

## Injury prevention and public health

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Injuries are one of the most under-recognized public health problems facing the world today. With more than 5 million deaths every year, violence and injuries account for 9% of global mortality, as many deaths as from HIV, Malaria and Tuberculosis combined. Eight of the 15 leading causes of death for people ages 15 to 29 years are injury-related: road traffic injuries, suicides, homicides, drowning, burns, war injuries, poisonings and falls. For every death due to war, there are three deaths due to homicide and five deaths due to suicide. However, most violence happens to people behind closed doors and results not in death, but often in years of physical and emotional suffering [1].

Injuries can be classified by intent: unintentional or intentional. Traffic injuries, fire-related injuries, falls, drowning, and poisonings are most often classified as unintentional injuries; injuries due to assault, self-inflicted violence such as suicide, and war are classified as intentional injuries, or violence. Worldwide, governments and public and private partners are increasingly aware of the strains that unintentional injuries and violence place on societies. In response they are strengthening data collection systems, improving services for victims and survivors, and increasing prevention efforts [1].

Among the most vulnerable to injury among us are children. In the USA, about 33 children die every day from a preventable injury – more than die from all diseases combined. One in four children annually will be injured severely enough to miss school or require medical attention or bed rest. For every unintentional child injury death, there are approximately 19 hospitalizations, 233 hospital emergency visits, and 450 doctor visits [2]. Globally, more than 2,600 children under age 18 die every day from an injury. Road traffic injuries, drowning and fire-related burns are the main causes [3].

### **Injury prevention**

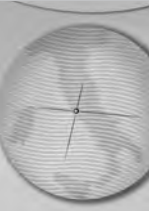
Both the Centers for Disease Control and Prevention (CDC) and the World Health Organizations (WHO) are drawing attention to the devastating effects of violence and injuries and supporting efforts to develop prevention approaches that focus on addressing root causes. We help encourage the use of reliable data to help determine priorities and evaluate the effectiveness of injury prevention strategies. Public health strategies can be applied to prevent, reduce, eliminate or reverse the trend in injuries, globally, and to lessen suffering and save lives.

The traditional view of injuries as “accidents,” or random events, has resulted in the historical neglect of this area of public health. Today we recognize that most injuries, like diseases, are not accidental, but predictable, preventable and controllable. We use public health approaches that include injury surveillance, risk factor identification, intervention development and implementation and dissemination of effective strategies. Public health leadership in every country is critical to these efforts.

Around the world, almost 16,000 people die from injuries every day. Public health officials must gain a better understanding of the magnitude and characteristics of this problem, contribute to develop and evaluate injury prevention programs, and create the best possible comprehensive trauma care systems to improve injury outcomes and rehabilitation for injured persons [4].

### **A public health role in injury prevention**

Public health can be used to encourage individual behavior change, engineer environments to make safer choices more likely, and can be a major contributor to changing social norms, for example decreasing public acceptance of child maltreatment. Public health can also contribute to policy change that saves lives, like regulations for the packaging of caustic substances, or requiring helmet use for every cyclist. These



opportunities to save lives result when public health works with those in law enforcement, product safety, and advocacy to raise the bar on safety for all [5].

At CDC, we support comprehensive injury control efforts and translate science into effective programs and policies that prevent unintentional injury and violence, and minimize their consequences. Research, such as that presented in this issue of the *Italian Journal of Public Health* is fundamental to this mission because it is only through accurate data that we can make sound decisions about prevention. This research provides us with the knowledge we need to understand what is possible, what is not, and the best way to proceed to reduce, eliminate or reverse the problem. Unfortunately, funding for injury prevention is only a small fraction of what's spent on other major public health problems. Something must be done to re-align the global funding priorities to match the burden [6].

### **A global commitment to injury prevention**

Many public health agencies throughout the world are making large national investments in preventing injuries, whether through research, improved roads and neighborhoods, school education programs, anti-bullying campaigns, or improved trauma care systems. Our challenge is to ensure that these investments are used wisely and based on the best available evidence [7]. For example, we still need well-designed research on theory-based interventions for children and their parents, and more program evaluation to determine “what works” to prevent injuries to older adults. We know very little about effective violence prevention strategies and what we do know is hard to adapt for application in a wide variety of settings, cultures, and communities. Nevertheless, we are committed to lowering the rates of unintentional injury and violence.

### **Public health leadership and partnership: the way forward**

We recognize the injury crisis cannot be solved by public health alone. In order to address the problem comprehensively, we need parents, educators, governments and NGOs to assist. We also need to involve engineers, social workers, pediatricians, and developmental psychologists in our work and in our research to uncover everyday solutions. Playground and pool manufacturers, city planners, and architects can take an active interest in injury prevention, since it makes it less likely that victims will sue over an injury.

It is clear from epidemiology that injuries do not occur in isolation. The choices people make, the quality and design of environments, social interactions and family dynamics, the use of alcohol, the types of vehicles (and roads they are driven on), housing construction, legislation and policy, and social norms contribute as determinants of injury and violence. While risk taking is an important part of development, our goal is not to eliminate risk, but rather to manage it and control it better. Individuals have some responsibility for this, but so do governments and society [8].

What will be needed is for all civil society to partner in creating a “culture of safety”. To this end, injury prevention and safety promotion is everybody's business. Probably the biggest obstacle to making fundamental societal changes in injury patterns is not a shortage of funds, but lack of political will; the health sector is well positioned to build the support and develop the partnerships required for change [9,10].

It is our hope this special issue of the *Italian Journal of Public Health* will inspire public health professionals around the world to look at the potential for improving global health through injury prevention. What better future can we offer the world than for people to lead healthy and productive lives without the threat of injury and violence?

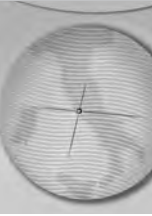
### **Acknowledgements**

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