Learning Outcomes Undertaking an OHS risk management approach with academic staff was a positively received experience that provided an opportunity to greater understand teaching program hazards. A consultative approach aided the education of teaching staff around their OHS roles and responsibilities, inclusive of applying a reasonably practicable approach to risk mitigation from identified hazards. Finally, the toolkit saw transferability so that a quality teaching program lens was able to be applied throughout discussions and action plan implementation.

E-Posters P4 – Child, Community, Sport, Falls, Strategy, Systems & WHS, March 25, 2021

P4.001 EFFECTIVENESS OF THE CHILD BURN INJURY PREVENTION CAMPAIGN, IN MONGOLIA

¹Gerelmaa Gunsmaa*, ¹Ichikawa Masao, ²Haruhiko Inada, ³Badarch Tumen Ulzi. ¹Department of Global Public Health, Faculty of Medicine, University of Tsukuba, Tsukuba, Japan; ²Department of International Health, Johns Hopkins Bloomberg School of Public Health, Baltimore, USA; ³Department of Statistics and Surveillance, National Trauma and Orthopedic Research Center, Ulaanbaatar, Mongolia

10.1136/injuryprev-2021-safety.204

Introduction Global Burden of Disease Study 2013 demonstrated that in Mongolia, child burn mortality is remarkably high, which is 8.1 per 100,000 children aged <15 years as compared with global rate 2.5. To tackle this problem, nationwide burn prevention campaigns were implemented from August 2014 to May 2015 and from January 2017 to February 2017 in Mongolia.

Methods To evaluate the campaign effectiveness, we conducted an interrupted time-series analysis, using the monthly rate from 2009 to 2018 of child burn injuries per 10,000 by sex, age group, mode and severity of burn injury. The burn injury data were derived from the National Trauma and Orthopedic Research Centre.

Results During the study period, there were 27800 medically attended child burn injuries, 34% of them were major burns. After the first campaign, the rate of scalds shortly decreased compared with that of other types of burns. The decreasing trend was significant among children aged <4 compared with children aged from 5 to 14, and the relative change of the scald rate was -29% in one-year post-intervention. However, the rate of major burns continued to increase irrespective of the types of burns. After the second campaign started, none of the rates declined.

Conclusions Though the first campaign was effective in reducing minor and moderate scalds among young children, major burns did not decrease. The importance of understanding the success and failure of the prevention campaign is to help to integrate burn prevention.

P4.002 COMMUNITY ENGAGEMENT IN WEB-DESIGN TO PROMOTE SAFE RECREATION FOR CHILDREN WITH AUTISM

¹Crystal A Shannon*, ¹Lise L Olsen, ¹Rachelle Hole, ²Grace Iarocci, ³Mariana Brussoni, ⁴Stephanie Jull. ¹University of British Columbia, Okanagan, Kelowna, Canada; ²Simon Fraser University, Burnaby, Canada; ³University of British Columbia, Vancouver, Canada; ⁴Canucks Autism Network, Vancouver, Canada

10.1136/injuryprev-2021-safety.205

Background Participation in recreational activity by children with autism is important for health and social inclusion. However, these children and their families experience many barriers to recreation participation including parental concerns about safety and injury risks and a lack of educational resources to address children's recreational safety needs. In this study, we are aiming to design a web-based parent resource to increase safety awareness and promote appropriate strategies for safe recreation.

Methods Using a community-based research approach, this study will engage parents and stakeholders in urban and rural settings to design a website to meet the needs of families of children with autism. Focus groups, interviews and survey methods will be used to evaluate the development, feasibility and effectiveness of the website resource.

Results Findings from parent focus groups conducted in urban and rural communities in British Columbia, Canada will be presented. These results will be used to identify priority website components to inform the blueprint for the website structure, content and design. The website design process and testing procedures will be highlighted.

Conclusion Community engagement is needed to identify unique safety needs and strategies to foster safe active recreation for children with autism. This research supports SDG #10.2 to reduce inequalities through better understanding to promote recreational inclusion for families and children living with autism.

Learning Outcomes Participants will gain: 1) awareness of family-centred priority safety issues and strategies and 2) appreciation of how community engagement approaches can inform website design to promote safe recreation for children with autism.

P4.003 THE COMPLEXITY OF SUPERVISION: IMPACT OF PARENTAL SUPERVISION STYLE ON CHILDREN'S RISK-TAKING

¹Casie Morgan*, ¹Claire Estep, ²Caitlin Bullard, ³Brittany Cangialosi, ¹David Schwebel. ¹University of Alabama At Birmingham, Birmingham, USA; ²Baylor University, Waco, USA; ³Jacksonville State University, Jacksonville, USA

10.1136/injuryprev-2021-safety.206

Background Active supervision to prevent child injury encompasses close proximity, full attention, and continuous monitoring (Saluja et al, 2004). Absent components may increase injury risk. We examined the impact of supervision and supervision styles on children's risk-taking.

Methods 59 children aged 4–6 years (Mage=5.47, SD=.47) engaged in an activity room with hazards (e.g., ball pit) for ten minutes (supervised, then unsupervised). Parents completed questionnaires while 'supervising,' creating poor attention/non-continuous monitoring. Children also responded to 12 illustrated risk-taking activities (6 pairs, split between unsupervised/actively supervised), indicating preferred engagement in risks.

To assess supervision style, parents completed the PSAPQ (Morrongiello & House, 2004), which includes four scales: supervision (keep close watch), protectiveness (strong sense of responsibility), fate (injuries are bad luck; excluded from analyses given focus), and risk-tolerance (encourage independence).

Results Activity Room: Children took similar risks when supervised (34 ± 27) and unsupervised (30 ± 24), $t(59) = -1.10$. Bivariate correlations revealed greater risk-taking with more protective/supervision-oriented parents. Multiple linear regression predicting supervised play from PSAPQ scales was significant, $F(3,53) = 4.90$, $p < .05$, $R^2 = .22$; only protectiveness significantly predicted, $p < .05$.

Illustrations Children took fewer risks when supervised (2.29 ± 1.55) than unsupervised (1.80 ± 1.71), $t(59) = 2.81$, $p < .05$. Bivariate correlations revealed greater risk-taking for more supervision-oriented parents. Multiple linear regression predicting supervised risk-taking from PSAPQ scales was non-significant, $F(3,54) = 2.56$, $p = .07$, $R^2 = .13$, although supervision significantly predicted, $p < .05$.

Conclusion These findings support crucialness of active parental supervision for child injury prevention, and safe risk-involved exploration for child development. Inattentive supervision may increase risk.

Learning Outcomes Parental supervision quality and type impacts children's risk-taking.

P4.004 CHILD RESTRAINT USE IN SHANGHAI: A MULTI-ROUND CROSS-SECTIONAL OBSERVATIONAL STUDY

¹Ting Chen*, ²Juanjuan Peng, ²Yan Yu, ³Abdulgafoor Bachani, ³Qingfeng Li. ¹Department of Population, Family and Reproductive Health, Johns Hopkins Bloomberg School of Public Health, Baltimore, USA; ²Shanghai Municipal Center for Disease Control and Prevention, Shanghai, China; ³Johns Hopkins International Injury Research Unit, Department of International Health, Johns Hopkins Bloomberg School of Public Health, Baltimore, USA

10.1136/injuryprev-2021-safety.207

Background Few studies have assessed the child restraint use in Shanghai. We aim to investigate the prevalence of child restraint use and the potential risk factors affecting child restraint practice in Shanghai.

Methods A cross-sectional observational study was conducted near the pediatric hospitals, kindergartens, entertainment places, and shopping malls between 2015 and 2019 in Shanghai. Trained field workers observed and recoded the child restraint use in all passing motorized vehicles with children passengers at each site. A logistic regression model was used to examine risk factors on non-restraint use among children, adjusting for potential confounders.

Results Eight rounds of data were collected with a total sample size of 12,061 children. The total child restraint use rate was 6.42%. Child restraint use rate rose with fluctuation during the last 5 years, from 5.12% in round 1 to 8.55% in round 8 (p value < 0.001). Results from the logistic regression model showed that children occupants with these factors had a higher risk for inappropriate child restraint use: children aged 5–12 years compared with those aged younger than 4 years (OR: 2.14; 95% CI: 1.79–2.55; $p < 0.001$), children traveling with other children occupants compared to those who were the only child in a car (OR: 2.20; 95% CI: 1.51–3.20; $p < 0.001$), and children traveling in a taxi compared with those in a sedan/saloon (OR: 32.98; 95% CI: 16.37–66.43; $p < 0.001$).

Conclusion Child restraint use rate was low in Shanghai. Our finding may inform intervention programs among children with those risk factors to promote child restraint use.

P4.005 SUPPORT SYSTEM FOR CHILDREN MOBILITY MANAGEMENT TO IMPROVE SCHOOL TRANSPORT SAFETY

Dagmara Jankowska-Karpa*. Motor Transport Institute, Warsaw, Poland

10.1136/injuryprev-2021-safety.208

Context Road accidents are main cause of unnatural road deaths among children and youth. Children are vulnerable when they travel unaccompanied to school: walking/cycling, using public transport or dedicated school transport. School transport system requires modernization and more focus on children safety at all stages of the trip.

Process Based on own research regarding effectiveness of Intelligent Transport Systems for school travel, a model of support system for children mobility management was developed to ensure children's safety in a door-to-door perspective. Aim of the system is to i.e. inform parents and school on child location, assist stakeholders supervising school transport to plan optimal routes of buses. The model of the system is composed of five modules: location of children's tags, location of intelligent bus stops, location of children on the bus, location of children at school, optimisation of bus route, safe travelling.

Analysis Different variables were analysed and practical verification of the model was done based on data from one of the regions in Poland. Model of the system refers to all stages of school travel and includes technologies supporting children on way to school.

Outcomes Preliminary validation of the system's model was positive; journey supported by the system was safer than without system. Further analyses should be carried out on a wider scale and model should be expanded with other elements.

Learning Outcomes It is crucial to investigate possibilities of children safety improvements with relation to the use of modern technology measures, which should encompass other road users too.

P4.006 A NOVEL ADOLESCENT INJURY PREVENTION PROGRAM

¹Jessica Landry*, ²Nimsy Carolina Ramos Velásquez, ²María Isabel Bolaños Reyna, ¹Cinnamon Dixon. ¹University of Colorado/Children's Hospital Colorado, Aurora, USA; ²Trifinio Center for Human Development, Guatemala

10.1136/injuryprev-2021-safety.209

Background Injury is the leading cause of adolescent mortality in rural Guatemala. Effective injury prevention approaches are conceptualized by local communities to fit the population and environment. Despite the injury burden affecting adolescents worldwide, there is limited engagement of this high-risk population as injury prevention capacity-builders. This project aimed to adapt the World Health Organization (WHO) Child Injury Prevention Course for adolescents, and to assess the acceptability and efficacy of the modified curriculum in increasing injury prevention knowledge and improving self-confidence in safety behaviors.

Methods The conceptual framework of Adult Learning Theory was used to modify the WHO course into an engaging curriculum for adolescents. The curriculum was then translated into Spanish and implemented with a class of 11 adolescents