

Magnitude and risk factors of Road Traffic Injury Disabilities: evidence from Bangladesh Health and Injury Survey

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Abstract

There are indications that RTIs are increasing in Bangladesh; exact magnitude and risk factors of RTI disability in Bangladesh is unknown. A cross sectional study was conducted through multistage cluster sampling to investigate the magnitude and risk factors of RTI disabilities within 819,429 populations. Incidence of fatal and non-fatal was 12.9 and 134.5 per 100,000 population respectively. The incidence rate of RTI disability was 163.5 per 100,000 population. A significantly higher rate was observed among males and rural areas. Most of RTI disabilities found among pedestrians. RTI disabilities are an important public health issue in Bangladesh and need preventive interventions.

Background

Road traffic injuries (RTIs) are a leading cause of morbidity, disability and mortality in Low and Middle Income countries (LMICs). In 2004 nearly 1.3 million people of all ages were killed in road traffic crashes and over 50 million were injured or disabled. Every year, around 80,000 children aged 5-14 in LMICs loses their right to education for a single tragic reason, that of RTIs. Like other LMICs the available data indicate that RTI fatalities and morbidities are increasing in Bangladesh. According to World Health report (WHO) reveals that disability prevalence is much higher in LMICs compared to high income countries and about 15% (over one billion people) of the world's population lives with some sort of disabilities. The main cause is RTI. The exact magnitude and risk factors of RTI disability in Bangladesh is unknown.

Objective

Investigate the magnitude and risk factors of RTIs and its disabilities in Bangladesh.

Methodology

A cross sectional study was conducted between November 2002 and August 2003 in Bangladesh. Multistage cluster sampling method was used to choose a nationally representative sample of 171,366 households from both the rural and urban areas of the country comprising of a total of 819,429 populations. Standard verbal autopsy were administered to determine the cause of deaths or morbidities. Data were collected by face to face interview.

Results

The overall incidence of RTIs fatality was 12.9 per 100,000 population. The mortality rate gradually rose from children under 5 and peaked in the older age group, 55 years and above, (21.4 per 100,000). The overall rate of non-fatal RTI was calculated as 134.5 per 100,000. The highest incidence (165.7 per 100,000) was in the 20-39 years age group. A significantly higher rate of RTI mortality and morbidity was observed among males. The incidence of RTI was found to be three times higher in rural than urban areas. Most RTIs were non-motorized vehicle and pedestrian injuries.

The incidence rate of RTI disability for different duration was 163.5 per 100,000 population. The highest incidence of RTI disability (330.4 per 100,000 population) was observed among the males of the most productive age (30 – 54 years) group. Similar to the RTI fatalities significantly higher rates of disabilities were observed among males than the females in all age groups. Highest

proportion of RTI victims suffer from disability for duration of more than one week to less than one month. Most of the disabilities found among pedestrians who were injured.

Conclusions

Road traffic injury is an important public health issue in Bangladesh. Immediate attention should be made to strengthen preventive intervention measures specially disability due to RTIs.