

The use of height-adjustable, three-point seat belts became mandatory, as well as Child Restraint Systems for children under 3 years of age.

The campaign “Back to School Safely” is carried out annually highlighting the importance of appropriate safety elements for children and their correct use.

Conclusions Although work carried out so far has been praised in different occasions and has raised awareness among adults, there still much to do especially regarding enforcement.

In 2015, the FGR started a study on School Transport regulation and market in ten different countries. Results are expected to provide a clear picture of the steps to follow by each country to have regulations and fleets that reduce the number of fatalities and injured among children in road crashes involving School Transport.

371 PREDICTION OF ROAD TRAFFIC CRASHES (RTC) IN SRI LANKA FROM 2015 TO 2025

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Background Under the sustainable development goals (SDG), Sri Lanka is planning to halve the road traffic deaths and injuries by 2030. The main obstacle for achieving this goals is lack of accurate data. Road traffic crashes (RTC) are largely under-reported in Sri Lanka after 2003. Therefore, we conducted this study to estimate the number of under-reported RTCs, and predict the number of actual crashes and injuries up to 2030 using data from 1977 to 2014.

Methods We extracted RTC data for 1977 to 2014 from an interim report on RTCs of a Parliamentary Select Committee and from the official web site of the Sri Lanka Police. We analysed extracted data using Microsoft Excel and R. We calculated crash, injury, and fatality rates per 100,000 population and carried out the prediction using ‘forecast’ package in R.

Results Between 1977 and 2003, total crash rate increased from 109.7 to 310.7, minor injuries increased from 44.2 to 61.4, grievous injuries increased from 6.0 to 18.0, and deaths increased from 5.8 to 10.6 per 100,000 population. From 2003 to 2014, total crash rate decreased from 310.7 to 165.6, minor injuries decreased from 61.4 to 59.7 and damage only crashes decrease from 187.1 to 64.2 per 100,000 population. According to the analysis, this was a false reduction, and 334,328 damage only crashes and 18,683 minor injury crashes have been under-reported between 2003 and 2014. However, fatalities and grievous injury crashes were not under-reported. Accordingly, by 2025, total crashes will increase to 480.7, damage only crashes will increase to 339.7, minor injuries will increase to 71.8, and grievous injuries will increase to 30.4 per 100,000 population. fatality rate will not increase in similar intensity.

Conclusion Under-reporting of RTCs is masking its rapid increase in Sri Lanka. To achieve SDG on RTCs, Sri Lankan policy makers have to take this under-reporting in to consideration and might use this prediction to allocate funds and resources for prevention of RTCs.

372 THE IMPACT OF ROAD SAFETY CAMPAIGN ON MOTOR CYCLE RELATED ROAD TRAFFIC INJURIES IN NAIVASHA, KENYA

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Background Kenya was identified as one of the ten priority countries in the WHO led UN Decade of Action for Road Safety (2011–2020) that aimed at reducing global road crash injuries and mortality by at least 50%, through a systematic road safety campaign by 2020. The Road safety campaign in 10-countries or RS-10 as the campaign was known, targeted ten worst hit countries that together accounted for about 50% of global road crash fatalities.

The Kenyan project dubbed Road Safety Kenya (RS-K) identified the highway towns of Thika and Naivasha as the 5-year pilot implementation sites. The project started in the year 2010, and one of the interventions was the campaign to promote the wearing of helmets by motor cycle (MC) riders and their passengers. Helmets have been shown to reduce mortality and severity of head injuries among MC riders.

The objective of this study was to assess the impact of road safety campaign targeting MC riders since the year 2010 in Naivasha, Kenya.

Methods Cross sectional observational study in which MC road safety compliance as evident in use of protective helmets by rider and passengers, use of reflective clothing by rider and passenger as well as the use of daytime riding lights was directly observed by the roadside.

Results A total of 9280 motor cycles were observed from the 6 study centres during the 7-day data collection period. Of these only 18% (1752) complied with all the three road safety measures of wearing helmet by passenger and rider, reflective jacket and one pillion passenger at any single time. Helmet compliance was 42% (3,850) among the riders and only 9% (402) passengers wore helmet while riding. Males were twice likely to wear helmets than the female counterparts. Luminous clothing were widely used by riders (76.2%) while only 349 (3.8%) rode with the headlight on at daytime.

Conclusion Despite the road safety campaign conducted in Naivasha between 2010 and 2014, the compliance with road safety measures among motor cycle riders remain low particularly among the passengers. It is probable that passengers were poorly targeted in this campaign due to logistical challenges or simply that the strategies that have been successful elsewhere are not applicable in this environment.

It should be useful to establish from a hospital and mortuary based research if females have a higher percentage of mortality and severe head injuries due to poorer compliance with helmet use.

Poisonings

Parallel Wed 1.3

373 MANNER OF DEATH IN FATAL PRESCRIPTION DRUG POISONINGS

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Background In Finland, post-mortem toxicology is performed in 13% of all deceased as part of medico-legal cause-of-death investigation. Of all toxicology cases, approximately every 6th case is determined by a forensic pathologist to be a fatal poisoning. Medicinal and illegal drugs form the biggest group of intoxicants causing fatal poisonings.

Methods All fatal drug poisoning cases in 2013 were examined in terms of toxicological findings, background information and the manner of death. In these cases, comprehensive post-mortem toxicology had been performed by using chromatographic and mass spectrometric techniques in an accredited central laboratory serving the whole country.

Results There were 476 fatal poisonings by medicinal and illegal drugs in 2013. Buprenorphine, tramadol, pregabalin, codeine, oxycodone, amitriptyline, quetiapine, paracetamol, venlafaxine and insulin were the ten most prevalent major factors in the cause of death. The most common manner of death in all drug poisonings was suicide (41%, median age 49), followed by unintentional poisoning (40%, median age 37), and unknown manner of death (18%, median age 51). Unintentional poisoning was the most common manner of death in opioid poisonings, especially with the strong opioids possessing high abuse potential. In cases involving antipsychotics and antidepressants, such as quetiapine, amitriptyline and venlafaxine, as well as with insulin, the percentage of suicide was higher than that of unintentional poisoning.

Conclusions Information on fatal poisonings reveals trends in drug use, which can help monitor adverse effects of medicines as well as the emergence of new abused substances. The extensive post-mortem toxicology data collected in the cause-of-death investigations in Finland enable reliable statistical analysis and research on a population-based level.

374 RISK FACTORS OF POISONING: FINDINGS FROM THE NEW ZEALAND BLOOD DONORS' HEALTH STUDY

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Background Notwithstanding difficulties in ascertaining intent, aetiological studies on adult poisoning typically focus on intentional or unintentional events as distinct entities. This study investigated the predictors of hospital admissions or deaths for intentional and unintentional poisoning in adult New Zealanders.

Methods The 22,389 participants aged 16 and older comprised the New Zealand Blood Donors Health Study (NZBDHS) cohort who completed a baseline self-report questionnaire (including demographic, personal health, psychosocial and lifestyle information) at recruitment in 1998/1999. Outcome data on poisoning-related admissions and deaths up to 31 December 2014 were collected prospectively through electronic record linkage of

participants' unique identifiers to national mortality and morbidity databases. Baseline characteristics associated with intentional and unintentional poisoning at follow-up were investigated using Cox proportional hazards analysis.

Results During the median follow-up period of 16.8 years (359,018 person-years), 437 poisoning events (315 intentional, 124 unintentional) were identified in 310 cases. Multivariable models revealed that both intentional and unintentional poisoning at follow-up were associated with depressive symptoms (intentional poisoning: adjusted HR = 2.05, 95% CI: 1.20–3.52; unintentional poisoning: adjusted HR = 1.58, 95% CI: 1.01–2.49) and suicidal ideation at recruitment (intentional poisoning: adjusted HR = 5.76, 95% CI: 3.32–9.97; unintentional poisoning: adjusted HR = 2.45, 95% CI: 1.53–3.94). Illegal drug use was a risk factor for future unintentional poisoning events.

Conclusions The findings of this large prospective injury cohort study suggest that interventions addressing mental health problems have the potential of reducing serious poisoning events irrespective of intent. Whether the findings also represent misclassification of intentional injuries as unintentional events is unclear.

375 SURVEILLANCE OF PLANT PROTECTION PESTICIDES-RELATED POISONINGS AND INJURIES

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Background Regulation 2009/1185/EU on sustainable use of pesticides requires reporting from European Member States on plant protection pesticide (PPP) poisonous exposures. These data can provide information to identify emerging problems and populations at risk, support the development of preventive and regulatory measures and evaluate their effectiveness. In Italy, a surveillance of acute PPP-related poisonings (SAPReP), based on Poison Control Centres data, has been implemented since 2001. In this contribution are presented the main characteristics of cases exposed in Italy in 2007–2012.

Methods series of cases identified by the National Poison Control Centre in Milan, reviewed and classified by the Italian National Institute of Health according to standard procedures.

Results In 2007–2012, SAPReP identified 2,108 cases of accidental PPP-related poisonings and injuries. Male patients were 1,442 (68%) while females were 442 (20%). Gender was unknown in 12% of cases (No. 224) Severity of poisoning was low in 84% of cases (No. 1,774), moderate in 14% (n. 305), high in 1% (n. 28). One case of death was identified. About 50% of poisonings occurred at work, in agricultural settings, and 36% at home. Some 70% of exposures occurred between May and September. Insecticides/acaricides were responsible in 42% of poisonings, fungicides/bactericides in 16%, herbicides in 15%, and soil sterilants in 13%. Five mass exposures were identified: two incidents were caused by off-site drift of metam sodium, a soil sterilant, and involved 86 and 103 by-standers, respectively; two incidents were caused by chlorpyrifos methyl, an organophosphate insecticide/acaricide (one occurred in a hospital, 10 cases; one occurred in agricultural setting, 20 agricultural workers); one incident was caused by phenthoate and involved 40 agricultural workers

Conclusions Surveillance based on data collected by Poison Control Centres provides an important tool to identify emerging