Editorial

Public health action for Injury and violence prevention in Nepal

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Long considered as "accidents", or random events, injuries have now emerged as a major public health problem killing an excess of 5.1 million people in 2001 and disabling many times more[1] accounting for 178,656,000 DALYs lost. Injuries were reported to cause 10 % of deaths due to all causes. The societal burden due to loss of productivity runs in billions and the suffering is immeasurable. This unfortunately is only half the story. The burden of injuries is projected to increase in the next decades if the current trend continues. Road Traffic Injuries (RTI) alone is projected to rank second in the leading cause of years of life lost by 2020 from the rank of 9th leading cause in 1990. Violence, suicides, and other injuries are also on steep rise.

Growth of scientific knowledge has greatly improved our understanding of the events leading to injury. The classic triad of Agent, Host and Environment describes injury process just as aptly as it does a communicable disease process. Just as communicable diseases were considered a "curse" in the era before microbes were discovered and, antimicrobials developed, so were injuries considered then, and unfortunately even today, "accidents" because the mechanism of injury was ill-understood and preventive and protective measures were not available. Growth in scientific knowledge and advances in technology have made it abundantly clear that injuries occur in circumstances (Where, who, when, how, why) that can be accurately predicted and therefore, prevented in a large majority of cases. In the remaining small minority, effective intervention measures are available that can efficiently control injuries and mitigate their effects.

The gains that public health has made in saving lives from communicable diseases are being eroded by non-communicable diseases, particularly injuries and violence. Rapid motorization, unsafe mechanization and industrialization, poor product safety and unplanned urbanization in all low and middle-income countries are largely responsible for this sorry state of affairs.

World Health Organization[1, 2] and U N General assembly[3] have passed resolutions urging Member States to address the issues of Injury and Violence in their national development agenda. Many countries have already done so, others are following the lead. Such is the seriousness of the problem globally!

Closer to home, 11 countries of South East Asia Region occupy between themselves 5.6% of the world's landmass, host a quarter of global population *and* account for a third of global burden of injuries and 27% of global mortality resulting from injuries, the highest among all WHO Regions. Even worse, South Asia alone will have an increase of 144% in road fatalities[3] while; in high-income countries road fatalities will decline. Although road traffic crashes are an overwhelming problem, other forms of injuries such as burn injuries (which account for more than two third of global burden of burn injuries for South-East Asia) and drowning and a host of other conditions take a heavy toll on the lives of people in South east Asia.

In Nepal, a National Census Sample Survey conducted by Central Bureau of Statistics showed that there were 7,010 deaths as a result of the external causes of injuries (4,803 males and 2,207 females) in a period of one year prior to the survey in 2001. These 7,010 deaths constitute 6.6% of total deaths106, 789 in that year. Suicides, transport related accidents and other accidents accounted for the largest proportion of injuries. During four full calendar years from 2000 to 2004, a total of 4,383 autopsies were conducted Kathmandu Autopsy Centre located in the premises of Maharajgunj Campus, Institute of Medicine. There were 1072 (25%) cases of suicide, 380 (9%) of homicide, 1 399 (32%) of accidental deaths and 598 (14%) of deaths as a result of natural causes and in 923 (21%) the cause of death was undetermined. Males were almost twice that of females (sex ratio 2.2:1). Persons aged 15 to 44 years constituted about two thirds of the total reported deaths (65.4%). Suicidal cases were mostly identified due to hanging, homicides mostly due to firearm and explosives, and other

injuries mostly due to road traffic injuries. More than 60% of those involved in road traffic injuries were pedestrians.[4]

Society has responded to this rapidly escalating burden of injury and violence with a fragmented approach. For example, the focus of justice and police department has been on penalizing the perpetrators with little regard to the victims of violence, transport department's focus has been on mobility rather than safety. Labour department's focus on labor standards; has done little to prevent occupational and industrial injuries. Disabled persons deserve better care, access and opportunities in managing their lives. Overall the health system is at the receiving end, taking care of victims of injury and violence, doing little for preventing injuries.

This situation must change. Health care system can and must play a critical role in a collaborative enterprise with other sectors to put in place a system approach to holistically address all related aspects of injury and violence- Prevention, Control, Care, and Rehabilitation. This requires that we do things differently from what we have been doing in the past. Changes will be needed in health policy orientation, organization and functioning of the health infrastructure and, education of health personnel.

For the health system to play the new expanded role, retraining of its existing health workforce for orienting them to the magnitude of the injury related problems and strategy to prevent and manage them is necessary. Equally, and perhaps more important is that training of future generations of physicians must be aligned to this new reality. Our graduates will need knowledge and skills for injury prevention and control, which, regrettably are inadequately addressed in our current education system. The shift and expansion of focus will demand that our graduates be equipped with the additional skills required.

This is where the crucial role of academic medical centers becomes important. The task of orienting our medical graduates has been made easy by the development of an educational strategy and teaching modules on Prevention and Control of Injury for medical graduates by the World Health Organization in the South East Asia Region. Leaders of academic medical centers and of the Medical Council from Nepal have been deeply involved in this process of development of strategy and module together with colleagues from other countries. Institute of Medicine is planning to pilot the implementation of this module as soon as the modules are available. It is planned that a multidisciplinary team comprising of epidemiologists, health educators, surgeons and anesthetists will lead the implementation of this educational strategy with the use of the modules. Learning lessons from the pilot, it is hoped that these efforts will cascade to other academic medical centers. This hopefully will ensure that younger generations of physicians in Nepal are equipped with knowledge and skill to take "Command role" rather than "passive recipient role".

References

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