Methods A hospital-based cross sectional descriptive study was conducted in Nay Pyi Taw with the aim of exploring the road user pattern, factors related to motorcycle accident and outcomes of accident among 171 motorcyclists, passengers and pedestrians admitted to two hospitals. Face to face interviews were conducted by using pre-tested questionnaire with motorcycle accident patients and their attendants.
Results Male, under 30 year age group, middle school level education and sale workers were most common victims. Motorcyclists were most at risk road users for accidents (57%) and 40% was due to fall or slipped motorcycles. Driving without licenses (31%), drinking alcohol (19%), high speeding (21%) and overtracking (3.5%), impaired visibility (9.4%) and broken break or tires or engines (4%) were associated with accidents. Forty eight percent of urban accident occurred on the straight roads where as 16% and 6% of rural accident occurred on rough and curved roads. Mortality rate was 9.9% whereas 4% was brought in dead cases. Nineteen percent treated as out-patients, 53% as non-severe in-patients and 18% was severe-in patients. Head injury and fracture in lower limbs were most common (36.3% and 30.4% respectively). Dead cases were due to head injury (76.5%) and multiple injuries (23.5%). Only 18% received first aids emergency treatment and 4.5% was sent to hospital with ambulance. Median risk cores of human factors, protective factors, vehicle factors and environmental factors were significantly higher on rural cases, pedestrian, severe in-patients and dead cases.
Conclusion Findings informed to responsible authorities for road traffic laws enforcement, intervention program development, emergency and medical services to reduce morbidity and mortality among road traffic injury patients.

515 TIME TREND OF TRAFFIC INJURY RELATED MEDICAL UTILISATION AND EXPENDITURES IN TAIWAN FROM 2003 – 2012

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10.1136/injuryprev-2016-042156.515

Background Traffic injury is the leading external cause of unintentional injury in Taiwan. The aim of this study was to determine the utilisation of emergency-visit, hospitalisation, and medical expenditures by different type of vehicle crash.
Methods Claim data were collected from the Taiwan National Health Insurance Research Database for patients who were identified from the Taiwan National Traffic Accident Dataset from 2003 to 2012. Measurements included type of medical utilisation, medical expenditures, and type of vehicle crash. Frequency counts, percentages and 95% confident interval were estimated for descriptive analyses. Mann-Kendall test was used to determine time trend of medical utilisation and medical expenditures by car types.
Results Over the period 2003 to 2012, the results of time trend test showed that the percentage of hospitalisation due to traffic injury had significantly decreased with years, however, the ER-visit utilisation increased from 27.4% in 2003 to 34.2% in 2012. In addition, both of the total medical expenditure of ER-visit and hospitalisation had significantly increased by years. In 2012, the total medical expenditure of ER-visit, hospitalisation was over 16.6 million US dollars and 47.4 million US dollars respectively. After stratification of car types, the ER-visit utilisation, total ER expenditure and total hospitalisation expenditure among two-wheeler drivers remained significantly increased by years. Although the ER-visit and medical utilisation among four-wheeler drivers was significantly decreased, the total medical expenditure of ER-visit among four-wheeler drivers had been significantly increased
Conclusions Effective traffic injury prevention programs are needed to develop for reducing the burden of public health and medical services.

516 CHILDREN ARE WALKING! INNOVATIVE STUDY OF TRAVEL PATTERNS AND SAFETY

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Background An increasing interest in the lifestyle and active mobility of children and continuing concern for their travel safety and secure environment requires detailed information about trip patterns and activities. There is little research on travel patterns of children, in particular during leisure hours. This study was designed to demonstrate child travel patterns and safety in Israel utilising advanced trip survey tools and methods.
Methods Phase 1 included a national self-report internet based travel survey as well as an innovative GPS based travel survey and follow up CAPI interview in Jerusalem with children age 6–12. Phase 2 included an in-depth study of pedestrian behaviour based on video analysis at major intersections and GPS based travel survey using cellular phones in three cities in central Israel.
Results The findings indicate that walking is the most common mode of travel and children in Israel walk at a higher rate than their counterparts in other developed countries. The results include distances travelled, travel purposes and destinations, and differences among population groups. The study points to a number of risk-taking behaviours, including: dangerous walking while accompanied by an adult; vehicles not yielding to children at crosswalks; bicycling on roads and without helmets from a young age; and lack of safe pedestrian walkways.
Conclusions It is important to increase active mobility as part of a healthy lifestyle, however more efforts are needed to determine dangers to child pedestrians and promote safe walking. The study demonstrated feasibility of a GPS tracking method as well as the ability to obtain reliable activity and trip information from children as young as six years. The GIS spatial analysis provides an interesting and new perspective on child mobility and can influence both urban design and public health programming by identifying specific areas for behavioural and environmental treatment.

517 THE CHALLENGES OF ENFORCING ROAD SAFETY POLICIES

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Background Strong road safety policies that are strategically and effectively enforced optimise the safety of road users. In road safety, those responsible for enforcing the law are usually road police. In low and middle income countries, road police face many challenges as they are usually under-resourced and poorly trained to do the job of enforcement.

Methods Before beginning to strengthen the capabilities of road police GRSP undertakes a number of diagnostic assessments to identify barriers and opportunities to enforcement. Data collection methods and use are also strengthened to support police to undertake targeted enforcement interventions.
Results With predictive and strategic enforcement methods in place, road police are more effective in enforcing road safety related laws.
Conclusions To reduce the number of deaths and serious injuries on the world's roads there is a need to have strong road safety related policies in place, and for those policies to be enforced. Road police in low- and middle-income countries respond well to professional training on all aspects of enforcement.

518 THE MOTORCYCLIST FATALITIES IN COLOMBIA FROM 2000–2014. A SERIOUS PUBLIC HEALTH ISSUE

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Background Road traffic injuries and fatalities have increased in Colombia despite that 2011–2010 is the Decade of Road Safety Action. In the past few years mostly motorcyclists have been affected by fatality and trauma. This paper aims to describe the behaviour of motorcyclist fatality patterns in Colombia from 2000–2014.
Methods This longitudinal study used fatality records from the Colombian National Statistics Department and vehicle records from the Unified National Transit Registry and selected fatalities from International Classification of Diseases ICD-X V200 to ICD-X V299. The variables studied were year, age group, sex, department, and month of occurrence. A linear regression was used to identify the correlation between rates and fatalities, and the number of motorcycles during the period under study. The value $P < 0.05$ was used.
Results From 2000 to 2014 there was a near 100% increase in the number of motorcyclist fatalities in Colombia; the occurrence rate increased from 3.5/100,000 to 6.0/100,000 inhabitants. 65.4% of the fatalities affected persons 15 to 34 years of age; 87% of whom were men. 55% of the fatalities took place in six provincial departments (Antioquia, Valle, Bogotá, Huila, Santander, and Meta). The months with the most casualties were July (8.7%) and December (9.5%). The rate and fatality behaviour can be explained by an increase in the number of vehicles of up to 92% ($P < 0.001$).
Conclusions Motorcyclist fatalities have become a serious public health issue. There are many determining factors associated with their occurrence: motorcyclists with little safety gear, lax granting of driver's licenses, weak processes for traffic law compliance (to control violation of laws and regulations, lack of safety gear, speeding, etc.), and inexpensive purchase plans for motorcycles. It is imperative to regulate motorcycle sales and to implement public policy that will prioritise compliance with national laws and regulations.

519 INJURY PREVALENCE AND SAFETY HABITS OF MOTORCYCLE TAXI DRIVERS IN URBAN MOSHI, TANZANIA

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Background Road traffic crashes are a major cause of global morbidity and mortality, disproportionately affecting low- and middle-income countries. Motorcycle taxi (boda-boda) drivers are particularly vulnerable because they have limited protection and safety equipment. This study characterises injury prevalence and safety habits amongst boda-boda drivers, and identifies intervention points to improve road safety.
Methods A prospective mixed methods interview and safety assessment was administered to 300 boda-boda drivers in urban Moshi, Tanzania. Participants were chosen randomly from 25 of 58 registered boda-boda stands and 2 of 31 unregistered stands. The survey was administered using a computerised, internet based survey tool (REDCAPS) and tablet computers. Data were analysed using R, and a thematic analysis was performed and agreed upon by three investigators (MP, TN, CS).
Results Of the 148 participants (49.3%) who had experienced a crash, 114 (77.0%) sustained at least one injury. Only 27 of those injured (23.4%) were hospitalised. 220 participants (73.3%) reported consistent helmet usage despite the fact that 285 participants (95.0%) agree that helmet usage reduces injury severity. Of the 280 helmets observed, 231 (82.5%) were either damaged or fit improperly. A thematic analysis of boda-boda drivers' suggestions to increase road safety identified four intervention points: 1) roadway infrastructure and traffic regulation, 2) road user attitudes and safe driving behaviours, 3) education and training, and 4) law enforcement.
Conclusions The present study demonstrates the high prevalence of road traffic injuries amongst boda-boda drivers. The study identifies four intervention points that can be leveraged to increase overall road traffic safety. Unfortunately, while boda-boda drivers are aware of ways to improve safety, adherence to safety habits remains low. Successful interventions will bridge the gap between knowledge and practice of safety habits.

520 SUMMATIVE PROCESS EVALUATION OF A DRIVER LICENSING SUPPORT PROGRAM IN REMOTE ABORIGINAL COMMUNITIES

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Background Aboriginal people in the Northern Territory (NT) have low rates of driver licensing, which is likely to contribute to high rates of transport-related injury, high rates of incarceration for regulatory driving offences and reduced access to employment, education and essential health services. The DriveSafe NT Remote program was implemented by the NT Government to increase driver licensing in remote communities. This evaluation reviews the program delivery, acceptability, implementation challenges and licensing outcomes.