effectiveness of child safety interventions and policies; as well as provide regional, national and international policy makers with data to support the planning and evaluation of interventions.

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## TRAFFIC SAFETY EDUCATION: ITS SUPPORT IN THE CURRICULUM, CULTURE AND WORK OF SCHOOLS IN FINLAND

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Background Traffic accidents are the number one cause of bodily injuries to children and adolescents. The number of traffic accidents increases as children begin to walk and cycle independently. Expectations for traffic safety education given at school are great but according to many reports, the level and extent of traffic safety education varies greatly from school to school.

Objective In the curriculum reform there was a strong need to secure the quality and extent of traffic safety education while training teachers in practical traffic safety education. Expertise in traffic safety education was offered to those preparing the core curriculum with concrete suggestions about content. Teacher training and updating education were used to increase teachers' knowledge of traffic safety education and to motivate them with practical exercises. The aim was to make traffic safety education in schools more systematic and consistent throughout basic education so that each grade would be given at least 4 hours of traffic safety education integrated into various subjects.

Results Traffic safety education is specified in the content for all grades in the new basic education core curriculum. It is a solid foundation for county and school specific curricula. In the feedback of the 2010–2014 teachers' updating education projects the evaluation of the content and usefulness were excellent and all participants recommended the training to their colleagues. A feedback survey was carried out a year later: most of the respondents still considered the training beneficial. The teachers who attended the day long training belong to a network that is kept informed about current traffic safety related issues.

Conclusions Traffic safety is highly valued but the need to focus on traffic safety education in schools is not always seen. Constant support for schools is paramount and it includes training and motivating teachers, developing new exercises and materials and lobbying at policy level.



#### SCHOOL INJURIES IN ISRAEL

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Background In the past, first aid for school children was provided by the school nurse, but over the years, this service has been eroded and does not exist anymore in Israeli schools. In 2014, the Ministry of Education, together with the ambulance services in Israel, Magen David Adom, have started a new first aid service that provide service to all schools in Israel. This paper describes the service and the data that were collected as part of it.

Methods A national call centre was established to respond to the first aid needs of all educational institutions in Israel. The service operates 7 days a week, between 07:30 to 16:30 throughout the

school year. In an event of an injury, school staff call the centre, and the call is being taken within 15 seconds. The call centre is occupied at all time by first aids providers. Once a call is received, the service provider assess the situation as describe and decide whether a phone consultation would suffice, whether a first aid providers is required on site, or, in severe cases, whether an ambulance is required. Every call is recorded and entered to a database.

Results Overall, 31217 calls were received to the call centre of which 1% required ambulance, 16% were classified as urgent, 72% were classified as not urgent and 10% were classified as administrative calls. The majority of those injured were between 10–12 years old. The most common injury place was the playground, followed by sports facility and the classroom. Majority of the injuries occurred during break time. The most common anatomic location of injury was the limbs, followed the head. Most of the injuries occurred during paly, followed by slips and trips and by interpersonal violence.

Conclusions Traditionally, data on injury in the community was based on self-reporting, with very little data that is based on reporting of the care providers. This is one of the few, and most comprehensive study on injuries in schools as reported by first aid providers. As such, this study provides a unique insight on injuries of school children in Israel.



# INJURY PREVENTION CAMPAIGNS FOR CHILDREN, BY CHILDREN – THE SAFEKIDS NEW ZEALAND CREATIVE QUEST COMPETITION

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**Background** Scooter-related injuries have doubled every year since 2008—from just 697 claims in 2008 to 6,474 in 2012. Cycling related injuries are one of the top 10 causes of unintentional injury related deaths for children.

Wearing a correctly fitted helmet is proven to reduce the number of head injuries. For cyclists 74% reduction in the likelihood of severe brain injury. Helmet wearing also reduced the probability of head injury by 69% in cyclists involved in crashes involving cars.

Despite this, there are significant barriers to helmet wearing among older children. Reasons for this include personal image and peer acceptance; children said they looked 'uncool' and would be teased.

Safekids designed a program that included: Effective engagement with children, schools, families, communities and the media incorporating increased awareness and behaviour change.

Objective In 2012 the Creative Quest competition asked schools to create radio ads, videos and illustrated stories that promoted the importance of wearing helmets.

This presentation will describe the key components and context of this competition, evaluation findings and outcomes. Outcomes to date include broad engagement with 473 entries from 129 teachers at 108 schools.

Results Survey results showed that among those who participated: 83% learnt how to fit and wear a helmet correctly; 89% developed a positive attitude towards the use of helmets; 89% were more likely to wear a helmet; 86% increased knowledge about the safety benefits of wearing a helmet; and 83% said they'd do the competition again.

In addition, Safekids acquired a creatives made for children, by children.

Conclusion Effective engagement with children increased awareness and acceptance of wearing a helmet.

Key concepts supported effective intersectoral collaboration between Safekids, schools, families, communities and the media to reduce the risk of injury to children.

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#### DANGEROUS STUDENT PASSENGER DROP-OFF, PEDESTRIAN BEHAVIOURS AND THE BUILT ENVIRONMENT NEAR SCHOOLS

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Background Dangerous drop-off of student passengers and pedestrian behaviours near schools have not been well described despite the potential for pedestrian motor vehicle collisions (PMVC). Safe environments are required for children around schools. Passenger drop-off and child pedestrian behaviours are described by occurrence of child PMVC and built environment (BE) features in Toronto, Canada.

Methods Dangerous passenger drop-off and pedestrian behaviours observations were done in 2015. Child PMVCs from 2000–2013, age 4–12 years, were mapped near 100 schools. Case schools had ≥ 1 collision and control schools had 0. Dangerous driving/parking, unsafe pedestrian crossings, distracted walking and disobeying crossing controls/guards were compared using chi-square statistics by case/control status or BE features: downtown/inner suburbs, school crossing guards and designated car drop-off areas.

Results Dangerous drop-off and/or pedestrian behaviours occurred at over 92% of schools. A greater proportion of case schools had children crossing at uncontrolled midblocks (97% vs. 78% controls). A greater proportion of inner suburb schools versus downtown had cars double-parked (52% vs. 28%) and parked blocking crossing controls (25% vs. 4%). A smaller proportion of schools with crossing guards versus without had cars parked blocking crossing controls (10% vs. 25% without) and drivers texting (5% vs. 22%). A smaller proportion of schools with designated drop-off areas versus without, had cars reversing dangerously (76% vs. 55%), parked blocking crossing controls (31% vs. 10%), children crossing at uncontrolled midblocks (78% vs. 95%) and between parked cars (48% vs. 76%).

Conclusions Dangerous student drop-off and pedestrian behaviours were pervasive at schools. Occurrence of behaviours was related to the BE; particularly designated car-drop off areas. Adaptations to the BE near schools may defer dangerous behaviours and provide a safer child pedestrian environment.

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# ASSOCIATION OF MATERNAL DEPRESSION AND ANXIETY WITH CHILDREN'S INJURY RISK: A PROSPECTIVE COHORT

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Background Maternal depression and anxiety are common in the early years following childbirth and are associated with children's health outcomes. The impact of maternal depression on childhood injuries is underexplored, with existing studies relying on maternal reporting of injury occurrences. Using linked population healthcare databases from England, we assessed the association between episodes of maternal depression and/or anxiety and the incidence of three common childhood injuries.

Methods We conducted a prospective cohort study of 209,418 mother-child pairs who had linked primary care and hospitalisation data from the Clinical Practice Research Datalink and Hospital Episode Statistics from 1997–2014. Episodes of maternal depression and/or anxiety were identified using diagnostic codes, prescriptions and hospitalisation records. Adjusted incidence rate ratios (aIRR) for the risk of child poisonings, fractures and burns during episodes of maternal mental health episodes were estimated using Poisson regression.

Results 55,431 children (26.5%) were exposed to one or more episodes of maternal depression and/or anxiety between birth and their fifth birthday. During follow-up 2,772 poisoning, 6,252 fracture and 4,316 burn events occurred. Child poisoning risk increased during episodes of maternal depression (aIRR 1.61, 95% confidence interval 1.39-1.87), depression with anxiety (2.10, 1.74-2.53) and anxiety alone (1.61, 1.07-2.42). A similar pattern was seen for burns, with the greatest risk during episodes of depression with anxiety (1.53, 1.28–1.82). Fracture risk only increased during episodes of depression alone (1.16, 1.04–1.30). Conclusions Episodes of maternal depression and/or anxiety were associated with increased risks of child poisonings and burns. Prompt identification and treatment of maternal depression and/or anxiety and provision of safety advice (e.g. safe medication storage) to mothers with depression and/or anxiety may reduce child injury risk.

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#### TEKO - SAFETY IN SCHOOL SPORTS IN FINLAND

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Background In Finnish schools sport injuries happen mostly in physical education (PE) classes and in recess. A remarkable part of the injuries can be prevented. TEKO – Safety in School Sports (2010–) is part of the Sports and Exercise Safety program LiVE. The primary target group for TEKO is PE and health education (HE) teachers in secondary schools. Safety promotion focuses on 10 segments; physical activity (PA), sports skills, maturation, nutrition, rest and sleep, environment and equipment, health care, atmosphere and rules, injuries and support network.

Objective TEKO has produced free of charge educational material and methods to internet to encourage PA, to increase quality and contents of PE and to promote safety of sports widely in school settings. TEKO has built up education material e.g. information packages, electric homeworks, videos and PP-slides for teaching. The main delivery channel is www.tervekoululainen.fi.

Results After 6 years websites ha 10000 visits per month and YouTube videos have been watched 43000 times. TEKO has kept over 60 education events. TEKO has also built up a large collaborator network, which enables the spreading of sports safety message.

A web-based project evaluation survey was done in 2013 to PE and HE teachers (n = 900). The response rate was 20%. The