

Fact Sheet

Road Traffic Injuries in Kenya: A Survey of Motorcycle Drivers

(V. 1.0, 13 June 2014)

Summary & Background

The World Health Organization estimates that over 1.2 million people die from road traffic injuries (RTIs) worldwide every year, and another 20-50 million sustain a form of minor to major road traffic injury. Half of these deaths and injuries occur among vulnerable road users, namely motorcyclists (23%), pedestrians (22%) and cyclists (5%). The African region has the highest road fatality rates, (24.1 deaths per 100,000 population), well above the global average of 18.0 deaths per 100,000, in spite of the region being the least motorized (2% of the world's vehicles) of the six world regions.¹

Amend is a not-for-profit organization that works to reduce the incidence of RTI in low and middle income countries around the world through the development, implementation, and evaluation of evidence-based programs. Amend carried out a study, summarized herein, to help quantify and understand the scale and nature of RTI among motorcycle taxi drivers, who are known to be a high risk group in Kenya.



Interviewing motorcycle taxi drivers in Kenya as part of this study

This study builds on similar studies Amend has conducted elsewhere in Africa.

As it works towards achieving its “Vision 2030,” the Kenyan government has recognized that transportation is one of the key pillars in achieving its development goals, and therefore the country has invested not only in improving physical road infrastructure but also in road safety. In 2012, National Transport and Safety Authority (NTSA) was founded as the lead authority in Kenya for road transport and safety.² The NTSA recognizes motorcycle operation as a major challenge in curbing transport related injuries in Kenya and promotes research in this area.

In Kenya, to legally drive a motorcycle, one must be aged 18 years or over, possess a valid driving license, and wear a helmet (helmets have been shown to reduce the risk of head injury by 69% and death by 42% in case of a crash.³) and reflective clothing while riding. However, enforcement of the national motorcycle helmet law is lacking, and currently there is no official data on total number of registered motorcycles, though some sources estimate that motorcycles account for 70% of motor vehicles registered in Kenya each year.⁴

In 2010, according to the Kenya Traffic Police Department, there were 3,055 road traffic related deaths in Kenya, though this is likely an underestimate. Child pedestrians are at particularly high risk of RTI. According to official figures from Thika district (the location of this study) alone, 54 school children were killed and 165 were seriously injured in 2012. Further, the report indicates that all these injured children were struck en route to and from school either by motorists or motorcyclists.⁵ A similar picture is reflected across the country, where in 2013 the NTSA reported that 13,028 people were involved in road crashes. The social and economic costs to the country are huge: the NTSA estimates that RTIs cost Kenya’s economy about 14 billion Kenya Shillings (approximately \$160 million U.S. dollars as of June 2014) annually, or 5% of the country’s gross domestic product.⁶

In the study described in this fact sheet, Amend found alarmingly high crash and injury rates among drivers of commercial motorcycle taxis (locally known as “boda-bodas”): 38% of the 528 drivers interviewed had crashed in the preceding three months alone, and

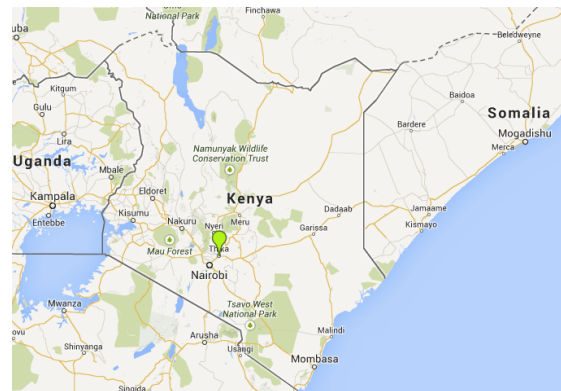
of these, 62% had sustained a bodily injury.

It is Amend’s hope that this study will contribute to the understanding of a significant aspect of the growing problem of RTI in Kenya and Africa at large and that it will encourage more research into the subject as well as the provision of much-needed, evidence-based RTI prevention strategies.

The Study: A cross-sectional survey of road crashes involving commercial motorcycle taxi (boda-boda) drivers in Thika, Kenya

Study Design

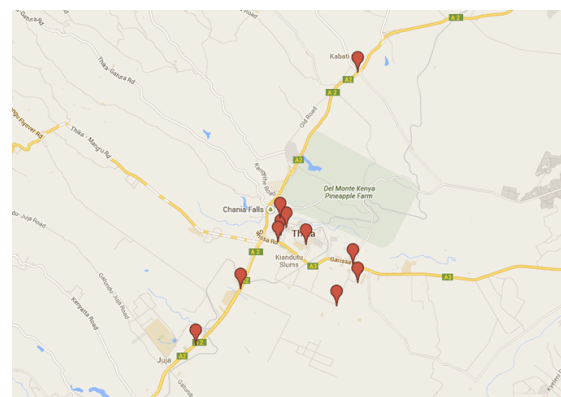
In January and February 2014, Amend conducted a survey of commercial boda-boda drivers in Thika town, Kenya, and its surroundings. Fast-growing Thika town is located approximately 50 km north of Nairobi, the capital of Kenya, and has a population of 650,000.⁷ The town’s growth has been boosted by the opening of the Nairobi-Thika Superhighway in 2012, which has been identified by the World Health Organization as one of the most dangerous roads in the country, and where 80% of victims presenting to the nearby district hospitals sustain their injuries.⁸



Location of Thika town within Kenya

The study was undertaken at 11 sites in both urban and rural areas where boda-boda drivers gather to wait for clients. The study was conducted in two stages:

- First, all drivers were surveyed and asked if they had experienced a crash in the previous three months,



Data gathering sites within and around Thika town

- Then, the drivers who had experienced a crash participated in a detailed survey to determine the circumstances of the crash and its impact (physical, economic and other).

Study Results

Of the 528 boda-boda drivers surveyed in the study, 200 (38%) had been involved in a crash within the last three months, and 62% of those who had experienced a crash sustained a bodily injury. This equates to a crash rate of 151.5 per 100 person-years and an injury rate of 93.9 per 100 person-years.

Other key findings included:

- The average age of the injured drivers was 28.4 years (SD±6.6) with people aged 18 to 24 years and 25 to 31 years accounting for 29% and 47% of those injured, respectively,
- Only 4% of drivers were wearing a helmet at the time of their crash,
- Almost 70% of the injured drivers reported to have lost some income following the injury,
- There was a significant association between sustaining a bodily injury and time of day ($p=0.016$.), with the highest proportion of crashes occurring around nightfall, and
- Only 8.5% of the boda-boda drivers reported the injury incident to the police

Conclusions & Recommendations

Thika town has a disturbingly high RTI incidence among motorcycle taxi drivers, who are predominantly young working-age males. We hypothesize the same to be the case throughout Kenya and in many other places in Africa. This study highlighted the fact that, despite existing legislation on mandatory helmet wearing for motorcycle drivers, a very small percentage of drivers use helmet. There is clearly a large gap between legislation and on-the-ground reality.

Based on the findings of this study, we recommend:

- Conducting a robust study to not only further quantify the issue of road traffic injury among this high-risk population, but to also understand and ascertain why drivers are not wearing helmets or any protective equipment while riding,
- The development, piloting, and scaling of education programs and practical training for drivers on safe road use,
- Promoting the use of protective equipment, especially helmets, among all riders,
- Advocating for improved licensing of drivers and registration of vehicles, and
- The implementation and strict enforcement of comprehensive laws on driving risks and protective factors

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¹ WHO (2013). (World Health Organization), Global Status Report on Road Safety 2013. Geneva, World Health Organization.

² NTSA (2013). "National Transport and Safety Authority." Retrieved 24th March 2014. <http://www.ntsa.go.ke/>

³ Liu BC, Ivers R, et al. (2008). "Helmets for preventing injury in motorcycle riders. Cochrane Database Systematic Review." 23: (CD004333).

⁴ WHO (2013). (World Health Organization), Global Status Report on Road Safety 2013. Geneva, World Health Organization.

⁵ Wainaina, J. (2014). "54 Kids Died On Thika Roads – Police." The Star.

⁶ NTSA (2013). "National Transport and Safety Authority." Retrieved 24th March 2014. <http://www.ntsa.go.ke/>

⁷ KNBS (2009). Kenya National Bureau of Statistics, Population, Census 2009. Nairobi.

⁸ WHO (2011). (World Health Organization), Motorcycle-related road traffic crashes in Kenya facts & figures, Ministry of Public Health and Sanitation & World Health Organisation.