



Editorial



With the recent devastation caused by earthquakes in Haiti and Chile, the two mild tremors that shook Dhaka on the night of 10 September 2010 caused widespread panic throughout the country.

While there were no reports of casualties or serious damage, many residents fled from their homes as the tremors struck at 10.42pm and 11.24pm.

In the months that followed the 5.2 magnitude quake, debate raged over the likelihood of Bangladesh experiencing a serious earthquake and the possible destruction that would be caused. Many experts report that Bangladesh is overdue for a serious quake, and the minor tremors could be an indicator of something looming.

In a recent report released by the Bangladesh government, it suggests that some 78,323 buildings would be destroyed completely if a 6 magnitude earthquake struck Dhaka City. This would lead to some 30 million tonnes of debris.

The report also states that at least 10 major hospitals and 90 schools would be completely destroyed, with another 241 hospitals and 30 police stations partially damaged if a 7.5 magnitude quake were to occur.

One of the key researchers of the report says that Bangladesh is at a high risk of a major earthquake, given its geographical location, and with such a high population, widespread casualties are likely.

The Centre for Injury Prevention and Research, Bangladesh has been working to prepare families for the impact of a natural disaster, including an earthquake, and minimise potential injuries as part of the PRECISE program since 2008. It has been introduced to over 36,000 households across the country.

A further 200 government health workers such as health and family welfare assistants, as well as 300 community injury prevention volunteers have also received training on how to introduce the CIPRB disaster preparedness plan at a family level.

CIPRB has also been involved in numerous regional workshops on disaster preparedness, with Dr AKM Fazlur Rahman and Mr. H.A. Miah presenting the work of CIPRB and participating in discussions to achieve a cooperative approach from different stakeholders, policy and decision makers and international agencies for implementing an injury prevention plan during an emergency.

In December 2010, the urban project office of CIPRB held a six-day workshop on disaster preparedness, with an emphasis on earthquakes, for 143 participants from a range of community sectors.

While earthquakes cannot be prevented, the impact of the injury caused by them can be reduced and CIPRB is taking the necessary steps to educate and prepare Bangladeshi families in the event of an earthquake.

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Editors

Danyel Walker, Dr Aminur Rahman, Dr AKM Fazlur Rahman



Message from the Executive Director



Dr AKM Fazlur Rahman

With the launch of two new programmes and the continuation of CIPRB's injury prevention initiatives, 2010 was a big year for CIPRB. The launch of the International Drowning Research Centre – Bangladesh was a milestone achievement as it's the first of its kind ever established and had been a vision of CIPRB for many years.

The Maternal and Perinatal Death Review (MPDR) system was also implemented over the last year and is providing essential information in the prevention of maternal and perinatal deaths.

As we enter 2011, CIPRB is undergoing many exciting changes with

a new direction focusing on health and development. While we will still focus on injury prevention and research, we have expanded our services to work in other areas of health research and programmes.

Our major goals for this year will be to work towards discovering new ways to prevent children from drowning, not just in Bangladesh but also across Asia. We will also be working to effectively develop the MPDR program to prevent unnecessary deaths during and after birth.

We look forward to working with our ongoing partners and are excited to have new partner organizations to collaboratively work with to create safe environments for all.

News

The International Drowning Research Centre - Bangladesh (IDRC-B)



The last five months have been a busy and rewarding time for the team at CIPRB, with the long awaited launch of the International Drowning Research Centre – Bangladesh (IDRC-B) in August.

Over 200 people were present at the official launch ceremony on 4 August in Dhaka with State Minister for Women and Children Affairs Dr Shirin Sharmin Chowdhury attending as Chief Guest.

The IDRC-B is the world's first drowning research centre focusing specifically on low income countries. It will carry out research to develop effective and sustainable drowning interventions that are appropriate for Bangladesh and countries with similar social, cultural and risk environments, especially neighbouring

countries across Asia.

The centre has been established in collaboration with AusAID, Royal Life Saving Society Australia and The Alliance for Safe Children.

Already, IDRC-B has announced four research projects to be undertaken over the next three years. These include:

- Feasibility and scalability of portable swimming pools for survival swim training
- Impact of SwimSafe on Child Risk Taking Behaviour
- Developing a community-based first response system for drowning prevention
- The effectiveness of teaching rescue skills to SwimSafe graduates

Regional Drowning Prevention Workshop in Dhaka

In December, IDRC-B hosted the world's first gathering of international experts and policy makers in the field of drowning prevention to develop a set of strategies to reduce child drowning in Asia.

The 'Preventing child drowning in Asia: Key elements of a regional strategy'

workshop was held in Dhaka from 4-6 December and provided a lively discussion on the current situation, how this can be improved and where to next for child drowning prevention in the region.

The three day workshop also included a field visit for participants to the project area of Raigonj to see an active Anchal and SwimSafe class, along with the newly established IDRC-B model centre.

The discussion points will be presented at the World Conference on Drowning Prevention to be held in Vietnam in May 2011.

To find out more, you can sign up to the IDRC-B newsletter at www.ciprb.org.



Top: Dr Aminur Rahman addresses guests at the official launch. Above: Participants of the regional workshop observe a SwimSafe lesson





News

CIPRB Directors Awarded PhDs

The team at CIPRB are thrilled and very proud to announce that two directors have both been awarded their PhDs from Karolinska Institutet in Sweden.

Dr Aminur Rahman completed his thesis 'A Community Based Child Drowning Prevention Programme in Bangladesh: A model for low income countries' and is the first person to complete a thesis on the topic of child drowning in developing regions.

Dr Saidur Mashreky Rahman

completed his research thesis titled 'Developing a Framework for Prevention of Childhood Burn in a Low-Income Country Perspective: Epidemiological Appraisals' with excellent feedback from the academic staff.

The abstracts for both papers are published at the back of this newsletter. We extend our congratulations to both on this outstanding achievement.

Top right: Dr Aminur Rahman with supervisor Dr AKM Fazlur Rahman and examiners. Right: Dr Saidur Mashreky Rahman with the coordinator of the examination committee declaring the PhD award.



SwimSafe Annual Meeting



The annual SwimSafe workshop - SwimSafe: A vaccine for preventing child drowning - was held on 5 October 2010 at the Bangladesh Swimming Federation to raise awareness of the program within the community and to discuss the program's progress and ways forward in reducing child drowning.

The workshop provided an opportunity for the many different groups

involved in SwimSafe to discuss the program's achievements and suggest areas to improve. Key issues discussed included involving adolescents in the prevention of child injury, increasing the scope of the SwimSafe program, accommodating more children in the program and how the community can contribute to reducing the dropout rate of children.

MPDR Initiative Shared With Government

Since January 2010, the Directorate General of Health Service (DGHS) in collaboration with Directorate General of Family Planning (DGFP) within the scope Joint GoB-UN MNH Initiative have been implementing the Maternal and Perinatal Death Review (MPDR) intervention in Thakurgaon.

CIPRB have been providing technical support, with UNICEF also providing technical and financial support. MPDR is an

evidence based intervention that cross examines the causal factors either medical or social, and follows with appropriate actions to reduce maternal and perinatal deaths.

In response to this slogan, Meena Day, initiated by UNICEF, was observed in four project areas in September 2010 by CIPRB with different activities such as parent meetings and rallies to raise awareness of children's rights.

The Line Director told participants



of the meeting that the MPDR intervention is a very useful program for countries like Bangladesh. He strongly recommended that the MPDR programmes be expanded in other districts at the earliest possible time.

Celebration of Meena Day



'Going to school is the only work for children. No child will remain out of school anymore.'

About 700 children and their parents participated in discussions about the significance of the day in different Anchals across the country.

Meena is a cartoon character who represents the rights of children and demonstrates a child's rights irrespective of their sex.

Left: Meena Day activities in Sherpur



News

The horrific scenario of road traffic accidents in Bangladesh



Eid ul-Fitr in September is a joyous occasion for the Muslim people of Bangladesh. The holy festival, however, was a horrific one for the family of Shamaz Aktar Shammi who at the age of seven became a victim of Bangladesh's alarming road toll.

Shammi was a bubbly and popular school student who had good grades and was liked by all her teachers. She loved to sing songs and dance, and would often put on makeup and dress up for her family.

No one really knows what happened on that fateful day. Her mother Nazma Akhter recalls that after helping Shammi apply some eyeliner on Eid Day, they fell asleep together with Shammi's father Md. Shanaj Hossain. After waking in the afternoon, Shammi told her parents she was going to play outside with some friends.

Shammi and her friends had gone to play near a recently constructed, although not officially opened, road in Mirpur, Dhaka.

Being Eid Day, there are normally less cars on the roads. Her two friends had crossed the road successfully, but when

Shammi attempted to cross, it is believed a blue taxi struck her and failed to stop. Her brother was nearby and was the first on the scene. He then alerted the rest of the family about the tragedy, and Shammi's father took her small body to Dhaka Medical Hospital. Sadly, she was declared dead soon afterwards.

Shammi's mother collapsed when she heard the news. The grieving and pain she suffers everyday as a result of the accident is still evident. It has been reported that the same car that struck Shammi was also involved in another incident that same day on the same stretch of road. A boy has his leg broken when the same taxi hit him shortly after the incident involving Shammi.

The taxi was later found abandoned and the driver has never been found. In a separate incident on the same day, another young girl lost her life after being hit by a car on the same stretch of road.

Shammi's parents are outraged about the lack of safety measures implemented on the notorious road that links Mirpur to Airport Road. Despite the fact that cars have been using it for around 10 months, no signals, zebra crossings or speed breaks have been installed.

They say it's a densely populated area, and around 50 accidents have already occurred since traffic began using the road. It is a short cut for a lot of traffic, and Shammi's parents say that more safety measures and traffic police are needed to make the road safer for the local residents and traffic.

CIPRB conducted a social autopsy

for Shammi's death – a unique process which is normally reserved for rural fatalities. Members of the block committee from CIPRB and local residents attended and heard about the tragic events that surrounded Shammi's death.

The participants then held an open discussion to explore ways that future road traffic deaths in the community can be prevented. Strategies developed included ensuring guardians always accompany their children when near roads, neighbours and senior members of the community will send home any child found alone in the street and that all school children should learn about road safety. Following the meeting, a tree was planted in Shammi's memory.

Road traffic accidents in Bangladesh result in a huge number of deaths and injuries every year. CIPRB has found that 18,500 people lose their lives in road accidents every year, and 400,000 people are injured. It also makes up a huge portion of injury related admissions to hospitals. A survey by CIPRB found that 19% of hospital beds in Bangladesh hospitals are occupied by people who have sustained an injury through a road traffic accident.

Despite this, there is no effective national safety strategy to reduce deaths and injuries from road traffic accidents in Bangladesh. CIPRB says a national road safety programme needs to be implemented to reduce the mammoth road toll, to decrease the hospital burden and to minimize the economic and social impact of road traffic accidents in Bangladesh.

Above: Shammi's mother, brothers and father with images of Shammi.

Stay in Touch with CIPRB

CIPRB recently launched their new look website that provides up to date information on news and research topics.

Located at www.ciprb.org, the comprehensive website also features newsletters, images, media coverage, research papers, upcoming events and publications.

Also don't forget CIPRB is also on Facebook. Please show your support and become a fan of CIPRB's Facebook page. Just search for 'Centre for Injury Prevention and Research, Bangladesh' in Facebook and select 'like' on the left hand menu.





News

Promoting safety through Annual Event activities

In November and December 2010, thousands of children, adolescents, parents and community members came together in CIPRB's four project areas of Raigonj, Manohardi, Sherpur and the urban area of Mirpur to participate in a range of competitions and activities as part of CIPRB's 'Annual Event'.

The aim of the event is to raise awareness of water safety issues in both the urban and rural populations of the SwimSafe project areas through interactive activities. It also provides a chance to give recognition and encouragement to children in their campaign against injury in Bangladesh.

Activities included swimming competitions at a village, union and Upazila level, art competition, essay competition, community level and central rallies, Road Safety Day demonstration and a prize giving ceremony with cultural show.



Above (L-R): Girls prepare for art competition in Mirpur, rally in Manohardi and children perform at a cultural show in Sherpur

Q&A with CIPRB Staff



Full name and position title
Nahida Nusrat – Program Coordinator, International Drowning Research Centre – Bangladesh (IDRC-B)

When did you begin at CIPRB
February 2010

Details of your job
My role involves managing the activities and staff of the International Drowning Research Centre – Bangladesh within CIPRB. I have been with IDRC-B since

its inception in 2010 and I coordinate the research projects, assist with the planning and implementation of projects, coordinate events, develop communication strategies and materials, put together reports, recruit staff and develop training manuals in both English and Bangla.

Tell us about one particularly interesting or successful project

In December 2010 I coordinated IDRC-B's workshop on developing strategies to reduce child drowning in developing countries. It was very successful, and the field trip to a rural intervention area was my personal highlight – it was exciting to see people's reactions to the steps we are taking to reduce drowning. Also the media coverage we achieved for the workshop was very extensive.

What interesting projects do you have coming up?

A new initiative we're about to

start is to see if it's possible to teach CPR to illiterate and low literate people in rural Bangladesh. We'll be teaching adolescents and adults the skills in CPR and will test it's effectiveness as a drowning prevention technique. CPR is normally taught to people in developed countries and this is the first time the effectiveness of teaching CPR to people in developing countries will be researched.

Goals for the future

I want to see IDRC-B become globally recognized and respected in the field of drowning research. At the moment, it's the only centre in the world dedicated to research in reducing child drowning in developing countries. While we're already done some great things, it's only a new organization and we have a long way to go to significantly reduce the number of children who drown every year in Bangladesh and other low income countries.



Workshop/Seminar/Conference

Safety 2010 World Conference

The annual Safety 2010 World Conference was held in London in September, with CIPRB's Dr. Kamran UI Baset – National Coordinator of CIPRB – presenting on childhood road traffic injury in Bangladesh and childhood injury in Dhaka.

The theme for this year's conference was 'safe and equitable communities', which was designed to reflect the disproportionate burden from almost all types of injuries in developing countries and regions.

The four day conference, held from 21 – 24 September, saw over 1,000 delegates including practitioners, researchers and policy makers from

health, criminal justice, education, public administration and industry from almost 100 countries participate.

Dr Kamran presented the papers 'Epidemiology of childhood road traffic injury in Bangladesh: yield of the largest community based survey' and 'Epidemiology of unintentional childhood injury in the metropolitan city of Dhaka'.

Dr Kamran also presented the PRECISE programme to a selection of key experts and people interested in injury prevention at the biennial International Society for Child and Adolescent Injury Prevention (ISCAIP) meeting.

The meeting took place prior to the World Conference, and provided

an opportunity to network with key participants in the field of injury prevention and share knowledge and experiences.



Above: Dr Kamran UI Baset with his presentation

Burn management course held by CIPRB

In November and December 2010, CIPRB conducted an 'Emergency Management of Severe Burns' (EMSB) training course for medical specialists in Bangladesh, and for the first time, Nepal.

Held at Rajshahi Medical College Hospital and Bangladesh College of Physicians and Surgeons and ran in collaboration with The Australia and New Zealand Burns Association (ANZBA) and Interplast Australia & New Zealand, over 70 surgeons, doctors and plastic surgeons took part in

the unique training to help them to provide effective treatment with the first 24 hours after an injury.

A further 10 doctors also successfully completed the instructor course.

CIPRB has been conducting the EMSB training program exclusively in Bangladesh since 2008. It is an internationally recognized course, and around 300 doctors within Bangladesh have been trained on EMSB.

Regional ECD Conference in Dhaka

CIPRB's Anchal Management Trainer Hasina Akter attended the South Asia Regional Conference on Early Childhood Development held in Dhaka in December.

The three day event involved a range of researchers, ECD specialists, teachers and students from the South Asia region. The conference provided an opportunity to share knowledge and experiences with others in the region and learn about new developments in the field of early childhood development.

CIPRB invited to attend regional discussions on drowning



Dr Animesh Biswas, Team Leader of CIPRB, recently attended a national stakeholder meeting on drowning prevention held by the National Centre for Disease Prevention and Control of the

Department of Health, Republic of the Philippines in Manila.

Held on 7 December and in conjunction with WHO, the objective of the meeting was to consolidate efforts for a holistic approach in the prevention of drowning incidents in the country and further develop policies and programmes with a special emphasis on children during emergencies.

He received a certificate for his technical support in drowning prevention from the National Centre for Disease

Prevention and Control of the Department of Health, Republic of the Philippines.

Dr Animesh was also invited to attend a technical workshop in Cambodia on 9 December 2010 to share knowledge and skills on child drowning prevention with existing human resources in the country and a discussion on interventions. The workshop was conducted by the Department of Preventive Medicine within the Ministry of Health.

Left: Dr Animesh receiving a certificate for his achievements





Theses

A Community Based Child Drowning Prevention Programme in Bangladesh: A model for low income countries

Dr Aminur Rahman - Abstract of published PhD from Karolinska Institutet, Sweden

Background:

Drowning is a global public health problem of children. Children of low- and middle-income countries are the most susceptible victims. Prevention measures implemented in high-income countries have effectively reduced drowning. However, in low- and middle-income countries, due to a severe lack of information, drowning has not been recognized as a child survival issue. Moreover, prevention efforts remain non-existent as there is no proven effective measure applicable for these countries, including Bangladesh.

Objectives:

The objectives of the research activities were to determine the current child drowning situation and risk-factors in rural areas of Bangladesh; to understand the community perception of drowning problems and the possible solutions for designing a preventive programme in the rural area of Bangladesh; to develop, pilot and assess initial community response to an intervention package in terms of acceptability, feasibility and sustainability and to evaluate the package for its effectiveness.

Methods:

A cross sectional survey and a case-control study were conducted to determine the magnitude and identify risk-factors of child drowning respectively. Community perception on drowning prevention was explored by using a qualitative method.

Intervention measures were identified through workshops with the relevant stakeholders. Utilizing qualitative methods community acceptability, feasibility and sustainability of the intervention package were initially assessed. A quasi-experimental design was used to evaluate the effectiveness of the intervention package. Two sub-districts were selected each having a population of 200,000. One was allocated as an intervention area and the other as a comparison area. Quantitative data was collected through structured pre-tested questionnaires and the qualitative data was gathered through Focus Group Discussions (FDGs) and in-depth interviews.

Results:

The drowning rate of Bangladeshi rural children aged 1-4 years was found to be 156.4 per 100,000 (95% CI 138.5 - 176.6 per 100,000). The proportional mortality due to drowning in the children was about 28.0 percent. Natural water bodies were the most frequent places of drowning, and over 40 percent occurred in ponds. The child's sex, mother's age and literacy, family income and ownership of agricultural land by the families were identified as risk factors.

Community people wrongly perceive that children 5 - 10 years are at the greatest risk of drowning. Participants of the FDGs, parents, adolescents and community leaders, knew the common causes of drowning and were able to mention a few preventive measures. However, they do not act on this knowledge.

Increased supervision of children through the creation of drowning-safe homes and the establishment of community crèches, raising water safety awareness, and educating the community on first response skills were the three core aspects identified through workshops to include in the intervention package. Qualitative study revealed that these measures are accepted by the community, feasible and sustainable.

After three years of implementation of the intervention package the evaluation showed that 36 percent of households became drowning safe and through 100 community crèches 2,680 children aged 1-4 years were kept safe under direct supervision. Nearly all the population of the intervention area were reached through various behaviour change communication materials. In the intervention area fatal drowning rate declined from 120.8 to 53.7 per 100,000; however, in the comparison area the rate remained the same in the base-line and the end-line data.

Conclusion:

Drowning is one of the major survival issues among children aged 1-4 years in rural Bangladesh. The intervention model developed through these research activities was found to be effective in reducing child drowning. Improved supervision, creating a heightened water safety culture of the community and utilizing low cost locally available resources are the fundamental intervention strategies identified in reducing child drowning in rural Bangladesh. This model is developed in such a way that it could be applicable in similar low-income settings.



Theses

Developing a Framework for Prevention of Childhood Burn in a Low-Income Country Perspective: Epidemiological Appraisals

Dr Saidur Mashrekay Rahman - Abstract of published PhD from Karolinska Institutet, Sweden

Childhood burn is a major issue in children's health in Bangladesh however it was not studied and documented systematically earlier. A comprehensive prevention programme is necessary to address this child health issue. Designing a community based prevention programme with adequate information about epidemiology, risk factors, social, cultural and economic factors and people's perception about the problem is necessary.

This thesis attempted to determine the epidemiological features, the social and economic consequences and risk factors of childhood burn. It also explored the health seeking behaviour of parents and people's perception concerning burn and the issue of prevention.

Six studies were carried out in this dissertation, four of which included a qualitative study using the data of the Bangladesh Health and Injury Survey (BHIS). A nested case control study was conducted by using the existing injury surveillance system of Centre for Injury Prevention and Research Bangladesh. Finally a framework for a childhood burn prevention programme for rural Bangladesh was designed based on the findings of both quantitative and qualitative studies.

The first study enabled us to calculate the incidence of childhood burn and its relation with age, sex and place of residence. The incidence of burn among children less than 18 years was 288.1 per 100,000 children with the highest rate among the 1 to 4 years age group at 782.1 per 100,000 children. This study also revealed the place of occurrence, time and cause of childhood burn in Bangladesh.

The second study enabled us to learn social and economic consequences of childhood burn. It explored the hospitalization rate, hospital stay, workdays lost/school days lost and permanent disability due to childhood burn injury. The rate of permanent disability was found to be 5.7 per 100,000 population year. The average direct expenditure incurred by a family for treatment of severe burn was determined to be USD462 which was more than their annual income.

The third study illustrated how the parents seek health care for their children after a burn injury and how health seeking behaviour varies with the economic condition of the family, parents' education, family size, birth order of children and gender of the children. About 60% of parents seek health care from unqualified service providers for their children during a childhood burn injury.

The fourth study determined the relationships of childhood burn with the type of cooking area at home, use of traditional kerosene lamp and type of family. Children were at significantly higher risk of burn in families who did not have a separate kitchen in their home.

The fifth study looked into people's beliefs, emotions and judgements about childhood burn injuries, people's perception about place, time and cause and prevention of childhood burn.

Finally the sixth study provided a framework for a childhood burn prevention programme for rural Bangladesh.

In conclusion the thesis illustrated the high incidence of childhood burn in Bangladesh. The thesis demonstrated consequences, risk factors and characteristics of childhood burn. It explored the health seeking behaviour of parents and people's perception about child burn and its preventive issues.

Finally considering all this information a frame-work for childhood burn prevention programme was developed for rural Bangladesh, which can be replicated in countries with similar socio-cultural conditions.

Cover image: A road crack following the Haiti earthquake. Image sourced from AP/silive.com.

