

targeted, specific resources, with a 'one size fits all approach' being inappropriate. Continued consultations with Aboriginal community groups throughout Western Australia has assisted in finalising resources and ensuring they are relevant and appropriate for use throughout Western Australia.

699 COMMUNITY MOBILISATION TO ESTABLISH A COMMUNITY CRECHE TO INCREASE CHILD SUPERVISION IN RURAL NEPAL

¹Puspa Raj Pant, ²Matthew Ellis, ¹Toity Deave, ¹Julie Mytton. ¹University of the West of England, Bristol; ²University of Bristol

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Background Injuries are among the leading causes of death and hospitalisation of children worldwide; 90% of all injuries are unintentional. In 2010, over 900 children aged 1–4 years died from injuries in Nepal; the extent of non-fatal injuries is unknown. Most of the injuries to younger children occur at home, and associated with lack of supervision. Community mobilisation may be a feasible approach for preventing child injuries in rural Nepal. We describe community mobilisation for developing a community-crèche for 1–3 year old children to increase supervision and promote early childhood development.

Methods We worked with one women's group in Makwanpur and facilitated group discussion; a visit to an established crèche system in Bangladesh; did debriefing and orientation, and community involvement sessions. The women's group formed a committee to develop and manage the crèche; nominating 2 volunteers who were responsible for identifying eligible children and running the crèche. Published minimum standards for early child development centres (ECDC) by the government of Nepal were applied.

Results In February 2015, a crèche was established in Hatiya (Makwanpur) under the ownership of local women's group; and registered with local authority. A qualified ECD trainer trained the volunteers and mothers on stages of childhood development. A total of 17 children aged 1–3 years were enrolled and attended the crèche for 3 to 4 hours daily. Parents observed positive changes in children attending crèche. They also felt their children were in secure place when they were at work. The local municipality provided financial support to the crèche. A local government ECD centre agreed to intake the graduates from the crèche. **Conclusion** It is feasible, acceptable and potentially sustainable to establish crèches for young children in Nepal with full ownership of local women's group. There is very high potential for the partnership with local government which can also provide resources.

700 ROAD TRAFFIC INJURIES AMONG CHILDREN ATTENDED AT ER, YANGON GENERAL HOSPITAL

Htun Nanda, Aung Thein Htay, Thit Lwin. Department of Orthopaedics and Trauma, University of Medicine 1, Yangon

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Background As Myanmar is moving towards the socioeconomic development more accidents are happening amid increasing number of vehicles. There were very few studies regarding with childhood injuries in Myanmar and further studies and evaluation are

required to get appropriate preventive measures for road traffic injuries in children.

Methods Hospital based cross-sectional descriptive study was conducted during the period of September 2013 to August 2014 at ER, Yangon General Hospital to recognise epidemiological distribution of RTA among children under 12 years of age. During this period, 350 cases attended at ER and data were collected from out-patient register and police record from Yangon General Hospital. Three sub-groups were defined by type of injured persons; pedestrian, non-motor vehicle and motor vehicle. Children were grouped into 3 categories depending on their age.

Results Among the injured, 63.1% were pedestrians, 277% were motor vehicle accidents and only 9.15 were non-motor vehicle accidents. Among the age group school going age were commonest with 68.9% with male preponderance 59.4% and most of them (71.1%) were from urban area.

Head and neck injuries were most common with 54.9% followed by lower limb injuries (27.4%) and upper limb injuries (17.7%). Soft tissue injuries (57.4%) were common followed by fractures 20%. There were 4 deaths and the cause of death was head injury and multiple injuries.

Conclusion Childhood road traffic injuries are common in school going age group and most of them are pedestrians. Road safety measures for children and school environment should be encouraged for possible interventions. Road Safety education should be introduced into curriculum and early childhood education on road safety should be delivered.

701 IMPACT ANALYSIS OF REVISION OF A JAPANESE SAFETY STANDARD OF BICYCLE WHEEL GUARD

^{1,2}Koji Kitamura, ^{1,2}Yoshifumi Nishida, ^{1,2}Mikiko Oono, ^{1,2,3}Tatsuhiro Yamanaka. ¹National Institute of Advanced Industrial Science and Technology, Japan; ²Safe Kids Japan; ³Ryokuen Children's Clinic, Japan.

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Background We contributed to the revision of a Japanese safety standard of bicycle wheel guard for preventing childhood injury due to wheel spoke, by showing the actual situation of the injury based on our injury data and clarifying reachable range of child's foot based on experimental measurement. In this study, the purpose is to evaluate impact of the revision based on our injury database.

Methods Our injury data base includes injured body part data which is recorded as 3 dimensional area data on the 3 dimensional child model by our developed system. The system can calculate the frequency distribution by overlaying multiple data. To evaluate the impact, we compared probability distribution of injury cases due to bicycle before and after the revision.

Results The number of cases before the revision is 325 and the number of cases after the revision is 159. We compared them by calculating injured probability distribution of body parts. As for all injury cases due to bicycle, injured probability of knees and heels is reduced after the revision. As for injury cases of foot which is injured due to wheel spoke, average of injured probability is decreased by approximately 55.3% after the revision. The result indicates that the revision is effective for preventing injury due to wheel spoke.

Conclusions We evaluated impact of the revision at this time. We showed that we can evaluate impact of preventive measure quantitatively based on injury database. We think that the impact will increase because bicycle which is fulfilled the revised safety standard will become widespread over time. We will continue to

evaluate the impact of it and try to evaluate impact of other preventive measures.

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SAFE SCHOOL TRANSPORTATION OF CHILDREN SUPPORTED BY INTELLIGENT TRANSPORT SYSTEMS

Dagmara Jankowska-Karpa, Justyna Wacowska-Slezak. *Motor Transport Institute, Poland*

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Background The article presents the evaluation results of integrated system for safe transportation of children to school done in Poland, which exploited Intelligent Transport Systems (ITS) and was developed and implemented within the European funded project Safeway2School. SW2S system included several elements, in Poland these were the following: pedestrian safety system at bus stops – Intelligent Bus Stop (IBS) and activating tags for children, bus stop inventory tool. These were supplemented with a new sign placed on a school bus and bus stops and trainings for children, parents, bus driver and bus assistant.

Methods The methods used for the evaluation of the system were pre and post speed measurements and eye-tracking experiment together with a survey carried out among drivers who used the school bus route, where selected elements of system were tested. Also a survey among users was carried out in order to measure the acceptance of the SW2S system.

Results The results of the eye tracking experiment proved that IBS attracts more attention of drivers than a regular stop. The flashing lights of IBS make drivers more aware of what is happening on the road and they notice IBS faster than a regular bus stop. The results of noticing and observing new school bus sign suggest that drivers noticed the new sign quicker than the regular bus sign which supports the assumed hypotheses.

The results of the survey support the eye-tracking outcomes while majority of drivers noticed new sign (80%) and IBS (75%). Majority of drivers declared that they always reduce speed when people are waiting at the bus stop or a bus approaches the stop.

The expected speed reduction of drivers on school bus route during the activity of IBS has also occurred.

Conclusions The elements tested in the implementation of SW2S system in Poland were positively evaluated which is of great importance for the safety and security of children and it also influences the general level of road safety.

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CHILD INJURIES REPORTED IN COMMUNITIES RECEIVING A ROAD INFRASTRUCTURE INTERVENTION IN DAR ES SALAAM, TANZANIA

^{1,2}David Ederer, ³Ayikai Mills-Tetty, ³Simon Kalolo, ³Alex Guerrero, ³Jeffrey Witte. ¹Division of Unintentional Injury Prevention, Centres for Disease Control and Prevention. Atlanta, Georgia, USA; ²Advanced Technology Logistics. Newnan, Georgia, USA; ³Amend. Dar Es Salaam, Tanzania

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Background School Area Road Safety Assessments and Improvements (SARSAI) is a community-based road traffic injury prevention program that combines minor infrastructure improvements with road safety education at primary schools. In 2015, SARSAI was implemented in 9 schools in Dar es Salaam. We report the results of a pre-intervention population-based survey conducted to establish a baseline of child road traffic injuries in communities near schools eligible for the intervention.

Methods A household census was conducted in a sample of 22 communities around schools eligible for SARSAI, including 15,480 parents or guardians of children ages 5–16. Parents or guardians were asked basic demographic information about children in the household, and if any children had been involved in a road traffic crash in the past year. If a child had been injured or killed in a crash, a detailed questionnaire was given to the parent or guardian to collect information on the circumstances of the injury, health outcomes, and long-term functional status. Data were collected over the 3 months preceding the intervention.

Results The survey identified 199 child road traffic injuries in the past year. About 83.4% of injuries required medical attention. Three injuries resulted in permanent disability, and 7 children were killed by road traffic crashes. Legs (38.2%), head (22.6%), or arms (15.6%) were the most common body areas injured. Most injuries (62.4%) occurred while walking to school and most resulted from a crash with a motorcycle (48%) or private car (24.5%).

Conclusions Road traffic injuries were a substantial problem among primary school students. Interventions, such as SARSAI, to protect children walking to school from motor vehicles have the potential to reduce injuries. A post-intervention survey conducted one year after the intervention will provide insight into the effectiveness of the SARSAI program.

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THE ARMADILLO CLUB AS AN ELEMENT OF ROAD SAFETY AWARENESS RAISING CAMPAIGN ADDRESSED TO CHILDREN

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

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Background The Armadillo Club educational program was an element of the nationwide road safety awareness campaign entitled Armadillo Club Always Belts Up which has been conducted in Poland since 2005. The Armadillo Club was carried out by Motor Transport Institute in 2012/2013 school year and was targeted at kindergartens and elementary schools children and their parents. The article presents the campaign and the educational program as well as its evaluation outcomes.

Objective The objective of the whole campaign was to make the fastening of seatbelts more attractive for children and the educational program aim was to educate 4-12-year-old children in selected issues related to safety, with particular emphasis on road safety.

Results In total, 13613 children from 105 kindergartens (7030 children), 61 schools with classes 1–3 (4021 children) and 37 schools with classes 4–6 (2562) participated in the Armadillo Club. According to respondents, majority of club activities were carried out in accordance with the program guidelines (91%). 42% of respondents considered the program as interesting and 43% – as very interesting. According to 15%, certain elements were interesting, other were less interesting. 98% of respondents declared that if the campaign was to be continued, they would participate again.

Conclusions The innovative character of the whole campaign lies in the combination of awareness raising campaign with enhanced enforcement and the Armadillo Club programme. The evaluation results of both the campaign and the program were satisfactory. The post-tests show that the use rate of seat belts and child restraint systems increased by 40% in Poland since 2004.