melbourne (Australia) where she worked for five years in emergency, oncology, and cardiology. Her experience there ranged widely from roles as a preceptor and mentor to graduate nurses to that of a nurse-in-charge. She has also spent time working in a mental health setting with refugees in Melbourne through the Asylum Seeker Resource Centre.

In medical education, a preceptor is a skilled practitioner or faculty member who supervises students in a clinical setting to allow practical experience with patients.

She is spending a year at ICDDR,B's Dhaka Hospital involved in continuing education for nurses. In particular, she has been involved in facilitating and lecturing in the Nurse Fellowship Programme for newly-registered nurses to continue their professional development with an emphasis on management of patients with diarrhoeal disease, malnutrition, and HIV/AIDS. Working with Nursing Professional Practice Leader Mr Mohammad Ullah, she helps facilitate courses and other skills development workshops. Writing nursing protocols, she hopes to strengthen the standards of care, and she has assisted the nurses in developing the immunization programme at the ICDDR,B Travellers' Clinic.

New projects for 2010 include developing ward-based education sessions to further promote skill-sharing, involving senior nurses at the hospital, some of whom have worked in the Dhaka Hospital for almost 40 years. Outside the hospital, Allison hopes to introduce 'play therapy' with the children in the adjunct Nutrition Rehabilitation Unit as a way of minimizing the stress and anxiety felt by many children when they have to stay in the hospital.

Working as an Australian Youth Ambassador at ICDDR,B has given me the chance to share my own skills with nurses while simultaneously learning about the health issues that impact on the wellbeing of people in Bangladesh. The nurses in the Dhaka Hospital do an amazing job of caring for some of the poorest people. Living here has given me the opportunity to learn about a new culture, transfer skills, and experience many memorable encounters.



#### Five years of the AYAD partnership at ICDDR,B

Since the first AYAD position at ICDDR,B in 2005, AusAID has been funding Australian Youth Ambassadors at the Centre in various capacities. Epidemiologists, public-health researchers, trainers, laboratory technicians, communication specialists, and nurses, amongst others, have spent a year at ICDDR,B, sharing and gaining skills.

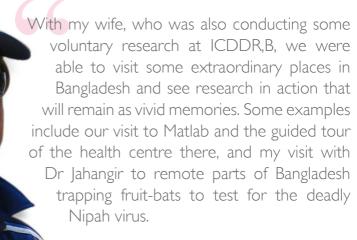
Adrian Cameron came to the Centre as a Public Health Researcher and Biostatistician in 2005, leaving behind his work at the Baker IDI Heart and Diabetes Institute in Melbourne—Australia's first health and medical research institute tackling the deadly trio of obesity, diabetes, and cardiovascular disease—to work in the Training and Education Unit at ICDDR,B, alongside Dr Md Manirul Islam as a counterpart.

As an alumnus of the University of Western Australia, I grabbed the opportunity to be the counterpart of first AYAD at ICDDR,B. We spent excellent time and worked together to improve the existing courses, developed and carried out new courses and relevant materials and eventually completed our journey enriching each other. Thanks to AusAID and the AYAD programme.

Dr Md Manirul Islam, Training and Education Unit

For 12 months, he worked as a biostatistician, training the research staff in biostatistics and research methods. His role comprised the designing, development, implementation, and evaluation of two new three-month courses: an introductory course in SPSS and research methods, which was delivered twice, and in collaboration with two co-coordinators, an advanced course in biostatistics. Additionally, he contributed to the review of existing training courses. In total, 54 research staff attended one of these courses.

Adrian was inspired by the quality and quantity of important public-health research being done at the Centre.



I was welcomed into the lives of my colleagues and through my collaboration with Dr Md Manirul Islam, we were able to help the researchers of ICDDR,B improve their statistical and research skills. I loved my year at ICDDR,B and in Bangladesh, and our experience there continues to shape our lives. We were privileged to return in 2008, and I am pleased to be able to continue my research collaborations with the Centre.

Adrian is now a post-doctoral research fellow at Deakin University (Australia), investigating the behavioural, social and environmental influences on childhood eating and nutrition.



Laura BOS worked as a Communications Officer and was an inaugural member of the Communications office when it was first developed in 2006, being heavily involved in the Centre's re-branding exercise. This gave her the opportunity to meet people from across all operational areas of ICDDR,B, including field sites, and learn about the extensive work occurring around the Centre every day.

I have many highlights from my time at ICDDR,B; some are heartfelt (like helping raise money for attendant Beauty's daughter for her heart surgery), some are crazy (like chasing the

Australian cricket team to Chittagong to convince them to be in a photo-shoot with ICDDR,B employees and the Australian High Commissioner); and some are inspiring (like when I managed a photo-shoot, capturing images of employees working in labs, the hospital, and on the ground, hearing about their work and making many friends along the way).





Erin Law worked as a researcher on the Multi-Country Evaluation of the Integrated Management of Childhood Illness project in Matlab, with Dr Shams El Arifeen and Dr Emdadul Hoque in the Child Health Unit.

For me the experience was transformative in that I had the opportunity to work with some of the best experts in child health who all played their part in guiding me towards a stronger passion for public-health interventions that save children's lives. ICDDR,B really has a knack for bringing together people of different disciplines that, when they work together, run projects and conduct research that has a huge impact, and I think that is really evident when you go to Matlab and speak to the families living there who are able to get services from ICDDR,B. I still feel privileged to have had the opportunity to work with the child-health team and hope to return one day.

Jo Grzelinska, Communications Officer, took a particular interest in knowledge translation and the gaps that still remain as we try to bridge the distance between knowledge and its effective application through policy and programme implementation, and has remained as part of the Communications Unit at ICDDR,B since 2006.

Natalie Young worked with the Laboratory Sciences Division as a Laboratory Safety and Waste Management Consultant involved in developing and implementing a Biosafety Training module for new staff as part of their induction into the research or clinical laboratories. She advised and assisted with the preparation of a Biosafety and Waste Management Reference Manual for the laboratories, and created several other documents useful in adapting and modifying safety and waste-related guidelines during refurbishments of the laboratories. Each of these documents was developed to improve overall safety awareness and minimize risks to staff, visitors, and contractors with regard to safe work and waste-management practices. Natalie had worked in public and private pathology laboratories across Australia and in the United Kingdom. Her graduate studies in public health have broadened her interests in health and the community; so, ICDDR,B offered an ideal environment in which to use her experiences to their advantage.





## INTEGRATING PUBLIC HEALTH SKILLS

Capacity development is one of the important aspects of ICDDR,B's commitment to research and training, particularly in the field of public health. ICDDR,B was a founding partner with BRAC University in establishing James P Grant School of Public Health offering a Master of Public Health (MPH) programme since 2005. The one-year full-time programme, which begins in February each year, includes faculty drawn from BRAC and ICDDR,B as well as eminent schools of public health located in Europe and the United States. Its unique feature is the field experience gained by students in each of the 15 courses comprising the MPH curriculum, half of which are conducted in the rural area of Savar, the other half in Dhaka.

The course concludes with a week-long workshop called 'Integrating Public Health Skills', taught by Dr Jon Rohde (a staff member of the Centre in the 1960s and Board member in the 1990s) and Cole Dodge. Jon is Chair of the James P Grant School of Public Health Advisory Board and oversees the entire curriculum with annual planning and evaluation exercises. Cole was a founder of the School and overall advisor of BRAC. Both were career leaders at UNICEF for many years under the leadership of James P Grant.

During the one-year MPH programme, students take 15 formal courses plus prepare mini-theses, most of which are guided by members of the ICDDR,B's professional staff. The class of 30 is divided equally between those from Bangladesh and abroad, between women and men, between doctors and non-doctors. The final

Our aim at the School is to produce skilled public-health practitioners who have gained the experience to apply their knowledge in the field to their home-country situation. We are unique in bringing one of the world's greatest public-health research institutions (ICDDR,B) together with the world's largest health NGO (BRAC) to provide up-to-date research, teaching, and practice to bear on the problems of the poor. No other school offers such an opportunity.

workshop reviews each course and collects feedback, comparing students' learning with WHO's Essential Public Health Functions—a remarkable concordance that illustrates the comprehensive nature of their programme. On the second day, they develop their own curriculum vitae and prepare job application letters as well as respond to a mock interview for job. On the third day, they apply their full range of skills to planning for a national health system development.

Finally, the students learn how to use the new Lives Saved Tool that enables accurate predictions of the impact of a mix of public-health interventions on lives saved in any country of the world. This enables them to make credible predictions and vary the mix of interventions to propose in their home countries on returning to work in the field.



Completing my MPH degree was highly productive and a turning-point for my professional career. It became more significant with my achieving the Richard Cash Award for best poster at the fifth graduate forum.

Shahidul Hoque, Senior Field Research Officer, ICDDR,B



# tsf Technical Support Facility South Asia

A commitment to make the money work in the AIDS response

The Technical Support Facility (TSF) South Asia is an initiative being implemented by ActionAid International, in partnership with ICDDR,B and TATA Institute of Social Sciences, India, with a secretariat in Kathmandu, Nepal. TSF South Asia is supported by UNAIDS. The programme covers eight South Asian countries: Afghanistan, Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan, and Sri Lanka.

The TSF provides timely, quality-assured technical support in all areas of planning, management, and implementation of HIV/AIDS programmes. TSF is committed to building capacity of country-partners and harmonization while delivering technical support, resulting in a sustained and enhanced capacity of country-partners. An important part of the initiative is to provide technical support to implementers of The Global Fund and large-scale grants.

In this context, ICDDR,B as a partner of TSF South Asia has been organizing training workshops for developing the professional capacity of consultants and country-partners for providing need-based technical assistance to governments and non-government organizations in South Asian countries. The first workshop was held on 20-23 December 2009 in Dhaka on "Project proposal development for intervention on most-at-risk populations." Attended by 27 participants from Bangladesh, Bhutan, India, Nepal, Pakistan, and Sri Lanka, this four-day event was designed as a 'write-shop', where participants identified a specific area or topic to develop a proposal either individually or in a group. There were technical plenary sessions also to provide an understanding of

comprehensive intervention packages needed for the populations most-at-risk for HIV in South Asia, and technical issues relating to proposal development were addressed.

Dr Nazmul Alam, TSF Focal Point at ICDDR,B, coordinated the proposal writing workshop, which was well-received by participants, Plans are underway for the next workshop on HIV/AIDS programming within a few months.

The write-shop aimed at sharpening the skills to prepare successful proposals, access to skilled manpower in the region and information on identifying prospective funding sources.

Sherry Joseph, Capacity Development and Consultant Manager, TSF

Reflecting on the workshop, Dr Ekta Saroha from Jamia Millia Islamia in India, commented "the workshop was very useful to conceptualize the process of a project proposal, the interactive discussions, and the course materials were helpful to improve my confidence in proposal writing."





TSF South Asia has been providing technical support to different South Asian countries. The support is being used by UN agencies, country-coordinating mechanisms (CCMs), Global Fund, civil society, and governments in South Asia. In the meantime, as part of its capacity-development initiatives, it has been conducting a series of workshops.

#### TSF South Asia's priority areas for technical support

- Strategic and operational planning, including collection and analysis
  of strategic information, policy and programme design, and costing
  analysis of resource requirements
- Problem-solving for grants and programme implementation, including assistance with programme management, financial management, procurement, monitoring, and evaluation
- HIV prevention and targeted intervention for most at-risk populations: injecting drug-users (IDUs), male having sex with male (MSM), sex workers, migrants, people living with HIV (PLHIV) and other vulnerable groups, such as women, young people, orphans, and children at risk.

The TSF is a new initiative in South Asia. There are very real and urgent needs for technical assistance to more efficiently-run HIV/AIDS programmes in this region. I hope TSF will play a vital role in developing the capacity of consultants to fill these gaps, and ICDDR,B is very happy to have the opportunity to be a partner in TSF South Asia.

Dr Tasnim Azim, Head, HIV/AIDS Programme, ICDDR,B



#### UNAIDS Technical Support Facilities: providing high-quality technical assistance and capacity-building

Timely and high-quality technical support is needed to ensure that the resources available for AIDS are used most effectively and efficiently. Addressing this challenge, UNAIDS established Technical Support Facilities (TSFs) in 2005, which are small management teams hosted by existing regional institutions, to facilitate access of country-partners to technical support. The TSFs cover more than 80 countries in Africa and Asia.

Since their establishment, the TSFs have effectively scaled up technical support to national partners in a flexible and timely manner. The overarching purpose of the TSFs is to build national and regional capacity to respond to AIDS more effectively. The TSFs provide experienced, quality-assured consultants to help country-partners design programmes and solve problems in the areas of strategic and operational planning, proposal development for The Global Fund and grant implementation, institutional development, resource mobilization and tracking, monitoring, evaluation, and management in thematic areas, such as gender, injecting drug-use, sex work, and migration.

#### Core principles of the Technical Support Facilities

- 1. Country-owned, country-led, and demand-driven
- 2. Adherence to the highest standards of quality
- 3. Focus on national capacity-strengthening and fostering South-South cooperation
- 4. Supportive of the 'Three Ones' principles (One agreed HIV/AIDS Action Framework; One National AIDS Coordinating Authority; and One agreed country-level Monitoring and Evaluation System)
- 5. Results-oriented
- 6. Partnership-oriented (reflected in inclusive membership, communication with relevant stakeholders, and mutual accountability)
- 7. Promoting knowledge sharing and collaboration
- 8. Strengthening of national and regional institutions and systems in ensuring sustainability

## Norwegian student nurses learning from ICDDR,B

Four years ago, a nurse from the Faculty of Nursing Education at Sør-Trøndelag University College, Trøndheim, Norway, came on an exploratory visit to ICDDR,B's Dhaka Hospital. Impressed by what she saw in this resource-constrained nurse setting, she returned to Norway and presented her experiences to the University, with the result that every year since then, a growing number of student nurses from Trøndheim have visited the Centre as part of their Bachelor of Science in Nursing.

In January 2010, nine undergraduate student nurses spent one month on clinical placement at ICDDR,B observing the nursing, healthcare and research activities at our Dhaka and Matlab hospitals, and urban field sites. Nine nurses: Ingrid Eilertsen, Silje Haugen, Ingrid Gjerstad Revheim, Marianne Andersen, Mari V Gundersen, Sandra T Magnusson, Magnus Endal, Erlend Kåsin Moskvil, and Tina Linnerud were divided into three groups, and each group spent time on the Short Stay, Long Stay and Special Care wards, focussing on the particular area of hospital care.

The month provides a platform for nurses to reflect upon and further develop their international nursing skills and work together to consider global challenges in healthcare. Working with clinical partners improves students' learning and clinical practice, preparing better qualified nurses, nurse educators, advanced-practice nurses, nurse leaders, and nurse scientists, and improving the health of the community people they serve.

The diversity of perspectives and experiences between the Norwegian nursing students and the Bangladeshi nursing team offered opportunities to discuss and develop innovative solutions to the challenges in ever-changing healthcare environments both in Bangladesh and Norway.

During the visit of Norwegian nurses, Mr Hans Hedders, Associate Professor at their College, joined the students for four days. He, along with Dr Mark Pietroni, Director, Medical Administration; Mr Mohammad Ullah, Professional Practice Leader (Nursing); Allison Moebus, Australian Youth Ambassador for Development; Dr Aftab Uddin, Technical Training Unit; and Jill Chowdhury, Student Welfare Office participated in a wonderful cultural exchange programme.

Ambassador Ingebjørg Støfring of the Royal Norwegian Embassy in Dhaka hosted a dinner at her residence in honour of the visiting nurses. The hospitality of the Ambassador and her staff was generous and welcoming, with each guest greeted personally at the door. During the evening, all guests were privileged to learn of the long and extensive involvement between Norway and Bangladesh and to realize that now ICDDR,B is further strengthening that collaboration.

The links formed through the event have opened the door to a closer relationship between ICDDR,B and Norway. ICDDR,B welcomes the opportunity to strengthen the platform for mutual learning and is currently signing a Memorandum of Understanding with Sør-Trøndelag University College to institutionalize the programme as an annual event.



Ingebjørg Støfring, Ambassador, Royal Norwegian Embassy, Dhaka



I enjoy this type of collaboration every year and this sharing of ideas with overseas nurses. Nursing goes beyond the horizon—it's without borders. Nurses working in resource-constrained countries can share their views and ideas for the development of nursing globally.

The Norwegian nursing students were amazed at how we manage to look after so many patients. The working conditions are so different. In Norway, 100% of deliveries occur in a hospital whereas, in Bangladesh, 85% of deliveries occur in the village homes. The nurses could not believe how this is possible, coming from an environment where (in Norway) a helicopter equipped with all the systems to aid a delivery, with a doctor, midwife, and paramedic is on round-the-clock duty to bring the woman to hospital.

I encourage these nurses to pursue their careers in international health and community health nursing. We have a great need to serve rural people as most of our nurses serve in urban areas. In particular, we still need to address gaps in mother and childcare, obstetrics and gynaecology, and primary healthcare services in Bangladesh.

Mohammad Ullah, Professional Practice Leader (Nursing), one of the mentors at ICDDR,B for visiting nurses

From our stay in Bangladesh and at ICDDR,B, we have a more nuanced view of the country and its culture. We have seen for ourselves that Bangladesh is much more than a country with just poverty and natural disasters. We have seen the beautiful countryside and have been so lucky to meet wonderful people with big hearts. ICDDR,B has shown us that even with small means you can achieve great things. This is part of what we wish to take with us to Norway.

Marianne Andersen, Mari V Gundersen, and Sandra T Magnusson

ICDDR,B Guest House became our home away from home, with all the facilities we needed for our studies and recreation. Placement at the wards at ICDDR,B hospital in Dhaka gave us valuable clinical exposure and insights into the management of diarrhoeal disease. The staff members at all levels were very helpful, and we really felt included into the workplace. Staff members at all levels were willing to talk to us about their work. The trips to Matlab, Mirpur, and Kamalapur were welcoming breaks from our everyday life in Dhaka. The trips gave us further insights into the work of the organization as well as social and health challenges in Bangladesh.

Magnus Endal, Tina Linnerud and Erlend Kåsin Moskvil





We have really appreciated learning and seeing how ICDDR,B gives patient-care in both Dhaka and Matlab hospitals. Our learning objective in our field experience was Kangaroo Mother Care (KMC) in low-birthweight children and how skin-to-skin contact benefits breastfeeding. Matlab Hospital has a KMC Unit, and we were lucky to have a 2-day stay there. We learned a lot about the nursing services in Bangladesh: how nurses are working in the wards and the big differences between Norway and Bangladesh. This experience has made us get a bigger perspective on nursing in different parts of the world. It has been interesting to learn how the nurses at ICDDR,B participate to give a better health to some of the poorest in the world and how they manage with so meagre resources and limited supplies to run a hospital that is so effective in treating patients.

Thank you so much for our wonderful experience at ICDDR,B and in Bangladesh!

Silje Haugen, Ingrid Eilertson, and Ingrid Gjerstad Revheim

## Atoms for health! Nuclear approach to addressing malnutrition



The International Atomic Energy Agency (IAEA)'s regional meeting in Asia and the Pacific was held in Dhaka on 24-28 January 2010, hosted jointly by ICDDR,B and Bangladesh Atomic Energy Commission (BAEC). Representatives from 14 IAEA member countries participated in deliberations and discussions on nuclear techniques to address the double burden of malnutrition in children. The double burden implies nutrition problems arisen from both obesity and undernutrition.

As a UN watchdog, IAEA monitors the global activities on the use of atomic power while also promotes peaceful application of nuclear energy, with *Atoms for Peace* as a motto. The application of nuclear techniques in nutrition research is unique in its ability to assess the body-composition and nutrition status accurately and precisely for understanding the impact of any malnutrition interventions. A nuclear method called stable isotope technique is used, which is completely free from radiation hazards and thus safe to use in research with human subjects.

ICDDR,B has a strong and long collaboration with IAEA. Several of our nutrition-related research projects have been supported by Nutritional and Health-related Environmental Studies Section under the Division of Human Health of IAEA. The Agency's contributions to ICDDR,B's work on nutrition include: research grants, human resource development through training, and involving the Centre in regional and international networking. Nuclear techniques have been used for nutrition research at ICDDR,B for more than a decade in collaboration with University of California-Davis, USA.

ICDDR,B's research efforts on micronutrients, including vitamin A, zinc, and iron using stable isotope techniques, have been greatly benefited with IAEA's support. This year's event and the previous "IAEA Nobel Peace Prize Fund Schools for Nutrition" held in 2007 (that focused on interventions to combat undernutrition during early life) have played instrumental roles in raising the profile of ICDDR,B.

Obesity in childhood and adulthood may stem from undernutrition early in life and lead to earlier and more severe incidences of high blood pressure, heart disease, and diabetes. The goal of the project was to develop standardized methodologies for assessment of nutritional status to address the 'double burden' of undernutrition and overnutrition that co-exist in developing countries, particularly those in transition, including many Asian countries. Accurate and precise assessment of nutritional status in a target group is an essential primary step to develop and implement effective interventions. The revolutionary role of IAEA in promoting the use of nuclear techniques, especially through the use of stable isotopes in nutrition research, has opened an avenue for us to use atoms for peace, not destruction.

Topics discussed on the role of nuclear approach in addressing malnutrition, included:

- WHO/UNICEF infant- and young child-feeding policy.
   Dr Kunal Bagchi, WHO Regional Office for South-East Asia
- Iodine deficiency disorder situation in Bangladesh. Dr Nazma Shaheen, Institute of Nutrition and Food Science, University of Dhaka
- An overview of activities in human nutrition at the IAEA. Dr Lena Davidsson
- The role of International Malnutrition Task Force in promoting a better understanding of the guidelines for management of severe malnutrition in children to save lives in developing countries. Dr Alan Jackson
- Management of severe acute malnutrition: WHO guidelines and experience in Bangladesh. Dr Tahmeed Ahmed, ICDDR,B
- Stable isotope techniques to assess body composition (total bodywater). Dr Thomas Preston, Stable Isotope Biochemistry Laboratory, Scottish Universities Environmental Research Centre, UK
- Stable isotope technique to estimate intake of human milk in breastfed infants. Dr Anura Kurpad, St. John's National Academy of Health Sciences, Bangalore, India
- Stable isotope technique to measure total energy expenditure.
   Dr Anura Kurpad
- Nuclear techniques to diagnose Helicobacter pylori infection.

  Dr Thomas Preston
- Analysis of stable isotope abundance by Isotope Ratio Mass Spectrometry. Alternative analytical techniques (IR spectroscopy). Dr Thomas Preston
- Capacity building in Asia: nuclear techniques in nutrition. Dr Anura Kurpad and Dr Lena Davidsson
- Nuclear techniques in nutrition: experience in Pakistan.
   Dr Rakhshanda Bilal, Pakistan Atomic Energy Commission
- Stable isotope techniques to assess body pools of vitamin A.
   Dr Sherry Tanumihardjo, Department of Nutritional Sciences, University of Wisconsin, Madison, USA
- Stable isotope techniques to assess body pools of vitamin A: experience in Bangladesh. *Dr Kazi Jamil*
- Stable isotope techniques to evaluate iron bioavailability. Dr Lena Davidsson
- Diagnosis of thyroid disorders by nuclear medicine techniques.
   Dr Shahana Afroz, Member Bioscience, BAEC
- Childhood obesity: an overview. Dr Andrew Hills





### ICDDR,B HOSTS REGIONAL KALA-AZAR MEETING

The WHO Regional Technical Advisory Group (RTAG) meeting of South East-Asian Regional Office was hosted by ICDDR,B on 8-II December 2009. RTAG is a body of experts working with disease-endemic countries towards the development of cost-effective intervention tools focusing public-health demand and impact of the disease burden by eliminating various diseases, such as dengue, polio, measles, leprosy, and kala-azar (visceral leishmaniasis).

The RTAG for visceral leishmaniasis includes experts from different countries of the world, and the office is presently situated at Delhi, India. RTAG helps SEARO, WHO to prepare the pillars of the visceral leishmaniasis elimination strategies in the Indian sub-continent. The first and the second meeting of RTAG was held respectively in India and Nepal. ICDDR,B had been honoured to be the local organizer for successful holding of the third high-level policy meeting for the visceral leishmaniasis elimination in India, Nepal, and Bangladesh.

Kala-azar or visceral leishmaniasis is regarded as one of the major neglected tropical diseases. It is a disease of viscera (the internal organs, particularly liver, spleen, bone-marrow, and lymph-nodes) and is caused by a parasite called *Leishmania donovani*. The vector or agent of the disease is sand-fly. Sand-flies are commonly found in

In fact, kala-azar can be controlled, even eradicated, if the government of the country takes kala-azar among the first priorities for public health.

Dr Jorge Alvar, VL Expert, WHO HQ, Geneva

Studies showed that the community knowledge about kala-azar is low, and kala-azar screening study estimates the annual incidence in endemic areas to be 22 times higher, varying widely from 9% to 29.8% per 10,000 inhabitants

parts of Asia, Africa, and South America where around half a million people get infected each year. With appropriate interventions, Kala-azar can be prevented and eliminated from the Indian sub-continent. It is an important public-health problem in many developing countries, and more than 90% of the total cases in the world occur in India, Bangladesh, Nepal, Sudan, and Brazil. Due to the shortcoming of the current public surveillance system, perhaps there has been an underestimation of kala-azar incidence in Bangladesh.

ICDDR,B carried out a survey in Godavari upazilla of Rajshahi district as part of the 'Kala-azar elimination programme' and found that the incidence of kala-azar is 27 per I 0,000 people.

In the third Regional Technical Advisory Group meeting, existing strategies of visceral leishmaniasis elimination programme were revised in the light of new research findings in the last couple of years within Bangladesh, India, and Nepal. The meeting developed recommendations to update the existing strategies for visceral leishmaniasis elimination programme in these three countries.



The Annual Report 2009 provides an overview of ICDDR,B's research, success, capacity-building, partnerships, and international footprints



The Strategic Plan 2020 outlines ICDDR,B priorities and goals in response to the changing trends and needs both locally and globally in the healthcare and research sectors



The Journal of Health, Population, and Nutrition provides a forum for the rapid publication of new findings on issues pertinent to maternal, child and family health, and related issues of population and nutrition.



The quarterly Health and Science Bulletin provides essential information for health practitioners, policy-makers and anyone interested in public health in Bangladesh, with the latest news on emerging threats and topical surveillance updates



The Shasthya Sanglap, a Bangla health magazine, publishes articles on epidemiology, treatment, and prevention of tropical diseases and health problems of any kind for instrumental readers—medical doctors, community health workers, and health-related information-seekers in the Bangla-speaking world

