

**Conclusions** Findings from this study can help these actors devise strategies to promote road safety in Turkey or in other similar contexts.

### 506 EVALUATION OF THE STATE OF CITIZEN SAFETY IN FINLAND

Teija Mankinen. *The Finnish National Rescue Association, Finland*

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**Background** The concept of safety has traditionally been limited to physical security. However, in the 2000s the concept has been expanded to cover also the aspects of social, economic and environmental wellbeing (Kekki 2015). The promotion of safety and security in a global world requires more comprehensive and multi-sectoral cooperation, but also broader and more cross-sectoral information on issues preventing or promoting safety.

**Methods** The presentation reviews the previous research data available on the topic. Also, the presentation summarises the current state of the citizen safety from the perspective of the previous research and discusses the possible gaps concerning the produced data. The review is based on the data consisting of the previous administration-specific security and safety surveys and studies as well as national surveys.

**Results** A number of surveys are available on the topic, but most of them define the research topic quite narrowly from the perspective of certain administrative bodies. Only a small amount of data is found on citizen's abilities or opportunities to promote their own safety. Hence, there is also a lack of standardised evaluation criteria for (measuring) citizen safety. In addition, the comparability of data is difficult due to differing definitions of the concepts which are used and the limitations concerning different research settings.

**Conclusions** The future decision-making needs to be supported by diverse, cross-administrative information about citizen safety and the issues related to security and safety in general. Indicators formed to monitor the development of citizen safety are presented as the conclusions of the presentation.

### 507 POLISH ROAD SAFETY OBSERVATORY AS A TOOL FOR EFFECTIVE ROAD SAFETY MANAGEMENT AND POLICY DEVELOPMENT

Maria Dabrowska-Loranc, Dagmara Jankowska-Karpa, Justyna Wacowska-Slezak, Aneta Wnuk. *Motor Transport Institute, Poland*

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**Background** In 2014 Motor Transport Institute established Polish Road Safety Observatory POBR according to the recommendations of National Road Safety Programme GAMBIT 2005–2007–2013 and the assumptions of European Projects SafetyNet and Dakota.

**Methods** The overall objective of POBR is to contribute to a reduction in the number of road accident victims in Poland. To achieve this goal it is important to provide information about risks on Polish roads and disseminate knowledge concerning road safety. The basic tasks of POBR are as follows: disseminating road safety knowledge, data and information collection and sharing, conducting analyses and research, evaluating programs and activities implemented, cooperation with Regional Road Safety Observatories and other institutions.

**Results** A reliable road accidents database is essential to identify major problems with regard to road safety. It is also a starting point to plan preventive actions and the source of information in the evaluation process. The accuracy of decisions and the improvement of road safety situation largely depend on the scope and quality of gathered data and conducted analyses. POBR provides national data on road accidents, general population, driver population, vehicle fleet, road network, area. International data are obtained from CARE, OECD, IRTAD and EUROSTAT databases. The data and information in POBR are intended for state and local authorities, road managers, experts from various disciplines, local communities, media, general public and international institutions.

**Conclusions** The main aim of POBR is to contribute to planning and evaluating knowledge and evidence based actions. POBR can serve as road safety management tool and be useful for road safety policy development. POBR system consists of data warehouse and information portal. An important element of the system is an application, which is designed to create thematic and risk maps which allow the identification of dangerous road sections.

### 508 HEALTH IMPACT OF SOBRIETY CHECK POINTS IN MEXICO CITY

Lourdes Gómez-García, Elisa Hidalgo-Solórzano. *Center for Health Systems Research, National Institute of Public Health, Mexico*

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**Background** Random breath testing for vehicle drivers is a cost-effective and widely recommended intervention to address drinking and driving. Since September 2003, in Mexico City were implemented random sobriety checkpoints. In 2008, Mexico City joined a comprehensive intervention program, the “Iniciativa Mexicana de Seguridad Vial” (IMESEVI), which also targeted drinking and driving. The aim of this study is to assess the impact of the sobriety checkpoints on rates of collisions and injuries.

**Methods** We conducted a secondary analysis of official databases on mortality rate, hospital discharges rate, and collisions rate. Information was collected in the period from January, 1999 to December, 2014. We performed a time-series analysis to assess the trend. Twelve month seasonality was considered and the implementation of the IMESEVI in the city.

**Results** We observed different effects in the monthly trend associated with the implementation of sobriety checkpoints in interaction with IMESEVI. A no significant decrease ( $p > 0.05$ ) was observed for mortality rate (−0.05 deaths per 100,000 inhabitants) and hospital discharges rate (−0.02 discharges per 100,000 inhabitants). The monthly trend for crash rate had a no significant increase ( $p > 0.05$ ): 0.14 crashes per 100,000 inhabitants per month and 0.41 crashes per 100,000 vehicles per month.

**Conclusions** Drinking and driving law enforcement in Mexico City is strongly implemented and socially accepted. Despite, legal blood alcohol concentration (BAC) is 0.08 g/dl, above the recommended 0.04 g/dl. In order to improve drinking and driving legislation, and obtain better results for sobriety checkpoints, legal BAC levels must be adjusted and zero tolerance for novice driver may be included in the legislation. To improve the evaluation of alcohol consumption deterrence interventions, official registries may include alcohol consumption information.

## 509 CHILD RESTRAINT SYSTEM USE IN MEXICO. WHAT DOES THE LAW SAY?

<sup>1</sup>Elisa Hidalgo-Solórzano, <sup>1</sup>Lourdes Gómez-García, <sup>2</sup>Ricardo Pérez-Núñez, <sup>3</sup>Jeffrey C Lunnen, <sup>3</sup>Adnan Hyder. <sup>1</sup>Center for Health Systems Research, National Institute of Public Health, Mexico (INSP); <sup>2</sup>National Council for Accident Prevention Secretariat, Ministry of Health in Mexico; <sup>3</sup>Johns Hopkins International Injury Research Unit, Johns Hopkins Bloomberg School of Public Health, Baltimore, Maryland, USA

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**Background** During 2013, the mortality rate for Road Traffic Injuries (RTI) in Mexico was 13.4 per 100,000 habitants, about 1.8% of all deaths were children amongst children from 0–5 years of age as a result of a RTI while travelling as car occupants. Our objective is to analyse the current legislation regarding the use of Child Restraint Systems (CRS) and to estimate its prevalence in three Mexican cities.

**Methods** We performed a review of the existing Mexican legislation on CRS use; focused on six variables: age, weight and height of children, location inside the vehicle, use of restraints or car seat and anchorage system. As well, as a cross-sectional study conducted in 3 Mexican cities to determine the prevalence of CRS use. Two rounds of observation were performed in pre-schools, between August and December of 2014. We observed all vehicles that stopped in front of, or up to 5 metres away from the preschool's entrance to drop off children, we recorded information of the children, the vehicle, drivers and occupants.

**Results** In total, 68 traffic regulations were analysed in order to describe the Mexican legislation on children occupants of motor vehicles of 4 or more wheels. The most important finding was that the mandatory use of CRS is not defined in any of the reviewed regulations, however there is an agreement that children should travel in the rear seats. We observed a total of 3,019 motor vehicles and 3,508 children estimated to be 5 years of age or less. The prevalence of CRS use in both rounds was 16.24% (95% CI: 15.04, 17.51); 14.69% (95% CI: 13.05, 16.44) in round one and 17.76% (95% CI: 16.01, 19.61) in round two.

**Conclusions** In Mexico, since 2003 was established CRS use, and location of children in the rear seat, as a health policy applicable throughout the country. Twelve years later, is necessary for governments of the states and local authorities implement national health policies, to strengthen strategies of the Decade of Action for Road Safety.

## 510 THE IMPACT OF SAFETY INSTITUTE OF AUSTRALIA LTD (SIA) OHS ACCREDITATION AND CERTIFICATION ACTIVITIES ON THE OHS PROFESSION IN AUSTRALIA – A STATUS

<sup>1</sup>Gunther Paul, <sup>1</sup>Warwick Pearse, <sup>2</sup>Kevin Jones. <sup>1</sup>Queensland University of Technology, Australia; <sup>2</sup>Safety At Work Blog

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**Background** Following the development and implementation of professional qualifications standards, higher education standards have followed recently. In Australia, the national qualification standard (Australian Qualification Framework – AQF) has found a sibling in the SIA-proposed OHS (Occupational Health & Safety) generalist, OHS professional and tertiary OHS education accreditation programs, which are commercially promoted through the Australian OHS Education Accreditation Board (AOHSEAB), an organisation 'auspiced' through the SIA (Safety Institute of Australia Ltd). While selling a basically commercial

product in the first instance, the AOHSEAB claims that the implementation of accreditation of OHS professional education has positively affected the educational quality and professional outcomes of OHS education in Australia since 2012 (Pryor, 2015). Other claims by the Australian OHS education accreditation board were recently critically appraised by Paul & Pearse (2015); such as the quality of the Health and Safety Professionals Alliance's (HaSPA) Body of Knowledge (BoK), which forms the basis for the accreditation process; or the quality of the professional project proposed by SIA (Pearse *et al.*, 2015). HaSPA is another organisation associated with SIA.

**Methods** Recent published literature, articles in the SafetyAtWorkBlog, Safe Work Australia publications, and university OHS program information was searched, reviewed and analysed to determine changes in OHS education and the OHS profession from 2013 to 2015 in Australia, and whether these changes could be attributed to the professional accreditation program marketed through the AOHSEAB.

**Results** From information that is publicly available, it could not be determined that activities of the AOHSEAB had any impact on the quality of tertiary or vocational teaching of the OHS profession in Australia, or the profession as such. Recent changes in OHS programs in the tertiary education domain could as well be attributed to the requirements of the AQF framework and subsequent university internal accreditation of courses. Given that university program accreditation through the AOHSEAB is voluntary and not aligned with statutory frameworks, but potentially intended as a marketing/branding exercise, the response to the accreditation offer in the tertiary sector is fragmented (21/32 programs accredited). Moreover, in vocational training and professional certification, change will require statutory authority on the basis of a cohesive professional project. While it seems too early to determine any impact of such accreditation and certification activities on the OHS profession in Australia, the potential long term effects of accreditation and certification attempts need to be carefully considered and investigated.

**Conclusions** While there is wide consent across stakeholders that further professionalisation of the OHS occupation in Australia will require consolidated accreditation and certification structures, the current attempt by SIA has failed to provide the required solid professional foundation. It is also lacking statutory authority and support. As a consequence, the impact of the accreditation and certification framework has been marginal.

## Traffic Safety

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## 511 KNOWLEDGE, ATTITUDES AND BEHAVIOURS ON CHILD PASSENGER SAFETY AMONG EXPECTANT MOTHERS AND PARENTS OF NEWBORNS: A QUALITATIVE AND QUANTITATIVE APPROACH

<sup>1</sup>Xiangxiang Liu, <sup>2</sup>Jingzhen Yang, <sup>3</sup>Xiaojun Chen, <sup>4</sup>Liping Li. <sup>1</sup>Injury Prevention Research Centre, Medical College of Shantou University, China; <sup>2</sup>Centre for Injury Research and Policy, the Research Institute at Nationwide Children's Hospital, USA; <sup>3</sup>The First Affiliated Hospital of Shantou University Medical College, China; <sup>4</sup>Injury Prevention Research Centre, Medical College of Shantou University, China

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**Background** In China, road traffic injuries are the leading cause of death in children under age 14. Although children are