THE FINNISH DEFENCE FORCES TRAFFIC ACCIDENT PREVENTION PROGRAM "SÄRMÄNÄ LIIKENTEESSÄ" ("BE SHARP IN TRAFFIC")

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Background (250) Young men aged 15-24 have two-fold risk for lethal accidents compared to general population. Typical accidents are speeding and lack of safety belt. Often driver is intoxicated and accident happens at night, during weekends and during summer or autumn.

Objectives (450) Together with other governmental agencies, The Finnish Defence Forces has planned and executed a traffic safety and accident prevention campaign "Särmänä liikenteessä" ("Be Sharp In Traffic"). It has been implemented in all units training conscripts from 2009. It is aimed to build awareness about risks and evoke discussion among conscripts about risks related to traffic and how to avoid risks and enhance one's own safety behaviour.

Results (875) In Finland, About 75% of total male population serves military service as a conscript, so this program reaches most young men at risk for traffic accidents. About 4/5 of all lethal accidents occurs for men in this age group. In year 2009 in Finland youth at age 15– 24 had 74 lethal and 3021 injury leading traffic accidents. By the year 2014 this had dropped to 44 lethal and 2172 injury leading accidents. In five years lethal accidents among youth has dropped for 40% and injuries about 25%. The program includes lectures and group discussions that are targeted to raise discussion and awareness about consequences own choices and actions taken while in traffic. It emphasis concrete actions, like usage of safety belt, responsibility for friends , consequences for showing of in traffic etc.

Conclusions (375) This program has strengthen safety behaviour in traffic. It is targeted to population at greatest risk, and their friends and relatives. It reaches most of target population. In this presentation, a detailed description of program and its execution is presented.

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SPEED CAMERA OPERATIONS IN OMAN: WESTERN TECHNOLOGY AND MIDDLE 1 EAST PRACTICE

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Background Oman is one of the GCC countries that has the highest road fatality rates. Using data obtained from the Royal Oman Police (ROP), it was found that speeding is the primary cause of more than 50% of the fatal crashes within the country. Additionally, in 2014, there was a rate of approximately 5 speeding fines for each registered car and approximately 4.8 speeding fines for each driving licence. Speed cameras in Oman have been extensively used during the last decade. It appears that the speed camera program has not, as yet had a significant effect on road safety as it was originally anticipated. The purpose of this research is to examine the current program and provide opportunities for improvement.

Methods The project utilises two methodological frameworks. The first is a benchmarking process comparing operational Omani procedures and processes against international best practice. The second strategy is based on Nedlar and Tushman's Congruence Model of organisational behaviour. In this model the ROP management and operational process of the speed camera program are examined via the three processes of input, transformation and output. The key research approach will be qualitative (along with document review) interviews of approximately 10 operating personnel within and relevant to the program. Officers from three managerial levels will be interviewed; comprising of executive management, middle management and operational personnel. Overall the benchmarking method will be used to compare the international best practice of speed camera program with the Oman speed camera operations while the congruence model will be used to identify the internal gaps and inconsistencies within the speed camera operations.

Results The researcher has just finished data collection and started analysing the data. The results will be ready by the end of April 2016 as the researcher has to deliver a confirmation seminar on May 2016.

Conclusions As mentioned above, the whole paper will be ready during the next two months of this year.

NECESSERITY OF AN INTEGRATED ROAD TRAFFIC INJURIES SURVEILANCE SYSTEM

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Background Road Traffic Injuries (RTIs) are one of the leading causes of death and disability worldwide and the leading cause of death for young people aged 15–29 years. Mortality rate of road traffic accidents (RTA) and road injuries in Georgia are two times higher than the European average rate. RTIs surveillance is recommended to define the burden, to identify high risk groups and to plan intervention monitor their impact. The objective of this study was to show the necessity of integrated RTA and victim information system and provide recommendations for prevention.

Methods Descriptive epidemiological study has been conducted. Three national-level of RTA cases data sources were reviewed and compared for the year of 2014: Police records, hospitalised patients due to road accidents from National Centre for Disease Control (NCDC), road traffic fatalities from the State Statistics Department (SSD).

Results A total 5992 of RTA, 8536 of victim and 511 deaths were recorded at the Police Department. According to NCDC data 3033 patients were hospitalised due to RTA, 35% of them were age of 15–29, 46% - pedestrians, 20% - passengers of light vehicles cars and 6% - cyclists. SSD data are based on police data and matched with them.

Conclusion This study results revealed that the data from all organisations are incomplete. NCDC has incomplete records on RTIs and deaths, because hospitals lack of data about the location or crash causes and lack of coordination between different reporting entities. Incorrect coding of a death by SSD is one of the reasons of mortality structural confusion and incomplete data. Police data seem to provide more accurate information than others, but they do not follow up outcomes and data were underestimating.

It is necessary to establish multidisciplinary data collection system of national RTA with the collaboration of Police, NCDC, and SSD, but these data must be properly coded. Reliable and accurate data guarantee developing and implementing injury prevention and control programs.

877 DEATHS AND SERIOUS INJURIES CAUSED BY ROAD TRAFFIC CRASHES USING DATA RECORD LINKAGE IN BRAZILIAN MACRO-REGIONS

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Background Low and middle income countries account for 92% of deaths from road traffic injuries (RTI) in the world. Furthermore, the mortality data completeness and reliability are poorer than high income countries. Because of that, it's necessary to qualify the databases to produce health indicators that adequately portray that situation. The data record linkage enables greater use of existing data in different sources of data. The objective was to measure the magnitude of deaths and serious injuries by using record linkage and to estimate correction factors for health and road traffic databases and in five urban areas that represent all macro regions of the Brazil.

Method Cross-Sectional study, using the road traffic victim database (VIT), Information System of Hospitalisation (SIH) and Mortality Information System (SIM), the year of 2013 for Teresina and 2012 for the remaining four cities. For the linkage procedure, the software RecLink 3 was used. The number of deaths and serious injured victims of RTI were identified. The overall global percentage of correction of the underlying cause of death and the hospitalisation diagnosis were estimated and the victim condition in the road traffic database.

Result The overall percentage of correction of the underlying cause of death for the SIM were 29.9, 11.9, 4.2, and 33.5 respectively to Belo Horizonte, Campo Grande, Curitiba and Teresina. For the city of Palmas, there was no correction. For the SIH, the percentage of correction of the hospitalisation cause were 24.4 for Belo Horizonte, 96.9 for Campo Grande, 100 for Palmas and 33 for Teresina. For the VIT, there were changes in the victim's severity classification with overall percentage of 100 for Belo Horizonte and Teresina, 48 for Campo Grande and 51 for Palmas.

Conclusion There are considerable gaps and limitations on information system that record RTI, requiring the incorporation of national standards and integration between health databases and traffic databases.

878 SURVEILLANCE IN THE SERVICE OF SAFETY

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Background It has been recommended that the newly motorizing countries establish road injury surveillance to define the burden, identify high risk groups, plan intervention and monitor their impact. Despite its stated importance in the literature, very few examples of sustained surveillance systems are reported from low income countries. We present the results of an urban road injury surveillance program that has been running for the past 8 years in the emergency departments of five major hospitals in Karachi, Pakistan.

Methods We describe the process of establishing the road injury surveillance system incorporating a multi-institution research group including physicians and transportation engineers. Data was collected from 5 hospitals with details of the injury, severity scoring and information of the circumstances of the crash. Crash site visits supplemented this data and the results were disseminated to municipal authorities along with low cost engineering solutions to rectify hazards in the road network. The impact of these interventions were monitored in the surveillance.

Results In the 8 years between 2007 and 2014, 262,269 road injury victims were registered. Though 76% of the injuries were categorised as "minor", 20% led to hospital admission and in 3% deaths occurred. The information on location of crashes and site visits led to an extensive catalogue of road network hazards and their rectification led to demonstrated reductions in crash frequency. Data was also used for safety advocacy in groups found to be vulnerable in the surveillance, such as motorcyclists, road sweepers and school going pedestrians.

Conclusions We demonstrate that a functional road injury surveillance program can be established and effectively managed in a developing country. The data collected and analysed from the victim's perspective can be a potent tool for effecting safety education and hazard rectification.

879 DATA MINING IN PROMOTING FLIGHT SAFETY

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Background The global rate of aviation accidents has recently been stabilising and the situation can now be regarded as satisfactory, but because of the growth in air traffic, the absolute number of fatal accidents per year might increase, if the flight safety will not be improved. The collection of data and reporting systems have reached their top level. The focal point in increasing the flight safety is analysis.

Methods The source of aviation safety data are those from the aviation field collected deviation and incident reports that include both structured and narrative fields. 1200 flight safety reports from a three-year period were used as test material. The narratives of these written in Finnish were processed with three text mining tools applying clustering. One is totally language independent, the other has a specific configuration for Finnish and the third was originally created for English, but encouraging results achieved with other languages, a Finnish test was undertaken, too. The totally language independent one is a Finnish prototype created in one of the Universities of Technology, the two others commercial products. The mining was carried out by performing one round with all the systems and the second with two of them in order to get more accurate mining results after refining the mining definitions.

Results It is obvious that in case events leading to lethal trends would have existed in the data, they would have been discovered and brought out. The text mining tools used were capable of extracting trends – actually recurring events – that turned out to be incidents. However, in the cases studied they did not develop into dangerous risks or accidents.

Conclusions All systems provided encouraging results, as well as proved challenges still to be won. Flight safety can be