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KNOWLEDGE FOR  
GLOBAL LIFESAVING SOLUTIONS

Centre for Control of Chronic Diseases in  
Bangladesh started its journey

Page 3

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## New International Staff

We welcome Dr Laura Reichenbach, Dr Jahangir Khan, and Ms Sheila Ryan as new members of our international staff...

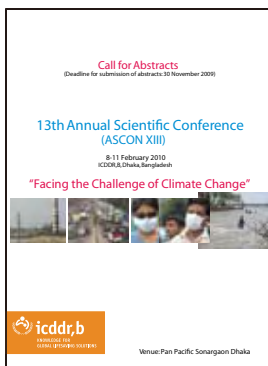
Page 5



## Swine flu in Bangladesh: Government partners with ICDDR,B to manage

Due to the late arrival of swine flu in Bangladesh, it was anticipated the country would not be that affected...

Page 6



## ASCON XIII: Call for Abstracts

The 13th Annual Scientific Conference (ASCON XIII) will be held on 8-11 February 2010...

Page 8

## Centre for Control of Chronic Diseases in Bangladesh started its journey

A consortium of BRAC, ICDDR,B, Johns Hopkins Bloomberg School of Public Health, and the UK-based Institute of Development Studies initiated the Centre for Control of Chronic Diseases in Bangladesh (CCCDB). Housed at ICDDR,B, this Centre of Excellence, the first of its kind in Bangladesh, is committed to ensuring better understanding of the risk factors, preventive and curative measures, and enhancing awareness among care providers and general public about chronic diseases, such as cardiovascular diseases, diabetes mellitus, hypertension (high blood pressure), and cancer. Most of these diseases are usually known to be non-communicable health problems of the elderly people.

Population research at ICDDR,B and elsewhere revealed a longer life-expectancy primarily due to substantial improvements in areas of general healthcare in Bangladesh and people's increasing awareness of the health-related issues. This implies a foreseeable change in the

population structure in Bangladesh during the coming years. Scientists have estimated a ten-fold increase in the elderly population in the current century. People over 60 years of age are likely to constitute more than 26% of the total population in Bangladesh by 2100. This estimated change in the population structure necessitates a shift in the medical research priorities, with due attention to the healthcare for the elderly people vis-a-vis an increased focus on the non-communicable illnesses.

With the above background, the Centre for Control of Chronic Diseases in Bangladesh started its journey, with initial funding from the US-based National Heart, Lung and Blood Institute and a private company UnitedHealth Group. More donors are being approached by ICDDR,B and other partners of the consortium.

The traditional belief that non-communicable health problems, such as diabetes, hypertension, and

cardiovascular diseases, are more prevalent in affluent countries lost its validity since developing countries are also seen to have equal (if not a heavier) burden of these diseases. Another belief that regular physical labour by rural and tribal people keeps them away from these health problems is also being questioned on a ground that these population groups, along with non-obese young people in rural Bangladesh, have similar risks of being affected with these diseases. This scenario remained hidden for a long time because illnesses of a huge segment of the poverty-stricken rural populace are only diagnosed when they seek treatment at the advanced stage of a disease—be it chronic or of other conditions. A study conducted by ICDDR,B in rural Bangladesh (Matlab) showed that impaired glucose tolerance (an indication of pre-diabetic condition) was prevalent among 9%, high blood pressure among 6%, and diabetes mellitus among 3% of the population on an average,

A section of the participants in one of the initial meetings to discuss the modus operandi of the Centre for Control of Chronic Diseases in Bangladesh



Photo: Fakrul



with a higher tendency among females. The study also investigated lipid profiles, body mass index, and metabolic syndrome among these rural people aged 27-50 years and found that, on an average, overweight was prevalent among 10.4% and abdominal obesity among 14% in this age-group. Here again, females were found to be more affected compared to males in the study area.

These findings, along with bad lipid profiles, among the study population are undesirable outcomes and indicate their susceptibility to heart attack and stroke. Recent reports have documented prevalence of diabetes also among the tribal people of Bangladesh.

All these imply that chronic diseases are prevalent among people of all groups, irrespective of their age, caste and creed, and socioeconomic and cultural setting. The people of Bangladesh and other developing countries are equally vulnerable to the aforesaid health problems as those in the affluent countries. The Centre for Control of Chronic Diseases in Bangladesh promises to be a Centre of Excellence for addressing these and other newly-emerging non-communicable diseases, especially among the elderly as well as the rural and urban poor of all age-groups.

For achieving the goals of this Centre of Excellence, the roles of the four leading partners in the consortium have been specifically defined as follows:

ICDDR,B is mandated to assess the prevailing burden of non-communicable diseases through a surveillance in Bangladesh and provide technical support in formulating policies and building capacities of the stakeholders through research and training.

The Johns Hopkins Bloomberg School of Public Health is

responsible for synthesizing the current knowledge-base on chronic diseases in South Asia.

The role of the Institute of Development Studies is to support the research designs to link chronic diseases to health systems and development activities, such as those targeted towards alleviation of poverty.

And finally, BRAC will translate the generated knowledge into actions through scaling up interventions to be undertaken to address the non-communicable diseases at the community level.

ICDDR,B, in collaboration with BRAC and the Johns Hopkins Bloomberg School of Public Health, has already started an initial assessment of the current chronic disease programmes in the country, a review of the national policies on the prevention and treatment of chronic diseases, and exploration of the existing chronic disease management strategies adopted by the service providers and users in the informal sector.

As in other activities of ICDDR,B relating to public-health issues in Bangladesh, the Ministry of Health and Family Welfare, along with some non-state actors, will have a direct link with the activities of this Centre of Excellence. The Institute of Development Studies will assist in the dissemination of findings and provision of other relevant information aimed at building the bridge among all stakeholders, including government departments, international organizations, research institutions, advocacy groups, and allied institutions in the country: Bangladesh Institute of Research and Rehabilitation in Diabetes, Endocrine and Metabolic Disorders (BIRDEM); National Heart Foundation; Dhaka Ahsania Mission Cancer Hospital; National Institute of Cancer Research & Hospital; National Institute of Diseases of

Chest & Hospital; and National Institute of Cardiovascular Disease.

As part of the said dissemination and information services, the Centre for Control of Chronic Diseases in Bangladesh has recently published the first issue of its newsletter titled Chronic Disease News. The newsletter is available online free of charge at: [www.icddr.org/activity/index.jsp?activityObjectID=4556](http://www.icddr.org/activity/index.jsp?activityObjectID=4556). In his editorial, ICDDR,B's Executive Director Professor Alejandro Cravioto assured that the newsletter will keep its readers "informed about the project activities, its research findings, and the chronic disease situation in Bangladesh."

The newsletter also interviewed Professor Gerard F Anderson of the Department of Health Policy and Management and of International Health at the Johns Hopkins Bloomberg School of Public Health, USA. In his responses, Professor Anderson highlighted the importance of establishing such a Centre of Excellence to address the issues relating to chronic diseases in Bangladesh where these have so far been ignored by government bodies, international aid agencies, and other policy-makers. He emphasized the involvement of the Government and said, "I have seen many examples where a successful pilot did not continue once the initial funding ended because the government was not involved from the beginning and did not stay involved."

Partly due to inability to afford treatment cost and partly for the lack of awareness, the poor people of Bangladesh—both in rural areas and urban slum settlements—hardly seek treatment for the chronic diseases that they suffer from. Establishment of the Centre for Control of Chronic Diseases in Bangladesh with a commitment to serve the people of all socioeconomic classes is supposed to reduce this gap between the poor and the better-off in seeking treatment for chronic diseases in the country ■

## New International Staff

Dr Laura Reichenbach, a US national, joined ICDDR,B on 12 August 2009 as Social Scientist in the Public Health Sciences Division. Dr. Reichenbach specializes in global health policy with a particular focus on reproductive health issues, priority setting, resource flows, and policy



Dr Laura Reichenbach

processes. She will serve as principal investigator for various research activities, including several projects relating to reproductive health. In her position, she will also work on issues of translational research. She will teach and mentor students at the James P Grant School of Public Health under BRAC University during her tenure at the Centre.

Dr Reichenbach holds a BA degree in Government and Public Policy Analysis from Pomona College, California, USA, where she was awarded the Russell M Story Award for Excellence in Public Policy Analysis. She earned an MPA degree with concentration in Health Policy in 1993 from the John F Kennedy School of Government at Harvard University, Cambridge, Massachusetts, USA. Later in 1999, she obtained her Doctorate of Science degree in Population and International Health from the Harvard School of Public Health, Boston, USA.

Dr Reichenbach has worked in various research organizations. Most recently, she was Senior Researcher with the Population Council in Islamabad, Pakistan, where she conducted operations and programmatic research relating to HIV/AIDS and other sexually transmitted infections, maternal mortality, and the inter-linkages among population policy, development, and poverty. She previously held the position of Research Scientist at the Harvard Center for Population and Development Studies where she also served as Academic and Research Advisor to the David E Bell Fellows Program. She has worked as a consultant for a number of organizations, including BRAC, Bangladesh; Population Council in India; The World Bank Group; and Population Reference Bureau. She is Principal and Co-founder of Global Health Insights, a specialist research and consulting cooperative involved in policy-relevant in-depth research to improve the effectiveness of stakeholders working in global health.

She is the author of more than a dozen original research articles and book chapters and edited the book *Exploring the Gender Dimensions of the Global Health Workforce* published in 2007 by the Global Equity Initiative, Harvard University and has co-edited another book titled *Reproductive Health and Human Rights: The Way Forward* published in 2009 by the University of Pennsylvania Press. She has taught courses on sexuality, reproductive health, and population and anthropological approaches to health at the Harvard School of Public Health. She has research experience in a number of countries, including Tanzania, Thailand, Ghana, Pakistan, and India. She has over six years of resident field experience in South Asia.



Dr Jahangir AM Khan

Dr Jahangir AM Khan, a Bangladesh-born Swedish national, joined on 2 August 2009 as Health Economist in the Health Systems and Infectious Diseases Division of ICDDR,B. He previously worked at the Karolinska Institute, Stockholm, Sweden, in Medical Management Centre under the Department of Learning, Informatics, Management, and Ethics.

Dr Khan has wide-ranging expertise on the efficiency and equity in health and healthcare, healthcare financing, economics of health insurance, health econometrics, and economics of public-health interventions.

Dr Khan had his BSc and MSc degree in Economics from Stockholm University, Sweden. In 2005, he obtained his PhD degree in Health System Research directed to Health Economics from the Karolinska Institute, with a dissertation titled "The impact of social security compensation inequality on earnings distribution due to sickness and disability."

Dr Khan started his service career in 1999 as a research assistant at Karolinska Institute. He was instrumental in developing Masters degree programme in Health Economics at Karolinska Institute and coordinated the same for couple of years. He was also a regular lecturer in the programme. Dr. Khan subsequently worked as Health Economist at the Stockholm County Council

which is responsible for planning and delivering healthcare for inhabitants in Stockholm. He was involved in a number of collaborative research projects in developing countries, including Bangladesh, South Africa, Ghana, and Tanzania.

Dr Khan appeared as an expert evaluator of research grant application for European Union. He also appeared as a member of the examination board for mid-term PhD programme and MSc thesis evaluation several times. He supervised a number of MSc thesis during his work at Karolinska Institute.

Dr Khan authored more than a dozen of research articles and reports published in international journals and as working papers, including a few in Swedish.

We welcome both Dr Reichenbach and Dr Khan and wish them a successful tenure at the Centre.

Though not a new face at the Centre, we also welcome Ms Sheila Ryan, an Irish national, who joined in her new position as Head of Research Administration on 9 August 2009. Previously, she worked as a consultant to the Maternal



Ms Sheila Ryan

and Child Health-Family Planning (MCH-FP) Project and later as Senior Associate at the External Relations and Institutional Development Office of ICDDR,B. Her credentials were published in Volume 27, Number 3-4 of Glimpse in 2005 ■

## Swine flu in Bangladesh: Government partners with ICDDR,B to manage

When the World Health Organization declared, on 11 June 2009, a global pandemic of swine flu due to H1N1 virus, Bangladesh was apparently free from this health problem. The first case of swine flu in Bangladesh was detected in an incoming traveller at the Zia International Airport on 18 June 2009. By then millions of cases, with nearly 2,000 deaths, were reported from Mexico, Australia, and Japan, with sporadic outbreak in the neighbouring country India as well.

Due to the late arrival of the flu in Bangladesh, it was anticipated the country would not be that affected but the scenario changed quicker than expected. According to the latest statistics as released by the Institute of Epidemiology, Disease Control and Research (IEDCR) in Bangladesh, the number of cases in the country rose to 604 in late September 2009 (bdnews24.com, 27 September 2009). The outbreak is apparently more accelerating in the densely-populated Dhaka city. The answer to a major question for Bangladesh is not yet known: how many cases are really out there; there are probably more cases in addition to those who just show up in hospitals.

ICDDR,B, in collaboration with the Government of Bangladesh, is monitoring the virus through its already-existing influenza surveillance system. The Centre has also started to provide testing and clinical services to the victims since the first week of September. A separate quarantined ward for the swine flu patients has been opened at the Dhaka Hospital of ICDDR,B, with the provision of 24-hour service on all days of the week. As done

in the case of diarrhoea patients. ICDDR,B has been providing its services free of charge to the swine flu patients as well.

In the management and treatment of patients, ICDDR,B is following the same protocol as in Mexico, the first country affected by the 2009 pandemic of swine flu. For definitive diagnosis, real-time reverse transcriptase polymerase chain reaction (rRT-PCR) or viral culture is the preferred test. Rapid tests yield correct results in only 40-70% of the time. The confirmed cases are being treated with oseltimivir (Tamiflu)—the only neuraminidase inhibitor available in Bangladesh. Another efficacious drug in swine flu is zanamivir, being used in other countries in this pandemic. Most cases present with mild, non-severe infection requiring no treatment other than usual healthcare advice for any other flu. Although progression of the current outbreak is slow, the national preparedness to prevent any future epidemics in Bangladesh includes procurement and introduction of a licensed vaccine by mid-October 2009, with a mass-vaccination programme from January 2010 onward. The government sources, however, confirmed that curative medicines have been supplied to health facilities, including those in rural areas.

In relation to epidemiology, prognoses, and clinical symptoms, the cases in Bangladesh have close similarity with those in other countries. Persons with chronic diseases of heart, lung, liver, and urinary tract; cancer or immunosuppression; and pregnancy appear to be more vulnerable to





Rajshahi Medical College Hospital, Shaheed Ziaur Rahman Medical College Hospital, LAMB Hospital, Bangabandhu Memorial Hospital, Comilla Medical College Hospital, Khulna Medical College Hospital, Jessore General Hospital, Jalalabad Ragib-Rabeya Medical College Hospital, and Sher-e-Bangla Medical College Hospital. The IEDCR is a permanent partner of ICDDR,B in this larger hospital-based influenza surveillance with financial support from the Centers for Disease Control and Prevention, USA.

### Internal measures

In addition to participation in the government efforts to design an appropriate national strategy to prevent and manage the swine flu outbreak in Bangladesh, ICDDR,B has undertaken an internal programme to alert its health workers about nosocomial infection and educate its general staff to prevent themselves from swine flu. The prevention and management guidelines circulated among the ICDDR,B staff may be equally important to the public at large. The preventive measures include: frequent handwashing to reduce the risk of infection from fomites, maintaining social distance from sick people, hygiene in respiration, using mask, gown, and gloves as protection from contact with infectious droplets, isolating sick persons, screening and limiting visitors, and staying at home while attacked with swine flu.

Persons with symptoms of fever, sore throat, cough, runny nose, headache, body-pain, difficulty in breathing, with general weakness, loss of appetite, diarrhoea or vomiting are advised to seek treatment after being confirmed about swine flu infection through appropriate medical examinations ■



Photos: Fakrul

The Dhaka Hospital of ICDDR,B opened a temporary ward to handle patients presenting with suspected swine flu

severe infection. Obesity and young age also seem to be risk factors for the disease. Clinical symptoms include: fever, cough, headache, runny nose, body-pain, and more importantly, difficulty in breathing. Some cases present with diarrhoea and vomiting as well.

ICDDR,B is uniquely equipped to handle outbreaks of any influenza and other viral diseases. This is evidenced from the fact that the Centre's work on the outbreaks of avian influenza and Nipah encephalitis in the recent past has been the subject of a Discovery

Channel documentary made for the global audience and being aired since late 2008.

In addition to the Centre's own surveillance site for influenza at Kamalapur in Dhaka city, ICDDR,B has already established a close collaboration with the larger national-level surveillance system involving six public and six private hospitals spread all over Bangladesh. These hospitals are: Dhaka National Medical College Hospital, Community Based Medical College Hospital, Jahurul Islam Medical College Hospital,

## ASCON XIII: Call for Abstracts

Annual Scientific Conference (ASCON) is one of the international events of ICDDR,B. Each ASCON provides a common platform to the global community of medical researchers, health professionals, programme managers, community organizers, and policy-makers for sharing research results, experiences, and lessons learnt from projects and programmes here at the Centre and elsewhere on a particular theme.

The 13th ASCON (ASCON XIII) will be held on 8-11 February 2010 at the Pan Pacific Sonargaon Dhaka, Bangladesh. The theme of the Conference is "Facing the Challenge of Climate Change."

The Scientific Committee is headed by Professor Alejandro Cravioto, Executive Director of ICDDR,B as Chair, who will be assisted by four Co-Chairs: Dr Abbas Bhuiya, Head, Poverty and Health Programme; Dr Tahmeed Ahmed, Head, Nutrition Programme; Dr Rubhana Raqib, Head, Nutritional Biochemistry Laboratory; and Dr Peter Kim Streatfield, Head, Population Sciences Programme of ICDDR,B.

Prospective participants are requested to submit abstracts of their studies that relate to any discipline of the broad theme. Abstracts will be screened by the reviewers/committees for either oral or poster presentations. Plenary sessions will precede the scientific presentations. The criteria for acceptance of an abstract are: scientific merit, grammatical soundness, clarity, newness in the findings, and the evidence that this was not published elsewhere. Each abstract should contain a clear and short title, name(s) of author(s) with designation(s), affiliation(s), and full address and be written following a specific format with six sections: Background, Objective,

Methodology, Results, Conclusion, and Acknowledgements, but no references.

Enquiries for general information, registration, visa, and accommodation should be directed to Conference Secretary Ms Loretta Saldanha at [loretta@icddr.org](mailto:loretta@icddr.org). Abstracts for oral and poster presentations should be sent to Mr M Shamsul Islam Khan, Head of Publications Unit at: [ascon13@icddr.org](mailto:ascon13@icddr.org) or be submitted online through: <http://www.icddr.org/ascon13> by 30 November 2009 at the latest. Registration by 31 December 2009 is compulsory for all delegates, including those whose abstracts will be accepted for presentation.

The authors are requested to prepare their abstracts, keeping the relevant focus of the following five sub-themes in mind:

**Climate change and environmental health:** Environmental contamination of water, air, and food with heavy metals, insecticides, arsenic, lead, carbon monoxide, and large or small particulate matter.

**Climate change and livelihood consequences:** Population relocation in response to rising sea-levels, intrusion of saline water in surface water-bodies affecting crops, increased salinity in water supplied for consumption and agricultural irrigation, extreme weather events involving shift in occupations due to changed ecology and out-migration resulting in loss of homestead and agricultural land.

**Climate change and impact on infectious diseases:** Cholera, malaria, dengue fever, kala-azar, and certain viral diseases which are believed to be susceptible to temperature, rainfall, and humidity conditions.

**Climate change impacts on food-security and nutritional status:** Negative impact of climate change on nutritional status through reductions in food production, the wide range of factors affecting agricultural output, including irrigation water, new varieties of staple food-crops resistant to drought, flood, and salinity.

**Realistic responses to climate change in Bangladesh:** Options that are realistically available for Bangladesh to minimize the negative impacts of climate change, and relocation of populations in areas prone to river-erosion and rising sea-levels through official relocation programmes or spontaneously to the protection of water supplies through local action and international agreements regarding transboundary rivers. This sub-theme needs to include discussion of global (north-south) protocols which will ultimately determine the fate of vulnerable countries like Bangladesh that must also include carbon emissions and strategies to minimize increases in global levels.

In addition to the apprehension in a large body of literature on the subject over the last few years, a recent news item dispatched from London by Reuter commented, "Developing nations will be most vulnerable to the effects of climate change but a lot of their economic loss could be avoided, a report by the Economics of Climate Adaptation (ECA) Working Group said."

Since ICDDR,B is more dedicated to addressing problems of the developing countries including Bangladesh, deliberations and presentations at the Conference are expected to explore the underlying causes of this vulnerability of developing countries to the impact of climate change and to determine the future directions how these economic losses can be avoided ■