

The Great Indian Invisible Railroad Disaster

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Keywords: accidental death; disaster; emergency; fatality; injury; prevention; railroad

Online publication: May 16, 2012

doi:10.1017/S1049023X12000544

As traffic accidents occupy center stage in injury discussions, Forsberg and colleagues' report "One hundred years of railway disasters and recent trends"¹ made interesting reading. With trains traveling at higher and higher speeds, the authors correctly recommend injury prevention and safety mechanisms to decrease the risk of mass-casualty events. The robust Emergency Events Database (EM-DAT) of the Centre for Research on the Epidemiology of Disasters (CRED) describes a railway disaster as an event during which ≥ 10 people are killed and/or ≥ 100 are non-fatally injured. Considering this definition, the figures represented in Forsberg et al may represent the "tip of the iceberg" rather than a complete picture of railway injuries in the developing world.

As emphasized by the authors, India accounts for 838 billion passenger-kilometers traveled per year, and rail transportation remains one of the safest ways to travel (besides being environmentally friendly) in the densely populated developing world. In 2010, fatalities due to road traffic accidents (34.8% of all accidental deaths in India) were five times higher than those due to railway fatalities (7.3%). However, railroad crash disasters accounted for just 0.9% of all fatalities, while "other" railway fatalities were seven times more common (6.4%).² These "other" events involved individuals who had fallen out of moving carriages, committed suicide by jumping in front of trains, or who had been killed while alighting or boarding from platforms, run over by trains while crossing the tracks, or hit by electric poles while hanging onto railway coaches. These mechanisms of injury have also been reported in African studies.^{3,4}

At the authors' Level 1 Trauma Center in metropolitan Mumbai, 298 railway injuries presented in the year 2011, none of which resulted from a railroad disaster. One hundred thirty-seven patients (46%) were admitted with moderate to severe head injury (Glasgow Coma Scale >9), and 67 (22%) were in hypovolemic shock on arrival. Polytrauma was common. Corresponding to their higher Injury Severity Scores, the in-hospital mortality rate of railway injuries was 42%, in comparison to the 30% seen in road traffic accident admissions.

Therefore, primary prevention in Asian and African countries would require strategies and allocation of resources to improve the safety of the interface between people and trains. These measures are likely to save more lives, but also are likely to go unreported and remain invisible, as they would target accidents that are not considered "disasters" by policymakers and the media.

References

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