

## Safe Roads | Safe Kids Global Road Safety for Children

December 2014





# Statement on Road Safety for Children

A growing epidemic of traffic injuries is devastating the next generation of children around the globe. More than 500 children are killed every day as a result of road traffic collisions, and tens of thousands are injured, often suffering lifelong disabilities.<sup>1</sup> Children living in poorer nations are most at risk. In fact, more than 90 percent of child road deaths occur in low- and middle-income countries.<sup>2</sup>

Worse still, unless we take action now, the global toll of traffic injuries will explode, placing millions of children at risk. The number of vehicles on the road is expected to double worldwide by 2030.<sup>3</sup> Moreover, by 2025, the world's population is expected to reach 8 billion, and 58 percent of the world's population will live in urban areas.<sup>4</sup> This means that more and more children will be in harm's way. By 2030, road traffic injuries among both children and adults is expected to surpass HIV/AIDS, malaria and tuberculosis as a cause of death worldwide.<sup>5</sup>

We must recognize that road safety for children is an important maternal and child health issue. While we've made impressive strides to reduce the number of children dying from communicable diseases through improved treatments and greater availability, we now see that children who are increasingly safe from communicable diseases are threatened by the prospect of death or injury on the roads. Not only are children at high risk in vehicles, on bicycles, and on motorcycles, they are very vulnerable as pedestrians and are often killed or injured in the simple act of walking to school. Road traffic crashes are also undermining the world economy and keeping millions of families with children in poverty. The economic consequences of road insecurity have been estimated between 1 and 3 percent of the respective gross national product of all countries, reaching a total over \$500 billion.<sup>2</sup> This keeps as many as 70 million people in poverty and substantially increases costs for businesses throughout the world.<sup>5</sup>

Yet global road safety is not getting the priority it deserves. While 88 countries experienced a decrease in the number of road traffic deaths from 2007-2010, 87 others experienced an increase.<sup>7</sup> Only 7 percent of the world's population is covered by laws that address all five key risk factors (speed, drinking and driving, helmets, seat belts and child restraints).<sup>6</sup>

And children have been left out of most safety efforts. Many nations lack laws requiring children to wear helmets while riding on motorcycles or bicycles, and only 30 percent of low-income countries have laws requiring that young children be appropriately restrained in cars.<sup>7</sup> Children have special needs when it comes to safety, particularly regarding car restraints and helmets, which must be carefully tailored to their size as they grow. The safety of school zones and school buses are often overlooked in many communities or even entire nations. And data collection often does not take into account the special circumstances of children, making it harder to identify the proper responses to this growing epidemic. These shortcomings exist despite the fact that there is a proven record of success in achieving major advances in road safety for children. Within the U.S., for example, there has been a decrease of 54 percent in the number of passenger vehicle deaths among children since 1975.<sup>8</sup>



It is unalterably true that children are our future. We cannot afford to let their safety be an afterthought. By placing a priority on global road safety for children, we not only safeguard our own future, but we also build stronger political support for improvements that benefit us all.

The UN Decade of Action for Road Safety is a worldwide effort to save five million lives on the roads between 2011 and 2020. The Decade of Action, led by the World Health Organization, has brought together an important coalition of organizations devoted to taking action on road safety focused around five pillars: building road safety management capacity; improving the safety of road infrastructure and broader transport networks; further developing the crashworthiness performance and safety of vehicles; changing the behavior of road users; and improving post-crash care. In recognition of the needs of children, the focus of the Third United Nations Global Road Safety Week from May 4-10, 2015, will be on children and road safety. At the same time, efforts are underway to include a specific target for reducing road traffic deaths and injuries in the Post-2015 Sustainable Development Goals, soon to be adopted by the United Nations.

Safe Kids Worldwide is a global network of injury prevention organizations committed to reducing the number of children killed and seriously injured as a result of preventable injuries, including road traffic crashes. As a strong supporter of the Decade of Action and the inclusion of road safety targets in the Post-2015 Sustainable Development Goals, Safe Kids is working to capitalize on these opportunities to make meaningful progress that helps us reverse rising death and injury rates.

We have the capacity to build an effective movement in support of swift action to improve road safety for children. Nearly everyone in the world is impacted by the road safety crisis. We all use some form of transport, whether it is walking, a bicycle, a motorcycle, or a motor vehicle. There is an enormous constituency that can be cultivated to demand action, particularly when we can jointly use the urgent rallying cry of saving children's lives.

We have knowledge and expertise on what works to prevent children from being killed or injured in traffic collisions. We've seen that a holistic approach that looks at the entire transport system and takes human error and vulnerability into account is most likely to succeed. And we also understand that all stakeholders must be involved in preventing road crashes, including international organizations, governments, foundations, automakers and others in the private sector, non-governmental organizations, health care workers, policymakers, law enforcement, researchers, entrepreneurs, educators, planners, engineers, the media and families.

If we adopt the following key initiatives as part of a "safe systems" approach that treats road safety holistically, we can expect far fewer deaths and injuries on and around our roads among both adults and children:

- Road safety management is prioritized, roads are engineered to accommodate errors, and speed is reduced to safe levels;
- Vehicles increasingly incorporate advanced safety features as standard equipment;
- A full complement of safety laws, including laws that protect children, are in place and are vigorously enforced;
- Education and awareness programs are evidencebased and assist road users in adopting proven methods of lowering risk; and
- Safety investments, including post-crash care, achieve the best cost/benefit ratio for the entire populace.

If such measures are fully adopted and have comprehensive support and energy behind them, we begin to have the capacity to eliminate serious injuries and deaths from road crashes in the future.

We know that a full-fledged health epidemic is under way for adults and our children. We know that, without action, it will accelerate rapidly, claiming millions of lives. And we know the key steps that will make a meaningful difference in outcomes. Now it is up to us to create a high-impact movement that takes strong action. This report is part of a long-term effort, the Safe Roads I Safe Kids campaign, initiated by Safe Kids Worldwide to focus on improving road safety for children and achieving substantial reductions in childhood deaths and injuries resulting from traffic collisions. We call on all stakeholders to join with us to make progress on this urgent and deserving cause.

Kate Carr President and CEO, Safe Kids Worldwide



### Key Initiatives to a "Safe System"

- Road safety management is prioritized, roads are engineered to accommodate errors, and speed is reduced to safe levels;
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Learn more at www.safekids.org

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### **Executive Summary**

Every parent worries when a child develops a fever. But what is on the mind of a parent when a child is riding in a car or walking to school? Are parents aware of the global epidemic on the world's roads, one that claims the lives of hundreds of children every day?

As it turns out, many parents are concerned about their child's safety when walking, biking, or riding in a car, and they feel strongly that more needs to be done to keep children safe. To shed light on parents' perceptions of road safety and their behaviors, Safe Kids Worldwide surveyed 6,000 parents in six countries: Brazil, China, India, Qatar, South Africa and the United States.

Parents are particularly anxious about their child's safety when walking. More than half of parents surveyed in five countries say they are concerned about their child's safety when walking to school. Many parents surveyed in all six countries worry about distracted drivers and speeding cars on their child's walk to school. In India, 66 percent of parents surveyed believe their child will be seriously hurt in a road traffic crash in the next year. And in the United States, injury topped parents' health concerns for their children above HIV/AIDS, cancer or other diseases. Parents are right to be alarmed: an estimated 83,600 child pedestrians die on the world's roads every year, accounting for the largest proportion of road fatalities for children 19 and under.<sup>9</sup>

We learned that parents surveyed say that car seat and seat belt use is widely adopted in Brazil and the United States, but that is not the situation we found in other countries. In China, one in 10 parents surveyed say their child most often rides on an adult's lap, and in Qatar, it was nearly one in five. The top reason parents surveyed in Brazil, China, India and the U.S. gave for not using a car seat is that they don't see the need to use one.

We know that the largest burden of road traffic fatalities occurs in regions that are the least equipped to handle them: road traffic deaths in low- and middleincome countries account for 92 percent of road fatalities in children 19 and under.<sup>9</sup> With the expected increase in the number of cars and the number of people living in cities, it's difficult to imagine this sobering statistic changing for the better unless widespread, systematic and sustained changes are made.

Strikingly, parents told us that they are ready for change: in five of the six countries, more than 90 percent of parents surveyed say they agree that more needs to be done to improve road safety for children in their community. While parents are among our most important partners in preventing crashes and injuries, solutions to curb the global epidemic of road injuries will take the collective effort of elected officials, road engineers, vehicle and child seat manufacturers, educators, the medical community and countless others.

In the time that it has taken you to read this executive summary, a child will have died from a road traffic-related injury. It's time to put a stop to these tragic and needless deaths. We propose a collaborative and unified approach to safety, recognizing that to create a safer transport system, we need to strengthen every element: improving roads; strengthening laws; manufacturing safer vehicles; educating and changing road users' behavior; and enhancing response and care when road collisions happen. Only through a concerted effort will we make roads safer for children and their families in every community.





Safety on the world's roads has reached a critical crossroads. The number of motor vehicles is expected to double by 2030, resulting in more than 2 billion vehicles driven worldwide.<sup>3</sup> Further, it is projected that more people will be living in cities: by 2025, the proportion of the world's population living in urban areas is expected to increase to 58 percent.<sup>10</sup> Currently, 1.24 million people are dying each year from road traffic injuries.<sup>7</sup> Before this epidemic expands, dramatic action is needed to protect road users, particularly those most vulnerable: children.

Safe Kids Worldwide used fatality estimates from 187 countries from the Global Burden of Disease study to better understand the burden of road traffic injuries on children's lives. We found that while the proportion of children dying from communicable diseases has decreased, the proportion of deaths from injuries has increased (Table 1).<sup>9</sup>

## Table 1: Proportion of deaths from communicable diseases and injuries since1990 for children 19 and under9

	Percent of deaths, communicable, maternal, neonatal and nutritional disorders			Percent of deaths, non-communicable diseases			Percent of deaths, injuries		
	1990	2005	2010	1990	2005	2010	1990	2005	2010
Under 5	85.0%	84.5%	82.9%	9.8%	10.5%	11.3%	5.3%	5.0%	5.8%
5-9 yrs.	59.3%	58.8%	56.4%	18.6%	19.4%	21.0%	22.2%	21.8%	22.6%
10-14 yrs.	46.3%	46.4%	44.0%	25.1%	25.0%	25.1%	28.7%	28.7%	30.8%
15-19 yrs.	33.8%	32.8%	30.6%	23.8%	22.4%	23.0%	42.4%	44.8%	46.4%

In 2010, an estimated 222,900 children ages 19 and under died from road traffic-related injuries.<sup>9</sup> Further, road traffic-related injuries were the leading killer of children ages 5 to 19 years (Table 2). Teenagers ages 15 to 19 years account for nearly half of deaths among children 19 and under. Children under 5 years account for 31 percent of road fatalities among children 19 and under, with 69,500 deaths. Road injuries result in almost as many deaths among children ages 5 to 19 as the next two leading causes of death, malaria and HIV/ AIDS, combined—both of which are communicable diseases.<sup>9</sup> Challenges in data collection in many countries make it difficult to accurately quantify the burden of injury, leading to fewer reported fatalities than actually occur.



### Table 2: Leading causes of death for children through age 19, 2010<sup>9</sup>

	Under 5	5-9 years	10-14 years	15-19 years
1.	Preterm birth complications (859,700)	Diarrheal diseases (43,000)	HIV/AIDS (29,500)	Road Injury (95,100)
2.	Lower respiratory infections (847,100)	Malaria (34,800)	Road injury (27,100)	Self-harm (63,300)
3.	Malaria (676,000)	Lower respiratory infections (32,800)	Lower respiratory infections (20,700)	Interpersonal violence (41,400)
4.	Diarrheal diseases (666,000)	Road injury (31,200)	Diarrheal diseases(19,500)	Malaria (32,900)
5.	Sepsis and other infectious disorders of the newborn baby (513,700)	HIV/AIDS (30,400)	Malaria (18,800)	Drowning (30,100)
6.	Neonatal encephalopathy (birth asphyxia and birth trauma) (511,400)	Typhoid and paratyphoid fevers (24,000)	Drowning (18,400)	HIV/AIDS (24,000)
7.	Other neonatal disorders (351,700)	Drowning (22,400)	Typhoid and paratyphoid fevers (17,900)	Lower respiratory infections (23,600)
8.	Congenital anomalies (349,500)	Meningitis (18,700)	Exposure to forces of nature (16,500)	Fire, heat and hot substances (23,400)
9.	Protein-energy malnutrition (266,100)	Congenital anomalies (12,000)	Meningitis (11,500	Diarrheal diseases (21,000)
10.	Meningitis (204,700)	Fire, heat and hot substances (12,000)	Self-harm (10,100)	Exposure to forces of nature (19,600)
17.	Road injury (69,500)			

Rounded to the nearest 100.





Pedestrians made up the greatest proportion of road traffic fatalities among children 19 and under, representing 38 percent of deaths due to road traffic injuries (Figure 1). When combined, pedestrians and occupants of four-wheeled vehicles accounted for 73 percent of road fatalities. The fatality rate for children ages 15 to 19 was the highest of any age group of children (Figure 2). In fact, the fatality rate for teens was more than three times that of children ages 5 to 9.







### Figure 2: Road traffic fatalities, by age, 2010



Children ages 15-19 had the highest road injury fatality rate.

Low- and middle-income countries account for 92 percent of road traffic fatalities in children 19 and under.<sup>9</sup> In fact, more than 12 times as many children die in road traffic crashes in low- and middle-income countries, compared to high-income countries. Lower middle-income countries had the highest road traffic fatality rate for children 19 and under among all country groups, with 10.6 deaths per 100,000 population (Figure 3). We know that there is an important relationship between per capita income and road traffic fatalities. Researchers have found that as a country's per capita income rises, the road fatality rate increases until the income reaches \$8,600 (1985 international dollars) at which point the rate decreases.<sup>11</sup>



Figure 3: Road traffic fatality rate for children 19 and under, by country, 2010<sup>9,12</sup>

Lower middle-income countries lead road traffic fatality rates for children.





### A Look at What Parents Think, Feel and Do about Road Safety for Their Children

Safe Kids Worldwide surveyed 6,000 parents of children ages 16 and under in six countries where there are efforts of varying intensity underway to improve road safety: Brazil, China, India, South Africa, Qatar and the United States.

Injuries are top of mind for many parents: when asked which health problem they worry about most for their children, 41 percent of parents surveyed in India and 39 percent of parents surveyed in the U.S. say they were most concerned about injuries, and in South Africa, where parents could choose more than one concern, 38 percent of parents surveyed say they are worried about injuries – more than diseases or chronic conditions (Figure 4.1 and 4.2). Yet there are gaps in parents' awareness of injuries; for example, in China, 46 percent of parents surveyed said they don't have any worries about their children's health. Yet according to data available, injuries are the leading cause of death for children ages 5 to 19 in China.<sup>9</sup>





### Figure 4.1: Parents report on their greatest child health worry, by country (single response)



### Figure 4.2: Parents report on child health worries, by country (multiple response)



In Qatar, 40 percent of parents surveyed say their children have received education in school on road safety, and in Brazil, 23 percent of parents surveyed say their children have (Figure 5). This is an important opportunity to provide awareness and education to all road users, including children.





More than half of parents surveyed in five out of six countries say they are concerned about their child's safety when walking to school. (Figure 6).







Many parents in all six countries identified distracted drivers and speeding as concerns about their child's walk to school (Figure 7). In South Africa, 77 percent of parents surveyed are concerned about drivers travelling too fast; in the U.S., 78 percent of parents surveyed worry about distracted drivers.





Parents were also asked if their child ever rides in a car or truck with a parent (Figure 8). While almost all parents surveyed in China and the U.S. say their children ride in cars, fewer than half of parents surveyed in India (40 percent) say they do.

Self-reported car seat and seat belt use varies from country to country (Figure 9). In South Africa, almost a third of parents surveyed said their child rode without a restraint or on an adult's lap, and in India, it was 72 percent of parents surveyed. In Qatar, 18 percent of parents surveyed say their child most often rode on an adult's lap. Previous research has shown that many incorrectly consider an adult's lap as the safest place for a child to ride. While we found that many parents surveyed in urban areas in China reported using car seats and seat belts, this may differ in other regions. In previous research, qualitative research among parents in Shantou, China, found that both parents who used car seats and those who don't said that infants should not sit in a car seat; they need to ride in the arms of an adult.<sup>13</sup>



### Figure 8: Proportion of children who ride in cars and trucks, by country (parent report)





Figure 9: Parent report of seat belt and car seat use for their children, by

Many parents whose children ride in cars say they don't use car seats and haven't used them in the past; seven in 10 parents surveyed in India and nearly half of parents surveyed in China say they haven't used car seats (Figure 10). We know that in some communities, there is a gap between awareness of car seats and their use. A study of 1,010 parents in Shanghai found that while 78 percent had heard of child restraints, only 1.2 percent said they used them.<sup>14</sup>

Yet properly installed car seats are the safest way for children to travel in a motor vehicle. Car seats can reduce the risk of fatal injury by up to 71 percent for infants and 54 percent for toddlers ages 1 to 4.<sup>15</sup> Installing car seats properly is another challenge. In the U.S., a study found that 73 percent of car seats were installed incorrectly.<sup>16</sup> Education and assistance on car seat installation is available to parents and caregivers in the U.S. through the car seat technician program.





In Brazil, China, India, and the U.S., the top reason that parents surveyed whose children ride in cars gave for not using a car seat was that they don't see the need to use one (Figure 11). In Qatar, parents surveyed most often say it was because their child doesn't like riding in a car seat. In South Africa, parents surveyed most often say they didn't use a car seat because they can't afford one. In India, parents' reasons for not using a car seat include not having a seat belt to use to install the car seat and a lack of laws and their enforcement.





### Figure 11: Parent reasons for never using a car seat for their children



Two-thirds of parents surveyed in India say they think it is likely their child will be injured in a road traffic crash in the next year—almost twice as many as any other country surveyed (Figure 12).

## Figure 12: Parent report of the likelihood that their children will be seriously hurt in a road traffic accident in the next year, by country



Parents overwhelmingly agree that more needs to be done to improve road safety: more than 90 percent of parents surveyed in five of the six countries say they agree that more needs to be done to improve safety on the roads for children in their community (Figure 13).



## Figure 13: Parent report of the need to improve safety on the road for children



# Moving Forward to Keep Children Safe on the Road

The United Nations adopted a resolution in 2010 to designate the Decade of Action for Road Safety from 2011 to 2020. The goal of the Decade is to reduce the number of road traffic fatalities by 5 million people.<sup>7</sup> An important part of this is defining strategies to inform national plans for road safety. Five pillars are necessary to develop a comprehensive road safety agenda: road safety management; safer roads and mobility; safer vehicles; safer road users; and post-crash response.<sup>7</sup>

How does the Safe Kids survey of 6,000 parents in six countries inform how these pillars are applied? We learned that in each of these countries, the majority of parents surveyed agree that more needs to be done in their communities to improve road safety for children, and many worry that their children will be seriously hurt in a road traffic collision. This means that children's safety needs to be a central part of every country's national road safety plan.

We heard from the surveyed parents that they are concerned about distracted drivers and speeding cars on their child's walk to school. This is where a holistic approach to road safety can address a major safety concern of parents. We need to pass laws and enforce them; properly engineer roads to slow speeds and provide safe crossings for pedestrians; caution drivers near school zones with appropriate signage and enforcement; educate drivers about the dangers of distraction and change norms; and improve data collection to understand where the problems are and to evaluate whether our efforts are effective.

We also learned that one of the most common reasons why parents surveyed don't use car seats is that they don't see the need for them. There is an important opportunity to inform parents and educate families on the importance of buckling up with the right car seat, with the hope that this generation of children will grow up to be safer road users. Legislation can play an instrumental role by requiring proper restraints for children. A variety of stakeholders must advocate for strong traffic safety laws and vigorous enforcement. But we still have to work to ensure that all communities have such laws: according to the World Health Organization, only 28 countries comprising 7 percent of the world's population have traffic safety laws that cover speeding, drunk driving, helmet use, seat belts and car seats.<sup>7</sup>

Now, before the epidemic of childhood deaths and injuries on our roads spirals out of control, is the time for us to join hands to comprehensively improve road safety for children. We must bring together a coalition of all stakeholders, at every level, to acknowledge that an international health crisis is at hand and respond with the full energy and conviction that such a crisis demands. We cannot afford to hesitate or to be cautious, but we must vocally demand action, rallying around the urgent challenge of saving children's lives. Safe Kids Worldwide is fundamentally committed to this critically-important goal, and our Safe Roads I Safe Kids campaign offers one avenue for like-minded individuals and organizations to join the cause. More information is available at: www.safekids.org/safe-roads-safe-kids.

If we respond forcefully and in a broad coalition, we can turn the corner on this growing epidemic and bring the number of deaths and injuries down, instead of seeing them accelerate ever upward. We have it in our power to save the next generation, and we must succeed.

Global Road Safety for Children

Looking toward a holistic road safety strategy with the vision of zero road safety deaths and serious injuries, we need to ensure that:

- Road safety management is prioritized, roads are engineered to accommodate errors, and speed is reduced to safe levels;
- Vehicles increasingly incorporate advanced safety features as standard equipment;
- A full complement of safety laws, including laws that protect children, are in place and are vigorously enforced;
- Education and awareness programs are evidence-based and assist road users in adopting proven methods of lowering risk; and
- Safety investments, including post-crash care, achieve the best cost/benefit ratio for the entire populace.





### What's Working? Examples from the Safe Kids Global Network

### Childsafe Creating Data-Driven Programs

While South Africa's economy ranks first on the African continent, its roads are among the most dangerous in the world. For every 100,000 South Africans, about 32 die annually in accidents related to driving. Some 40 fatalities are recorded every day.<sup>1</sup> And each year in South Africa, more than 570 children are killed in pedestrian accidents and another 250 die in car accidents.<sup>2</sup> Based on data collected by the Red Cross War Memorial Children's Hospital in Cape Town, South Africa, we know that motor vehicle accidents are the fifth leading cause of death among South African children under 12, and the second leading cause of death of adolescents.<sup>3</sup>

Change is coming. Until recently, seat belts were compulsory for older children and adults, yet not for children under the age of 3. Appropriate safety seats and booster seats also have not been required, and there have been no rules against children older than 3 sitting in the front seat. All that will change when new government regulations go into effect in April 2015. Enforcement penalties are yet to be determined, but the message from the government is an important step in changing behaviors.<sup>4</sup> In December 2013, the South African government also launched the "Get There, No Regrets" initiative to promote safe driving techniques nationwide and its "Scholar Patrol" program enlists local volunteers to escort more than 4 million children safely to school every day.<sup>5</sup>

Childsafe has been a partner of Safe Kids Worldwide since 2007 and is also affiliated with the Child Accident Prevention Foundation of Southern Africa and the Global Road Safety Partnership South Africa, a consortium of government, business and civil society. Childsafe established the Woolworths Research and Educational Centre to help patients of the Red Cross War Memorial Children's Hospital learn about and practice child safety. Since 1991, Childsafe has kept a database of all injured children presenting to the hospital's trauma unit, providing a national surveillance system on childhood injuries in South Africa and a major resource for national and international organizations, non-governmental and government institutions.

Zoleka Mandela, the granddaughter of Nelson Mandela and a global road safety advocate, led the launch of the first Safe Schools project in South Africa, an initiative for the UN Decade of Action for Road Safety. Janssen, a Johnson & Johnson company, sponsored the project. The goal is to reduce child pedestrian injuries and deaths in South Africa by introducing the International Road Assessment Program (iRAP) star rating of schools concept to guide both interim small infrastructure improvements and encourage long-term sustainable investment in safety by government. Infrastructure assessment and improvement will be combined with high-quality road safety education. Due to the large concentration of children frequently exposed to vehicles and the risks that children encounter on the roads around the school, this initiative will focus on assessing safety in school zones, conducting interventions, evaluating the results and sharing what is learned. With initiatives like these and committed community, corporate and government partners, Childsafe and Safe Kids will protect the promise and future of South Africa's children.

### Criança Segura Brasil Changing Outcomes for Children on the Road

With its population, economy and world stature on the rise, Brazil is booming. At the same time, its future may be in jeopardy, as the nation's roadways are becoming less safe. Road traffic is the leading cause of death for children in Brazil ages 14 and under.<sup>1</sup> Of the nearly 44,000 deaths in road crashes in Brazil every year, almost 2,000 are children.<sup>2</sup>

Driving in Brazil can be risky, with a wide range of erratic behavior on the roads. Many streets in commercial districts are packed with pedestrians who may or may not use pedestrian crossings. With multiple school sessions per day, the streets around schools are full of kids, many with no crossing guards to guide them.<sup>3</sup> Enforcement is an important issue in Brazil, and one where public education and awareness play an important role. For example, in Brazil car seat and seat belt laws are neither well followed nor strictly enforced, and police do not pull over cars when they see violations. The number of road traffic deaths has increased, in part due to the growing number of vehicles on the roads, especially the number of motorbikes ridden by people with little road experience.<sup>4</sup>

Fortunately, Criança Segura Brasil (Safe Kids Brazil) and other leading organizations are helping boost road safety as a priority. Brazil is one of the countries that participated in the Bloomberg Philanthropies Global Road Safety Program, which was conducted over five years (2010-2014) by a consortium of international partners, national governments and local organizations.Vida no Trânsito, as the project is known in Brazil, supports the government in implementing good road safety practices in line with the national road safety policy, with a focus on reducing drink-driving and speeding.<sup>5</sup>

The Maio Amarelo (Yellow May) campaign is a Brazilian-based, international initiative raising the visibility of road traffic fatalities and injuries and encouraging greater personal responsibility on behalf of drivers and pedestrians alike.<sup>6</sup> The Inter-American Development Bank and the International Automobile Federation are also making a difference in road safety in Brazil.<sup>7</sup>

And with the support of FedEx and other partners, Criança Segura is leading road and pedestrian safety initiatives focused on children. Programs include Safe Kids in Traffic and other intensive training programs for health, education, social work, nonprofit and government professionals. The Model School Zone Project performs community needs assessments and modifications to improve children's safety walking to and from school. Criança Segura also was influential in securing activities and strategies to prevent unintentional childhood injuries in the federal government's four-year plan and worked to pass legislation such as raising the minimum age to ride on a motorcycle from 7 years to 12 years. In 2013, Queen Sophía of Spain presented Criança Segura with the Fundacion MAPFRE award for Best Action to Prevent Accidents and Damage to Health.

Alessandra Françóia, national coordinator, tells this story to sum up the work of Criança Segura. "When I think of the Walk This Way pedestrian safety program, I always remember a principal I met when we conducted a pilot project in Curitiba, a city in the south of the country. This principal told me that before we implemented our Walk This Way project, at least four children every





Through continued education, training and advocacy, Criança Segura and likeminded partners will help children, and the country, reach their full potential.



### Hamad International Training Centre, Qatar Reaching Families through Healthcare Providers

Hamad International Training Centre, part of Hamad Medical Corporation, became part of the Safe Kids network in 2013. In late 2012, visionaries at Hamad set a goal to train, equip and certify child passenger safety technicians from a variety of professions to initiate the culture change needed to address preventable injuries in Qatar, especially those on the roadway. Their strategic training program now serves as a model for countries that want to carefully select, then efficiently develop, the most appropriate safety leaders to change attitudes, beliefs and behaviors. It is a common sight in Doha to see children in the front seat sitting on laps, standing up and even leaning out windows as cars speed through congested and complicated traffic patterns. It is atypical to see adults wearing seat belts. Hamad has chosen to provide the child passenger safety training model developed and used in the U.S. to address this problem.

The course takes four days to complete and has both written and handson skills testing. It is taught in English and supported now in Arabic with a technician guide and written tests provided in the native language. However, what makes Hamad's program unique is the number of medical personnel who have been enrolled and completed the course in just a little more than two years; so far, 28 of the 53 individuals who received training were doctors or nurses. There is currently one U.S. certified instructor who is a trauma surgeon at the Medical Center in Doha. The certification course requires two instructors at all times and a course now planned for January 2015, if successful, will yield two additional certified instructors. With that success, Hamad will achieve selfsufficiency. They will be able to re-certify existing technicians, hold classes to certify more advocates and mentor future instructors. Hamad has created two colorful mobile trailers that promote their program and house equipment as they conduct community education events throughout Doha to reach families. The trailers provide a consistent message: "Car seats and other restraints save lives! Use them."

Much like the movement to make child passenger safety a national focus in the U.S. was started by the medical community nearly 45 years ago, Hamad has begun their national injury prevention program, Kulluna (Arabic for All of Us) by focusing on healthcare providers and other influencers who have direct contact with patients and their families. They are reaching a broad and diverse population using trusted and technically trained subject matter specialists. Their next step is to launch school initiatives, a valuable venue for reaching kids and families with a life-saving message. Further community outreach includes car seat check-up events where parents bring their children, their cars and their curiosity to make children as safe as possible in cars. "This is really the next phase as word begins to spread to the community," says Dr. Khalid Saifeldeen, director of HITC and formerly the chair of emergency medicine at HMC. "It is still going to take some time before we fully reap the rewards, but I am sure we are on the right track." The foundation is in place and it is now time to spread the message to Qatari nationals and more than one million guest worker families.

### Safe Kids China Establishing Child Road Safety Programs

With more than 1.35 billion residents representing one-fifth of the world's population, China is a critically important country for road safety. Safe Kids China, established in 2004, has led a number of innovative and far-reaching road safety programs with built-in research components. One example is the Walk This Way program, supported by FedEx, that currently reaches nearly 400,000 students each year in 28 cities in China. Safe Kids China works with local FedEx volunteers to conduct educational activities in schools; in 2013, more than 1,100 FedEx volunteers participated.

To understand the effectiveness of the program, Safe Kids China surveyed 558 students ages 7 to 11 years from Huamu Central Primary School in Shanghai. They also conducted observations around the schools, including pedestrian and driver behaviors, before and after educational and environmental interventions. After the student education, they found a 14 percent decrease in incorrect perceptions of safe crossing practices among second grade students and a 25 percent reduction among fourth grade students. Before the intervention, they found that 69 percent of vehicles were travelling over the speed limit in the school zone; after the intervention, it had fallen to 30 percent.

In the future, Safe Kids China plans to conduct observational research among older students ages 12 and up, examining distraction by mobile devices while walking. "Looking ahead, distraction from mobile technologies is going to be an important issue for young pedestrians and bicyclists in China," says Monica Cui, executive director of Safe Kids China. "We need to better understand the prevalence of these behaviors so we can develop educational interventions that work."

Nearly 50,000 babies are born daily in China. It is not uncommon to see babies and toddlers carried on bicycles and motorcycles strapped to parent backs and fronts, whole families wedged on a two-wheeled vehicle. But as cities expand and industrialize, people who never owned cars or drove before are now sharing the roads with two-wheeled vehicles and pedestrians. Children appear to be no safer in cars, as many ride without benefit of car seats or seat belts, as they do on bikes.

China is addressing the issue of children and road safety through coordinated education efforts. The country is geographically massive and densely populated. There is recognition that an injury prevention strategic plan is needed to protect children, whatever the transportation mode, on roadways. Current research in China, much like the U.S. in the beginning stages of their national initiative, shows that few children consistently use any type of restraint in a vehicle. For children under age 1, a commonly held unsafe belief that children are safer in adult arms persists. For children over age 2, the use of restraints is a foreign concept. Current 2013 research from Shantou found that 12 percent of 216 new mothers with cars in the study had never heard of nor seen a child restraint, and 22 percent had heard about but never seen a child restraint.<sup>1</sup>







Much work is needed to make child restraints a staple when preparing for a birth and using it immediately after birth. Safe Kids China is coordinating the training of technicians using the U.S. child passenger safety certification program to address these beliefs. The technician guide and tests are available in Mandarin to accommodate bilingual students. Additionally, a new law in Shanghai, a city with a population of 24 million people, requires child restraints in vehicles for children under age 4. Armed with the passage of the law and coupled with training, in 2014 Safe Kids China participated in two classes enabling 21 child passenger safety technicians to be U.S. certified. The new technicians work in a variety of positions that can build a comprehensive initiative from the ground up. Efforts to invite other key partners, such as police, retailers, manufacturers, researchers and government workers, are ongoing as classes are scheduled and a cadre of subject matter specialists are developed and deployed around the country.

### Safe Kids Foundation Collaborating with Partners in India

If you are on the road in India, most likely you are sharing it with a mix of cars, pedestrians, buses, bicycles, two-wheelers, three-wheelers and more. Although there are lanes, many drivers don't use them as they cut and weave in traffic. Animals or children on foot may claim the road as well. Mumbai traffic police have not written a ticket to jaywalkers in three years, due in part to the overwhelming number of pedestrians and the need to focus on the hundreds of cars joining the city streets daily.<sup>1</sup>

This traffic mix, poor road design and vehicles that are in questionable condition all contribute to the high fatality rates seen on India's roads. More than 231,000 people are killed in road traffic crashes in India every year, and approximately half of all deaths on the country's roads are among vulnerable road users: motorcyclists, pedestrians and cyclists.<sup>2</sup> This represents 15 percent of the world's road fatalities, despite the fact that India has only 1 percent of the world's motor vehicles.<sup>3</sup> Road traffic accidents are the number one cause of death for children under 14, at 7,700 per year.<sup>4</sup>

As in Brazil, the Bloomberg Philanthropies Global Road Safety Program aims to improve road safety in India. Efforts are focused on increasing the use of motorcycle helmets and reducing drink-driving.<sup>5</sup> Safe Kids Foundation, based in Mumbai, aims to increase safety and decrease injury and fatalities among children on the roads and in other areas. Safe Kids Foundation has developed relationships with groups including the All India Federation of Teachers Organization, the Brihanmumbai Mahapalika Shikshak Sabha Teachers' Association, the Mumbai Traffic Police, and local schools, to deliver injury prevention education to children and families. In 2013, Safe Kids Foundation reached 520 schools with the Walk This Way program, and more than 2.5 million children and 60,000 parents and caregivers since 2007. Beyond training sessions, children participated in activities related to pedestrian safety.

FedEx plays a key role, with FedEx volunteers participating in Safe Kids Walk This Way programs. As a result of this and other Safe Kids Foundation initiatives, students have improved their pedestrian safety knowledge by 44 percent, with an average of 95 percent retention.<sup>6</sup>

Safe Kids Foundation consistently receives "Commendatory Notes" from the Joint Commissioner of Traffic Police, Mumbai, in appreciation of the good work

done in road safety. In 2014, Safe Kids Foundation won an award in the Best Prevention Category as part of the World CSR Congress (Global NGO Excellence Summit and Awards). An upcoming initiative with the police, "Slow Down for Kids," will use radar speed guns to measure driver speeds in school zones before and after a pedestrian safety awareness and education campaign. Joining hands with the local government and traffic police allows SKFI to reach families and strengthen its network.

### Safe Kids Worldwide

## Building a Comprehensive Child Passenger Safety Program in the U.S.

As part of its comprehensive approach, Safe Kids Worldwide works with the National Highway Traffic Safety Administration, the road traffic safety arm of the U.S. Department of Transportation, to improve training and data collection regarding child passenger safety. This effort builds on NHTSA's 45-year history of using an epidemiological and public health model to address death and injuries on roadways. This model was first introduced in 1970 by Dr. William Haddon, the NHTSA administrator and a physician, to study roadway trauma as a disease. In addition, NHTSA's National Center for Statistics and Analysis provides a wide range of data to the highway safety community to quickly identify problems and support data-driven decisions. Safe Kids Worldwide credits the early creative and sustained vision of the National Highway Traffic Safety Administration to foresee the unique roadway needs of children and the need for broad stakeholder involvement in protecting them on roads.

While NHTSA was studying the nation state-by-state and as a whole, child passenger safety laws were passed in the states between 1977 and 1985 so that each had a primary law—meaning that police can stop drivers solely for failing to use child restraints—to protect children in vehicles. NHTSA recognized that enforcement required an educated police force and included enforcement as a key part of the solution. In all, NHTSA created a national initiative that incorporated education, enforcement, engineering, regulations, research and compliance testing to attack roadway trauma. As a significant part of that effort, NHTSA created and supported a standardized child passenger safety curriculum and certification course to arm advocates with data-driven information to confront the issue.

The certification course, designed back in the late 1990s, is still in effect. To date, more than 130,000 professionals from all 50 states and other nations have become certified as child passenger safety technicians. Safe Kids Worldwide has been the certifying body since 2004. In tandem with the certification course, NHTSA convened a national Child Passenger Safety Board, comprised of representatives of key stakeholder organizations. This 22-member advisory panel ensures that policies and protocols reflect the nation's needs, regularly updates curriculum and provides quality assurance for the program.

Even with all this in place, motor vehicle crashes are still the leading cause of death for children ages 1 to 19 in the U.S. The Safe Kids Buckle Up program was launched in 1997 with the support of General Motors and the General Motors Foundation. Today, the program is delivered to communities by Safe Kids coalitions and certified technicians who are subject-matter specialists in child passenger safety. Every year, more than 80,000 car seats are checked for



proper use and installation at Safe Kids events. Tens of thousands more seats are checked at events not affiliated with Safe Kids but by technicians certified by Safe Kids Worldwide.

As part of the Safe Kids Buckle Up checkup events, child passenger safety technicians collect and submit data on a scannable form to a national data collection system. We know, for instance, how the child and car seat arrived at the checkup, what type of vehicle and restraint were used, characteristics of use and misuse, modifications that were made and how the car seat left the checkup. The parent or caregiver learns how to properly secure the child and the seat in their vehicle. The standardized data allows for real-time evaluation of program activities, and because the data have been collected for 17 years, it is possible to study changes in restraint use over time and through policy and education initiatives. The data from Safe Kids are shared with NHTSA and car seat manufacturers, as well as vehicle manufacturers, as changes in the field of child passenger safety are evaluated. "Through the Buckle Up system, we can better understand what our educational efforts accomplish at the grass roots level," says Torine Creppy, chief program officer at Safe Kids Worldwide. "And that's critical for maintaining and growing a national child passenger safety program." Safe Kids has shared the now-internationally desired certification course with countries just starting a national child passenger safety and road safety program. While fatalities to children have decreased nationally by 54 percent since the early days,<sup>1</sup> there is still more work to do.



Safe Kids Worldwide wishes to acknowledge the following organizations that contributed photographs to this report: Asia Injury Prevention Foundation, Beterem – Safe Kids Israel, Childsafe/Child Accident Foundation of Southern Africa (CAPFSA), Child Safety Promotion and Injury Prevention Research Center (CSIP), Criança Segura Brasil, Fundación Gonzalo Rodríguez, Gertrude's Children's Hospital, Safe Kids Foundation, Safe Kids Korea, Safe Kids México, Safe Kids Philippines.

### Methodology

The survey instrument was developed with the assistance of technical experts in road safety and practitioners in all six countries. It was conducted among parents of children ages 16 and under in 2014. The survey was fielded by phone in Brazil using Brazil Field, with 1,000 parents in 10 metro areas from October 16 to October 28. It was fielded through Consumer Insight Professional Marketing Research & Consulting Ltd. in China, with a metro-area phone survey of 1,000 parents from October 21 to November 11. The survey was fielded through faceto-face interviews with 1,000 parents in four metro areas through Indian Market Research Bureau in India from approximately November 1 to November 17. It was fielded through face-to-face interviews with a nationally representative sample of 1,000 parents through Business Zone in Qatar from approximately October 21 to November 9. It was fielded through a national phone survey of 1,000 parents through Ask Africa in South Africa from October 27 to November 13. The survey was fielded in a national online survey through Research Now in the U.S. from October 16 to October 23. Salter>Mitchell, a U.S.-based behavior-change marketing and communication firm, coordinated the fielding of the survey. It is important to note that survey results in each nation are not directly comparable to each other given the differences in methodologies and cannot be used to support broad conclusions about all six nations combined. Instead, this survey gives us a glimpse of attitudes and behaviors in six key nations, all of which are struggling to come to grips with serious road safety issues. These were large samples of diverse populations but these may not be representative of all parents.

Data from the Global Burden of Diseases, Injuries, and Risk Factors Study 2010 study was downloaded from the Institute for Health Metrics and Evaluation's website. GBD 2010 is a collective effort of a network of 488 researchers from 303 institutions that estimates death and disability from 291 diseases and injuries for 20 age groups and both sexes in 1990, 2005 and 2010, in 187 countries. Seven institutions collaborated on the study: the Institute for Health Metrics and Evaluation (the coordinating center), the University of Queensland School of Population Health, Harvard School of Public Health, the Johns Hopkins Bloomberg School of Public Health, the University of Tokyo, Imperial College London and the World Health Organization.<sup>18</sup> More information is available at www.healthdata.org.

### Acknowledgements

The authors would like to acknowledge the efforts and cooperation of the Safe Kids network members who shared their work and provided insights for this report: Dr. Khalid Saifeldeen and Julia Gibson (Hamad Medical Corporation), Alessandra Françóia (Criança Segura Brasil), Monica Cui and Fannie Wang (Safe Kids China), Rupa Kothari (Safe Kids Foundation India), and Pumla Mtambeka (Childsafe/Child Accident Prevention Foundation of Southern Africa).

The authors would also like to thank the following individuals for sharing their technical expertise: Dr. Flaura Winston (Children's Hospital of Philadelphia) and Dr. David Sleet (U.S. Centers for Disease Control and Prevention).

This report was made possible with support from FedEx, the General Motors Foundation and Hamad Medical Corporation.

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