Conclusion This research identifies key risk factors pertaining to female drowning and contributes to SDGs 3 good health and wellbeing and 5 gender equality. It has the potential to inform future drowning prevention interventions for females and the development of future research into the drivers of female drowning, both within New Zealand and globally.

2B.005 DYING TO HELP: FATAL BYSTANDER RESCUES IN AUSTRALIAN COASTAL ENVIRONMENTS

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Bystanders who drown attempting a rescue are becoming an increasingly important issue within drowning prevention. In Australia, most of these incidents occur in coastal waterways. This study characterises coastal bystander rescuer fatalities collated in the national coastal fatality database (2004–2019) to guide future public safety interventions involving bystander rescuers. Sixty-seven bystander rescuer fatalities in coastal waterways were reported during the 15-year period, an average of 4.5 per year, which is a significant proportion of the five fatalities previously reported across all Australian waterways.

Most coastal bystander rescuer fatality incidents occurred in New South Wales (49%), at beaches (64%), in regional or remote areas (71%), more than 1 km from the nearest lifesaving service (78%), during summer (45%), in the afternoon (72%), in the presence of rip currents (73%), and did not involve the use of flotation devices to assist rescue (97%). The majority of coastal bystander rescuer victims were Australian residents (88%) born in Australia/Oceania (68%), males (81%), aged between 30–44 years old (36%), were visitors to the location (55%), either family (69%) or friends (15%) of the rescuee(s), and were attempting to rescue someone younger than 18 years old (64%).

Our results suggest safety intervention approaches should target males, parents and carers visiting beach locations in regional locations and should focus on the importance of flotation devices when enacting a rescue and further educating visitors about the rip current hazard. Future research should examine the psychology of bystander rescue situations and evaluate the effectiveness of different safety intervention approaches.

2C – Falls, March 23, 2021

2C.001 TRENDS IN FALLS-RELATED INJURY HOSPITALISATIONS AND DEATHS AMONG ADULTS IN VICTORIA, AUSTRALIA

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Background In the Australian state of Victoria, rates of unintentional falls-related deaths and hospitalisations among community-dwelling older people living in their own homes are increasing. Despite the availability of evidence-based falls prevention interventions the rates are projected to keep rising with the ageing of the population.

Methods Retrospective quantitative data analysis was conducted of falls-related injury hospitalisations and deaths among community-dwelling older people in Victoria, for the period 2006 to 2018, captured by key datasets on deaths and hospitalisations available in Victoria from the Australian Bureau of Statistics (ABS), National Coronial Information System (NCIS) and the Victorian Agency for Health Information (VAHI). Data analysis includes temporal trends and descriptive statistics.

Results This presentation will share results of the data analysis. Highlights will include temporal trends in fall-related deaths and hospitalisations, stratified by age and sex, fall type, injury type and activity prior to fall-related injury.

Conclusions The burden of high and low falls across the adult life-course warrants increased government policy and investment in primary prevention of falls, and for efforts to begin earlier than at 65+ years of age.

Learning outcomes This presentation of the latest surveillance of the Victorian population falls-related injury will inform future government policy effort in the primary prevention of falls in the community. Information about the Victorian population may have relevance to other international ageing populations.

2C.002 GRAVITY CAN BE A REAL KILLJOY. FALL ACCIDENTS INVOLVING 0–4-YEAR OLD'S IN RESIDENCES

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Background Fall accidents are responsible for about a quarter of all injuries and hospital treatments in Austria. Children in the age group of 0–4-year-olds undergo hospital medical examinations even more frequently due to accidents resulting from falls.

Methods An analysis was conducted of fall accidents suffered by 0–4-year-olds in residences, who were treated at the Department for Paediatric and Youth Surgery, by using the injury data base.

Results 4,709 accidents were identified as ‘falls at home’. In this group of 0–4-year-olds a peak could be observed during the first year of life, during which 28% of the falls occurred.

In the case of injuries, 18% were categorized as being medically serious injuries.

Thirty-nine percent of the falls could be categorized as falls from height. The couch in the living room was the most common piece of furniture from which falls occurred.

Conclusion In Austria, safety standards and laws are central components of human protection, which is why technical prevention will no longer be the central starting point for accident prevention work. In many cases, the behaviour of a child who is subject to psychomotor developmental conditions and/or the behaviour of an adult/parent is the effective starting point for safety work.

Learning Outcomes Parents are of paramount importance in protecting the youngest children. They are aware of the living environment of their child and the child's current developmental steps. A sensitisation to both of these aspects is of great importance to the child's safety during the first years of life.

2D – Road – Pedestrians, March 23, 2021

2D.001 DISTRACTED WALKING PREVENTION WITH MULTI-SECTORAL COLLABORATION FROM RESEARCH TO AWARENESS & EDUCATION

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10.1136/injuryprev-2021-safety.44

Background Road traffic accident is the first killer to teens aged 15–17 in China. Teens are the group walking independently and with the highest increasing rate on web-surfing through mobile phone. This program involves research and transfers the research findings into actions on awareness and education to prevent the distracted walk among teens and public.

Objective Understand distracted walk among teens and raise awareness on no distracted walk among teens and the public.

Method 1) A questionnaire survey on distracted walking among 2,984 teens in 12 schools were conducted 2) Results were used to build an awareness campaign with multi-sectoral collaboration; 3) Working with local educators to have the curriculum into schools as a must-do education to teens.

Results 1) A research report on teens distracted walk was issued which showed 35.80% of the respondents using cell-phones while walking, among which 18.04% were hit by vehicles; 2) The findings were used to lobby: a) the decision-makers of multi-sectors working together on the campaign 'The Moment of Silence' and the promotion in the public transportation (public bus and subway) and shopping malls; b) the decision-makers of educational sector to have 'No Distracted Walking' curriculum into 2000 schools of 5 cities as the must-do education on road safety and also schools over 40 cities used the curriculum.

Conclusion Research findings are the key to kick the ball running on engaging local government's action on raising the awareness on 'No Distracted Walking' among teens and the public.

2D.002 DISTRACTION INDEX: A NEW INDICATOR FOR MEASURING DISTRACTED WALKING

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Background Simple and valid measures are important for studying distracted walking, an important and emerging risk factor for pedestrian injury. Based on common epidemiological indicators for distracted walking, we developed and validated an indicator to measuring distracted walking, called the 'distraction index'.

Methods A large, video-based, observational study was conducted at 20 intersections in Changsha, China. To develop a 'distraction index' that would quantify safety risks based on distracted walking, we calculated relationships between 7 observed distraction indicators and 3 safety outcomes. This allowed us to assess the discriminant validity of the 7 indicators and create a 'distraction index' that best predicts street-crossing safety based on distracted behavior.

Results In total, 8,729 distracted pedestrian crossings were identified. Discriminant validity varied greatly across the distraction indicators. Compared to each individual indicators, the distraction index demonstrated the strongest capacity to discriminate all three safety measures of street-crossing. Using the three levels in the 'distraction index', distracted pedestrians had much higher risks of experiencing near-crash events compared to undistracted pedestrians, with odds ratios of 1.3 (95% CI: 1.1, 1.4) for low index scores, 1.6 (95% CI: 1.4, 1.9) for medium, and 1.9 (95% CI: 1.6, 2.3) for high.

Conclusion The distraction index predicted pedestrian crossing safety more accurately than any of the seven individual measures of distracted walking. We recommend use of this index in future research.

Learning Outcomes No widely recognized epidemiological measure exists to observe distracted walking. The newly-created 'distraction index' shows excellent discriminant validity compared to individual indicators of distraction.

2D.003 ROAD ENVIRONMENTAL CHARACTERISTICS, DISTRACTED WALKING, AND PEDESTRIAN SAFETY: AN OBSERVATIONAL STUDY

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10.1136/injuryprev-2021-safety.46

Background Distracted walking is a major risk factor for pedestrian injury, but it is unknown whether pedestrians have different risks of distracted walking in some road environments compared to others.

Methods An observational study was conducted at 20 intersections in Changsha, China. We developed a composite measure distracted behavior (called the 'distraction index') based on types and duration of pedestrian distraction. Another composite indicator, 'road environmental risk score', was constructed on the basis of eight variables on road environment and traffic volumes. The mediating effect of distraction index was examined while studying the impact of road environmental risk score on the risk of near-crash events.

Results In total, 8729 of 25436 (38.9%) pedestrians were distracted by mobile phone use, interaction with others, or eating/drinking/smoking while walking. A higher distraction index was related to higher risk of near-crash event ($p < 0.05$). The distracted index was positively associated with the road environmental risk score ($p < 0.05$). Pedestrians with high and medium road environmental risk scores had higher risks of a near-crash event than those with low scores (RR=1.41, 95% CI: 1.15, 1.73; RR=1.56, 95% CI: 1.28, 1.92). Road environment yielded an indirect effect on near-crash event; the effect was mediated by the distracted walking index, accounting for 5.3% of total variance.