

Methods An injury surveillance system was introduced in the emergency departments of two hospitals in Makwanpur district. Anonymous data on patients presenting with an injury were collected 24 hours a day between April 2019 and February 2020. A process evaluation involved 14 interviews to explore sustainability of the model.

Results Over 11 months, a total 6942 adult patients with injuries attended the study hospitals. More than half attendees (64.3%) were male and most (55.7%) were young adults (18–35 years). Most injuries were unintentional (86.3%, n=5988); predominantly road traffic injuries (32.2%), falls (25.6%) and animal related harm (20.1%). The hospital management and clinical staff valued the availability and usefulness of injury data that had been collected from the hospital-based surveillance.

Conclusion A large proportion of the work presenting to these two hospitals is injury related, and potentially preventable. Road traffic injuries are a significant component of the adult injuries. The lack of capacity of hospital staff for collecting injury data is a major barrier for sustaining the injury surveillance system in the longer term.

Learning Outcomes Rich injury data can be obtained by embedding data collectors in emergency departments. Such data can enable monitoring of epidemiological trends. Effective surveillance systems require investment and capacity.

5E.003 EPIDEMIOLOGY OF INJURIES AMONG IN-PATIENTS IN NEPAL: A SECONDARY DATA ANALYSIS

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Background Injuries are an important public health issue in Nepal, contributing significantly to the burden of morbidity and mortality. There is no injury surveillance system available, however healthcare service use is routinely reported to central government using the Health Management Information System (HMIS).

Methods To explore the epidemiology of injuries in Nepal we used published national HMIS data on inpatients with injuries from 2009/10 to 2016/17. International Classification of Disease codes were used to classify injury type.

Results Trends varied by injury type. Road Traffic Injuries (RTI) increased from 4.28 (95% CI 4.03–4.52) per 100,000 in 2009/10 to 10.55 (10.17–10.92) in 2016/17, while injuries from poisoning almost halved over the same period (from 8.71 (8.36–9.06) to 4.46 (4.22–4.71) per 100,000). Inequalities by age and gender were noted; in 2016/17, RTI was the most common unintentional injury affecting adults aged 15–59 years (14.26 (13.70–14.82) per 100,000), while RTIs were almost twice as common in men (13.76 (13.14–14.48) per 100,000) than women (7.66 (7.21–8.11) per 100,000). In contrast, trends in intentional injuries appear to have fallen over the same time period.

Conclusion In the absence of surveillance data, routine inpatient data can provide evidence of injury epidemiology though underestimates the true burden of disease. Such data may provide evidence to monitor progress towards Sustainable Development Goals (SDG 3.6).

Learning Outcomes HMIS data have not previously been used for injury research in Nepal. The established reporting system

offers the potential for basic epidemiological analysis, though the available data fields are limited.

5E.004 INJURY MORTALITY TRENDS OVER A DECADE: FINDINGS FROM NATIONAL POPULATION BASED-SURVEY

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Backgrounds More than 90% of global deaths occurred due to injuries in low-and middle-income countries. This paper is focused to reflect the changes in injury mortality and events over the last decade.

Methods Two cross-sectional surveys were conducted in Bangladesh in 2003 and 2016. Multistage cluster sampling method considering probability-proportional-to-size strategy was used in both surveys to obtain the desired sample. Verbal autopsy method was used to ascertain the cause of death.

Results An estimated 70,897 deaths occurred during 2002 due to injuries, whereas, around 108,000 deaths were caused by injuries in all ages 2015 reflected by the death rates 56.0 (95%CI;64700–77680) and 67.5(95%CI;93120–122800) respectively. According to survey data suicide, road traffic injury and drowning were the top three causes of injury mortality of all ages. Drowning ranked as the first leading cause (13.9%) in 2003, became third leading cause (11.7%) in 2016. RTI ranked as the second leading cause (11.7%) and (12.9%) in 2002 and 2016 respectively. Suicide rank as the fourth leading cause (7.4%) in 2002, it became the first leading cause (14.7%) in 2016. Male were the highest in terms of mortality in both 2002 and 2016, 59.3%, 63.5% respectively. A total of 37.8% death occurred at home in 2003 and 45% in 2016, followed by hospital and spot death.

Conclusion Injury mortality in Bangladesh was increasing. Suicide, road traffic injury and drowning were the main causes of injury mortality.

Learning Outcomes Government, non-government and development sector need to work together for reducing leading causes of injury mortality.

5E.005 INJURY MORTALITY IN SOUTH AFRICA: 2009 VS 2017

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Background At 109 per 100 000 population, South Africa's injury mortality rate is approximately 1.6 times higher than the global rate of 66.2 per 100 000. Although homicide rates declined since the 1990's, they remain high along with road traffic injury deaths. Two injury mortality surveys for 2009