

# CHILD PEDESTRIAN SAFETY:

What children at Imbasa Primary School  
say about road safety



Abigail Simons, Karin Koekemoer & Ashley van Niekerk  
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# 1. INTRODUCTION

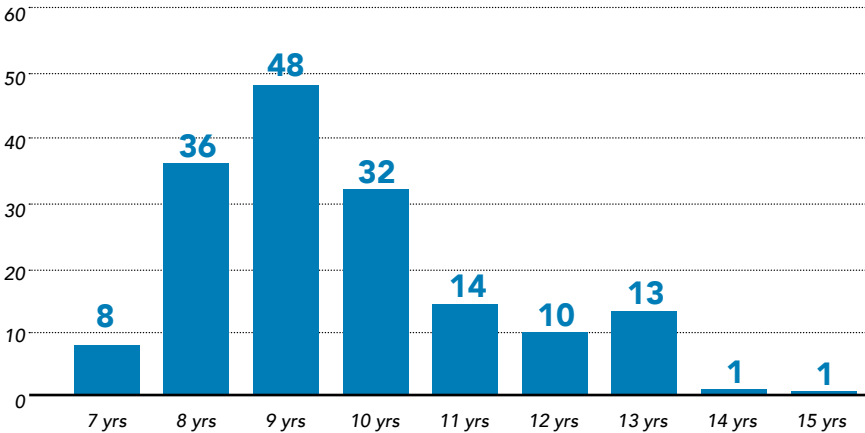
In South Africa pedestrian injury is a leading cause of death among children and adolescents (Road Traffic Management Corporation [RTMC], 2011). Children in low-income communities are more at risk as they often depend on walking to and from school as their primary means of transport (Statistics South 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 Gesselleen, 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. A survey was administered to children at Imbasa 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 study participants are described and important road-traffic safety factors including degree of supervision and child pedestrian safety knowledge, attitudes and behaviour.

## 2. STUDY PARTICIPANTS

Imbasa Primary School, located in Crossroads near the City of Cape Town, was one of three schools selected for the study. This report will only describe the information reported for children at Imbasa Primary School. There were approximately 1072 pupils attending the school in 2014. The Imbasa study participants (children with full consent to participate) included 163 children (69 boys and 95 girls). Children were recruited from grades 2 – 7, and ages ranged from 7 years to 15 years as displayed in Figure 1.

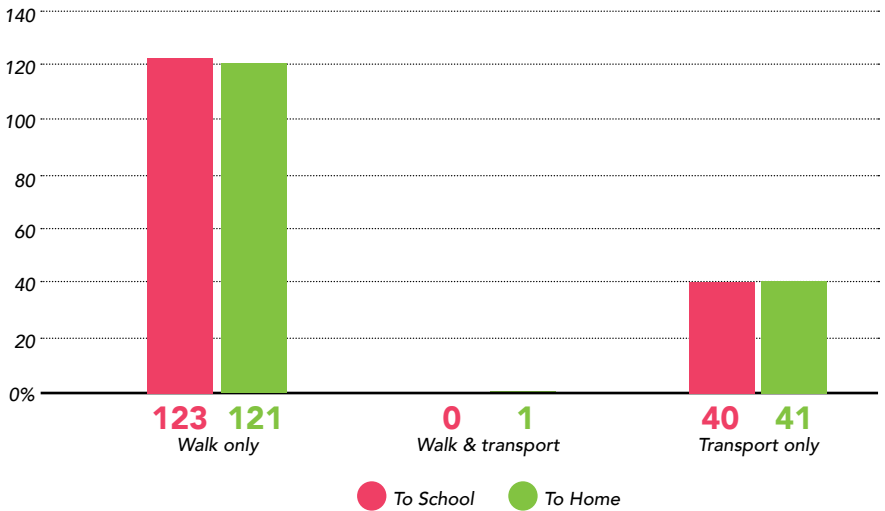
**Figure 1: Age distribution**



### 3. MODE OF TRAVEL

Children’s mode of travel to and from school is displayed in Figure 2. Most children walk to and from school without other means of transport.

**Figure 2. Mode of travel**



Of the children that walk to and from school, the majority always or sometimes walk by themselves. Those children who do not walk on their own, are mostly accompanied by a friend or a younger sibling (33.7% to school; 41.1% to home) as seen in Table 1.

**Table 1. Pedestrian supervision and distance from school**

	To school	To home
<b>Walk alone<sup>1</sup></b>		
Never	12.3%	11.0%
Sometimes	22.7%	27.6%
Always	42.9%	36.8%
<b>Accompanied by<sup>2</sup></b>		
Adult	9.2%	6.7%
Friend/Sibling	33.7%	41.1%
Other	1.8%	0.6%

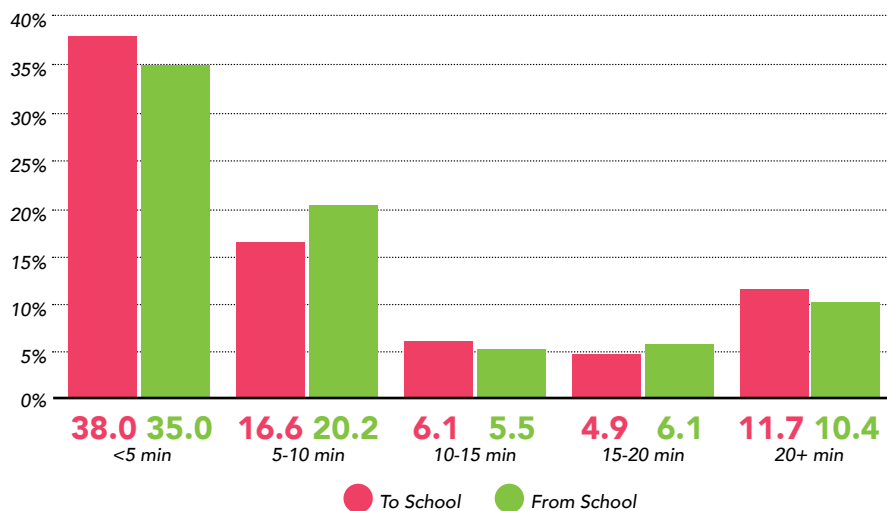
1 Percentages reflect total number of children who walk to/from school

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 relatively close to Imbasa 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 as displayed in Table 2. Most children answered the second (85.3%), third (66.3%), fourth (81.6%) and fifth (73.6%) traffic safety questions correctly. However, for the first question, “if you can see the driver, the driver can see you”, 81% of children selected the incorrect answer. Educational road safety intervention programmes could teach children and drivers about the obstacles that may prevent the driver from seeing child pedestrians. Children and parents need to be informed about the safe places to cross the road and the dangers of playing in or near the road (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**

		<b>RESULTS</b>
<i>Visibility</i>		
<b>1. If you can see the driver, the driver can see you</b>		
True		81.0%
False*		18.4%
<b>2. Drivers will see you more easily if you are wearing:</b>		
Black or brown clothes		14.9%
Light-coloured and reflective clothes*		85.3%
Shiny but dark clothes		9.2%
<i>Road-crossing</i>		
<b>3. If there is no zebra crossing, you should cross the street:</b>		
Anywhere		11.0%
At the corner*		66.3%
In the middle		22.7%

**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*	81.6%
Run across to avoid the vehicles	8.6%
Just cross and let the vehicles avoid you	3.1%
All of the above	3.7%
None of the above	0.6%

**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*	73.6%
Turn around and run back to the other side	20.2%
Stop in the middle of the road	4.3%

\*Correct response

## 5. ROAD-CROSSING BEHAVIOUR

Children's self-reported road-crossing behaviour is displayed in Table 3. Most children reported safe road-crossing behaviours for each of the questions. However, there remains a few children who have answered incorrectly. 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**

		<b>RESULTS</b>
<b>1. Forget to look properly because you are talking to your friends</b>		
Never*		57.1%
Sometimes		16.6%
Always		25.8%



## RESULTS

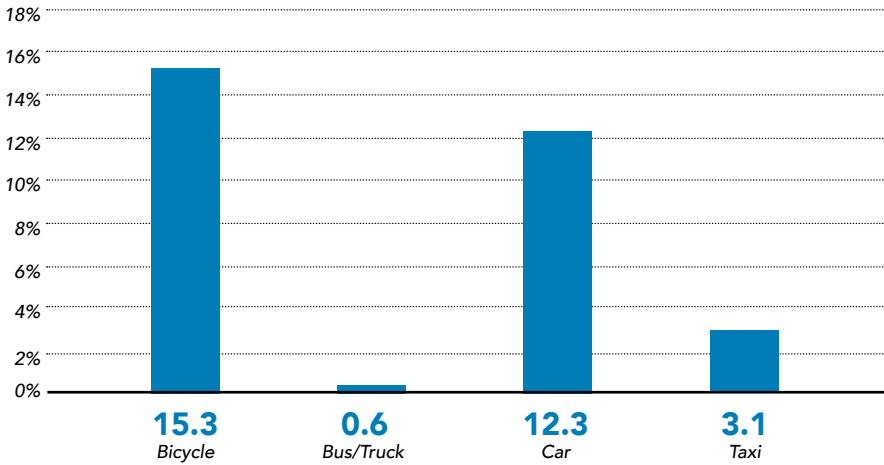
<b>2. Think you have enough time to cross safely, but a car is coming quicker than you thought</b>	
Never*	48.5%
Sometimes	15.3%
Always	35.6%
<b>3. Look both ways before crossing</b>	
Never	4.3%
Sometimes	8.0%
Always*	87.1%
<b>4. Keep looking/listening for cars until you get all the way across the road</b>	
Never	7.4%
Sometimes	13.5%
Always*	78.5%
<b>5. Have to run to avoid cars</b>	
Never*	58.9%
Sometimes	17.8%
Always	22.7%
<b>6. Run across without looking because you are in a hurry</b>	
Never*	60.1%
Sometimes	9.8%
Always	30.1%

\*Correct response

## 6. PEDESTRIAN INJURIES

Despite good reported road-crossing behaviour and safety knowledge, approximately 31% of children indicated that they had experienced a pedestrian collision at some point in their life. Of the 31%, 15.3% of children reported a collision which involved a bicycle, and 12.3% involved a car as seen in Figure 4.

**Figure 4. Vehicles involved with pedestrian collisions**



## 7. CONCLUSION

In summary, this study of Imbasa 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 most walk to school without adult supervision. With regards to children's pedestrian safety knowledge, most children had good knowledge regarding pedestrian safety. However, a large proportion of children reported a pedestrian injury involving a bicycle. It was recommended that educational interventions for children should be considered for Imbasa Primary School. These interventions can involve a practical component whereby children from a young age are taught safe road-crossing behaviours.

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**Abigail Simons**  
**Project Coordinator**  
SAMRC-UNISA Violence, Injury &  
Peace Research Unit (VIPRU)

Tel.: 021 938 0909

Email: [abigail.simons@mrc.ac.za](mailto:abigail.simons@mrc.ac.za)

**THE SOUTH AFRICAN MEDICAL RESEARCH COUNCIL**

Francie Van Zijl Drive, Parow Valley, Cape Town | Po Box 19070, Tygerberg, 7505,  
South Africa

Tel: +27 21 938 0441 /0216

Fax: +27 21 938 0381

Web: [www.samrc.ac.za/crime/crime.htm](http://www.samrc.ac.za/crime/crime.htm)

