903 IMPLEMENTATION OF ROAD SAFETY INTERVENTIONS IN LOW AND MIDDLE INCOME COUNTRIES – A CASE OF KENYA

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Background Kenya was one of 10 countries, and the only one in sub-Saharan Africa that participated in a 5-year road traffic injury prevention demonstration project, which was part of the Bloomberg Philanthropies Global Road Safety Programme (BPGRSP). The global programme focused on implementation of evidence based road safety interventions. In Kenya, the focus of the Project was to increase helmet wearing among motorcycle riders and to reduce speed on the main highways which pass through two implementation sites (sub-counties).

Methods Project was implemented between 2010–2014. Implementation of intervention was led by a consortium of six organisations. WHO as one of the organisations that took the role of coordination between national government and consortium partners. The local work was led by a local multi-agency working group of stakeholders (under the leadership of MOH) which were responsible for developing, implementing and monitoring of national and/or local work plan. A core package of road safety interventions (social marketing, legislative review, training of journalists, trauma care improvement, data system strengthening, child pedestrian safety) targeting the identified risk factors, were developed and implemented. Interventions were adapted for the local setting. Monitoring and evaluation, capacity development on enforcement and engagement with NGOS was led by the other consortium partners.

Results In the 5 years of the project, several achievements in most of the intervention areas were observed. Speed compliance at both intervention sites reached above 90%. Helmet wearing improved slightly (by 26%), but only at one site. There was a significant decline (over 85%) in the number of child pedestrian injuries and deaths at pilot sites. The national helmet standard was revised. Efforts to integrate some of the activities into the National Transportation Safety Authority and MOH's work is ongoing.

Conclusions Targeted multi-sectoral action using a combination of evidence-based interventions implemented as a package, with adaptation to the local setting and capacity can lead to positive outcome. The sustainability of the positive results at intervention sites and scale up of the proven interventions to national level is a challenge in Low and middle income countries.

Child and Adolescent Safety

Post Wed 3.2

904 ACTIVE SCHOOL TRANSPORTATION AND STROLLER USE IN KINDERGARTEN CHILDREN IN TORONTO, CANADA

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Background Declines in child pedestrian motor vehicle collisions have occurred over the past 20 years possibly due to the simulaneous decline in children walking to school. Active school transportation (AST) is a form of physical activity that should be encouraged as all children make the daily school commute. Little is known about AST in kindergarten students (4–5 years). Young children may travel to school by sedentary means such as by car, stroller or wagon, due to parental concerns regarding traffic safety; however, recent recommendations by several professional associations have discouraged stroller use due to concerns their use may lead to reduced physical activity.

Methods School transportation modes for kindergarten students were compared to those of students of all ages. Observational transportation mode counts were conducted in two samples in May-June 2015 at kindergarten-grade 6 schools in Toronto, Canada: 1) outside of schools with separate kindergarten entrances (n = 26 schools); 2) at optimal viewing locations for all-age students (n = 100 schools). Proportions of children arriving by different modes were compared between samples using Chi–square statistics.

Results The use of active modes was significantly lower in the kindergarten sample (n = 26 schools) compared to those in the all-age sample (n = 100 schools); 60% versus 74%, Chi-square = 91.37, $p < 0.001$. The predominant sedentary travel mode was by car (38%). The proportion of kindergarten children arriving by stroller or wagons was 1.8%.

Conclusions Strollers and wagons were not generally used for school travel by kindergarten students. Observed AST was significantly lower in kindergarten students compared to all ages. The overuse of cars for school travel for young children requires further examination to reduce sedentary behaviour and to decrease vehicle traffic around schools which puts all child pedestrians at increased risk for injury.

905 DISTRACTED WALKING AMONG TEENS AND PRE-TEENS IN U.S. AND CHINA: ANALYSIS OF OBSERVATIONS

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Background To determine the level of distracted walking among teenagers and pre-teens in the U.S. and China, research examined the percentage of teenagers and pre-teens crossing the street near schools while distracted in a sample of communities in both nations. Results and focus group findings were used to develop targeted interventions.

Methods Observations were made of 34,325 of teens and pre-teens crossing streets near schools in 24 communities in the U.S, and 8,250 observations were made of teens and preteens in 8 communities in China. Data was collected near middle schools and high schools. Observers conducted two morning and afternoon sessions, on different days but held at the same time, on school days in good weather. Each observer focused on one crossing location. Students also participated in focus groups that explored attitudes and perceived risks.

Results Most frequent forms of distraction in the U.S. were texting, 39%, headphone use, 39%, and talking on phones, 20%. In China, key distractions were headphones, 42.5%, texting, 22.5%, and games, 15.8%. The odds of a girl crossing the street distracted were greater than of a boy in both countries. Differences in distraction levels were also observed when traffic lights are present and at different times of the day. During focus groups in both nations, nearly 50% of students reported cell phone use

while walking to school. Teens did not perceive distraction putting them at greater risk. Findings were used to build "The Moment of Silence" Campaign, which uses social media to engage teens.

Conclusions Many teens and pre-teens are distracted while walking, but do not perceive this behaviour as risky. Targeted interventions are needed.

906 MODEL SCHOOL ZONE PILOT PROJECT DEMONSTRATES RESULTS IN IMPROVING PEDESTRIAN SAFETY

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Background From 2011–2014, the Model School Zone pilot project was implemented in 10 countries to improve pedestrian safety around 10 schools. Through multi-country data analysis, we sought to demonstrate that the program was effective in improving pedestrian safety and adaptable in low-, middle- and high-income countries.

Methods The project was implemented in three phases over an 18-month period. During Phase I, grantees selected a school based on specific criteria and conducted a baseline needs assessment. The needs assessment included a school zone infrastructure assessment tool, student knowledge and behaviour surveys, participatory research tools and parent surveys. In Phase II, grantees implemented interventions based on the needs and risks identified. Interventions focused on permanent infrastructure changes but also included education and advocacy initiatives. In Phase III, grantees evaluated the effectiveness of the interventions.

Results Behavioural surveys with 1,606 children showed that most walk to and from school, most walk alone, and most do not feel safe near their schools. Parent surveys revealed that more than half felt uncomfortable about their child's safety on the way to school, with speed of cars the highest rated concern. Permanent modifications were made to environments around 10 schools in 10 countries, resulting in changed behaviour and reduced injury. In Vietnam, for example, the number of fatalities decreased three-fold. Results and lessons learned were used to develop the Safe School Zone project, launched in 2015.

Conclusion A phased approach to creating safe school zones focused on environmental changes, education and advocacy, is adaptable to low-, middle- and high- income countries, and leads to reduced fatalities and injuries.

907 BUILDING SUSTAINABLE NATIONAL CHILD PASSENGER SAFETY TECHNICIAN TRAINING PROGRAMS

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Background Safe Kids Worldwide (SKW) is designated by the US government as the certifying body for car seat technicians in the US. Since 1998, more than 140,000 child passenger safety (CPS) technicians have been certified, and more than 38,000 technicians and 1300 instructors are currently active. This successful US model has made CPS part of the social norm in which child restraints are used until seat belts fit. However, many nations have yet to build a CPS system that is proven to save children's lives.

Methods SKW cooperated with partners to create culturally sensitive pilot training programs in China, Qatar, Mexico, Abu Dhabi, and Israel. Training programs relied on a step-by-step approach to achieve sustainability. Each nation identified stakeholders, provided awareness training, and encouraged participants to become technicians. Certification classes focused on training technicians and on identifying and training local instructors. By the third class, China and Qatar certified a pool of technicians and instructors qualified to train more local experts. Also, new instructors were mentored to become lead instructors who keep technicians engaged and work with stakeholders to create a coordinated national CPS strategy.

Results China trained 60 technicians and 3 instructors and is poised to expand its program. Qatar certified 70 technicians and 5 instructors while advancing a nationwide CPS program. All countries have ongoing classes.

Conclusions The model demonstrated methodical success in creating a sustainable pool of trained CPS technicians in China and Qatar to reduce child injuries and fatalities. This model shows great promise for spreading CPS expertise and creating a new safety norm around the world.

908 PARENT ATTITUDES AND BEHAVIOURS ON ROAD TRAFFIC INJURIES AFFECTING CHILDREN

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Background With an epidemic of traffic injuries affecting children worldwide, a better understanding of the data, including parent attitudes and behaviours, is essential.

Methods A survey was conducted among a diverse group of 6000 parents in six nations in 2014. In Brazil, China and South Africa, the survey was fielded by phone; in Qatar and India, by interviews; and in the United States, online. To assess the burden of road traffic deaths and injuries on children worldwide, data from the Global Burden of Diseases Study was analysed.

Results More than 90 percent of parents in Brazil, China, India, Qatar and South Africa said more needs to be done to improve road safety for children. More than half of parents in five out of six countries said they are concerned about their child's safety on the way to school. In India, 66 percent of parents expect their child to be seriously hurt in a crash in the next year. In the United States, more than 70 percent of parents worry about their child being hit by a distracted or speeding driver on the way to school. Analysis of GBD data showed that, in 2010, road crashes were the leading cause of death among children ages 5 to 19, with teenagers accounting for nearly half of deaths. More than 90 percent of road deaths among children occurred in low- and middle-income countries.

Conclusions Parents around the world are highly concerned about the safety of their children on the roads. These concerns are justified since road crashes are the leading cause of death for children ages 5 to 19. A strong focus on building awareness, expanding prevention programs, advocating for laws, and enhancing enforcement, consistent with the pillars of the UN Decade of Action on Road Safety, is needed.