

Factsheet and Summary

Road Traffic Injury Incidence and Crash Characteristics in Dar es Salaam: A Population Based Study

Study Background

This population based study aimed to identify the road traffic injury incidence and detailed crash characteristics in a suspected high risk area in Dar es Salaam, the commercial capital of Tanzania. This was done in order to craft an effective injury prevention program. The study was carried out in the Azimio and Mtoni wards, 2 adjacent wards with a common highway bisecting them, in the fall of 2010.

This study used a single-stage cluster sample methodology to determine the yearly incidence of road traffic injuries. Clusters were randomly assigned on a satellite map of the ward areas. We identified 30 clusters and at each cluster collected demographic information on 200 individuals. Any individuals who had been in a road traffic incident in the past 12 months were further interviewed to collect detailed information about the incident. Student research assistants from Muhimbili University of Health and Allied Sciences were hired to perform the household interviews. The questionnaire for this study consisted of the following information; demographics, circumstances of the incident, health consequences, long-term functional status, economic impact and length of disability. Information was also collected on any household members that may have died.

Results

There were 6,001 individuals interviewed. 32.7 out of every 1,000 individuals reported having a non-fatal road traffic injury within the past year. This compares to country wide estimates in the United Kingdom of 4.3 per thousand in 2006. Of these, 74% missed at least 1 day of work or school, and roughly 30% missed more than 30 consecutive days in the past year. The average length of disability of those that missed at least 1 day was 49 days, with 5.6% of those expecting to be permanently unable to return to work or school. There were 4 fatal injuries.

Overall Injury Incidence

- Of the 6,001 individuals sampled there were 196 non fatal injuries and 4 fatal injuries, representing a non-fatal incidence rate of 32.7 road traffic injuries per 1,000 person years

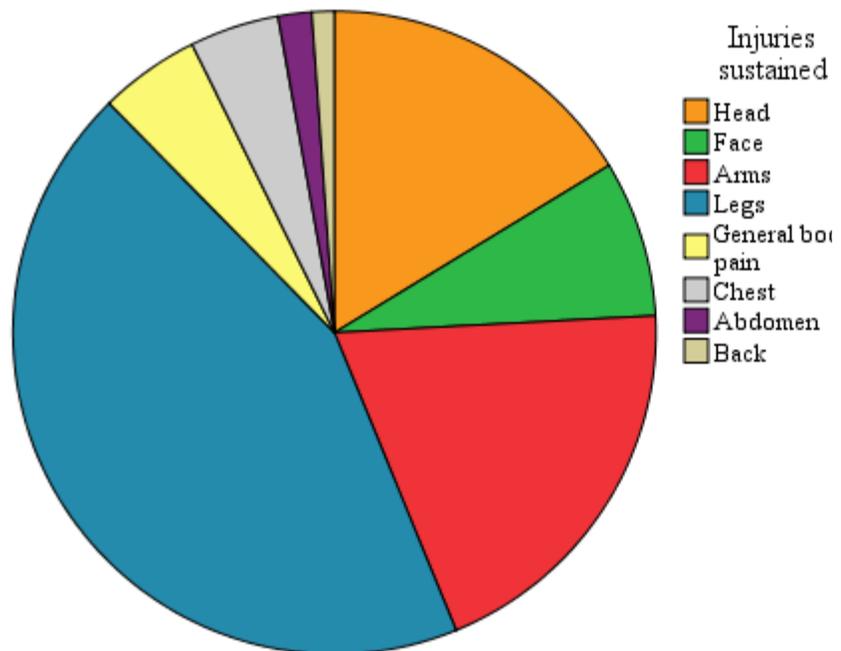
Permanent and Major Disability

- 11 (5.6%) individuals considered permanently disabled as a result of a road traffic injury
- 47 (29%) people missed more than 30 days of normal activity

Anatomic Area of Injury

- Injuries to the legs and arms made up 63.5% of all injuries sustained
- 16.3% had a fracture. This correlated with a disability of

Overall Injuries Sustained



Pedestrian vs. Passenger/Driver Injuries

- 55% pedestrian injuries and 45% injuries as a passenger/driver
- 93% of children were injured as a pedestrian while only 45% of adults were injured as pedestrians
- 43.9% of RTIs occurred while going to/from work/school

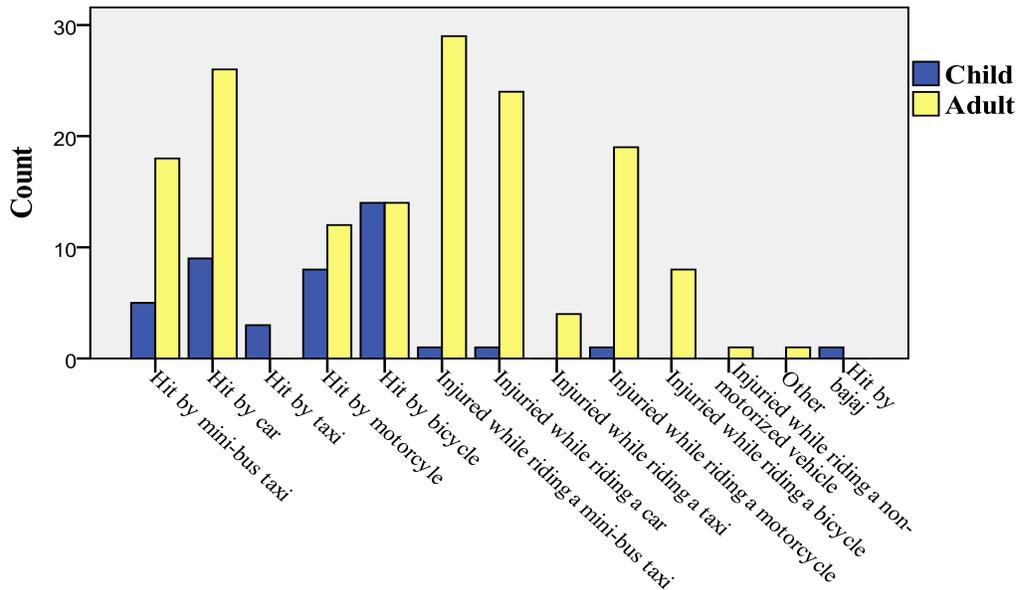
Road Type where Injury Occurred

- 71% of injuries involved the highway
- Children were more likely to be injured on a side street than adults

Post Injury Assistance and Reporting

- 2/3 of individuals sought medical attention at the hospital
- 3/4 received roadside assistance
- A police report was filed for over half of all injuries

Adult and Child Crash Circumstances



Conclusions/Discussion

Road traffic injuries were found to be a major public health threat in this high risk area of Dar es Salaam. This is especially true when comparing the incidence rates to developed countries; though similar to rates found in studies done in Nigeria, Uganda, Ghana and Sri Lanka. The average amount of activity missed was extremely high at 49 days. One concerning finding was that 5.6% of those injured in the past year expect to never return to work or school.

Children and adults have very different crash characteristics and therefore separate interventions for children and adults should be implemented accordingly. Highways were implicated in the majority of injuries regardless of age or severity. Also worth noting, the surveyed population tended to seek medical attention at a hospital and also received roadside assistance. Police reports were filed for more than half of all the injuries. This point may help provide a way to estimate the actual impact of RTIs from secondary data.

Injury prevention efforts should target children as pedestrians, and focus on the message that the highway is dangerous for all road users. Children should be cautioned about playing on small unpaved side streets since 43% of children were injured there. A fracture predicts a prolonged absence from work or school.