

# EPIDEMIOLOGY OF TRAFFIC INJURIES AND MOTOR VEHICLES UTILIZATION IN TEHRAN: A POPULATION BASED STUDY

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**Background and Aims:** Road traffic injuries are considered to be the second highest cause of mortality in Iran (1). Iran has one of the greatest fatality rates from RTIs. There is not a reliable national injury surveillance system available in Iran and there is uncertainty on measures of RTIs.

We studied the annual incidence of RTIs, the incidence of RTIs per 1000 vehicles and utilization of vehicles in Tehran, the capital of Iran.

**Methods:** In this population based study, 2488 households were randomly selected to be interviewed using the registry of residential addresses. They were asked to report any RTIs in their household during the past year.

**Results:** Nine thousand and one hundred inhabitants were included. There were 119 RTI (38.7% pedestrians, 46.2% motor cyclist and 15.1% car occupants) and 3 deaths in the survey sample. The annual incidence of all RTIs for 100000 population was 1310 (CI: 1080-1560) and that of fatal traffic injuries was 32.97 (CI: 6.8-96.3). Motorcycles were involved in 41.3% of RTIs that occurred for pedestrians. 19.7% of the households had motorcycle; 2.4% belonged to women. Women mostly rode as passengers rather than driving a motorcycle. The annual incidence of collision RTI for 1000 motorcycle was 95. Moreover, 32.5% of the Motorcycle riders had experienced non-collision transport accident (i.e. fall). 58.5% of the households owned a car; 12.3% belonged to women. The annual incidence of car occupant RTI per 1000 car was 10.

**Conclusions:** This population-based study showed that the morbidity rate of RTIs is about ten times higher than the national figures reported by other available sources. This is an important alarm to countries like Iran to put the issue as a priority in their public health activities. Although the number of motorcycles was one thirds of cars, they are involved in a considerable proportion of RTIs. The attributable risk of RTI for motorcycles is estimated as 46.3%. There is need for effective safety regulations to control this pattern.

**References:** Soori H, Royanian M, Zali AR, Movahedinejad A: Road traffic injuries in Iran: the role of interventions implemented by traffic police. *Traffic Inj Prev* 2009, 10(4):375-378.