

Comparison of the Reporting Process and Databases for Road Traffic Accidents in Sub-Saharan African and European Countries.

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Background

Accident analysis, in an aggregated or disaggregated way, is the pivotal first of several steps of tools in Road Infrastructure Safety Management (RISM). Hence, accurate reporting of accidents and the quality of accident databases are essential. The reporting process can affect the quality of accident databases and, consequently, the decisions made based on accident data analysis. A complete and up-to-date database is essential to conduct road safety analysis. In low-and-middle-income sub-Saharan African countries, the accident reporting process has not been given due attention. In many cases, the accident databases are still on paper and often not updated even if their structure and information content are of good quality. This situation hinders the implementation of efficient RISM methods from the very early stages.

Aim

This paper aims to compare accident reporting processes and accident databases between some European and African sub-Saharan countries. The paper attempts to identify gaps and potential for improvement in the phases of accident reporting and accident data storage. This has been carried out not only in the regulatory system but also on the field, looking at what is available and what is implemented in the current operation.

Method

A review of accident data collection procedures and accident database content was conducted in the selected countries, such as Ghana, Tanzania, Zambia, the Netherlands and Sweden. A qualitative review was performed on the accident reporting forms and a sample of data from each national accident database. Similarities in reporting forms, types of information collected, and the way the accident event is investigated at the scene have been analysed. Emphasis was given to the severity scale used in the different countries, the road type, its attributes, and condition, as well as the geo-localization of the events. Additionally, the quality of data

reported to accident databases was assessed by reviewing accident reporting forms and samples of records from the accident databases of the five countries. Then, the rate of underreporting of critical variables was assessed.

Results

The results indicate that all countries had a system of reporting accidents at the scene with minor differences. The names of variables in the accident reporting form were similar but with different classifications and definitions. Differences were noted in the classification and definition of road infrastructure types and injury severity. The information on single crashes such as bicyclists and pedestrians are not provided in accident reporting forms. There was a difference in statements regarding the accident event/incident that happened in Zambia. Two of the African countries Zambia and Ghana had electronic accident databases, however, the accident data is not collected and reported in real-time. The investigation and reporting of accidents rely solely on when the information reaches the police. Furthermore, the review revealed there is a lack of linkage between police accidents and hospital databases, and this contributes to underreporting and estimation of the burden of road accidents. Of all the African countries, the review shows that the police department was responsible for collecting and disseminating accident data while the respective agencies in the ministries of works/infrastructure were responsible for the development and management of accident database systems/software. The accident data are not accessible to the public; however, they can be accessible upon request from the police. Since data analysis is still in progress, more results will be presented at the conference.

Conclusions

Two main comparisons have been carried out in this research work. One related to the actual accident reporting data and accident databases in the different countries and the second related to the quality and completeness of the data. It is possible to conclude that:

- The accident reporting sheets from the Police are generally well-designed.
- The accident severity classification is different in all countries.
- The actual databases in the African sub-Saharan countries lack some important information, which can produce misleading results.