

Childhood Injury Prevention

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The United Nations Convention on the Right of the Child states that the child has the right to the highest attainable level of health and the right to a safe environment.¹ Moreover, mortality in infancy and childhood serve as good indicators of the population well being. Injuries are currently a leading cause of death and disability in the world and account for more than five million deaths each year.² A large majority of these deaths occur in low and middle income countries, where 90% of the world's population resides and where injury prevention is an emerging field.

What is the leading cause of death among children and adolescents? Not AIDS, not cancer or diabetes, not cystic fibrosis or heart disease, and certainly not meningitis. For most countries in the developed world, and increasingly in the developing world as well, about one half of all deaths after the first year of life are due to injuries. Many people - professional and lay - are astonished by these figures.

Injuries among children must be considered a major public health problem. Injuries are the most common cause of death for children aged 1-14 years in developed nations, accounting for around 40% of all child deaths and the fourth leading cause of death for all ages combined.³ In the United States, injuries cause approximately 23,000 paediatric deaths annually and are responsible for more deaths than all other childhood diseases combined.⁴ Deaths in childhood from injuries exceed childhood deaths from all other causes combined.⁴ Paediatric injuries should be viewed, as preventable, but such prevention requires the active participation of health care providers.

Traditionally infectious diseases have been the leading cause of death especially among children. However with the efforts of local health departments and international organizations such as World Health Organization, infectious diseases have been substantially controlled and injuries have become the number one cause of death in children and young adults in many high income countries.⁵ Similar transitions have been started in many lesser-developed countries.

Yet this major public health problem receives relatively little attention in developing countries. This

response is in part due to lack of population-based and national estimates of injuries in developing countries. Like other developing countries, mortality and morbidity from preventable causes are major health issues in Pakistan. According to a burden of disease study, injuries are the second leading cause of disability, the 11th leading cause of premature mortality, and the fifth leading cause of overall healthy years of life lost per 1000 people.⁶ Few studies have estimated the injuries in Pakistan^{7,8} and a recent study found an overall annual incidence of all unintentional injuries of 45.9 (CI: 39.3-52.5) per 1000 per year over five years of age, by using the National Health Survey of Pakistan (NHSP 1990-94).⁹ The research on injuries in Pakistan has mainly focused on injuries in adults. While children (age <15 years) constitute about 45% of the population, information about injuries in this group remains limited.

Child injuries are low at the policy agenda. The reasons described are: 1) child injuries are typically an invisible condition, 2) as a policy issue they have no owner, and 3) injuries are still seen as something that just happens. These issues should be addressed to achieve success in reducing child injury fatalities. This would include establishing injury databases and increasing research on injuries. It should also include actions by a wide range of people, including politicians to develop the policies on safety, and strengthening public health services.

Although the home should be a haven of safety, for children and especially for preschoolers, this setting represents the most frequent site of injury occurrence. Domestic injuries can be prevented for example with window guards, child barriers at stairs, childproof poison packaging and storage, and smoke detectors. To do anything about injuries, we must know what is causing them. The major causes of unintentional childhood injury are motor vehicle crashes, drowning, burns and scalds, choking, firearms, falls, poisonings, and sports participation. Motor vehicle crashes, which include occupant, bicycle, and pedestrian injuries, are responsible for about half of all childhood injury-related deaths. Evidence-based recommendations for the prevention of fatal and nonfatal injuries are summarized recently.¹⁰ Large reductions in deaths on the roads can be achieved by

enforcing speed limits and by ensuring that children traveling in cars are adequately restrained in child seats. Effective child restraints can reduce serious injuries by up to two-thirds. In the longer run, slowing traffic flow in residential areas and ideally, keeping cars and children apart from each other is important. Pool fencing is effective in preventing drowning, and there is good evidence that deaths can be reduced by smoke alarms from house fires.

Distressing as the number and seriousness of injuries may be, even more regrettable is the widespread failure to appreciate the extent to which most are preventable. Compounding this ignorance is a widespread failure to implement what is known - and much more is known about the causes of most injuries than is generally recognized. The solution is to learn from others and create a national center of injury prevention and control, to fund it adequately and to give it the powers needed to safeguard our children's lives. The death of many children could have been prevented.

The stories of the thousands of children who die following an injury, however, remain anonymous more often than not. Research shows that sleepiness among drivers accounts for significant road traffic crashes.

Similarly, if the public health community continues to sleep, it will be accountable for many millions of avoidable deaths and injuries.

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