

Pattern Of Road Traffic Crashes In Sri Lanka From 2006 To 2009

D.A.Gunawardane¹, S.D.Dharmaratne²

At present nearly 6 people die and 50 people get injured daily, from road traffic crashes in Sri Lanka. That means, in every 4 hours one person die on our roads.

Aim of this study is to describe the pattern of road traffic crashes (RTCs) in Sri Lanka, in terms of the general trend, road user and vehicle involvement.

We conducted a descriptive study using RTC data obtained from the official web sites of the Department of Motor Traffic, Department of Census and Statistics and the Sri Lanka police for 2006, 2007, 2008 and 2009. The data was analyzed using SPSS statistical software version 13 and percentages, rates and odds ratios were calculated. The Chi-square test was used to ascertain associations and statistical significance. Three Indicators were used to describe the problem ; (a) Number of injuries and deaths – the absolute figure (b) RTCs per 10,000 vehicles – relative figure showing ratio of crashes to the number of motor vehicles (registered) (c) RTCs per vehicle kilometers travelled – number of crashes per million kilometers travelled.

Even though there was a decreasing trend in reported RTCs from 2006 to 2008, this has reversed in 2009. This increase in 2009 was mainly in damage only crashes Fatal crashes remained the same during the period of the study, with an average of 2,183 (SD±83.9) per year. There were 102,714 casualties and 9,381 fatalities during this four year period from RTCs. Majority of fatalities (44%; n=4,151) and casualties (45%; n=42,140) were among drivers/riders. Motor cycle/moped was the most frequent vehicle involved in crashes (24%; n=51,957). In 2008 and 2009, nearly 70% (n= 633) of fatalities from RTCs were among the working age group (20-60 years). Highest number of driver deaths were observed among 21 to 30 year age category (28%; n=311). Pedestrian deaths were

more common above the age of 50 years (61%, n=934). In 2008 and 2009 there were more than 100 deaths among children under the age of 15 years. Crash rate was higher among heavy vehicles, compared to non-heavy vehicles throughout the study period and in 2009 there was a statistically significant risk difference between these two groups (OR=1.4; 95%CI:1.38-1.43, P=0.001). Among heavy vehicles, Lorries accounted for 42% (282,351) of registered heavy vehicles and 48% (n=27,112) of heavy vehicle crashes. Higher crash rates were observed among public transport vehicles SLTB bus, Private bus and the three-wheeler). [In 2009, per 1000 registered vehicles SLTB buses, Private buses and Lorries had crash rates of 80.0, 66.6 and 23.4 respectively. When the vehicle kilometers travelled (per million kilometers) was used as the denominator, the corresponding crash rates for SLTB and private buses were; 3.98 and 6.91. When consider all the heavy vehicle (Lorry, SLTB buses, Private buses, Tractors, trailers, land & articulate vehicles) crashes (2006-2009), private buses, were involved in 34% (n=18949) of heavy vehicle crashes.

Findings of this study, showed a decreasing trend in the number of reported RTCs from 2006-2008 in Sri Lanka. This trend might be due to the introduction of “on the spot” insurance payment scheme in 2005. Recent increasing trend seen in 2009 might be due to the amendment to the motor traffic act made in 2009, making it compulsory for drivers to inform the nearest police station of the crash. This was well supported by the fact that this increase in reported RTCs was mainly among the damage only crashes. Majority of deaths being among the working age group people will have a direct impact on the economy of the country. Since pedestrian deaths were common among elderly population this might

¹ Medical Officer of Maternal & Child Health, RDHS office Kegalle.

² Associate Professor in Community Medicine and Consultant Community Physician, Department of Community Medicine, Faculty of Medicine, University of Peradeniya.
Correspondence : damithagunawardane@gmail.com

be a public health problem in future for Sri Lanka as the aged population is increasing in the country. More than 100 deaths among children less than 15 years of age per year further signify RTCs as a major public health problem for younger ages also in Sri Lanka. Higher crash rates among heavy vehicles indicate the need of further studies on heavy vehicle crashes.

In conclusion, a constant rate of fatal crashes during these four years, indicate that the decreasing trend observed for total crashes recorded could be due to under reporting. Risk of getting involved in a crash is higher among heavy vehicles. Current preventive strategies adopted in the country need to be evaluated taking this into account, if this public health problem is to be controlled in future.

References

1. Department of Motor Traffic. 2011 10th May 2011]; Available from: http://www.motortraffic.gov.lk/web/index.php?option=com_content&view=article&id=84&Itemid=115&lang=en.
2. Department of Census and Statistics Sri Lanka. *Statistical Abstract 2010*. 2011 18th March 2011]; Available from: <http://www.statistics.gov.lk/abstract2010/Pages/chap7.htm>
3. Sri Lanka Police Information Technology Division. *Sri Lanka Police Service*. 2011 18th April 2011]; Available from: http://www.police.lk/divisions/traffic_statistics.asp.
4. *Motor traffic (amendment) act No.08 2009*, The government publications bureau: Colombo 05. p. 39.