
Child Road Injuries: eThekweni Status Quo

Aliasgher Janmohammed (Ali)



Contents

1. Background
2. Demographics and Travel Statistics (KZN)
3. Preliminary Findings (KZN and eThekweni)
4. Implications
5. Way Forward
6. Questions

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- Why focus on children¹?
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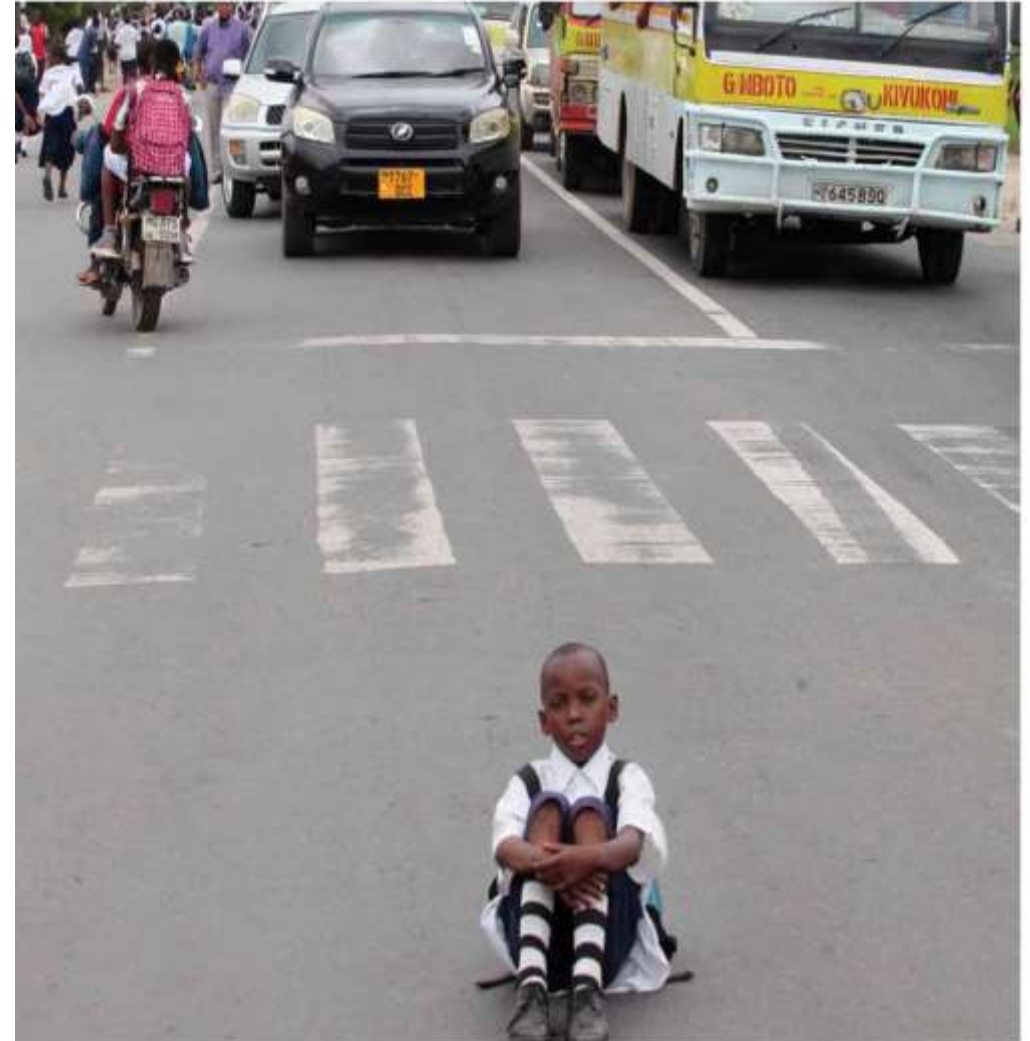
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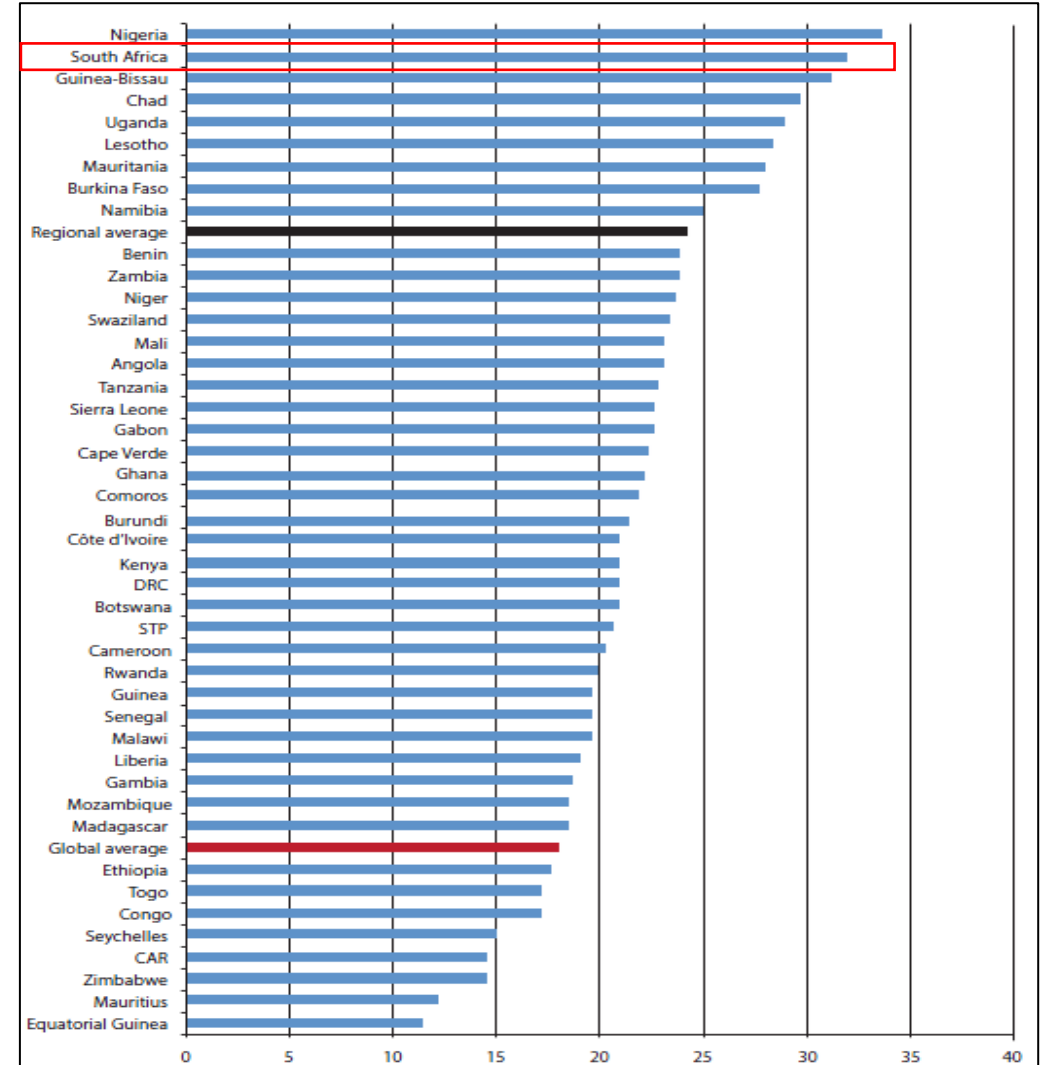
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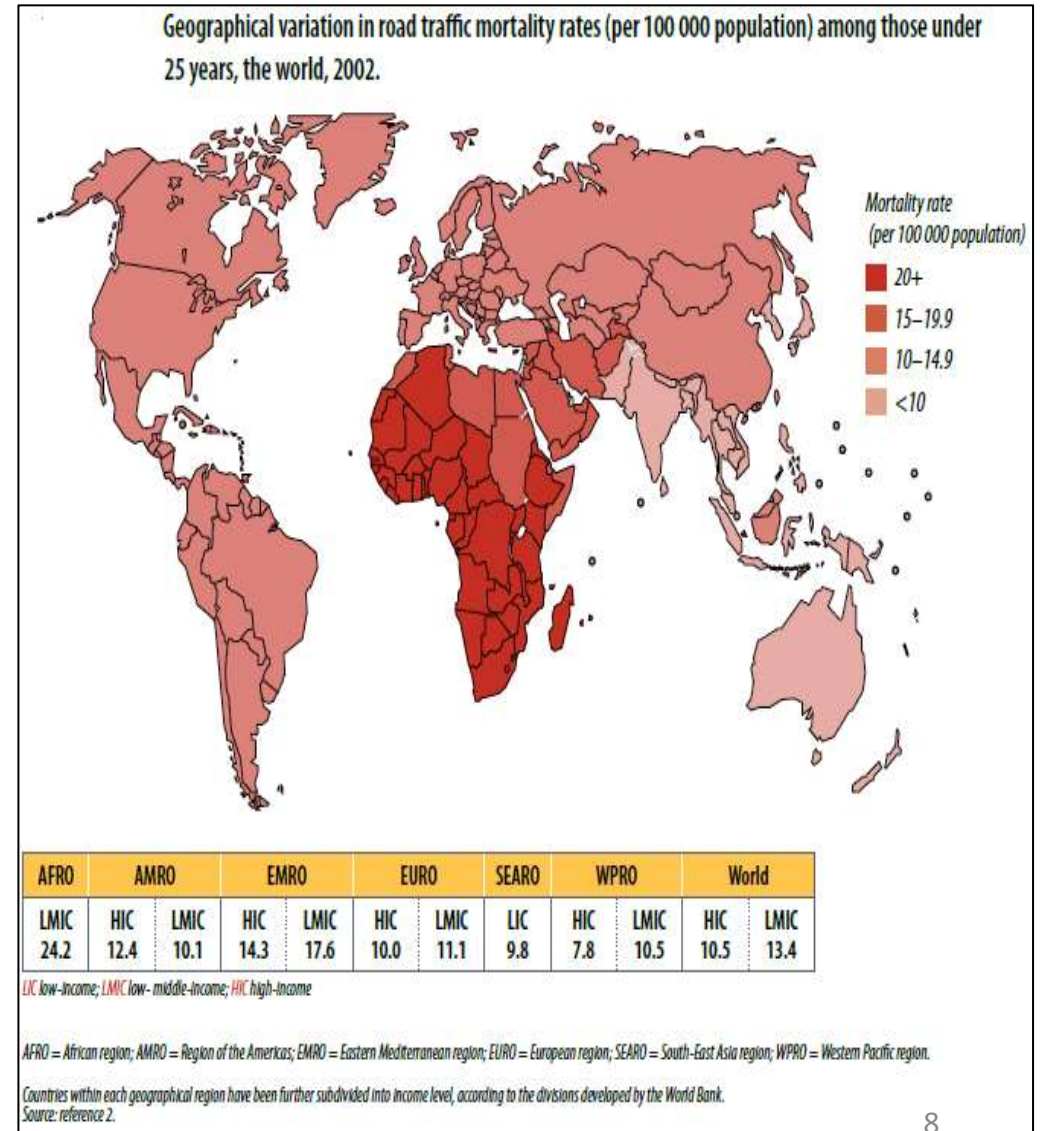
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Source: Peden et al. (2013)

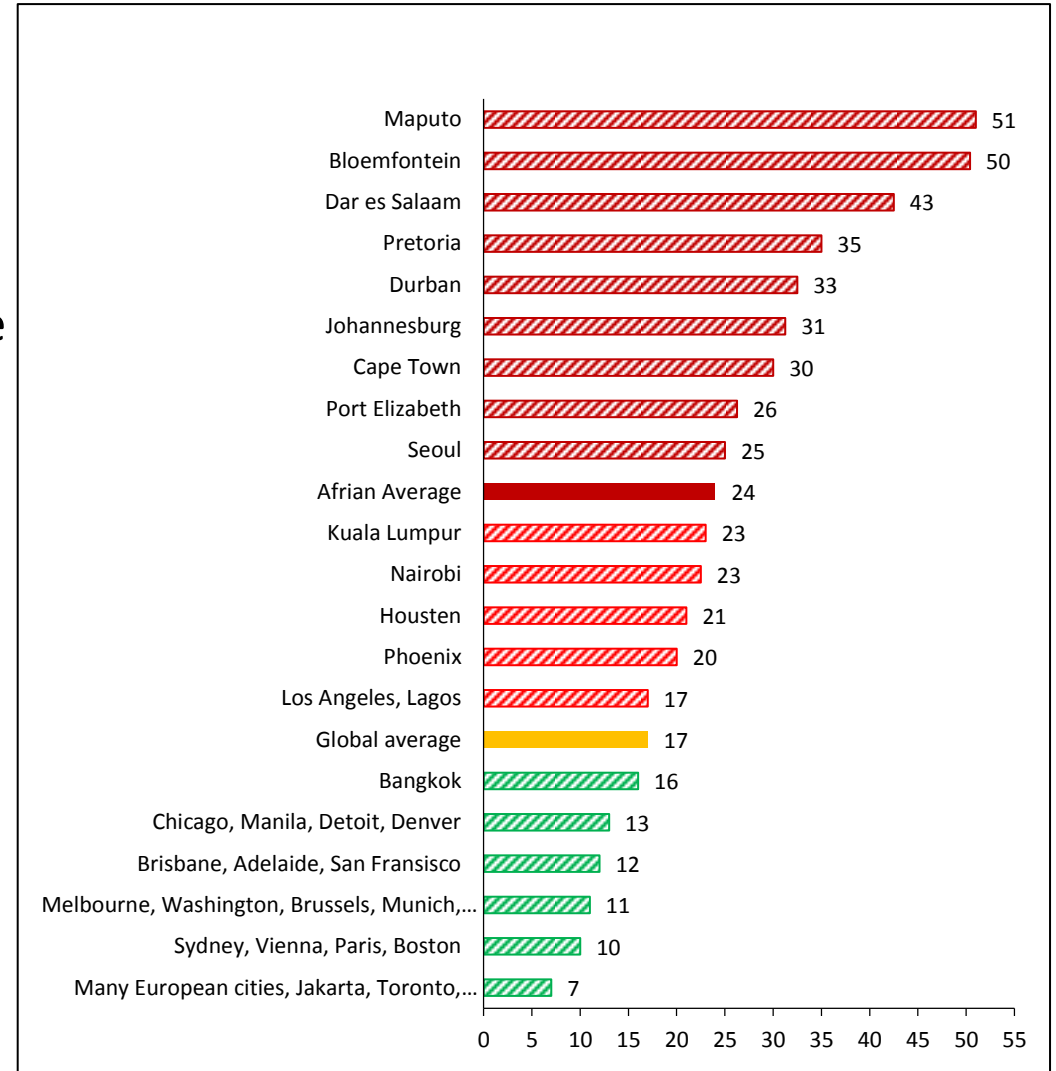
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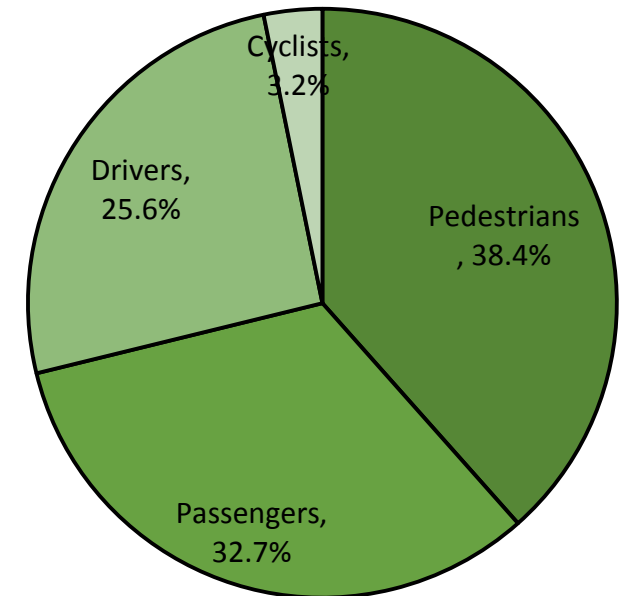
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Source: Vanderschuren and Zuidgeest (2017)

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Data Source: RTMC, 2016

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 - 5) Road fatalities have high financial implications on individual and country. Pedestrian ZAR 78 800 and passenger ZAR 82 700

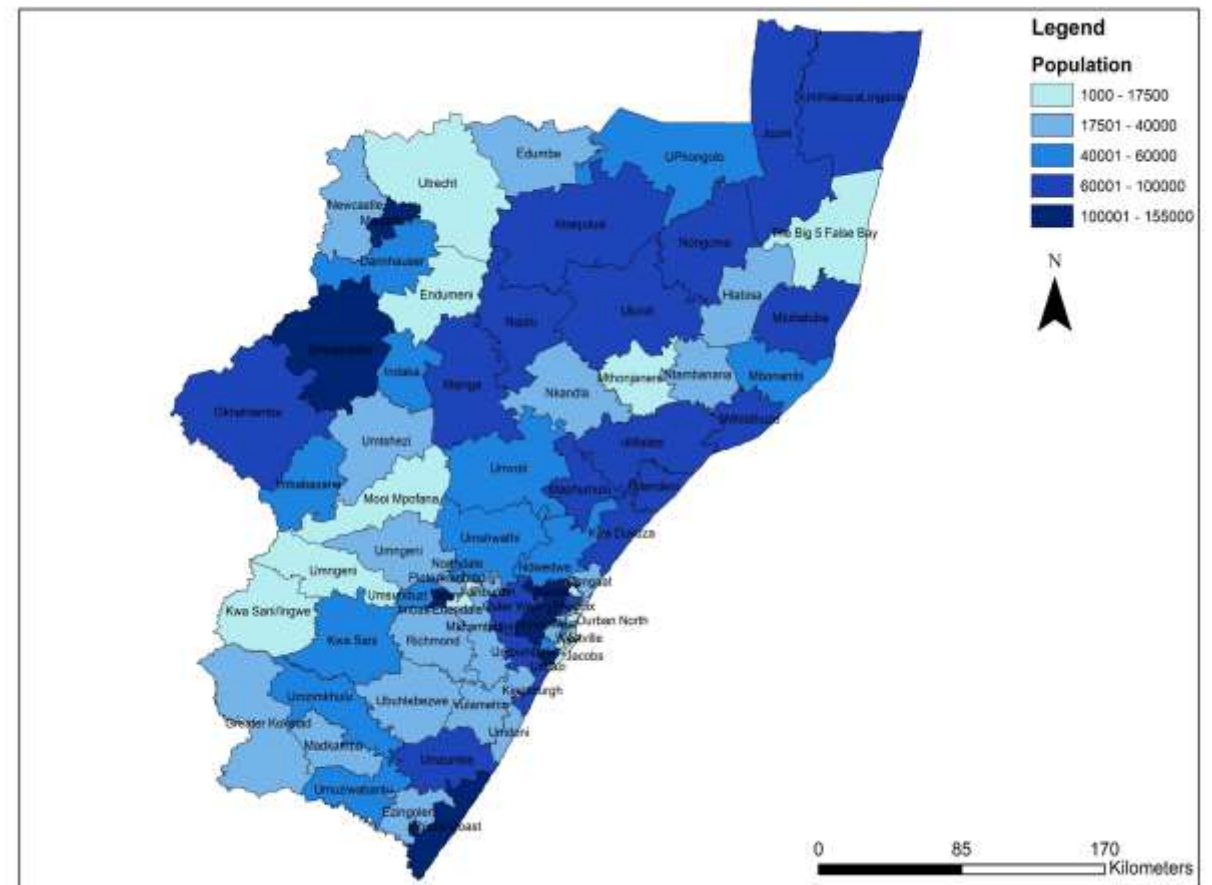
	PVC (41)	MVC (59)	Total
	Average/patient	Average/patient	
Days on ward	2152	3279	281,681
Days in ICU/HDU	534	385	44,616
Ward sundries	15	11	1276
NG feeds	10	6	733
Medication	50	52	5122
Radiology	625	619	62,146
Lab tests	99	79	8756
Blood transfusions	208	121	15,660
Time in Operating theatre (OT)	1373	1558	148,230
OT sundries	43	40	4143
Implants	1680	977	126,487
Total	6789	7127	698,850

Source: Parkinson et al., 2014

Demographics and Travel Statistics

Population

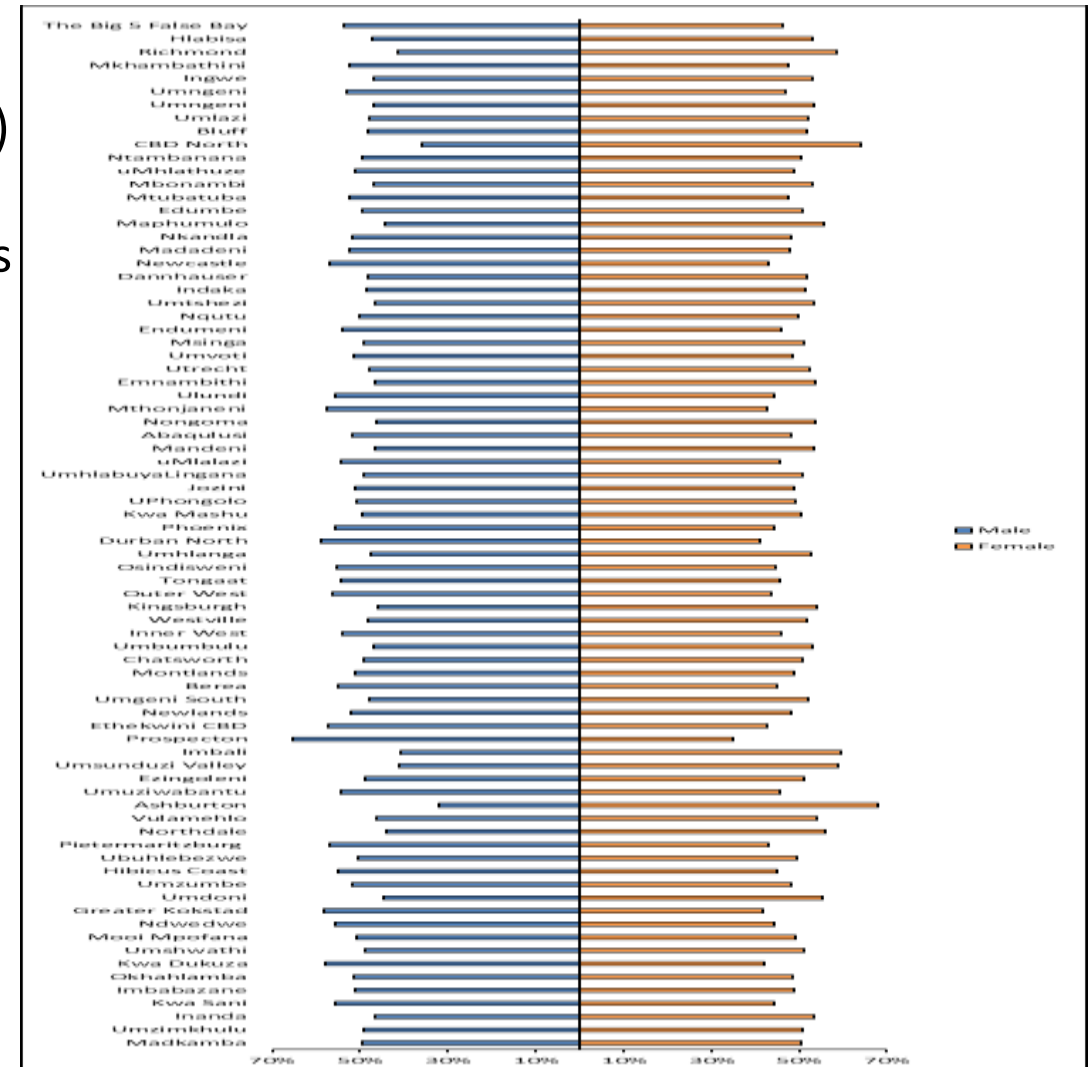
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Demographics and Travel Statistics

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- Child Population (approximately 3,87 million children)
- Male vs Female Child Population
 - Statistics show that male children are three times more vulnerable – different for eThekwni?



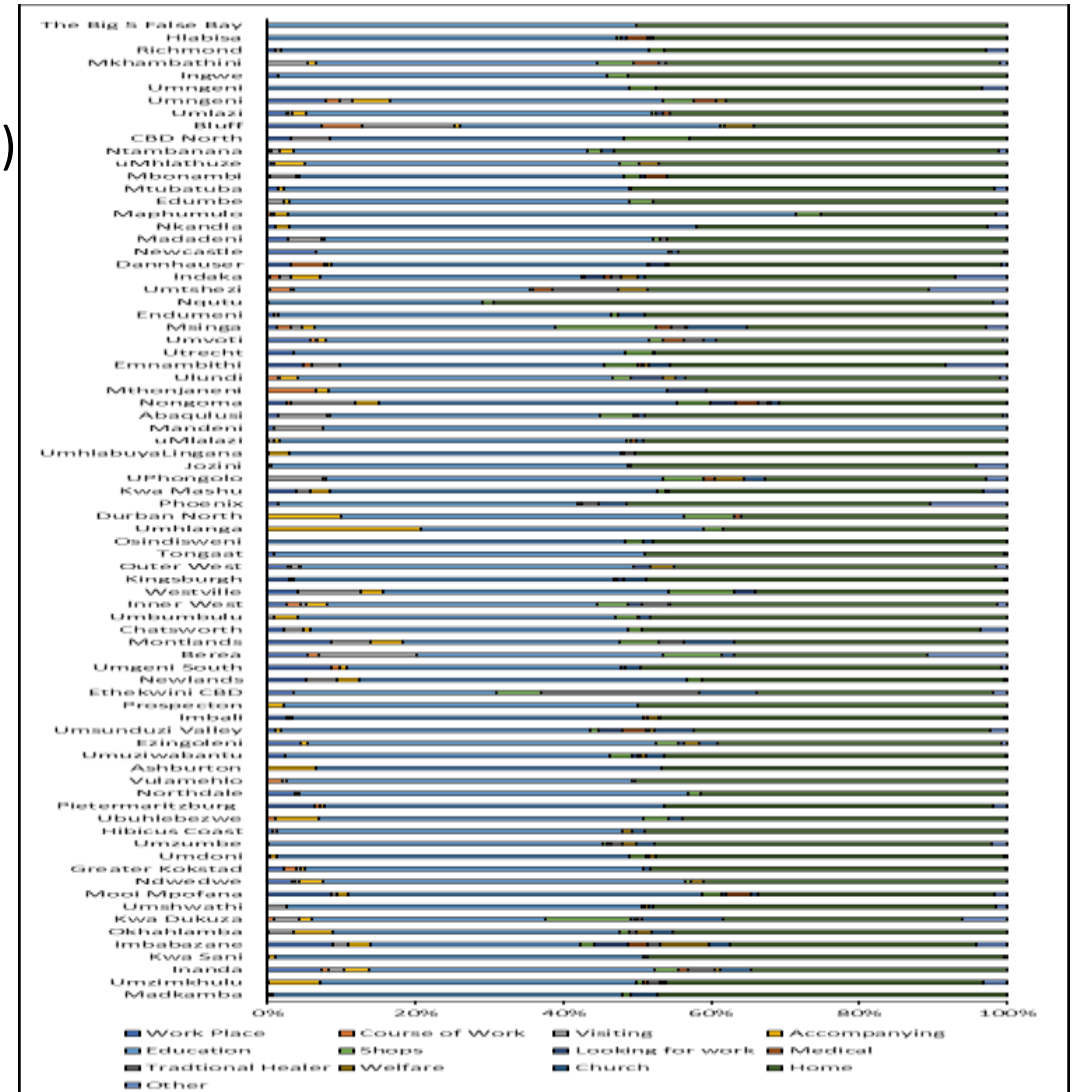
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Trip Destinations: Where are they travelling?

- Education and home trips the majority (87%)



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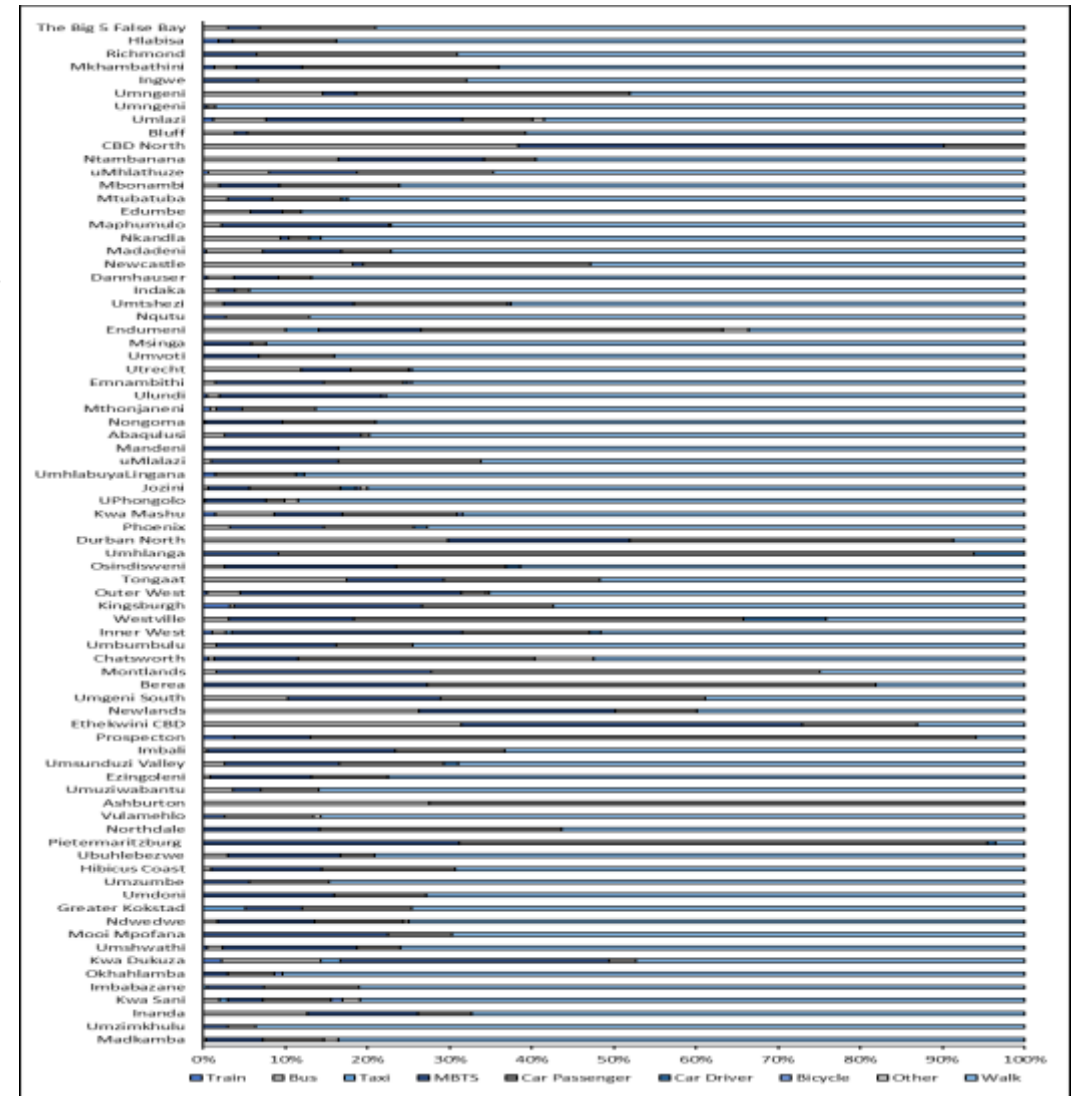
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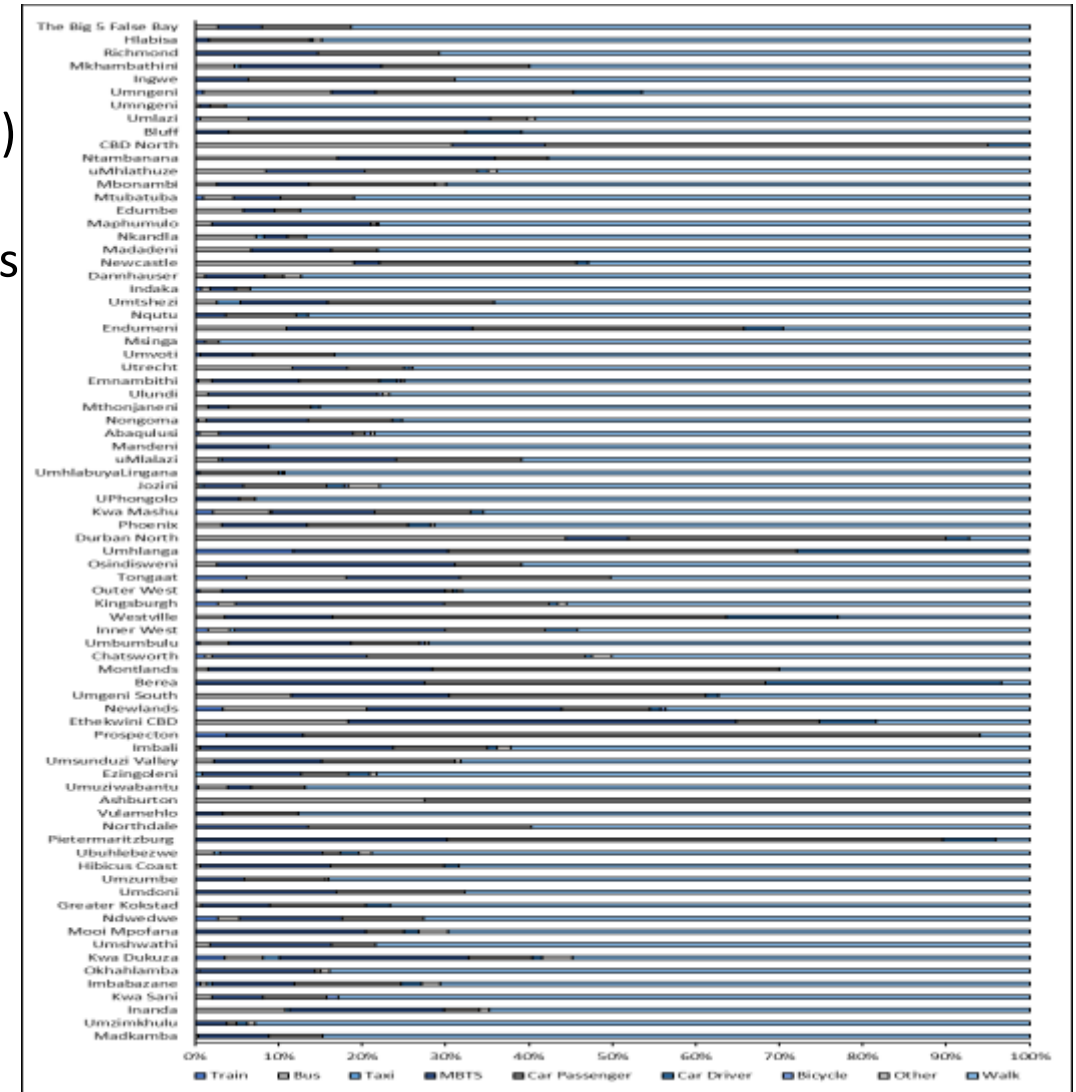
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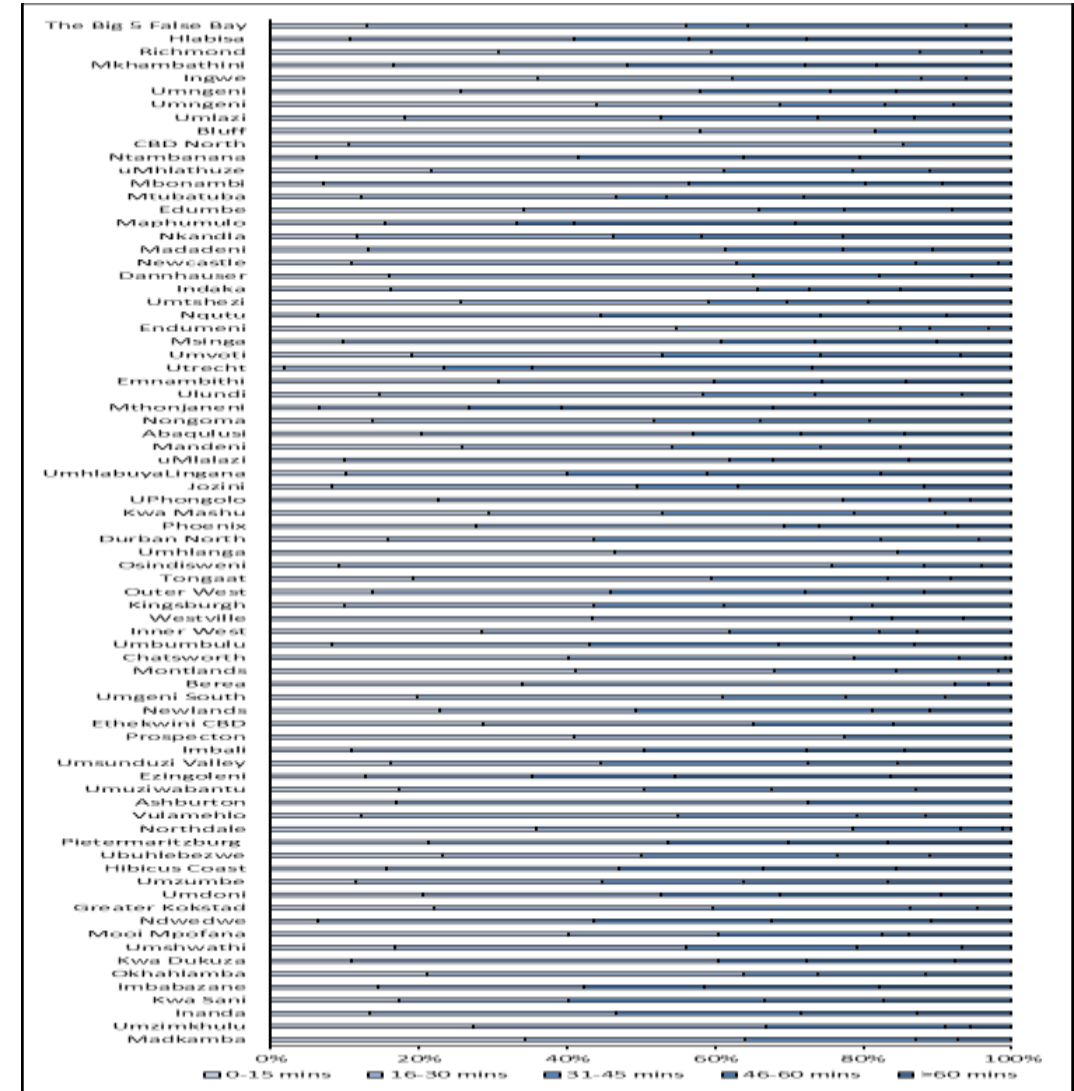
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Time taken to access education

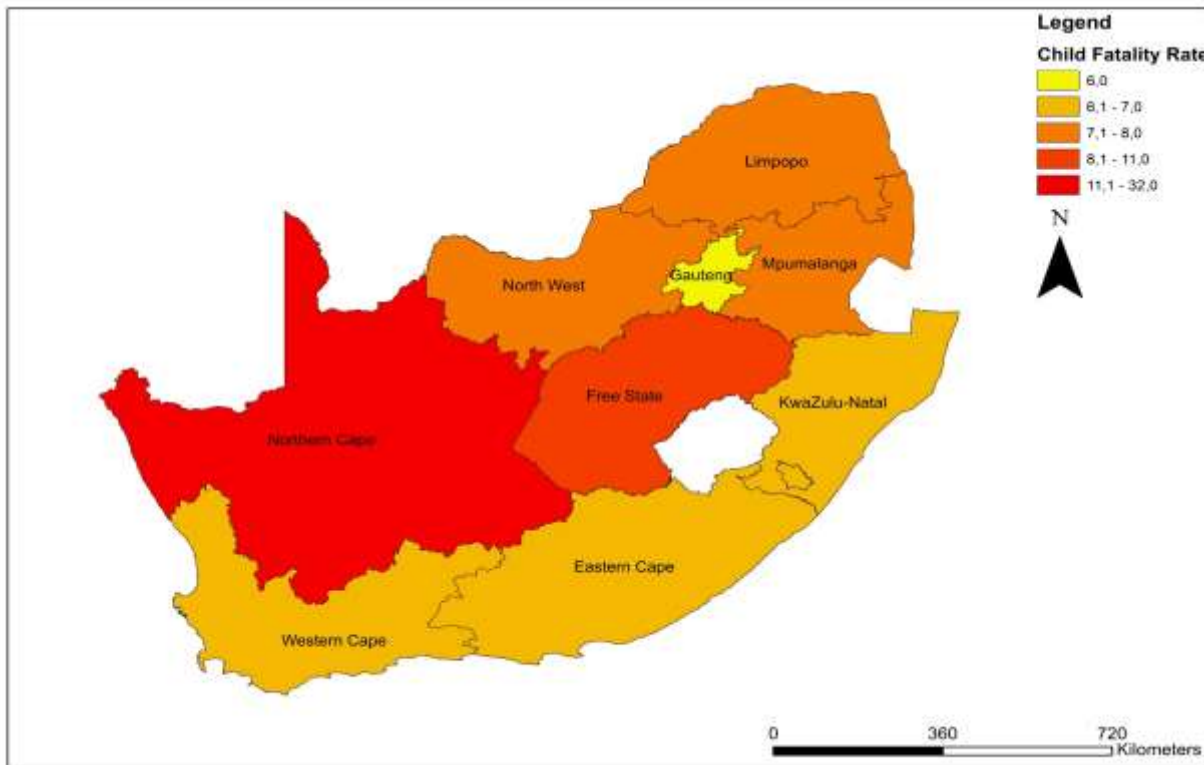
- Majority take longer than 15 minutes (67%), crossing high-speed arterials – create safer roads, differential speed (Pretoria)?



Preliminary Findings

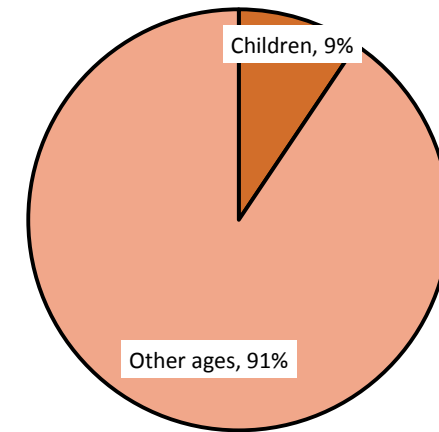
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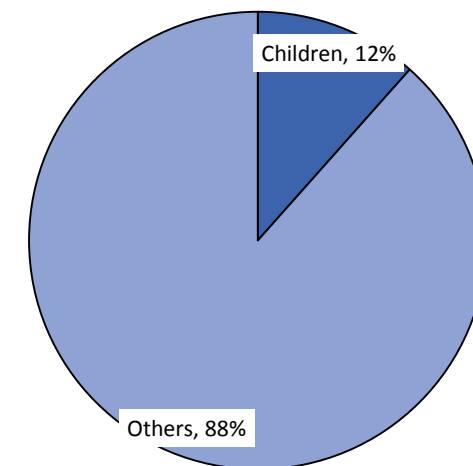


Source: RTMC, 2015-2017

Total Fatalities South Africa (2015-2017)



Total Fatalities KZN (2015-2017)

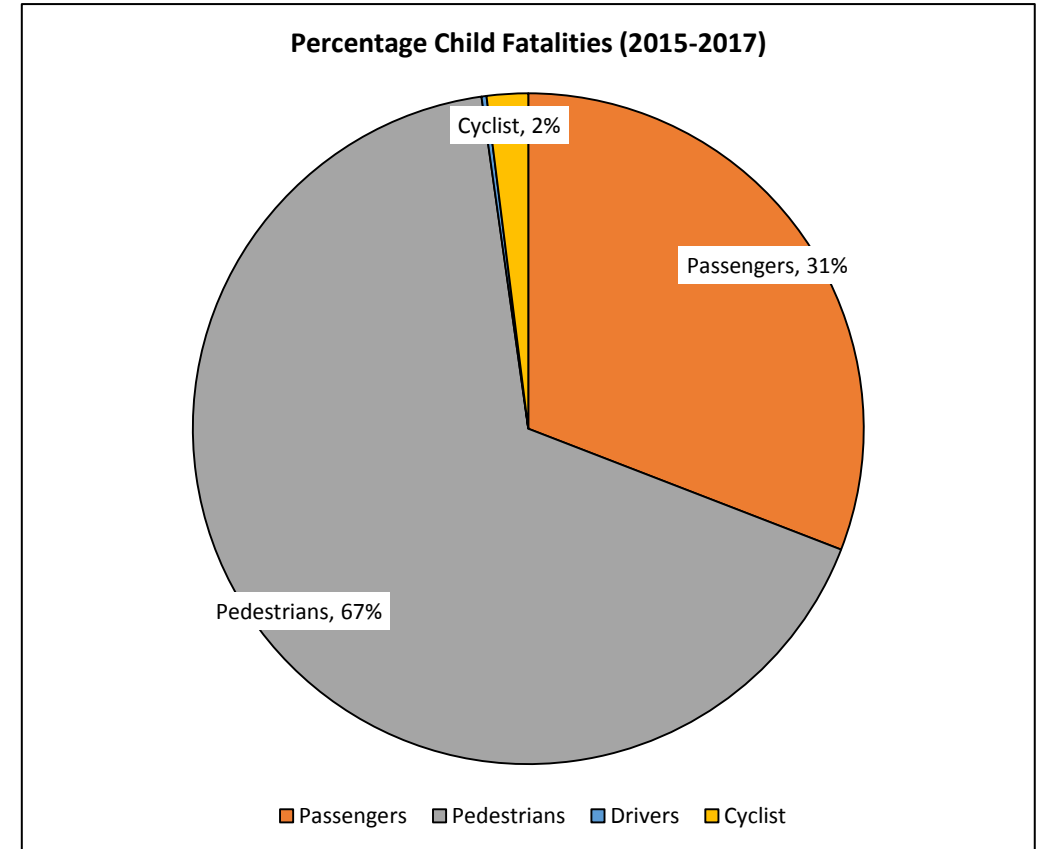


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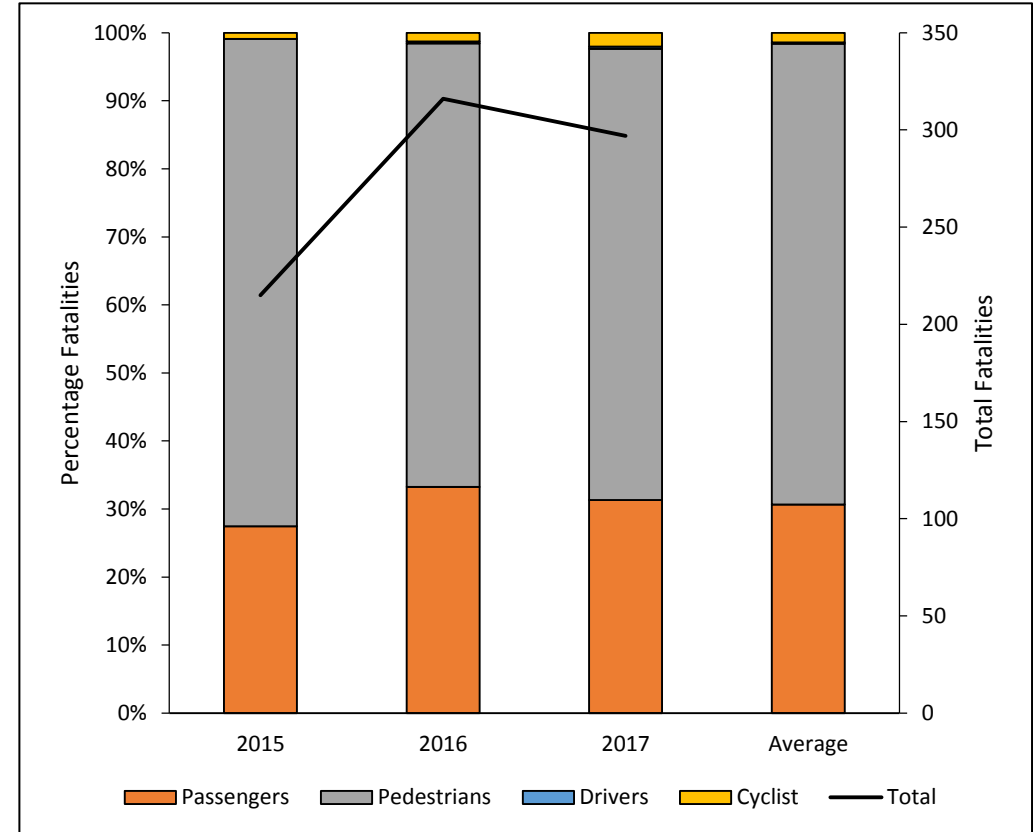


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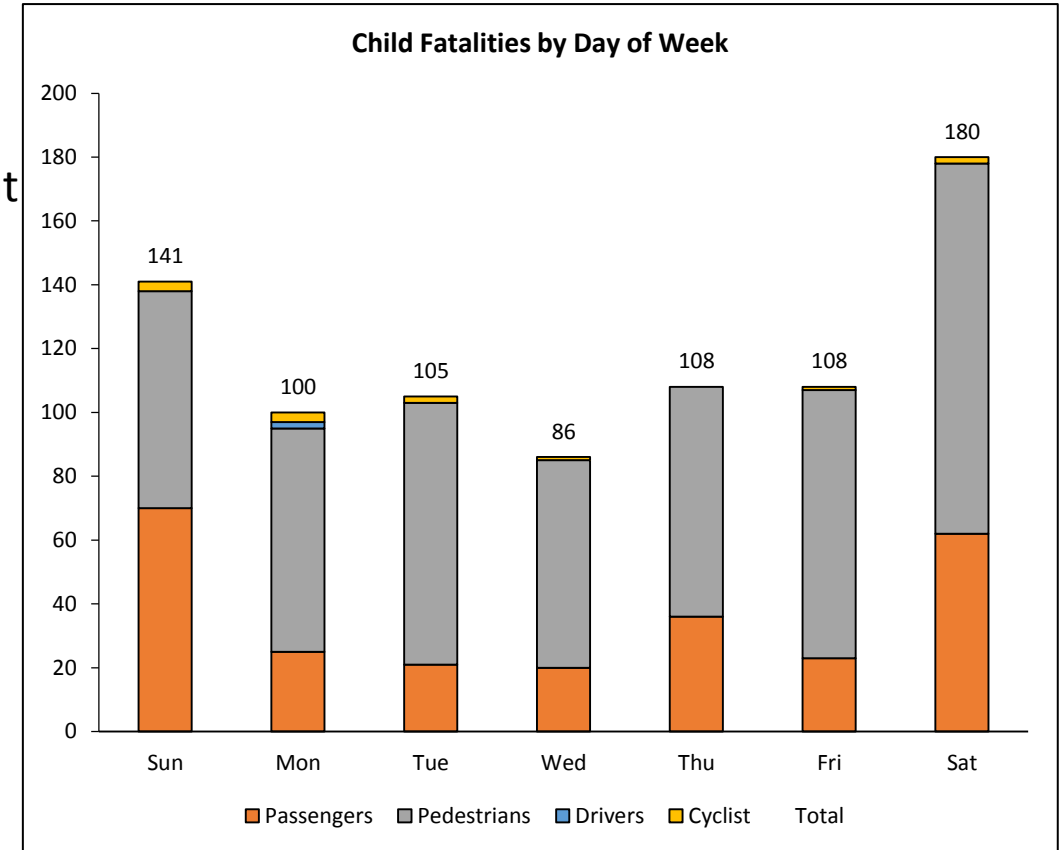


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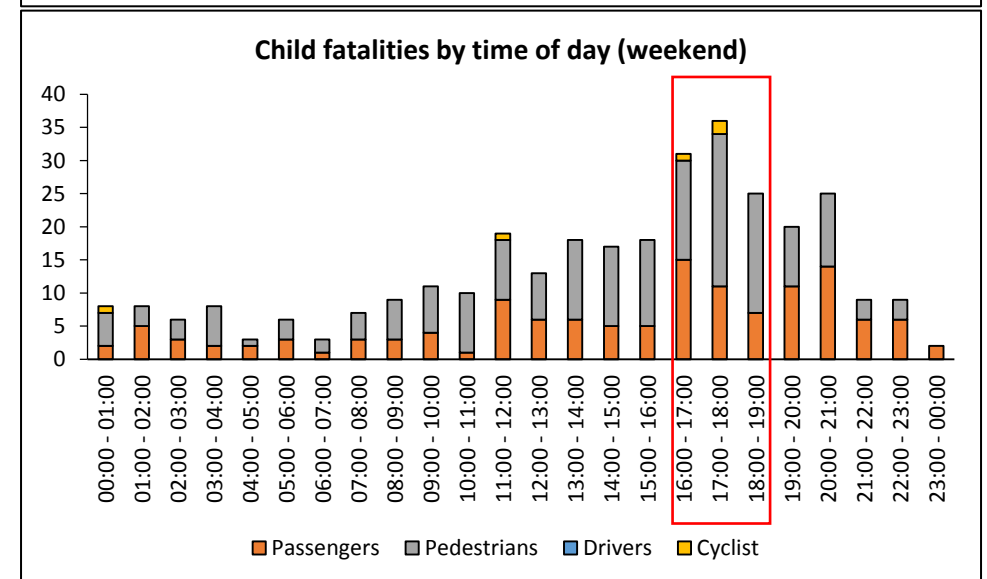
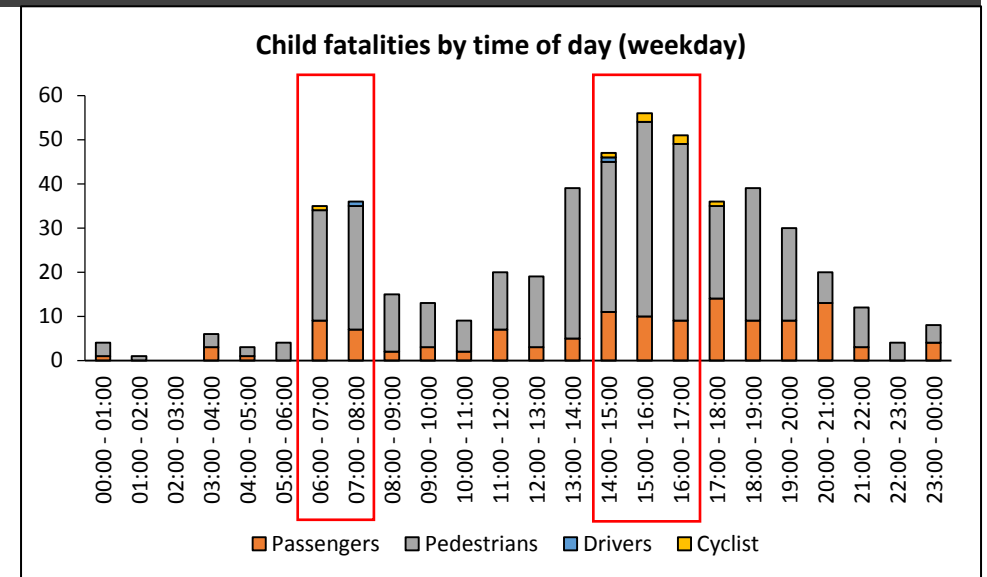


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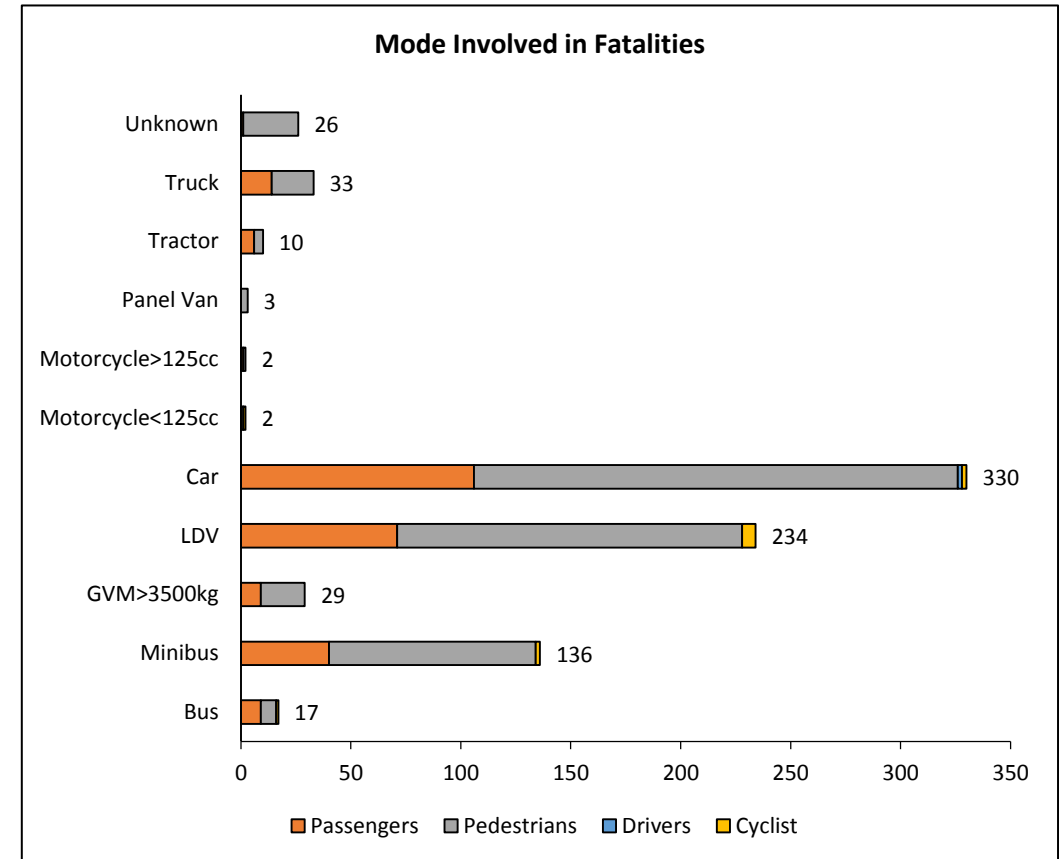
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- Majority of child fatalities occur during the weekend
- ‘After-school’ activities place children at a greater risk
- Cars, Minibus taxis (VKTs?) and Light duty vehicles placing road users at risk

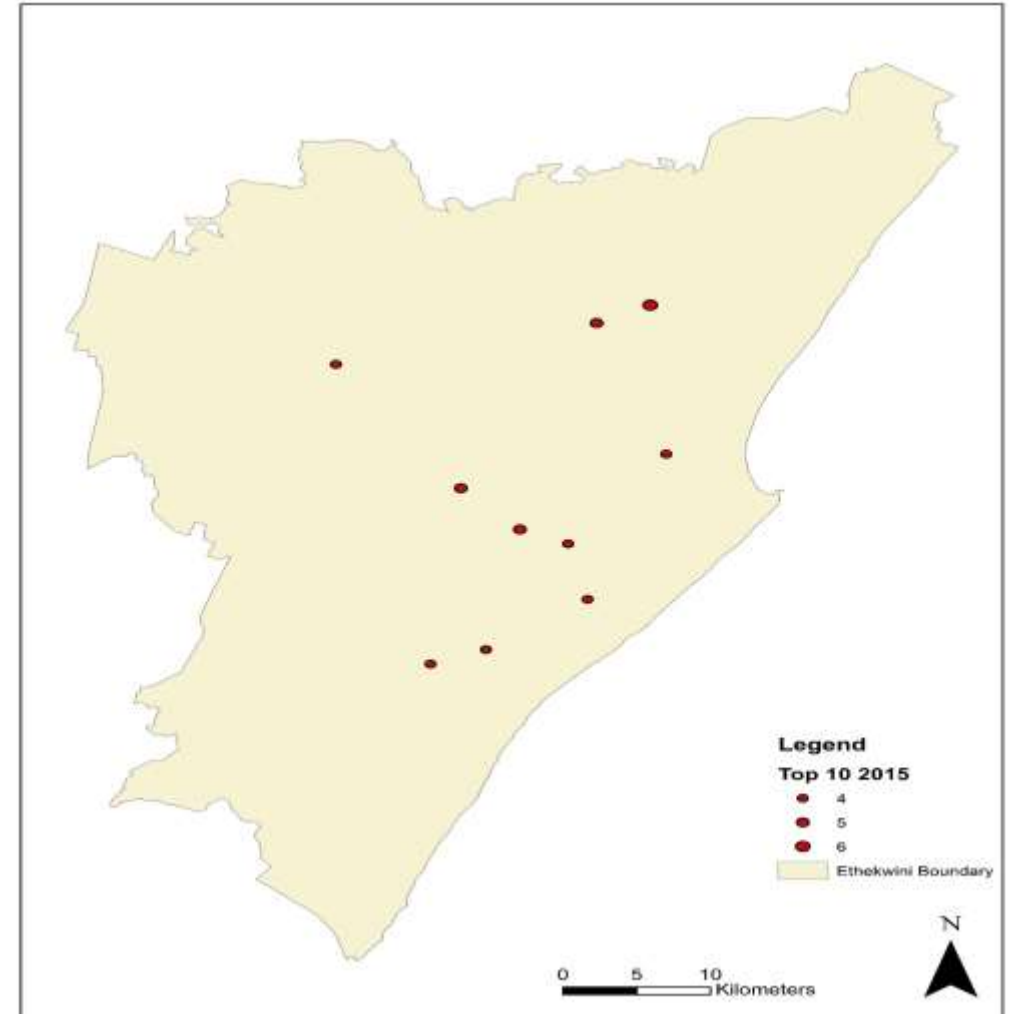


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2) eThekweni

- Top 10 Child Injuries (Passengers and Pedestrians)

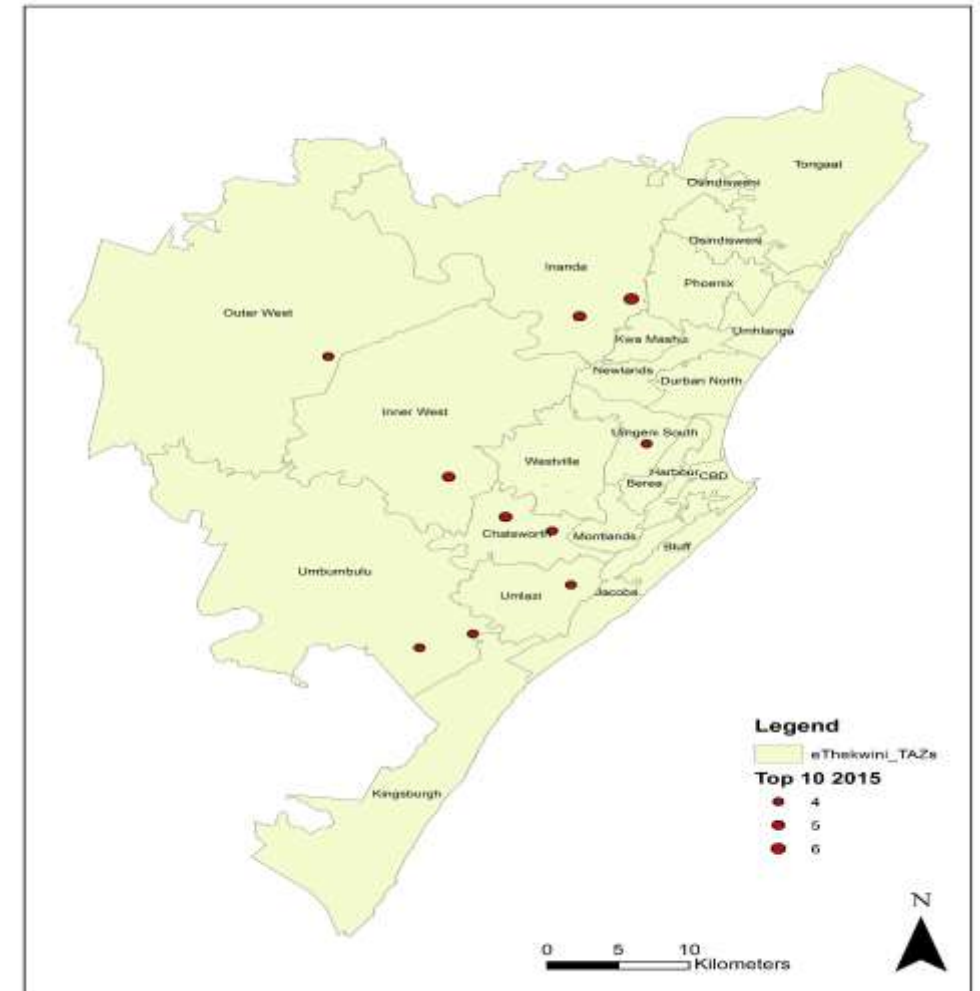


Source: eThekweni Municipality, 2015

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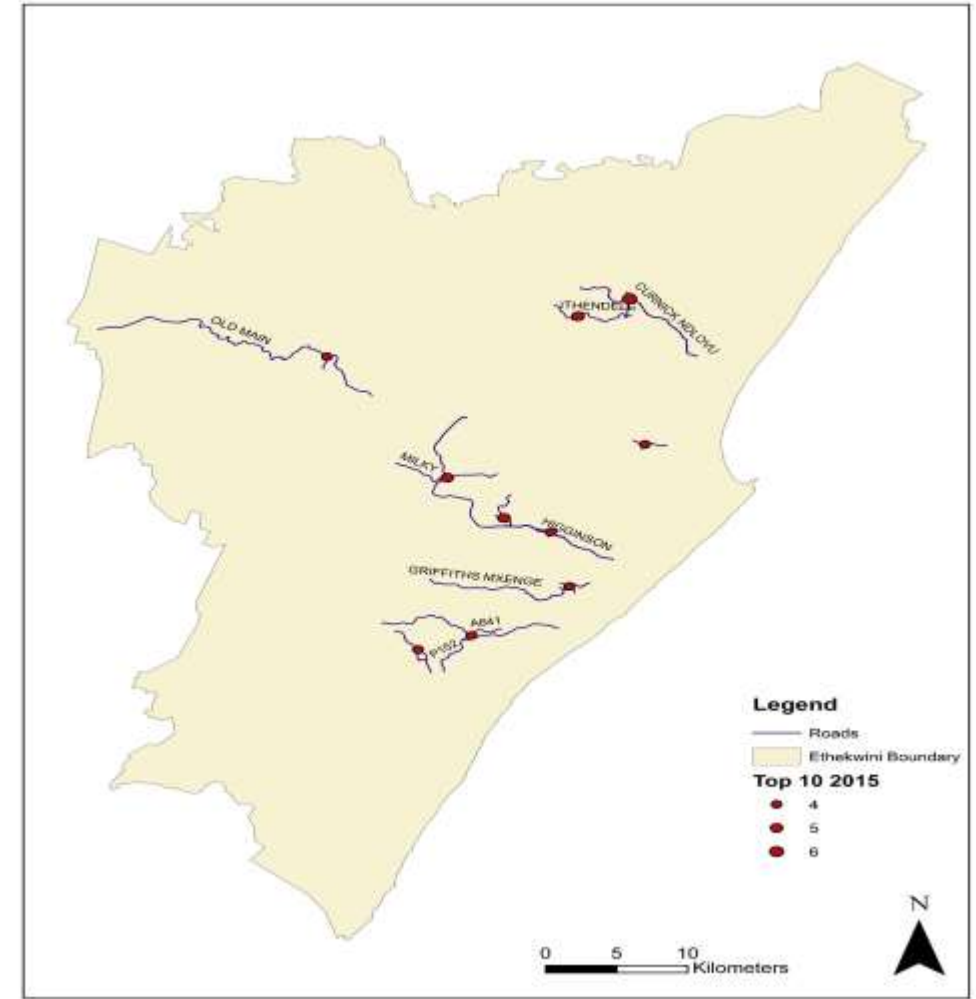


Source: eThekweni Municipality, 2015 and NHTS 2013

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- Roads – Curnick Ndlovu, Ithendele, Old Main, Milky, Higginson, Griffiths Msenge, A641 and P152



Source: eThekweni Municipality, 2015

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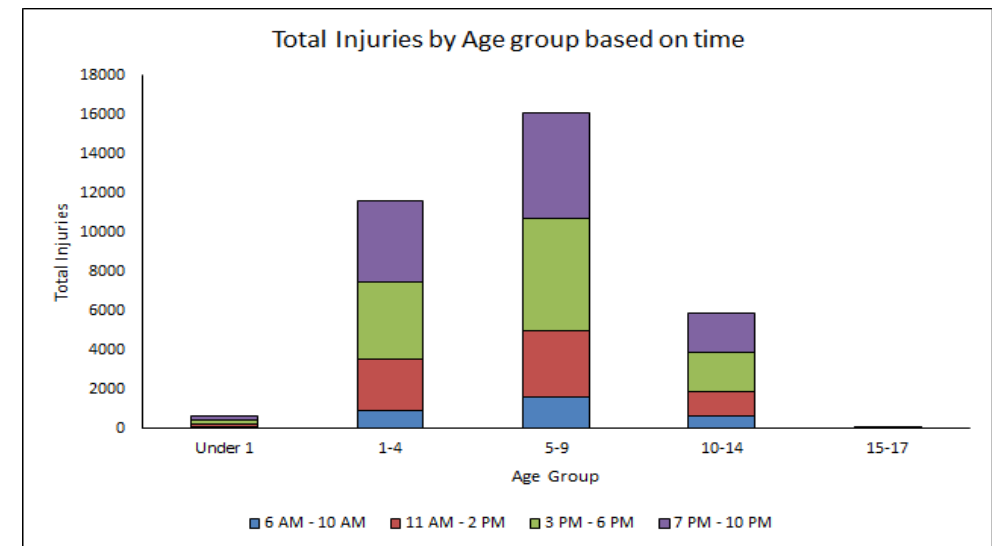
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- Further analysis is required on geocoded data that is available, especially from eThekweni Municipality
 - Geocoded data can provide us information as to locations that are dangerous for children. Are these locations closer to home or to school?

Way Forward

- Road Safety Interventions – **The difficult conversation**
 - 1) Low Road Safety budget, therefore, we need to prioritise
 - 2) Prioritise child pedestrian and passenger children
 - 3) How? Determine cause of these injuries and recommend localised interventions based on the five pillars of road safety – ‘walk in the direction of traffic’
 - 4) Lets engage to curbing the fatality problem – DOT and DOE.
 - 5) Conducting a review of current policies and finding gaps.

- Data required yet – **Let’s share all data**
 - 1) Mortuary data that provides cause of road fatalities – gap in deaths caused by alcohol
 - 2) National geocoded data
 - 3) Data that divides child injuries by age group

Name of Scenario:	Costs (R million)		Lives saved/20 years		Overall BC Ratio/20 years		Break-Even (fatalities only)	
	Capital/20 year	Operational/year	Conservative	Optimistic	Conservative	Optimistic	Conservative	Optimistic
Infrastructure based scenarios								
Prince Alfred Hamlet	9	0.0868	16.0	79.1	11.3	56.0	60 (67)	2 (29)
Khayelitsha	9	0.0868	58.4	288.9	41.3	383.2	44 (49)	28 (29)
Rumble strips in Grabouw	0.784	0.014	286.8	371.8	2113	2738	3 (4)	3 (3)
Lighting at the intersection in Rawsonville	0.135	0.001	4	16	202.9	811.5	26 (31)	13 (16)
Enforcement based scenarios								
Speed over distance in Leeu Gamka	2.1	1.0	59.13	80.41	21.0	28.5	15 (17)	14 (16)
Education based scenarios								
Campaigns	0	45.2	1238.4		15.1		19 (21)	
Emergence Medical Services based scenarios								
Improved ambulance services	1.8	0.495	200	300	67	101	1 (1)	1 (1)
Improved motorcycle services	0.6	0.145	200	280	224	314	1 (1)	1 (1)
Improved helicopter services	0	18.0	215	7648	4.7	166	1 (1)	1 (1)
All costings are based on base year values. No inflation on costs or benefits have been included								



Data Source: Red Cross War Memorial Hospital, 1991-2016

'Lollipop' Intervention



Source: Amend and FIA, 2016

Quick video



