

Road Traffic Injuries Research in Pakistan



Application of Guidelines for the Estimation of the Burden of Road Traffic Injuries in Pakistan



GOAL

To develop and apply a methodology to estimate the risk and magnitude of road traffic injuries (RTIs) from available data sources, which would be applicable and affordable in low- and middle-income countries (LMICs).

OBJECTIVES

- > To assess the adequacy and quality of existing data sources for the estimation of the burden of RTIs
- > To develop guidelines for systematically accessing and reviewing the reliability and validity of data sources / databases in a country for RTIs
- > To establish guidelines for the estimation of the burden of RTIs
- > To pilot test the guidelines to estimate the burden of RTIs in a developing country, Pakistan

METHODS

A systematic review of peer-reviewed and grey literature on RTIs and burden of disease (BOD) studies was carried out in order to identify variables and available data sources for RTIs in LMICs. Leading public health and transportation experts were then consulted regarding the management of the various types of data.

RESULTS

These activities resulted in the following guidelines:

1. Identify all existing data sources and variables
2. Evaluate data sources
3. Examine data with respect to its validity and reliability
4. Decide on the inclusion or exclusion of data
5. Standardize the data
6. Compile national level estimates

Although the application of the guidelines may be done at a local/decentralized level, it is suggested that a central team may be set up. The team should include: a public health scientist, a demographer, a social scientist, and a statistician.

Application of guidelines in Pakistan:

A systematic review of the literature was conducted to identify available data on RTIs in Pakistan.

Relevant ministries, police, hospitals, and NGOs in the country were then solicited for routine data on RTIs. Once all the available data had been collected and tabulated, it was carefully examined by the study team and local experts who assessed the validity and reliability of the data. Decisions were then taken to include or exclude the data based on the evaluation. All data included in the study were then standardized to common denominators and used to compile estimates of the burden of RTIs in Pakistan.

Table 1: Burden of RTIs in Pakistan

RTI deaths per 100,000 population	3.748/100,000
RTI deaths per 100 traffic crashes	58.22 per 100 crashes reported
RTI deaths per 1000 km of roads	22 per 1000 km
RTI deaths per 10,000 vehicles	14.3 per 10,000 vehicles

RECOMMENDATIONS

- > The list of data sources at the country level requires careful compilation with repeated updates as more information becomes available.
- > Data definitions (fatality, injury) need to be carefully examined as they may vary by source.
- > Application of the guidelines should provide evidence of whether the available data can be used for national estimates.

Tayyeb Imran Masud
Health Services Academy
Pakistan

Nasir Farooq
Ayub Medical College
Pakistan

*Funding for this research made possible by the
Global Forum for Health Research (GFHR)

March 2004

For further information:
samathd@pdn.ac.lk
www.rtirn.net