Title: An analysis of the incidences and causes of road traffic accidents in Kisii central district - Kenya

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Abstract: Road Traffic Accidents (RTAs) are an emerging public health problem worldwide with over 1.2 million deaths and 10 million injured or crippled annually. Globally, road traffic accidents are the ninth leading contributor to the burden of disease and the tenth leading cause of death by injury. Deaths from injuries are projected to rise up to 8.4 million worldwide by 2020. In developing countries, accidents are common and yet remain underreported mainly due to inaccurate statistics on road deaths. In Kenya, over 3000 lives are lost and more than 3000 are left with serious disabilities annually due to RTAs. This study was undertaken to establish the incidence and causes of RTAs and their impact on public health in Kisii Central District - Kenya, as well as assess the effect of the new traffic amendment rules of November 2003 on the state of RTAs. A total of 393 respondents comprising of fifteen traffic police officers, fifty one motor vehicle drivers, two hundred ninety seven road users and thirty accident victims who were undergoing treatment at the time of the study were used for data collection. This was a cross-sectional study, which used questionnaires, interview schedules and focus group discussions to collect data. Among the nonmotorist road users, 65.7% were males, while 34.3% were females. For the drivers, 90.2% were males while 9.8% were females ($x^2 = 98.412$, $df = 2$, $P = 0.0005$). Seventy-four point five percent of drivers had a previous history of RTAs while 25.5% had none. Vehicles causing traffic accident included matatus (73.4%), buses (13.3%), saloon cars (10%) and landrovers (3.3%). Contributory factors reported by road users included human errors (59.6%), defective roads (19.5%) while twenty nine point nine percent were attributed to defective vehicles ($x^2 = 98.412$, $df = 2$, $P = 0.0005$). Police records showed that RTAs were caused by: human errors (66.7%) defective vehicles (13.3%), and other road users (6.7%). Over-speeding, overtaking, overloading and police leniency was significantly associated with RTAs ($x^2 = 42.221$, $df = 3$, $P = 0.0003$). Methods of preventing RTAs suggested by study participants included observing and enforcement of traffic rules (19.6%), avoiding over-speeding and overtaking carelessly (18.8%), avoiding overloading (17.1%), stopping drunk driving (11.2%), designing and constructing good roads (6.6%) and training and retraining of drivers (3.6%) as significant factors which can help in the prevention of RTAs. The results of this study have shown that Matatus and buses are the leading categories of vehicles causing accidents in Kisii Central District. Factors contributing to these accidents include: human errors, defective vehicles, and bad roads. It is imperative that this information is availed to the public so that concerted effort is made by all stakeholders to curb road carnage. This study suggests that policy makers, development partners and insurance firms can use findings to formulate sound road policy, which can reduce mortality in our roads.