

RESEARCH AND ANALYSIS ON THE UNCERTAINTY DATA CLOUD OF CHINESE ROAD TRAFFIC INJURY

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Ji-Hong Zhou, Jun Qiu, Liang Zhang, Yuan Yao, Guo-Dong Liu, Dan-Feng Yuan, Zhi-Ming Gao, Lin Zhou, Zheng-Guo Wang. *Institute for Traffic Medicine, Research Institute of Surgery, Daping Hospital, Chongqing, China*

Background In recent 30 years, Chinese road traffic injuries increased dramatically with the rapid development of traffic and transportation. Domestic and foreign researches mostly hold certain views and arguments on the data of Chinese road traffic injuries.

Objectives To analyse the differences and causes between Chinese official data of road traffic injuries and the reality to promote the control on Chinese road traffic injuries through the surveys on road traffic accidents and injuries.

Methods (1) Sampling survey was made on the original files of all road traffic accidents of three traffic police management sub-groups of a city in 2000–2006 to investigate accidents, casualties, time of death, etc as well as the data of accidents and deaths reported and released every year, etc and analyse whether there are significant differences between the data of original accident files and the data released; (2) the data and information about the inpatients due to wounds and traffic injuries from 210 Chinese hospitals in 2001–2007 were chosen to analyse the casualties and trends of traffic injured persons hospitalised.

Results The regional road traffic accidents and injuries and the number of inpatients with traffic injuries to be treated by hospitals tend to increase slowly as a whole. The results of sampling survey shows that the actual number of deaths due to traffic accidents of a city between 2000–2006 is 3.09 times of the released one, resulting in a data loss rate of 67.62%, while the data loss rate in the rural-urban fringe zone is even up to 89.93%; the number of injured persons is 5.59 times of the one released by public security department, resulting in a data loss rate of 82.10%, while the data loss rate in rural-urban fringe zone is even up to 95.73%. 13.21% of these deaths due to traffic accidents have ever been injured for 7 days before death; 26.71% of the deaths due to traffic accidents after being hospitalised have ever been injured for 7 days before death.

Conclusions The results of the research suggest that, the rapid and continuous increase of Chinese road traffic injuries was controlled effectively between 2000–2007 as we researched, but there was no significant drop either; the numbers of deaths and injured persons due to traffic accidents in the region surveyed are above three times and five times of those released by police system respectively, the reasons for which involves the statistical standards and methods of Chinese traffic accidents and casualties and the management mechanism of police system, etc. The reasons were discussed and some suggestions were given in this paper.