

Prevention of Child Injury in Bangladesh

KEY STATISTICS

Basic data	
Number of injury-related child deaths each year	30,200
Child deaths caused by drowning each year	16,892
Permanent disabilities in children caused by injury each year	13,134
Percentage of child deaths between age 1 to 17 due to injury (including drowning)	38 %
Percentage of child death between age 1 to 17 due to drowning	28 %
Estimated number of adolescent (10-19 years)	

Source: Bangladesh Health and Injury Survey, 2005, GOB/ICMH/TASC/UNICEF

BACKGROUND

The progress Bangladesh has made in the reduction of child mortality from infectious diseases has revealed that accidents and injuries are now a major concern for child survival. After infancy, injury is the leading killer of children in Bangladesh. An estimated 2,600 children are injured every day. Each day, more than 80 of these children die from their injuries.

More than half of all injury deaths are caused by drowning. While infections and non-communicable diseases are the leading killers of infants, drowning is the biggest killer of children aged 1 to 4, accounting for 26 per cent of all deaths among that age group nationally.

The proportion of deaths due to injuries only increases with age. More than half (53 per cent) of the total deaths among 5-17 year-olds are due to injuries. Although the drowning death toll decreases after the age of five as children learn how to swim, drowning deaths continue to be the major killer of children until the age of 10.

Road traffic accidents are the leading cause of death for children between the ages of 10 and 14, with falls, drowning and animal bites also among the five leading causes. Suicide becomes a key issue for children aged 15-17 years, with more than six children taking their own lives every day. Other significant causes of injury death in Bangladesh are burns, poisoning and violence.

Injuries have been identified as the leading cause of death during disasters, such as floods and cyclones. Drowning caused 77 per cent of deaths in the 2007 floods. Snake bite, from animals who sought refuge inside houses above the rising water, caused 10 per cent of deaths during the flood emergency. Deaths due to communicable disease accounted for only 13 per cent of the total flood disaster mortality figure. Following Cyclone SIDR in late 2007, disease monitoring revealed that injury was the leading cause of the death and the major cause of illness for which people sought medical care.¹

ISSUES

Many children who survive injuries are burdened with disabilities and face an uncertain future. An estimated 36 children become disabled every day following injuries. These children are more likely to become trapped in poverty, as they are often denied adequate treatment, education, protection and lack the physical capacity to cope with the unreceptive and challenging environment.



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The social and economic costs of injuries are also noteworthy. Road traffic accidents alone cause the loss of about 2 per cent of GDP in Bangladesh. Injury causes even greater social impact when one considers that each year at least 38,000 children become orphans following the loss of one of their parents due to injury.

A lack of both appropriate supervision and required skills are the main reasons behind childhood injuries. Parents and caregivers are often preoccupied or unable to take proper care of their children due to poverty. (Both parents may be working or living in cities away from the support of an extended family network, leaving children alone.) This is compounded by a low awareness of risks, hazards and children's vulnerability. There is a general absence of appropriate first aid knowledge and skills. This ignorance often leads to harmful practices and "treatments" that often make the situation worse.

Injuries bring dire consequences for those who are already poor and disadvantaged. Despite the remarkable improvements Bangladesh has made in the past decade, over 60 million people still live on less than \$1 a day. Moderate and low-income families are pushed towards poverty and family dissolution when coping with serious injury due to surgical and rehabilitation costs.

¹ Monitoring conducted by the emergency control room of the Directorate General of Health Services (DGHS).

ACTION

Reducing injury mortality has been highlighted as a strategic intervention for Bangladesh to achieve the fourth millennium development goal (MDG) to reduce under 5 mortality rate to 51 per 1000 live births by 2015.

Consequently, the Government of Bangladesh has included injury prevention as one of five priority areas for public health intervention² and as a special focus area for children's health³.



With such political commitment, UNICEF Bangladesh is in a position to pioneer child injury interventions that will make homes, schools and communities safer for children. UNICEF - in collaboration with the Directorate General of Health Services, the Centre for Injury Prevention and Research Bangladesh and The Alliance for Safe Children - is conducting an injury-prevention and research programme in three rural upazilas (sub-districts) and one urban area.

Dubbed PRECISE (Prevention of Child Injuries through Social Intervention and Education), the programme covers about 1 million people. The purpose of PRECISE is to test a variety of injury prevention interventions and evaluate their efficiency and effectiveness, with a view to nation-wide implementation. A unique injury-surveillance system records changes in injury patterns as a critical monitoring tool for all aspects of the project.

PRECISE includes three main components projects: home safety; school safety; and community safety.

The home project boosts parents' and caretakers' awareness about injury through mass-media, educative entertainment and interpersonal communication. Parents and caretakers are informed about how to make their homes and play-areas child-friendly and the importance of swimming lessons and proper supervision.

The school safety component follows the guiding principles of the child friendly school which ensures a learning environment that is physically safe, emotionally secure and psychologically enabling. Every week, teachers trained in injury-prevention teach about 83,000 children (in 371 rural and 13 urban schools) from grades 1 to 8, from a grade-specific safety curriculum that covers safety risks, injury-prevention procedures and basic first aid. Teachers of primary and secondary schools are also working with students and school authorities to identify hazards in the school and local environment by using a standardized safety checklist.

² The Strategic Investment Plan of the Health, Nutrition and Population Sector Programme (2003-2010).

³ The National Plan of Action for Children 2004-2009, developed by the Ministry of Women and Children's Affairs and included in the Poverty Reduction Strategy Paper (PRSP).

Within the community safety package, 330 community crèches have been established for children aged 1-5 years. Each crèche provides a supervised environment for up to 25 children for 4 hours a day, 6 days a week. This structured time allows mothers or other caregivers an opportunity to deal with other responsibilities which might normally not allow safe supervision of toddlers and other young children. At the crèche, children are supervised by two crèche caretakers who have been trained on early child development and injury prevention. The crèche caretakers also disseminate safety information and other health messages among the families of their charges. The operational cost for the crèche per day per child is about 5 taka (7 US cents) in rural areas and 15 taka (22 US cents) in urban areas.

As part of the community package, a swimming programme identifies children between the ages of 4-10 years who cannot swim. A community swimming instructor (CSI) who has received training in swimming instruction from the Bangladesh

Swimming Federation teaches survival swimming. The cost for one child to learn to swim is approximately 200 taka (\$3 US) per child in rural area and 600 Taka (\$9 US) in urban areas. More than 14,000 children have learnt to swim over a two year period.

Other community safety components include disaster preparedness planning with an emphasis on injury prevention and the establishment of village safety committees who plan improvements to the local environment to minimize injury risks and encourage community participation in each aspect of the programme. Annual swimming rallies, sports days, essay competitions and cultural programmes are being organized as a part of advocacy and awareness-raising in community.

IMPACT

The Bangladesh Health and Injury Survey (BHIS), conducted by UNICEF in 2003, was the first and most comprehensive effort ever made to gather accurate data on the burden of injury throughout Bangladesh. It was the largest injury survey conducted at the community level in a developing country. More than 170,000 households were included, representing about 820,000 people. The quantitative data which showed the extent of the problem was combined with a qualitative study to capture the cultural and behavioural factors related to the perception of risk and injury prevention. This study continues to provide a road map for injury-prevention initiatives in Bangladesh.



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The preliminary report of the injury surveillance system (ISS) shows significant improvements in drowning and overall injury rates. The current drowning rate among 1- 4 year-olds in the three targeted rural upazilas is 72 deaths per 100,000 children. Before the implementation of PRECISE, there were 96 drowning deaths per 100,000 children in these areas.

Overall injury-related mortality in programme upazilas now sits at 47 deaths per 100,000 children (aged 1-17), down from 51 deaths per 100,000 children before programme intervention. While homes, schools and communities have become much safer places where injury is less common, an increase in suicides among children aged 10-17 dilutes the overall impact of the injury reduction strategy. Going forward, scaled-up activities will place higher emphasis on intentional injuries to combat suicide and violence-related deaths. |

The PRECISE programme demonstrates a high demand for injury-prevention activities in local communities. Based on the PRECISE pilot, effective interventions will be scaled up throughout Bangladesh. Mass communication activities and awareness raising campaigns on different injury issues will be done on a priority basis. Going forward, policy advocacy for mainstreaming injury prevention in existing projects and programmes is a key initiative for UNICEF.

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