Results The injuries decreased close to the half at the SSP promoting schools, while the other groups didn't show significant change. As for the intentional injuries and mental harms related to bulling, the clear changes were not identified yet, but the number of students who have uncomfortable experience with others have declined and the behaviors and/or conversations among students become more positive and friendly.

Conclusion With SSP programs, the schools can reduce injuries and increase positive communication. Those achievements in making schools safer have been made through the development of the capacities and the ownership of the students as well as teachers. In addition, the network with parents and communities have been developed through the programs.

Learning Outcomes Children's capacities gained through SSP can be applied not only to injury prevention but also to any risks for the rest of their lives.

5B – Child – General, March 24, 2021

5B.001 DEVELOPING BEHAVIOURAL THEORY GROUNDED AND USER-CENTRED MOBILE APP TO PREVENT INFANT FALLS

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Background Digital behaviour change interventions (DBCI) are common public health tools but their use in injury prevention is limited. This paper presents the development and user-testing of the first module to be implemented in a mobile app designed as a DBCI to prevent infants falls.

Methods We used the Behaviour Change Wheel (BCW) to guide DBCI development, and review of literature and parental forum discussions to identify target behaviours. These were mapped to Behaviour Change Techniques (BCTs) and a logic model was constructed. For pilot-testing, pregnant mothers were provided the app to review. Feedback through think-aloud interviews and an iterative process of user-testing was used to refine the app until comprehension criteria was reached: 80% of participants achieving ≥90% correct comprehension.

Results Development work identified key target behaviours, including mother getting adequate rest, safe feeding practices and safe infant placing after a feed. BCTs identified were information on health consequences, credible information, social support, prompts and cues, instruction and self-monitoring. For pilot-testing, 20 pregnant mothers were recruited, and 4 iterations of app refinement were required to reach the comprehension target. Acceptability was high and logic model changes were minimal.

Discussion and Conclusion This project demonstrates our novel development pathway and likely acceptance of the DBCI but further work is required to examine app engagement. Once fully implemented, the impact on behaviour change will be examined.

Learning Outcomes Use of the BCW and a user-centred approach is a feasible method for development of DBCI for injury prevention.

5B.002 DEVELOPMENT OF AR APPLICATION AND DATABASE TO VISUALIZE RISKS OF HOME INJURIES

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Background/Aims Accidental injuries among young children at home is a global issue. Previous research has indicated that some home injuries are preventable. Although the potential for home injuries is everywhere, it is sometimes difficult to anticipate injuries before they happen. Therefore, it is important to visualize children's behaviors at home as part of an effort to mitigate the risk of injuries at home. This study presents a prototype augmented reality (AR) mobile application and web database system aimed at visualizing various children's actions toward their home surroundings in order to prevent injuries.

Methods To visualize how children interacted with their surroundings in everyday environments, we conducted longitudinal observations of 15 children aged 4 to 12 months at their homes in Japan and Portugal. After shortlisting videos that related to the most frequently observed 10 objects, we then developed an AR application, converting the videos into line drawings so as to protect the identity of the participants. The database integrates all observational data and content of the AR application, comprising texts and movies of over 530 everyday objects that infants directly touched at home from 4,100 episodes.

Results As a result, AR application users are able to select the object in their own home environment and see how children interact with it. The AR application provided insight into the interests and behaviors peculiar to young children, and the database enabled users to look for information that could identify potential causes of home injuries.

5B.003 IMPACT OF UNINTENTIONAL CHILD INJURIES IN KAVREPALANCHOK DISTRICT OF NEPAL

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Background Among the children who meet unintentional injuries every year globally, many are left with some form of disability. The rehabilitation of these children is costly and difficult to afford due to poor economic resources. Thus, it highlights the importance of prevention of unintentional injuries.

Methods A cross-sectional analytical study was done in rural and urban areas of Kavrepalanchok District in Nepal. A total of 667 children aged 1–16 years were included. Impacts of injury on the children and their families were assessed.

Results Out of the 342 children from the rural area and 325 children from the urban area, 89 and 56 children were injured respectively in the last one year. The injuries resulted in a temporary impairment of 12.4% and 1.8% of children in rural and urban area respectively. Similarly, 11.2% of them in rural and 1.8% in the urban area suffered from some form of permanent disability. The children also missed their school ranging from 1 to 90 days due to injury. In 22.2% of injury cases in rural and 14.3% in the urban area, either of the parents had lost their workdays to take care of the injured child.

Conclusion The impacts of unintentional injuries were higher in rural areas, probably because of delays in seeking health care for the injury and lack of better health care facilities in the rural area.

Learning Outcomes There is a need of contextual and cost effective childhood injury prevention program to reduce premature mortality and morbidity (SDG 3.4).

| 5B.004 | PREVENTING CHILDHOOD INJURIES IN UGANDA – DEVELOPMENT OF A CHILD SAFETY KIT |

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Background Globally, nearly 650,000 children lose their lives to injuries every year. Injuries occurring in and around the home to children under 5 years (burns, falls, drowning, poisoning) can be prevented through providing safety equipment e.g. barriers, childproof containers. A number of studies have shown significant reductions in child injuries following this approach but all studies have thus far been conducted in high-income countries. Our research aims to reduce unintentional home injuries among under 5's in Jinja, Uganda through the provision of a child safety kit and parental education.

Methods This study is guided by a community-based participatory research (CBPR) approach utilizing mixed methods. A quantitative retrospective review of hospital data is combined with a community-based household survey and risk assessment checklist tool to provide incidence and risk factor data. A deeper exploration of attitudes and perceptions of injuries in the home along with participatory workshops is provided through focus-group discussions and Photovoice.

Results Data collection is currently underway and will be analysed between March-June 2020.

Conclusion This formative research will contextualize the problem and develop an intervention package including the child safety kit, educational material, parent training workshops and an awareness campaign. The findings will inform the development of a culturally appropriate/affordable safety kit and provide accurate incidence rates on which to base sample size calculations for an intervention trial to measure behaviour change and reductions in injuries.

Learning Outcomes The results will have significant implications for other low-income countries both in terms of research methodology and effectiveness information.

5C – Rural, March 24, 2021

| 5C.001 | RURAL CRIME AS A HEALTH AND SAFETY ISSUE FOR SWEDISH ANIMAL FARMERS |

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Background Farmers with animal production in Sweden can experience different types of criticisms directed against their activities from consumers, the media and inspecting government agencies. On another level, threats, damage, tampering, robbery and other criminal acts are directed against the farm's activities, but also against the farmer, family members and employees. The farmers organization state the problems as a major health & safety issue. The goal is to investigate the nature of the experiences of threats, crimes and criticism against animal production in Sweden.

Methods The research is achieved by assessing the consequences for individuals and farms, health, social and economic conditions. Interviews with farmers, web-based enquieries, data from official statistics and media coverage will underlie the methodology of this study. We focus on farmers not as 'victims' but rather as 'active agents', by illustrating ways that farmers handle, cope and respond to the criticisms and threats they are exposed in a daily basis.

Results Preliminary results of our ongoing research show that farmers of all types of animal production feel an increased level of worries and stress due to rural crime and external critizism. They also report that family members and employees are affected. Farmers try to cope with the new stress by investments in increased security measures at the farm, interacting more with other farmers, but also less public contacts.

Learning Outcomes It is obvious that rural crime and external critizism is adding further stress to the daily life of animal farmers and needs to be further investigated

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| 5C.002 | MULTIMILLION TRADE BY UNSKILLED ERGONOMIC-STRESSORS STRICKEN DATE PALM CLIMBERS IN RURAL SINDH |

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Background The global date trade accounts $1.2 billion and 8 billion trade of Pakistan, providing a major source of export revenues as well as of livelihood and income for 100,000 growers, farmers and exporters.The musculoskeletal disorders and occupational injuries being 2nd most common cause of disability measured by DALY (Disability Adjusted Life Years) to the global burden of disease and have emerged as a major challenge for developing countries in the SDGs era. Our study explored determinants and risk factors and affordable strategies for the treatment and rehabilitation in the date palm climber communities.

Methods A sequential mixed-methods study was conducted in rural areas of Sindh from March' to August'2019 using