

CHILD PEDESTRIAN SAFETY:

What children at Isikhokelo Primary School
say about road safety



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1. INTRODUCTION

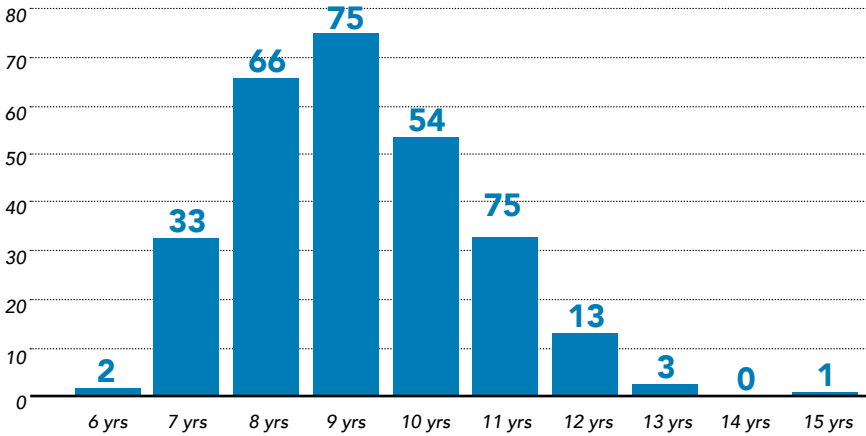
In South Africa pedestrian injury is a leading cause of death among children and adolescents (Road Traffic Management Corporation [RTMC], 2011). Children in low-income communities are more at risk as they often depend on walking to and from school as their primary means of transport (Statistics South Africa, 2014). Children are especially vulnerable to pedestrian injury due to their small physique which limits their ability to see or be seen by oncoming cars, and their limited skills to assess complex road situations (Koekemoer, Van Gesselteen, Van Niekerk, Govender, & Van As, 2017). There is therefore a need for information on children's knowledge of road safety, and their behaviour when using the road, to improve local child safety interventions. The SAMRC-UNISA VIPRU, in conjunction with Childsafe, International Road Assessment Programme (iRAP) and Takalane Sesame, conducted a study in 2014, to assess children's pedestrian safety knowledge and behaviour. The survey was administered to children at Isikhokelo Primary School by trained research assistants. The survey was adapted from the Safe Kids Worldwide Model School Zone Project Guide (Version II) and translated into isiXhosa.

This report provides an overview of the results from this survey. The report describes the study participants and important road-traffic safety factors including degree of supervision and child pedestrian safety knowledge, attitudes and behaviour.

2. STUDY PARTICIPANTS

Isikhokelo Primary School is situated in Khayelitsha, in the Western Cape, and was one of three schools selected for the study. This report will only describe the information reported for children at Isikhokelo Primary School. There were approximately 1135 pupils attending the school in 2014. A total of 280 children (45% boys and 55% girls) participated in the study. Children were recruited from grades 2 to 7, and ages ranged from 6 years to 15 years is displayed in **Figure 1**.

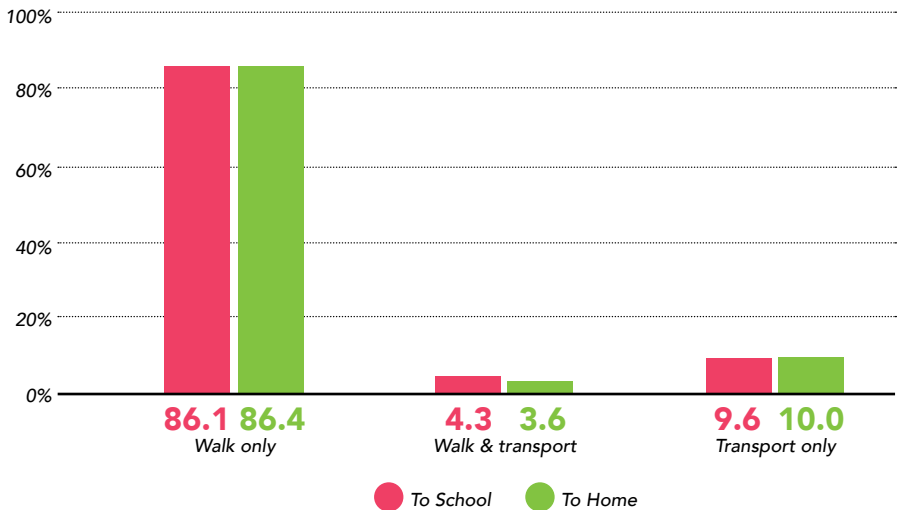
Figure 1: Age distribution



3. MODE OF TRAVEL

Figure 2 display children’s mode of travel to and from school. Most children travel by walking only without other means of transport.

Figure 2. Mode of travel



Most children always or sometimes walk to and from school by themselves. Those who do not always walk alone are mostly accompanied by either friends or younger siblings (Table 1).

Table 1. Pedestrian supervision and distance from school

	To school	To home
Walk alone¹		
Never	21.8%	15.4%
Sometimes	35.0%	40.7%
Always	33.6%	32.5%
Accompanied by²		
Adult	12.5%	11.1%
Friend/Sibling	65.0%	65.4%
Other	1.4%	0.4%

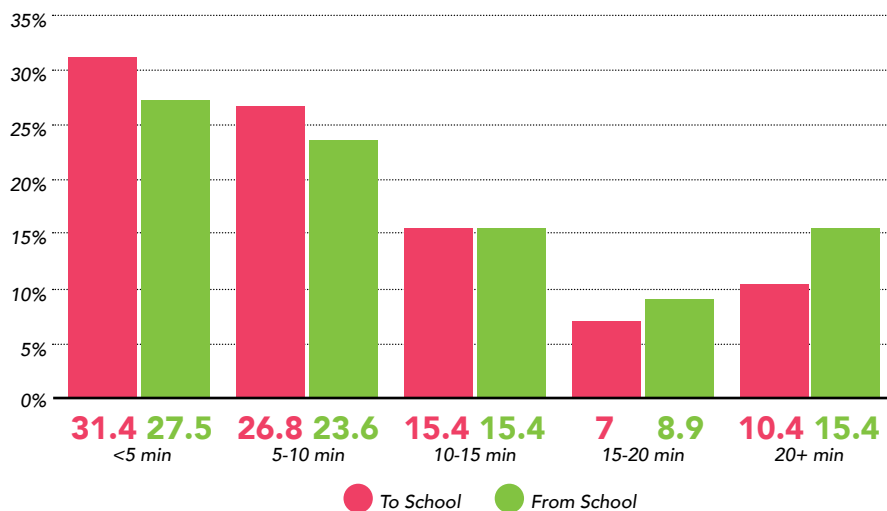
1 Percentages reflect total number of children who walk to/from school

2 Percentages reflect total number of children who do not always walk alone

Note: Percentages may not add up to 100% due to missing values

Most children live close to Isikhokelo Primary school, within a 10-minute walk as seen in Figure 3.

Figure 3. Average time taken to walk to/from school



4. PEDESTRIAN SAFETY KNOWLEDGE

This study reports on children’s pedestrian safety knowledge related to their visibility when walking to and from school, and their road-crossing abilities and behaviour (Table 2). Most children answered the second (78.2%), third (46.7%), fourth (88.2%) and the fifth (56.8%) traffic safety questions correctly. However, for the first question, “*if you can see the driver, the driver can see you*”, most of the children (78%) selected the incorrect answer. Children and parents need to be informed about the safe places for children to cross the road and the dangers of playing in or near the road. Educational road safety programmes can teach children and drivers about the obstacles that may prevent the driver from seeing child pedestrians (Venter, 2017). As children often walk along and cross the roads alone, they could also be equipped with reflective school-going material and be taught safe road-crossing skills (Childsafe, 2017).

Table 2. Children’s pedestrian safety knowledge

		RESULTS
<i>Visibility</i>		
1. If you can see the driver, the driver can see you		
True		74.3%
False*		25.4%
2. Drivers will see you more easily if you are wearing:		
Black or brown clothes		11.4%
Light-coloured and reflective clothes*		81.1%
Shiny but dark clothes		87.1%
<i>Road-crossing</i>		
3. If there is no zebra crossing, you should cross the street:		
Anywhere		8.6%
At the corner*		53.9%
In the middle		37.1%

RESULTS**4. When you would like to cross a street and you are on the pavement, you should:**

Stop and check for traffic both ways*	78.6%
Run across to avoid the vehicles	9.3%
Just cross and let the vehicles avoid you	3.2%
All of the above	2.5%
None of the above	2.1%

5. When the robot starts flashing the red man while you are still crossing, you should

Keep walking quickly until you have crossed the street*	66.1%
Turn around and run back to the other side	26.4%
Stop in the middle of the road	7.1%

*Correct response

5. ROAD-CROSSING BEHAVIOUR

Children's self-reported road-crossing behaviour is displayed in Table 3. Most children indicated safe road-crossing behaviours for each item. Educational interventions which include a practical road-crossing component can teach children safe road-crossing behaviours. Practical interventions such as teaching children from a young age to look both ways before crossing, to not run across the road, and to continue listening and looking out for cars until they have crossed the road can be taught to children (McMahon, Gopalakrishna, & Stevenson, 2008).

Table 3. Self-reported road-crossing behaviour

		RESULTS
1. Forget to look properly because you are talking to your friends		
Never*		59.6%
Sometimes		20.4%
Always		20.0%

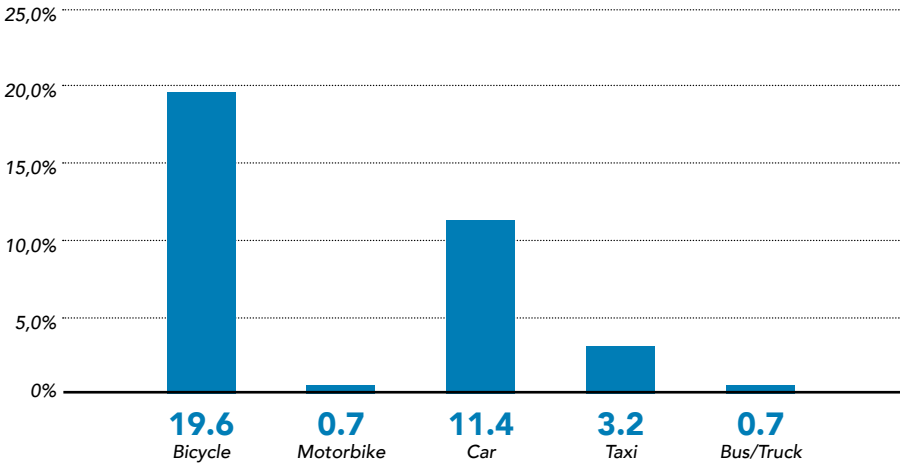
2. Think you have enough time to cross safely, but a car is coming quicker than you thought	
Never*	53.9%
Sometimes	20.4%
Always	24.6%
3. Look both ways before crossing	
Never	7.5%
Sometimes	8.2%
Always*	81.8%
4. Keep looking/listening for cars until you get all the way across the road	
Never	7.1%
Sometimes	12.5%
Always*	80.0%
5. Have to run to avoid cars	
Never*	47.9%
Sometimes	11.4%
Always	40.0%
6. Run across without looking because you are in a hurry	
Never*	66.8%
Sometimes	12.1%
Always	19.6%

*Correct response

6. PEDESTRIAN INJURIES

Despite good reported road-crossing behaviour and safety knowledge, approximately 36% of children indicated that they experienced a pedestrian collision at some point in their life. Of the 36%, 19.6% of children reported a collision that involved a bicycle, and 11.4% involved a car as displayed in Figure 4.

Figure 4. Vehicles involved with pedestrian collisions



7. CONCLUSION

In summary, this study of Isikhokelo Primary School reported that walking is the main form of transport for children. It was found that the majority of children live within a 10-minute walk from the school and mostly walk without adult supervision. With regards to children's pedestrian safety knowledge, educational programmes are needed to inform children about the obstacles that can prevent drivers from seeing child pedestrians. Furthermore, children had good knowledge regarding road-crossing behaviours. Despite their good pedestrian safety knowledge, most children reported a pedestrian injury involving a bicycle.

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