

PREVENTION OF ROAD INJURIES IMPACTING CHILDREN IN SOUTH AFRICA (PRISCA)

Reducing Child Road Injuries in South Africa:
An Advocacy Report

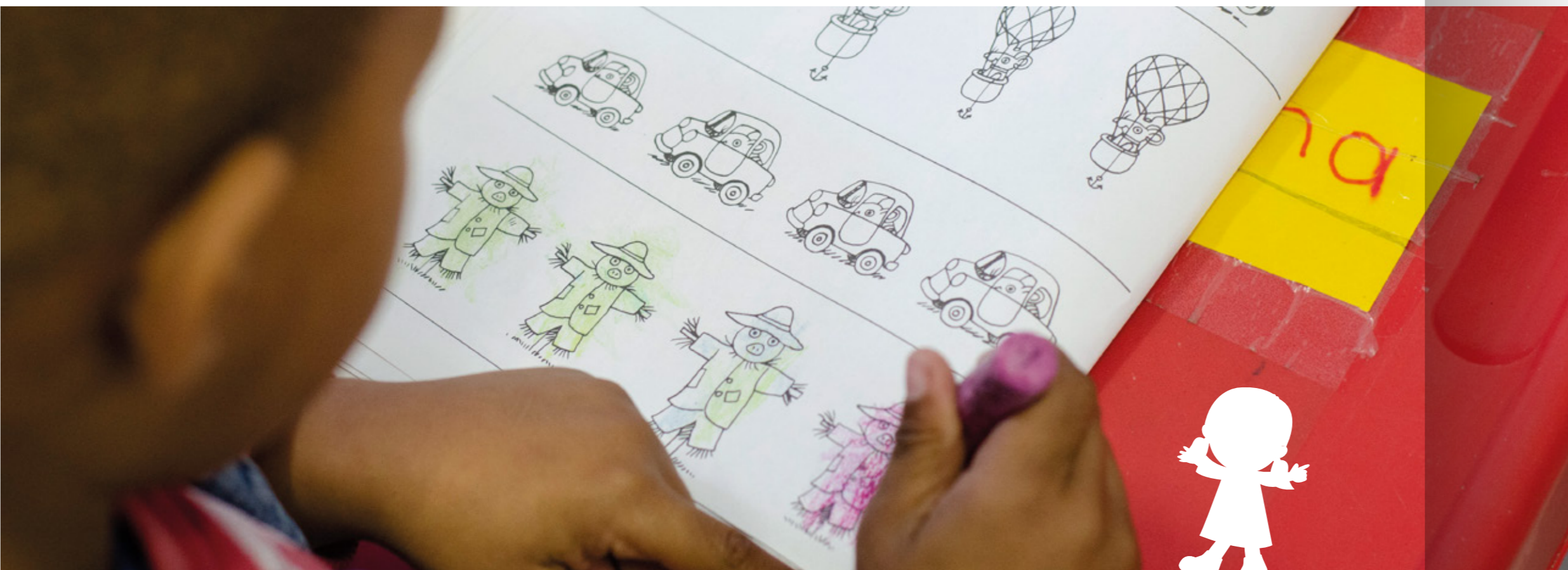


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GLOSSARY

Child - A person under the age of 18 years according to the Convention on the Rights of a Child, 1989.

Child restraint - A safety device, as a car seat or seat belt, designed to secure a child in a motor vehicle.

Child road injury hot-spots- suburbs with the highest child road fatality rates in a province

Drink driving- When a person drives a vehicle while inoxiated with alcohol (blood alcohol limit greater than 0,05mg/dl)

Graduate driver licensing programme - Designed to provide new drivers of motor vehicles with driving experience and skills gradually over time in low-risk environments.

Global Road Safety Partnership (GRSP) - A non-profit organisation dedicated to the sustainable reduction of road-crash death and injury in low- and middle-income countries.

Integrated Development Plan (IDP) - A five-year plan which local governments in South Africa are required to compile to determine the development needs of the municipality.

Key Intervention Drivers- champions for child road safety who are part of National or Provincial government departments that are responsible for implementing road safety actions in South Africa

Key Messengers- People who have been identified as having the requisite knowledge, influence and persuasive abilities to mobilise advocacy and intervention partners

Non-motorised transport (NMT) - Includes walking and bicycling, and variants such as small-wheeled transport (cycle rickshaws, skates, skateboards, push scooters and hand carts) and wheelchair travel.

Road Traffic Management Corporation (RTMC) - Commenced operations in April 2005 with the objective of pooling powers and resources to eliminate the fragmentation of responsibilities for all aspects of road traffic management across the various levels of government in South Africa.

United Nations Children's Fund (UNICEF) - A United Nations programme providing humanitarian and developmental assistance to children and mothers in developing countries.

World Health Organisation (WHO) - A specialized agency of the United Nations that is concerned with international public health.

SUMMARY



Road injury is a priority public health concern in low and middle-income countries (LMIC), which incur 90% of global road fatalities. South Africa has the second highest rates of road fatality rates in Africa. Children are particularly vulnerable road users and road injuries rank as the second leading cause of death for children aged 5-14 years in South Africa. These findings, and the fact that nearly a third of the South African population are children, highlight the critical need to address child road injuries.

The data on child road deaths in South Africa indicates that male children living in poorer neighborhoods are at highest risk. Within age categories, currently available data suggests that the highest death rates are observed in children under 5 years. Requests for national data on child road death rates disaggregated by age categories are pending and will need to be obtained to inform the advocacy and intervention strategies.

The provinces identified as having the highest numbers of child road fatalities are Kwazulu Natal (KZN), Gauteng (GT) and the Eastern Cape, which are also the provinces with the highest child populations in South Africa. At a district level, child road fatalities in eThekweni (KZN), the City of Johannesburg (GT) and the City of Cape Town (Western Cape) account for 20% of South Africa's child fatalities. The majority of child road injury deaths are pedestrian in nature and occur from 2-7pm, with a smaller peak also noted in the 6-7am time period. More than half of fatalities occur from Friday to Sunday.





A review of international evidence and best-practice as well as consultation with key experts and stakeholders in the field identified 10 intervention priorities to reduce child road injuries in South Africa as follows:

1. Reduce driving speeds

- Speed limit enforcement and reduction
- Increase traffic calming measures in hot-spot areas

2. Reduce drink driving & walking

- Increase regular random breath testing and awareness campaigns in hot-spot areas
- Adoption of legislation for a graduated drivers license
- Increase enforcement of drinking age legislation
- Introduction of legislation/policy that requires a compulsory breathalyzer test for drivers involved in a child road injury or death

3. Increase child passenger seatbelt (& restraint) usage

- Increase enforcement of seatbelt legislation and setting of seatbelt usage enforcement targets by enforcement oversight bodies
- Public behaviour change campaigns that include a focus on children, adolescents and parents
- Explore provision of free or subsidized child restraints

4. Increase access to safer scholar transport

- Increase learner access to safer motorized school transport in hot-spot areas
- Increase safety of learners walking to school in hot-spot areas

5. Increase adoption and implementation of non-motorised transport (NMT) guidelines

- Increased implementation of NMT guidelines in town planning
- Lobby for legislation/regulations that make NMT guidelines compulsory with liabilities incurred in instances of non-compliance
- Improve training of engineers and urban designers in child road safety requirements

6. Increase safety of recreational spaces for children

7. Communication for behaviour change

- Increase behaviour change campaigns targeted at drivers, parents and older children

8. Improve post-crash response

9. Strengthen legislation on road injuries

- Review legislation that limits the charge of motorists causing death or serious injury to risky or negligent driving

10. Improve child-road injury data reporting and research

- Separate reporting and analysis of child road fatality data
- Data provision and analysis for identification and auditing of hot-spot areas
- Identification of and fundraising for research gaps in child road injuries in South Africa



The advocacy strategy aims to : **raise the profile of child road injuries** to become a priority for both government and communities ; **stimulate and inform public debate about relevant social norms** (regarding, for example, norms related to road usage, speed, seatbelt usage and child road use supervision); **increase knowledge** about, and **promote action for safer driving and pedestrian practices**; **grow political and public support** for the adoption of the 10 priority child road injury prevention interventions by national, provincial and local government, non-governmental and community-based organizations and ; **creation of a child road safety advocacy network** that can inform policy debates and research agendas, share advocacy tools, support community action and monitor progress towards implementation of the intervention priorities in a sustainable way.

The report details the key messages of the advocacy strategy and identifies two broad categories of target audiences : intervention agents (those with the mandate or power to implement the interventions) and motivators/influencers (those with the power to motivate the implementers). Each of these groups includes governmental, parastatal, non-governmental and community-based stakeholders as well as the private sector.



Key activities for the further development and implementation of the advocacy strategy are as follows:

1. Selection of Provinces in which to focus advocacy efforts

Given resource limitations it is recommended that initial advocacy efforts be focused in KZN, Gauteng, the Eastern Cape and the Western Cape. The presence of motivated governmental and non-governmental advocacy partners in each province will need to be considered as well as available resources to implement the proposed interventions.

2. Within selected Provinces, detailed analysis of data to identify target locations, populations and behaviours

Conduct a thorough analysis of data from the selected provinces to identify the key municipalities and, within those, the top hotspot areas and roads implicated in child road injuries. Formal access to data needs to be obtained from the relevant authorities, and in particular Forensic Pathology Services.

3. Stakeholder analysis and formation of an advocacy network

Stakeholder mapping and analysis will be necessary to identify stakeholders in the selected provinces and hotspot areas. Once the stakeholder analysis and engagement is complete, a workshop and formal launch of the advocacy network should be undertaken.

4. Creation of advocacy tools

Advocacy tools targeted at different target audiences will be needed to assist advocacy efforts. These should include policy briefs and fact sheets (for each of the 10 priority intervention areas), powerpoint presentations and short video clips that clearly convey the key messages of the advocacy strategy in an emotionally evocative way.

5. Identification of research, policy and legislation gaps to strengthen advocacy tools and efforts

Research gaps that pertain specifically to the 10 priority intervention areas need to be identified in order to obtain the necessary information for both intervention and advocacy efforts. The review of current policies and legislation pertaining to child road safety is currently underway and will need to be completed to inform the advocacy strategy.

6. Promotion of prevention priorities within selected Provinces and at National Government level

Childsafe and its advocacy partners can promote adoption and implementation of the intervention priorities through : development of behaviour change campaigns in each of the selected Provinces; mobilisation of influencers and the advocacy network to influence intervention agents; identification and regular engagement with the key intervention drivers in each of the selected Provinces. A

longer term goal will be to motivate for the establishment of an intersectoral oversight body within government structures that meets on a regular basis to review progress towards reducing road injuries.

7. Promotion of prevention priorities within hot-spot areas of selected provinces

Within hot-spot areas, Childsafe will support advocacy efforts and intervention agents, but will need to rely on local advocacy partners and intervention agents for implementation. Activities to be conducted by Childsafe will include: identification, mobilisation and support of influencers to encourage implementation and adoption of interventions; support for intervention agents (provision of policy briefs, fact sheets, local data on child deaths and video materials); conducting Provincial workshops for intervention agents and advocacy partners and; monitoring of advocacy and implementation activities and outcomes. The report details some of the activities that advocacy partners may undertake in the hot-spot areas, which will need to be refined after stakeholder engagement in these areas.

8. Conduct a workshop for intervention agents working in communications campaign around road safety.

Relevant stakeholders would include the media, relevant communications departments of government and related road agencies as well as NGO's working in this field Background



BACKGROUND



Road injury is a priority public health concern, particularly in low and middle-income countries (LMIC) where 90% of global road fatalities occur. With increasing populations, urbanisation and motorization (Jadaan et al., 2018), it is predicted that from 2000 to 2020 road deaths in LMIC will increase by 80% (Kopits and Cropper, 2005). In recognition of the importance of road injuries to global health and development, the United Nations (2018) aims to reduce road injuries and deaths by 50% by 2020 as part of Sustainable Development Goal 3.

South Africa has the second highest road fatality rates in the continent at 31.7 fatalities per 100 000 population per year (Peden et al., 2013). In addition to the significant loss of life, this also incurs enormous economic costs to the country, estimated at 3,4% of the GDP (Labuschagne et al., 2017). Children are particularly vulnerable road users and in South Africa, and for children aged 5-14 years, road injuries rank as the second leading cause of death (Institute for Health Metrics & Evaluation, 2018). These findings, and the fact that nearly a third of the South African population are children, highlight the critical need to address child road injuries.

Jadaan et al (2018) notes that one of the key differences in road safety levels between LMICs and high-income countries (HIC) is the priority given to road injuries, which in turn affects resource allocation, implementation, monitoring and evaluation, all of which ultimately impact road injury rates. This finding suggests that advocacy efforts to enhance political will constitute a critical part of road injury prevention efforts.

In 2018, Childsafe, in partnership with UNICEF, undertook a review of literature, local data and legislation pertaining to child road injuries in South Africa in an effort to strengthen prevention efforts and reduce child road injuries in the country. The reviews identified several important gaps in legislation, policy and implementation that need to be addressed if child road deaths are to be reduced. This advocacy strategy aims to ensure that the findings of this research are utilized to inform the identification of key intervention and advocacy priorities for child road injury reduction. Furthermore, it aims to identify the key stakeholders that can influence legislation, policy and implementation as well as grow political and public support and for these measures.

METHODOLOGY



This strategy draws upon the results of aforementioned literature and data review and adopted the following methodology:

- Rapid review of Childsafe's literature, data, legislation and policy reviews (some of which are still underway)
- Identification of and collection of additional data needed to obtain an epidemiological profile of child road injuries in South Africa to inform advocacy efforts
- Rapid review of the global evidence base on youth road safety
- Rapid identification of relevant organisation and government agencies working in the field of road injury prevention
- Selected stakeholder engagements and consultation with experts in the field
- Development of intervention priorities, advocacy strategy aims, target audiences and activities

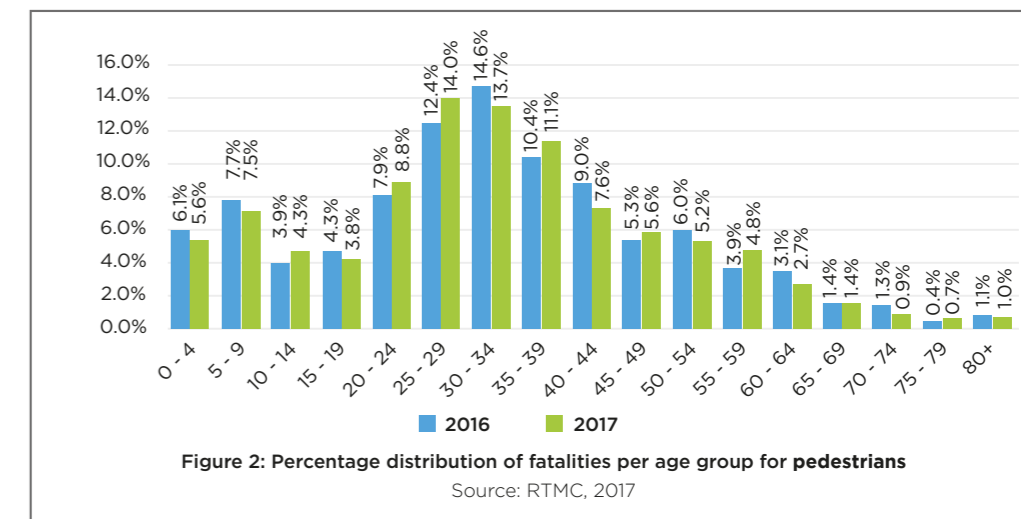
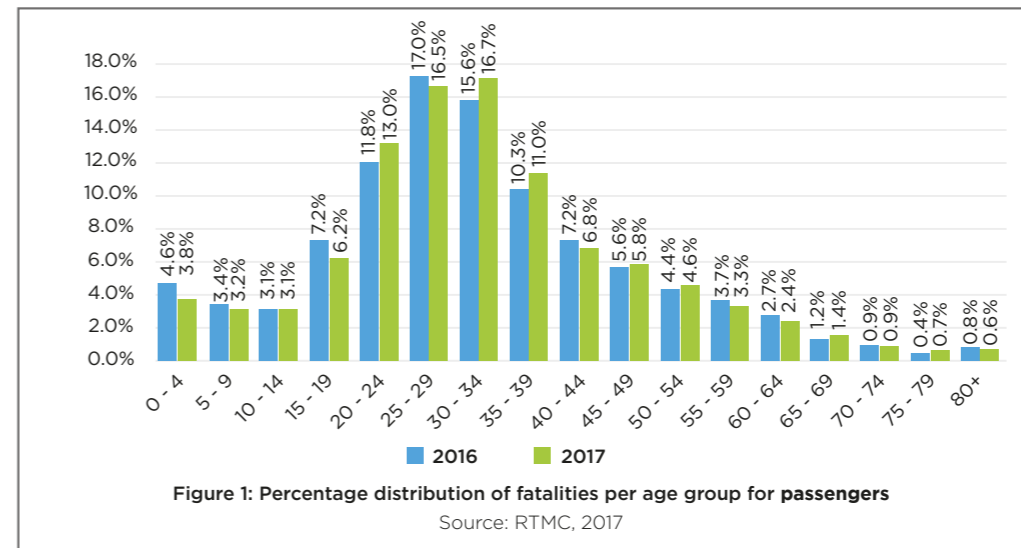
EPIDEMIOLOGY OF CHILD ROAD INJURIES

Implications for the advocacy strategy

Understanding the nature of child road injuries is vital to inform (i) the selection of the most appropriate interventions and (ii) the targeting of interventions. The data here represents a summary of relevant data from Childsafe's data review as well as data obtained from other sources. Due to the short time frame, several data requests are currently pending as indicated in the text below.

Children at highest risk

The data indicates that three main demographic factors affect the risk for child road injury: age, sex and socio-economic status. In terms of age, we are currently awaiting national level data on age-standardised child road fatality rates disaggregated by age categories (0-4, 5-9, 10-14 and 15-19 years). Data from the Road Traffic Management Corporation (RTMC) is shown below, although it does not allow for calculation or comparison of fatality rates (Figures 1 and 2) (RTMC, 2017). This data suggests that, amongst passengers, the majority of deaths occur in 15-19 year olds, whilst among pedestrians, children 1-10 years are most affected. However, as exact numbers and fatalities per population size are not given, the data is hard to interpret.



Mortality data from the Forensic Pathology Services in the Western Cape Province between 2010-2016 indicates that the highest age-specific road death rates occurred in children aged 0-4 years and 15 to 19 years (Table 1) (Western Cape Dept. of Health (WCDOH), 2018). The data also indicates differences in the mode of transport responsible for death in the different age groups with pedestrian deaths dominating all age groups except for the 5-19 year age group. Whether or not these patterns hold true for non-fatal injury rates is not known, as no representative injury data is available. Furthermore, this data cannot be extrapolated to the rest of South Africa as this province differs from others in significant ways.

In terms of sex, global research has found that male children are at far greater risk than female children and that gender differences are typically more marked as children get older (Toroyan and Peden, 2007). We are currently awaiting recent national level child road fatality data disaggregated by age group and sex. However, data from 2009 indicates that male children are over-represented in child road injury deaths in all age categories from 1 to 19 years old and that this difference is especially marked in children aged 5-9 years and 15-19 years, where road fatality rates are approximately double that seen in female children (Eliot, 2016).

While data on the socio-economic status of child road fatality victims is not routinely collected in South Africa, the global literature indicates that road injuries disproportionately affect the poor. Data from the Western Cape Province of South Africa concurs with this finding, such that the highest child road fatalities occur in the poorest neighbourhoods (Western Cape Dept. of Transport and Public Works, personal communication,

November 2018). It is likely that the same patterns would be observed in other provinces.

Once more comprehensive data on the above variables is available, advocacy and intervention efforts can be tailored to target those at most risk.

Table 1: Age-specific death rates per 100 000 population by mode of death for children in the Western Cape (2016) Data source: WCDOH (2018)

	Pedestrian	Motor vehicle	Total
0-4years	12,8	5,1	17,9
5-9 years	5,9	3,2	9,1
10-14 years	3,7	2	5,7
15-19 years	5,5	7,5	13



Geographic areas with highest risks

The provinces identified as having the highest child road fatalities are Kwazulu Natal, Gauteng and the Eastern Cape, which is unsurprising as these provinces also have the highest child populations in the country (Table 2, right). The highest fatality rates occur in the Northern Cape and Free state. At a district level, child road fatalities in eThekweni (KZN), the City of Johannesburg (GT) and the City of Cape Town (WC) account for 20% of South Africa's child fatalities (Janmohammed, 2018). While action is clearly warranted in all provinces, the data suggests that focusing initial advocacy efforts in KZN, Gauteng, the Eastern Cape and the Western Cape would likely yield the largest reductions in child road deaths. Given that Childsafe is located in Cape Town, it will be important to establish stakeholder partners in the other 3 provinces.

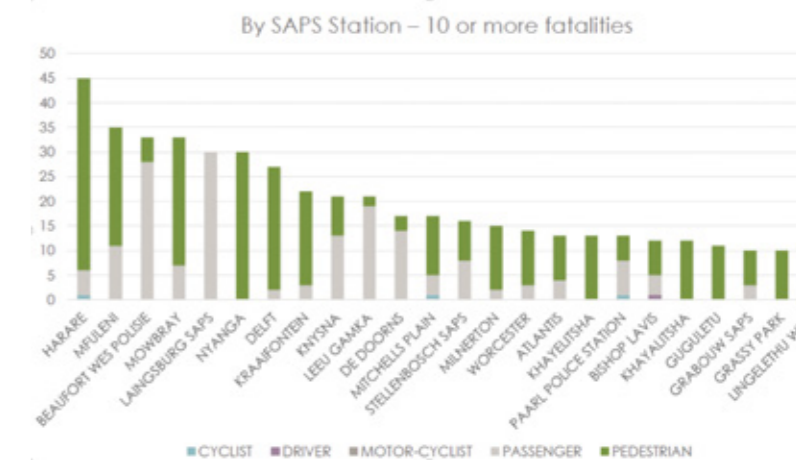
For the cost-effectiveness and feasibility of both advocacy and implementation efforts it will be essential to identify the suburbs within provinces and districts with the highest child road injury incidences (hereafter referred to as child road fatality hot-spots). Within the City of Cape Town, for example, child road fatalities for children aged 0-14 years concentrate in certain neighbourhoods as shown in Figure 3 below (Eliot, 2016). In Kwazulu Natal, audits of hotspot areas in eThekweni identified a small area near a school that had an average of 14 child road deaths per year. With such analyses and detailed road safety audits of these areas, contextually appropriate and cost-effective interventions can have a significant impact on children's safety.

Table 2: Average number of Child Road Fatalities by Province

Source: Janmohammed et al. (2018)

Province	Population	Fatalities	Fatality Rate
Kwazulu Natal	3869536	828	7,13
Gauteng	3356996	580	5,76
Eastern Cape	2533809	519	6,83
Limpopo	2063207	481	7,77
Northern Cape	388700	376	2,24
Western Cape	1772304	376	7,07
Mpumalanga	1448776	361	8,31
Free State	872239	291	11,12
North West	1220931	291	7,94
South Africa	17526498	1289,333	7,36

Figure 3: Child road deaths 2009-2015 in areas of the Western Cape (South African Police Services data) Source: Eliot (2016)



Timing and mode of transport

The majority of child road fatalities occur from 2-7pm, with a smaller peak noted between 6-7am (Figure 4). The former is most likely related to the higher presence of children on roads given that schooling will have finished by the afternoon. The latter coincides with the time scholars would be traveling to school and is also a peak traffic time for motorists. Figure 5 shows that well over half of fatalities occur from Friday to Sunday. The time and day of fatalities may well differ by age group and data in this regard has been requested. What is clear is that advocacy and intervention efforts must address the risks posed after school hours and on weekends.

In terms of the mode of transport, the majority of child road deaths are pedestrian, followed by passenger deaths (Figures 4 and 5). Figure 6 presents this data for children aged 0-14 years in the Western Cape, showing distinct age variations in the primary mode of transport responsible for deaths. National data on the mode of transport of child road fatalities disaggregated by age groups has been requested. Overall, the available data clearly indicates that advocacy efforts should focus on promoting safer pedestrian environments for children as well as increased adult supervision of infants and young children on roads.

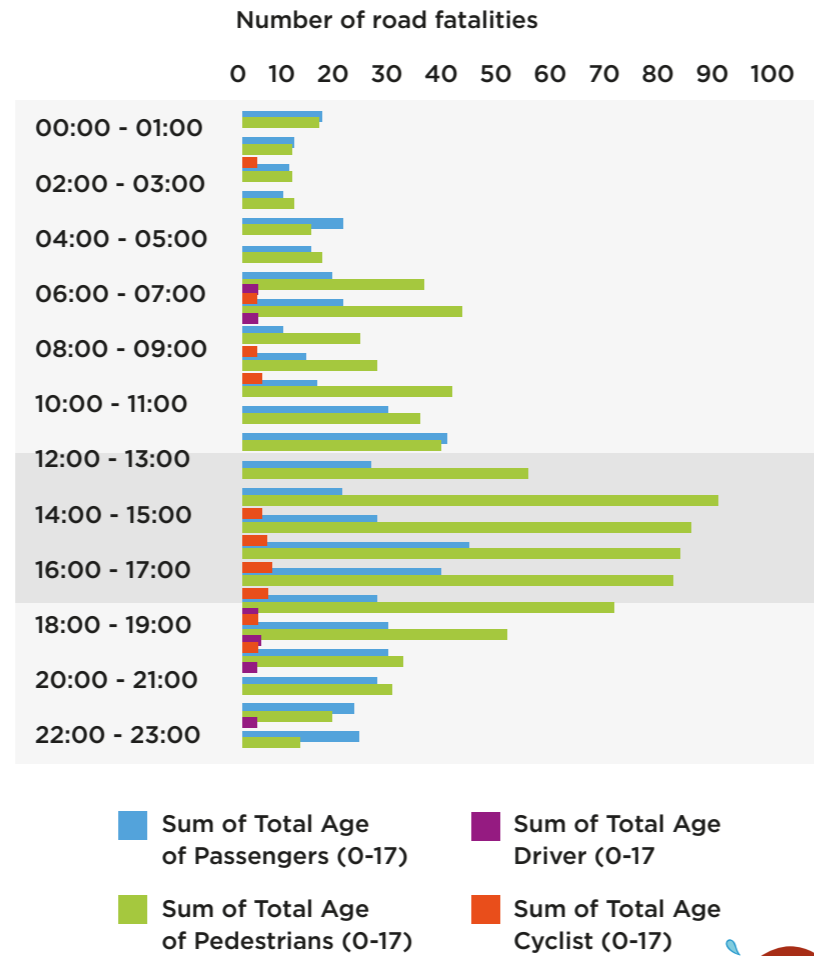


Figure 4: Number of Children Killed on Roads in South Africa in 2015 by Time of Day Source: Janmohammed et al. (2018)

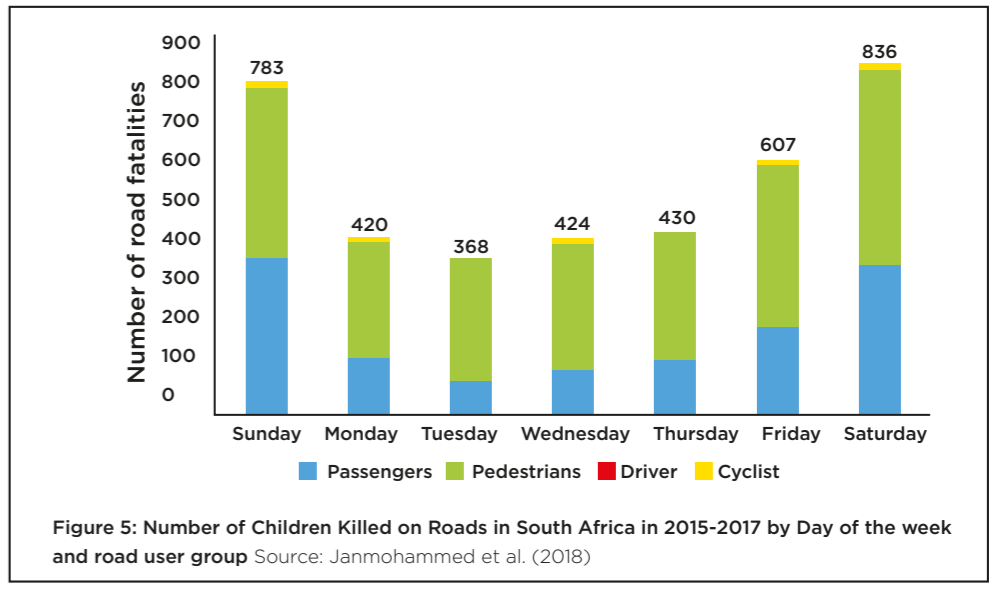


Figure 5: Number of Children Killed on Roads in South Africa in 2015-2017 by Day of the week and road user group Source: Janmohammed et al. (2018)

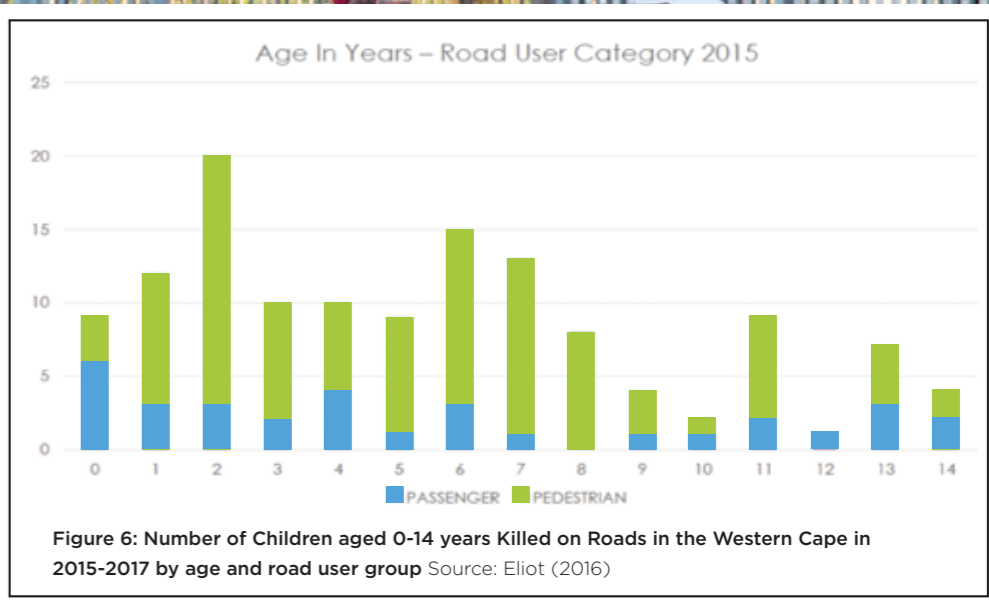


Figure 6: Number of Children aged 0-14 years Killed on Roads in the Western Cape in 2015-2017 by age and road user group Source: Eliot (2016)



INTERVENTION PRIORITIES



The priority interventions to reduce child road deaths in South Africa were identified through

- a review of global evidence (see *Childsafe's literature review for more details*)
- discussion with leading experts in the field at a workshop hosted by Childsafe (see *Appendix 1 for a list of participants*) and
- consultation with selected stakeholders.

Interventions were selected based on a consideration of the following: strength of evidence, feasibility and political viability, applicability to the epidemiology of child road injuries in South Africa and the relative need for the intervention (to avoid duplication). Due to the short-time frame of the project, it was not possible to engage all relevant stakeholders, which is planned for early 2019.

The 10 priority interventions are as follows:

1. **Reduce driving speeds**
2. **Reduce drink driving & walking**
3. **Increase child passenger seatbelt (& restraint) usage**
4. **Increase access to safer scholar transport**
5. **Increase adoption and implementation of non-motorised transport guidelines**
6. **Increase safety of recreational spaces for children**
7. **Communication for behaviour change**
8. **Improve post-crash response**
9. **Strengthen legislation on road injuries**
10. **Improve child-road injury data reporting and research**



Reduce driving speeds in high-risk (hotspot) areas

(i) Speed limit enforcement and reduction

- Enhance enforcement of existing speed limits in hotspot areas
- Reduce speed limits in hot-spot areas
- Investigate speed limit legislation in the National Road Traffic Act

(ii) Increase traffic calming measures in hot-spot areas

Reducing the speed of motor vehicles in hotspot and other high child traffic areas (such as schools) is as a key priority, given the strong evidence that higher road speeds are associated with far higher risks of death following a crash as shown in Figure 7 below.

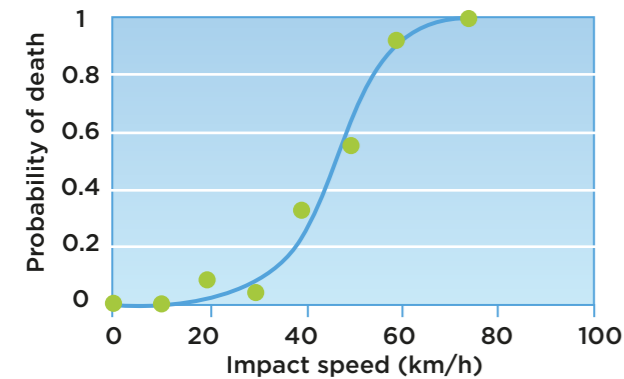


Figure 7: Relationship between probability of death and speed of motor vehicle on impact Source: WHO (2004)

Discussions with experts indicated that the ideal speed limit for roads with high child traffic in hot-spot areas would be 30-40km/hr. However, it is anticipated such limits would provoke significant resistance and as such, it will be preferable to advocate for a 50-km/hr. limit in hotspot residential areas and a 30km/hr. limit around schools. It is also noted that **any reduction in speed would be beneficial.**

Stakeholders also indicated that, according to the National Road Traffic Act (1996), the default speed limits on roads are higher speeds, with residents having to apply to reduce the speed limit in their area/road. The suggestion is that this legislation should be reversed in its emphasis (lower limits as default with applications to increase the limit as needed).

There is also strong evidence for the effectiveness of a wide range of traffic calming measures to reduce driving speeds. These measures include physical changes to the road (such as **speed humps**), visual markings on the road and traffic diversion (**through traffic circles or one-way streets**) (Toroyan and Peden, 2007). To increase cost-effectiveness, it is suggested these measure be undertaken in hotspot areas.



Reduce drink driving & walking

- Increase regular random breath testing of drivers in hot-spot areas and combine this with awareness campaigns that highlight the likelihood of getting caught**
- Adoption of legislation for a graduated drivers license that reduces the legal blood alcohol limit for novice drivers to zero.**
- Increase enforcement of drinking age legislation (to reduce teen drinking)**
- Introduction of legislation/policy that requires a compulsory breathalyzer test for drivers involved in a child road injury or death**

Alcohol contributes significantly to road injury deaths in South with more than 50% of driver and 60% of pedestrian road death victims screening positive for alcohol (Prinsloo, 2004). It is therefore highly likely that child road deaths are heavily impacted by drunk drivers and, given the high rates of teenage drinking in South Africa (Parry et al., 2004), the intoxication of adolescent pedestrians themselves.

The first measure is the most easily implementable in the short-term and the last three would form part of a longer-term strategy.

Increase child passenger seatbelt (& restraint) usage

- Increase enforcement of seatbelt legislation and motivate for the setting of seatbelt usage enforcement targets by enforcement oversight bodies (such as the RTMC)**
- Increased enforcement must be backed up by public behaviour change campaigns that include a focus on children, adolescents and parents that aim to create social norms around seat-belt usage**
- Explore provision of free or subsidized child restraints or devices that can be used with conventional seatbelts. It is acknowledged that for many South Africans, cost is a major barrier**

Seatbelt usage is a major predictor of road injury outcomes; across the globe, passengers who were not wearing a seatbelt at the time of a crash make up the majority of road passenger deaths. Passengers not wearing seatbelts have been found to have higher rates of head injury and ejection from the motor vehicle. Seatbelts are designed for a certain size of body and are therefore not suitable for younger children, for whom age-appropriate restraints are required (Toroyan and Peden, 2007).

Focusing enforcement and campaign activities in hotspot residential areas is recommended. Interventions (i) and (ii) would be feasible as short-term goals while (iii) would be a longer-term goal.

Increase access to safer scholar transport

(i) **Increase learner access to safer motorized school transport in hot-spot areas: this includes greater provision of motorised transport options, reviewing regulations pertaining to scholar transport vehicles as well as enforcement and implementation of existing legislation and regulations pertaining to scholar transport**

(ii) **Increase safety of learners walking to school in hot-spot areas: within the Western Cape, the Walking Bus Initiative could potentially be leveraged to increase road safety. However, sustainability of this initiative was raised and in particular the need for funding of this initiative. If successful, this initiative could be expanded to other provinces.**

As discussed above, there is a peak in child road deaths between 6-7 am on weekdays; the time children are travelling to school and also a peak time for motorized traffic. Many learners walk to school and learners in rural areas often walk exceptionally long distances along high-speed national roads to reach their school (see Childsafe's data review for a comprehensive analysis of learner walking times in South Africa). Stakeholders also reported children being transported to school in overloaded open-back vehicles. The National Policy on Rural Transport attempts to address this problem but has not been fully implemented. Furthermore, this problem is not confined to rural areas: staff of the Cape Town's mayoral office point out that even in the city, there are some areas, such as Delft, where learners walk up to 40 minutes to reach school.

Scholars in urban centres often face additional safety risks if they walk through poorly lit neighbourhoods with high rates of

violence. The Western Cape's Department of Community Safety launched a Walking Bus initiative, which utilizes groups of adult community volunteers to walk children to and from school in attempt to protect them from becoming targets of crime and violence. These initiatives exist in more than 70 high-risk locations, which to a large degree overlap with the child road injuries hotspots. In the Eastern Cape, a similar programme exists where a volunteer stipend is provided to volunteers. It is noted that we need to review the evidence on the likely effectiveness of such a programme to reduce child road injuries in the South African context.

Other issues pertaining to schools include speed reduction and urban design, which are discussed under these headings.



Increase adoption and implementation of non-motorised transport guidelines

- (i) Increased implementation of NMT guidelines in town planning (and monitoring of this implementation)
- (ii) Lobby for legislation/regulations that make **NMT guidelines compulsory with** liabilities incurred in instances of non-compliance
- (iii) Improve training of engineers and urban designers in child road safety requirements

Given the fact that majority of child deaths are pedestrian, the need to improve the road environment with a pedestrian focus is key. The Department of Transport's Non-Motorised Transport

(NMT) Facility Guidelines aim to redefine the way towns and peri-urban areas are designed with the objective of designing spaces not just for motorists, but for all types of road users (Figure 6)(Vanderschuren *et al.*, 2015). Staff of the Walking Bus project in the Western Cape confirmed the dire need for such and shared an example of 3 schools with their entrances all placed on the same high traffic main road, rather than lower traffic side roads. Despite the presence of the NMT Guidelines, stakeholders report that these guidelines have not been implemented and that a change-management process will be required. Stakeholders also indicate that there is a lack of training in child road safety.

Figure 8: New Approach to Road Design
Source: Vanderschuren *et al.* (2015)

Increase access to safer recreational spaces for children

The high fatality rates of child pedestrians in afternoons, evenings and weekends suggests that children would benefit from (a) greater adult supervision in the road environment (particularly children under 5 years) and (b) increased access to safer recreational spaces.

The first issue falls largely under behaviour change communication but increasing access to safe recreational spaces for children of all ages is clearly an important measure, particularly for parents who work. This includes speed reduction around existing child recreational areas, but given the low access to safe recreational spaces in high-risk neighbourhoods, it would also need to include the provision of safer recreational spaces in hotspot areas. A review of existing resources and programmes will need to be undertaken to ascertain where there are gaps as it is noted that some areas have after-school programmes.

In the Western Cape, the game-changer initiative has established 'MOD' centres in 5 sites: Paarl East, Nyanga Junction, Atlantis, Manenberg, Kraaifontein and Hout Bay. Another game-changer programme that could be leveraged is the Alcohol Harm reduction programme which includes recreational activities for young people. Engagement with the relevant stakeholders will need to establish if these programmes are open to both children and teenagers and what safety measures are in place at these locations. Increasing availability of recreational spaces is a longer-term goal, as it would require significant investment by government.

Communication for behaviour change

- (i) Increase behaviour change campaigns targeted at drivers, parents and older children

Several of the intervention priorities will require significant behaviour change as shown in Table 3.

Target Audience				
INTERVENTION CATEGORY	Drivers	Parents/ caretakers	Children 5-9yrs	Children 10-18yrs
SPEED	x	x		
SEATBELTS	x	x	x	x
DRUNK DRIVING	x	x		
DRUNK WALKING		x		x
SAFER RECREATION		x		
SCHOLAR TRANSPORT		x		

Table 3: Behavior change target audiences for the priority intervention areas.

Some of these areas are currently addressed by media campaigns from a range of government, parastatal and non-governmental agencies. While a review of these campaigns has yet to be conducted, to the author's knowledge, the primary target audience of the majority of the campaigns is adult drivers (and often young male drivers). From a child road safety perspective, a greater emphasis on the potential harm towards children would be important as well as the inclusion of children, teenagers and parents as target audiences (e.g. motivating parents not to speed/drive drunk with child passengers, to buckle up their children, to supervise children in

road environments, especially those under 5 years, and to ensure their child has safe transport to school by, for example, walking the child themselves or joining a walking bus). A review of available research in terms of these behaviours will be required to identify the most effective messaging. The Western Cape Department of Transport and Public Works has conducted some useful research into speeding and seatbelt use behaviour, which is a useful reference in this regard.

It should be noted that public education and awareness as a stand-alone intervention are insufficient to change behaviour and are only effective when supported by a holistic approach that includes the adoption and implementation of the other intervention priorities detailed in this report (WHO, 2004).

Improve the post-crash response

Data and stakeholder input on the post-crash response to child road injuries in South Africa still needs to be obtained. A leading expert in the field has indicated the need for more dedicated paediatric trauma units, given that one third of the population are children and that they would have better outcomes in medical facilities equipped for their specific needs. The training of first responders and drivers in first aid should also be evaluated to assess the appropriateness to address child road injuries. The accessibility and quality of rehabilitation for children must still be ascertained.

Strengthen legislation on road injuries

- (i) Review legislation that limits the charge of motorists causing death or serious injury, to risky or negligent driving

Stakeholders indicated the need to amend legislation such that, where drivers responsible for death or serious injury are found

to be speeding, under the influence of alcohol or other drugs or texting, they will receive a jail sentence and license suspension. A comprehensive review of legislation and regulations is currently underway and may identify additional legislative measures that require attention.

Improve child-road injury data reporting and research

While data on child road fatalities is collected by two agencies (the police and forensic pathology services), the routine reporting of road deaths does not separate child from adult road fatalities in either analysis or reporting. This undoubtedly results in child road deaths receiving a low priority due to their relatively lower numbers compared to adult road deaths. This does not take into account the greater years of life lost by children who die at a younger age nor the fact that road deaths are a leading cause of death for children in South Africa. Furthermore, children are inherently less able to navigate roads and traffic and in this sense, the agencies of road safety need to prioritise them as vulnerable road users.

An additional problem with the lack of child-specific data analysis and reporting is that it does not allow for the identification of child road injury risks and hotspots, which precludes targeted intervention and advocacy efforts. Stakeholders also highlighted the importance of making child road death data available to communities.

In terms of research, a comprehensive review of research in the area needs to be undertaken to identify important gaps in information that could assist with advocacy and intervention efforts. Similarly, a review of the monitoring and evaluation of interventions is needed.

AIMS OF THE ADVOCACY STRATEGY



1. Raise the profile of child road injuries to become a priority for both government and communities
2. Grow political and public support for the adoption of the 10 priority child road injury prevention interventions by national, provincial and local government, non-governmental and community-based organizations
3. Stimulate and inform public debate about social norms regarding a number of prevailing attitudes towards, for example, the function of roads, the rights of pedestrians versus motorists, speed, seatbelt use and child road use supervision.
4. Increase knowledge about, and promote action for, safer driving and pedestrian practices

Creation of a child road safety advocacy network that can inform policy debates and research agendas, share advocacy tools, support community action and monitor progress towards implementation of the intervention priorities in a sustainable way

KEY MESSAGES



1. Child road injuries are a serious and urgent problem
2. Road safety is the joint responsibility of government & road users
3. We will not reduce child road injuries by addressing road injuries in general
4. Roads are for people, not just cars
5. Improving scholar transport is important but will have no impact on the large number of child road deaths occurring on weekends and after school
6. Most crashes happen in residential areas and there are clear hotspot areas and roads in which interventions can be targeted





1. Child road injuries are a serious and urgent problem:

- They are a leading cause of death for children and rates are double the global average for certain age categories
- Children comprise a third of the population so their health should be considered a priority
- Children are inherently less able to navigate roads and therefore must be prioritized by government as vulnerable road users
- A child deaths represents a greater number of years of life lost than an adult death
- The harms from child road injuries are multiple and massive (health, economic, psychological etc.)
- Something needs to be done: government, communities and individuals need to act in order to save lives and reduce injuries

2. Road safety is the joint responsibility of government & road users

- Education alone will not reduce child road injuries
- People and children will make mistakes despite best educational efforts
- If nothing changes, nothing changes: the evidence shows us that we cannot reduce child road injuries (and adult road injuries) without creating more pedestrian friendly spaces, reducing driver speed, increasing random breath testing and seatbelt usage in hotspot areas
- To save lives and reduce the massive harms from road injuries certain trade-offs will need to be made: driving slower may be less convenient but the net effect for society will be positive;

- There are many things the public can do to reduce child road injuries in their own communities;
 - Change is possible: It is possible to change the culture of speeding (as has been done with smoking)
- 3. We will not reduce child road injuries by addressing road injuries in general**
- Child-specific interventions are needed in addition to interventions aimed at road injuries in general
 - Implementation of interventions needs to be in high child traffic residential areas
 - Data analysis, reporting and research needs to separate children from adults
 - Implementation of many of the interventions addressing child road safety will also reduce adult road injuries
- 4. Roads are for people, not just cars**
- Roads in residential areas need to be thought of and designed as a communal space rather than a traffic conduit
 - Pedestrians need to be prioritized in hot-spot residential areas
- 5. Improving scholar transport is important but will have no impact on the large number of child road deaths occurring on weekends and after school**
- 6. Most crashes happen in residential areas and there are clear hotspot areas and roads in which interventions can be targeted**



TARGET AUDIENCES



The target audiences of this advocacy campaign can be divided into two main groups: intervention agents (those with the power to implement the interventions) and motivators/influencers (those with the power to motivate the implementers).

Intervention agents

The intervention agents range from legislators and policy makers to on the ground implementers, such as traffic police, as well as non-governmental organisations (NGOs) and private sector bodies such as the taxi associations. A list of these agents and their relevance to each of the intervention priorities can be seen in Table 4 below. In terms of NGOs, those involved as intervention agents fall largely in the category of communication: Table 5 provides details of NGO's currently doing road safety communication campaigns. Within government departments, specific people will need to be identified as the Key Intervention Drivers as discussed under section 8 below. This process of identification will form part of the stakeholder analysis process.

While we have managed to engage with a few key stakeholders as part of developing this advocacy plan, a comprehensive stakeholder engagement and analysis is needed. Notwithstanding the results of that analysis, no clear opponents to our advocacy goals have been identified, with the exception of motorists' resistance to speed reduction (see below). However, it has been observed that several key stakeholders favour educational and awareness programmes over evidence-based holistic programmes. It is also evident that the majority of resources are allocated to reducing adult road injuries. This emphasis is also reflected in many legislative and policy documents: Childsafe is currently conducting a review of these documents and the reader is directed to this review for a more detailed discussion.

INTERVENTION AGENTS	REDUCE SPEED	INCREASE SEATBELTS	DRUNK DRIVING	DRUNK WALKING	NMT GUIDELINES
Government & Parastatal					
Traffic police (hotspots & provincial)	x	x	x	x	
Dept. Transport (provincial & national)	x	x	x	x	x
Dept. Health (provincial)					
RTMC	x	x	x	x	x
Road Accident Fund					
Dept. Education (Provincial)	x				
Municipalities: SALGA & sub-councils	x				x
Dept. Cultural Affairs & Sport (Provincial)					
Dept. Social Development (Provincial)					
South African Police (hot-spots)				x	
Public Works Programmes (Provincial)					
Dept. of Justice (National)					
Dept. Human Settlements/ Land Use Planning (Provincial)					x
Community & Non-governmental Organisations					
Walking Bus Groups (hotspots)					
Non-governmental/Non-profits (communications)	x				
Research Institutions					
Community Police Forums (hotspots)				x	
Private Sector					
Taxi Associations (hotspots)					
Taverner's Associations (hotspots)				x	

Table 4: Agents and their relevance to priority areas

INTERVENTION AGENTS	SAFER RECREATION	SCHOLAR TRANSPORT	POST-CRASH	DATA & RESEARCH	BEHAVIOUR CHANGE	LEGISLATION
Government & Parastatal						
Traffic police (hotspots & provincial)		x		x		
Dept. Transport (provincial & national)		x		x	x	x
Dept. Health (provincial)			x	x		
RTMC		x		x	x	
Road Accident Fund					x	
Dept. Education (Provincial)		x		x	x	
Municipalities: SALGA & sub-councils	x					
Dept. Cultural Affairs & Sport (Provincial)	x					
Dept. Social Development (Provincial)	x					
South African Police (hot-spots)				x		
Public Works Programmes (Provincial)		x				
Dept. of Justice (National)						x
Dept. Human Settlements/ Land Use Planning (Provincial)	x					
Community & Non-governmental Organisations						
Walking Bus Groups (hotspots)		x	x			
Non-governmental/Non-profits (communications)					x	
Research Institutions				x	x	
Community Police Forums (hotspots)	x	x				
Private Sector						
Taxi Associations (hotspots)					x	
Automobile Association & Insurance Companies					x	

Table 5: NGOs engaged in road safety campaigns



Several stakeholders reported strong resistance to reducing speed limits in residential hot-spot areas, which reportedly stems from public resistance to such measures (by motorists). As such, a key component of the advocacy campaign must be to convince stakeholders that this resistance can be overcome through (a) public campaigns to grow popular and political support and (b) that compromises can be made in terms of limiting these measures to the most dangerous roads in hot-spot areas and to speeds that are agreeable to the communities they serve. In this regard, growing community support in hotspot areas will be essential. Stakeholders stated that the local municipalities set speed limits for their areas so it was suggested to lobby the **sub-councils** that cover the highest risk areas. Once lobbying efforts have gained support for such measures, it was recommended to table a paper to the relevant sub-councils for resolution. This process would need to be undertaken in high-risk areas of the selected provinces.

In terms of increasing implementation of the NMT guidelines, the recommendation has been to participate in the Integrated Development Planning (IDP) processes that happen every April for each municipality. It has also been suggested that this aim could be achieved as part of the Integrated Public Transport Network, which is taking place in certain municipalities. Again, to be cost-effective, these efforts would need to concentrate in the high-risk areas of the selected Provinces.

Several stakeholders that have been engaged to date have expressed a willingness to partner with Childsafe: these include the RTMC, the National Department of Transport, the Western Cape Departments of Transport and Public Works, Equal Education, The Social Justice Coalition, Arrive Alive, Sonke Gender Justice and the City of Cape Town's Walking Bus Project. The regional branch of the World Health Organisation has also expressed interest in funding child injury reduction programmes.

CHILDSAFE
ARRIVE ALIVE
SOUTH AFRICANS AGAINST DRINK DRIVING
WHEELWELL
FAITH BASED ORGANISATIONS
DRIVE MORE SAFELY
WOMEN IN ROAD SAFETY
SAVE THE CHILDREN
SOUL CITY INSTITUTE

Table 6: NGO'S that currently run road safety communication campaigns



Motivators and influencers

To achieve the intervention and advocacy goals of this project will require significant changes in the perspectives and actions of many intervention agents and given the likely resistance to some of the proposed measures, it is imperative to create strong community and political support through the mobilization of relevant motivators or influencers. Table 7 below details the range of influencers who are relevant with regard to each of the intervention priorities. Table 6 indicates the relevant non-governmental and non-profit organisations that could be mobilized for advocacy efforts. Within these organisations and government departments, specific people will need to be identified as the Key Messengers and mobilized to form an advocacy network in this regard. This process of identification will form part of the stakeholder analysis process.

While, a comprehensive stakeholder analysis and engagement has not been possible, potential influencers who may oppose our efforts would include politicians, motorists and taxi associations who may oppose speed reduction measures or alternative scholar transport options. Further engagement on these issues will be required as part of a stakeholder analysis. An additional opponent may be the liquor industry who frequently lobbies against efforts to reduce alcohol abuse intervention measures.

[CHILDSAFE](#)
[CHILDREN'S INSTITUTE](#)
[EQUAL EDUCATION](#)
[SOCIAL JUSTICE COALITION](#)
[OPEN STREETS](#)
[COMMUNITY HEALTH ORGANISATIONS](#)
[ARRIVE ALIVE](#)
[SADD](#)
[WHEELWELL](#)
[SONKE GENDER JUSTICE](#)
[WALKING BUS](#)
[DRIVE MORE SAFELY](#)
[WOMEN IN ROAD SAFETY](#)
[SAVE THE CHILDREN](#)
[SOUL CITY](#)

Table 7: "List of NGO'S that could be mobilized for advocacy efforts



INFLUENCERS/MOTIVATORS	REDUCE SPEED	INCREASE SEATBELTS	DRUNK DRIVING	DRUNK WALKING	NMT GUIDELINES
Community leaders and CBO's	x	x	x	x	x
Local NGO'S & FBO's	x	x	x	x	x
Parents of child road death victims	x	x	x		x
Principals/schools	x	x		x	x
Depts of Health, Education, Social Development and Transport	x	x	x	x	x
Premiere, Presidency					
Portfolio Committees: Justice; Women & Children; & Transport	x				x
Media	x	x	x	x	x
Researcher Institutes	x	x	x	x	x
International NGO's and Road Safety Organisations	x	x	x	x	x

INFLUENCERS/MOTIVATORS	SAFER RECREATION	SCHOLAR TRANSPORT	POST-CRASH	DATA & RESEARCH	BEHAVIOUR CHANGE	LEGISLATION
Community leaders and CBO's	x	x		x		
Local NGO'S & FBO's	x	x	x	x	x	x
Parents of child road death victims		x				x
Principals/schools		x				
Depts of Health, Education, Social Development and Transport	x	x		x	x	x
Premiere, Presidency						x
Portfolio Committees: Justice; Women & Children; & Transport		x		x		x
Media	x	x			x	x
Researcher Institutes	x	x	x	x	x	x
International NGO's and Road Safety Organisations	x	x	x	x	x	x

Table 8: TBC

ADVOCACY PLAN



1. Selection of Provinces in which to focus advocacy efforts

Given resource limitations it makes sense to focus advocacy efforts on a few key provinces. As per the epidemiology review above, focusing initial advocacy efforts in KZN, Gauteng, the Eastern Cape and the Western Cape would likely yield the largest reductions in child road deaths. Given that Childsafe is located in Cape Town, it will be important to establish strong stakeholder partners in other provinces. Outside of child road fatality burden, selection criteria for provinces should include (i) the presence of motivated governmental and non-governmental advocacy partners and (ii) availability of resources to implement the proposed interventions.

2. Within selected Provinces, detailed analysis of data to identify target locations, populations and behaviours

As explained in detail in the section on targeting of interventions and its implications for advocacy, it will be necessary to conduct a thorough analysis of data from the selected provinces to identify the key municipalities and, within those, the top hotspot areas and roads implicated in child road injuries. This should include disaggregated analyses for age, sex, time of day, day of week and mode of transport such that advocacy, behaviour change and intervention efforts are appropriate to the context in question. Formal access to data needs to be obtained from the relevant authorities, and in particular Forensic Pathology Services. Partnerships with research institutions could assist in the necessary data analysis requirements.

3. Stakeholder analysis and formation of an advocacy network

Stakeholder mapping and analysis will be necessary to identify stakeholders in the selected provinces and hotspot areas. The categories of stakeholders to be engaged can be found in the tables above. It is recommended that each stakeholder engagement be regarded as an advocacy opportunity in itself such that each engagement includes a sharing of our key messages (in addition to obtaining stakeholder information and perspectives). It is

also an opportunity to recruit relevant stakeholders to the advocacy network, identify key messengers, identify other partners and to modify our strategy where needs be.

Once the stakeholder analysis and engagement is complete, a workshop and formal launch of the advocacy network should be undertaken. It is recommended that clear and concise guidelines be drawn up to delineate the nature of the network, roles, responsibilities and intellectual property.

4. Creation of advocacy tools

Advocacy tools targeted at different target audiences will be needed to assist advocacy efforts. These should include the following:

- Policy briefs for each of the 10 priority intervention areas
- PowerPoint presentations, designed for a range of target audiences (policy implementers and advocacy agents), that cover the 10 priority areas and key messages
- Factsheets for press and other advocacy partners: again, these should focus on the 10 priority intervention areas
- Short video clips that can be used in presentations, showed in communities and sent to policy makers and the media. These should focus on transmitting the key messages of the advocacy strategy as well as having an emotionally evocative component, which could include negative emotions (e.g. parents of child road injury deaths) and positive emotions (e.g. 5-10 year olds doing a cute song and dance requesting drivers to slow down or policy makers to design child-friendly spaces)

The stakeholder workshop should also aim to identify any additional tools that may be required.

5. Identification of research, policy and legislation gaps to strengthen advocacy tools and efforts

Research gaps that pertain specifically to the 10 priority intervention areas need to be identified in order to obtain the necessary information for both intervention and advocacy efforts. For example, there appears to be a lot of research on speeding behaviour, but do we have data from South Africa that speaks to the behaviour of child pedestrians and their caregivers or the impact of the walking bus on road injury outcomes? It would be helpful to know, for example, what is the nature of child pedestrian injuries for the under 5 age group; are they simply not supervised (and if not, why not?) or are they being struck by cars while assisted by their parents? This has significant implications for how we address the problem and campaign around it.

In order to assist our advocacy and intervention partners, it would also be helpful to review available literature and research on child-road injury related behaviours such that appropriate and effective messaging can be designed.

As mentioned above, a review of current policies and legislation pertaining to child road safety is currently underway and will also need to be completed to inform the advocacy strategy.

6. Promotion of prevention priorities within selected Provinces at National Government level (to be refined after stakeholder analysis)

Childsafe and its advocacy partners can promote adoption and implementation of the intervention priorities as follows:

- Development of behaviour change campaign in each of the selected Provinces

- Mobilisation of influencers and advocacy network to influence intervention agents. This can be achieved by pairing the key messengers within each province to the most appropriate intervention agent (following on from the stakeholder analysis)
- Identification of key intervention drivers in each of the selected Provinces (through the stakeholder analysis process)
- Regular engagement with the key intervention drivers at National and Provincial level such that sustainability is ensured as well as monitoring of progress (possibly in the form of monthly meetings)
- A longer term goal would be to motivate for the establishment of an intersectoral oversight body within government structures that meets on a regular basis to review progress towards reducing road injuries (child and adult)

7. Promotion of prevention priorities within hot-spot areas of selected provinces (to be refined after stakeholder analysis)

Within hot-spot areas, Childsafe will support advocacy efforts and intervention agents, but will need to rely on local advocacy partners and intervention agents for implementation. This is in line with acknowledging the limitations of Childsafe and is also a way to increase sustainability and community ownership of the project.

Activities to be conducted by Childsafe will include: identification, mobilisation and support of influencers to encourage implementation and adoption of interventions; support for intervention agents (provision of policy briefs, fact sheets, local data on child deaths and video materials); conducting Provincial workshops for intervention agents and advocacy partners and; monitoring of advocacy and implementation activities and outcomes.

Activities by the advocacy partners would be targeted at both intervention agents as well as communities and may include: engagement with local implementers (e.g. municipalities, traffic police and schools); establishment of walking bus initiatives or community road safety groups; community-based workshops with video screenings and debates; transmission of messages through local media (newspapers, radio) and social media and; the establishment of WhatsApp groups. Data on local child road fatality data from the area should be provided to advocacy partners in these areas. The area-specific campaign should also involve community, NGO and local government intervention agents and in this way would be sustainable and linked to specific interventions.

8. Conduct a workshop for intervention agents working in road safety communications campaigns

The aim of this would be (i) to ensure that information provided to the public about child road injuries and how to address these is accurate and effective; (ii) to strengthen behaviour change campaigns; (iii) to ensure consistency of messages and (iv) spread our key messages onto public messengers. Relevant stakeholders would include the media, relevant communications departments of government and related road agencies as well as NGO's working in this field (listed in Table 5 above).



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APPENDICES



Appendix A: Child road injury prevention workshop

Date: 31 October 2018

Objectives of the workshop

1. To gain expert consensus on the key priority interventions that should be advocated for in the advocacy strategy to reduce child road injuries in South Africa
2. To begin the process of identifying relevant stakeholders and advocacy partners such that a network of stakeholders can be developed

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