Road Traffic Management Corporation

State of Road Safety in South Africa

'January 2021 to December 2021'

transport
Department:
Transport
REPUBLIC OF SOUTH AFRICA

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ABBREVIATION / ACRONYM	INTERPRETATION
AR	Accident Report
CBRTA	Cross-Border Road Transport Agency
CEO	Chief Executive Officer
Corporation	Road Traffic Management Corporation
CSIR	Council for Scientific and Industrial Research
DOT	National Department of Transport
EMS	Emergency Medical Services
NaTIS	National Traffic Information System
NCDMS	National Crash Data Management System
NRSS	National Road Safety Strategy (2016-2030)
NRTA	National Road Traffic Act
RAF	Road Accident Fund
RIMS	Road Incident Management System
RTI	Road Traffic Information
RTIA	Road Traffic Infringement Agency
RTMC	Road Traffic Management Corporation
SAIA	South African Insurance Association
SAMRC	South African Medical Research Council
SANRAL	South African National Roads Agency
SAPS	South African Police Service
UNDA	United Nations Decade of Action
SAIA	South African Insurance Association
SAMRC	South African Medical Research Council
SANRAL	South African National Roads Agency

1 EXECUTIVE SUMMARY

This review of the State of Road Safety covers a 12-month period, 1 January 2021 to 31 December 2021. For the sake of proper analysis, the report compares the 2019, 2020 and 2021 calendar year road crash statistics. The 2020 figures could skew the analysis due to the National wide COVID-19 lockdown that took effect from 27 March 2020 and continued at different alert levels. These alert levels included restricted travelling, the ban of alcohol sale and consumption and curfew.

The vehicle population increased by 2.04% from 12 697 733 in 2020 to 12 957 208 in 2021.

In the year 2021 a total of 52 648 Speed Operations, 7 280 alcohol operations were conducted, 6 721 106 vehicles were stopped & checked and 1 970 217 were weighed.

A total of 3 860 awareness interventions (vs. 4 835 in 2020) and 3 860 school interventions (vs. 4 835 in 2020) were carried out.

The implementation of the National Road Safety Strategy remains a priority in the country; however, the key challenge is the adoption of a Safe Systems approach. Key challenges are inherently tough to change in South Africa an amongst these, are the rise of information settlements next to major freeways, poor town planning which does not prioritise non-motorised transport and limited action towards safer vehicles in South Africa.

When comparing fatal crashes between the years 2019 and 2021 there is an increase of 2,2% (from 10381 in 2019 to 10611 in 2021); comparing the years 2020 and 2021 the increase is 26,2% (from 8405 in 2020 to 10611 in 2021).

When comparing road fatalities between the years 2019 and 2021 there is an increase of 0,3% (from 12503 in 2019 to 12545 in 2021); comparing the years 2020 and 2021 the increase is 25,8% (from 9969 in 2020 to 12545 in 2021). More people died per fatal crash in 2019 and 2020 compared to 2021. The ratios are: 1:1.2 deaths in 2019, 1:1.19 deaths in 2020 and 1:1.18 deaths in 2021.

The percentage of pedestrians who lose their lives on the South African roads is still high at 40% of all road users. Male fatalities account for ¾ of total road fatalities. Death of children between 0 to 4 years account for 17% of deaths and the 25 to 35 age group account for 38% of deaths. 60% of road fatalities occur over weekends (Friday to Sunday).

2 INTRODUCTION

This report aims to provide an overview of the state of road safety in South Africa from 1 January 2021 to 31 December 2021. The Road Traffic Management Corporation is mandated by the Road Traffic Management Corporation Act, No. 20 of 1999 to report on road crashes in South Africa.

Over the last five years, South Africa has seen a decline in the number of road crash fatalities; however, the reduction has not been significant to meet the 2010 - 2020 Decade of Action goals. Performance thus far is slightly below the set targets for the 2016 - 2030 National Road Safety Strategy (NRSS). Therefore, if the set rate of reduction is consistently met then the NRSS targets will be met. (see figure 1 below)

2.1 NRSS TARGET

The NRSS 2016-2030 set a target of reducing fatalities in the country by 50% by 2030 from 13,967 fatalities that were recorded in 2010. The graph below shows the rate of reduction which ramps up as systems and operations are streamlined.

The other NRSS 2016-2030 target is the reduction of serious injuries by 50% by 2030. Due to the limited data that is currently collect this target is not measured. The intention is to implement a methodology that will collect all road crashes regardless of their severity and then classify them accordingly. Once this methodology is implemented it will be possible to measure progress towards attaining the 50% reduction of serious injuries.

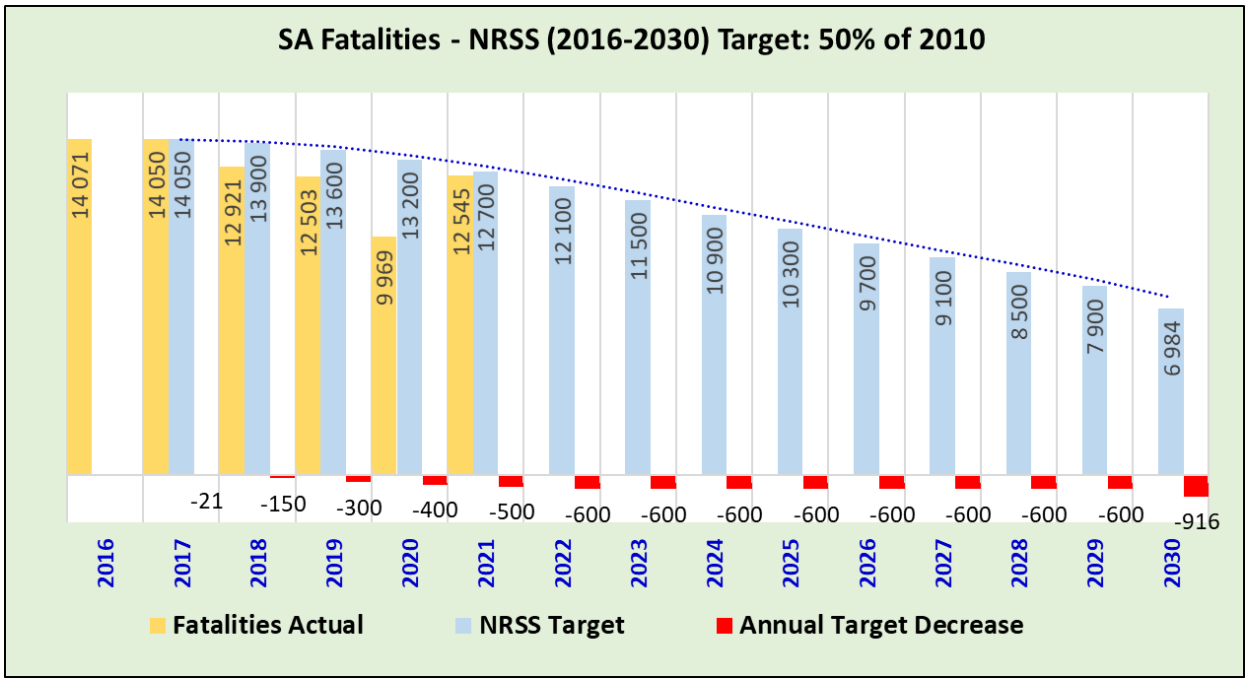


Figure 1: Progression towards NRSS Target

There are key focus areas that when combined, will lead to the attainment of the target and this report is structured to provide an update, challenges, and planned interventions within that focus area.

2.2 METHODOLOGIES AND DATA LIMITATION

2.2.1 Road crash data collection methodology

The Culpable Homicide Crash Observation Report (CHoCOR) form is utilised to collect fatal road crash data on daily basis. South African Police Service (SAPS) is the primary source of the fatal crash data. SAPS provide the Corporation with a list of all recorded fatal crashes (CAS list) and further to this, the Corporation receive the CHoCOR forms from various police stations. Road Traffic Management Corporation captures, processes and verifies the data to compile a report. The other input is from provincial departments of road. The departments sent data to RTMC, this data is consolidated with the SAPS data for reporting.

2.2.2 Crash Data Flow

The data is collected through the CHoCOR forms which are submitted to the Corporation either by fax, email or through the phone. The data from departments is verified against the CHoCOR forms and vice versa.

2.2.3 Data processing

The data is captured and verified for compilation of the consolidated statistical report. There is a continuous engagement with provinces for validation purpose.

2.2.4 Limitations

The road traffic information contained in the report is based mainly on the fatal crashes only. There is a need for in-depth research to be conducted to collect scientific based facts to complement the administrative data.

3 ROAD SAFETY COLLECTION METHODOLOGY

3.1 BACKGROUND

In previous editions of the State of Road Safety reports, the RTMC focused on the road crash information, with the key Road Safety initiatives, Law Enforcement interventions and progress on the implementation of the NRSS not being consolidated into a single report. This led to limited engagements on the overall interventions that the South African road safety stakeholders are implementing, and alignment across all interventions.

Moreover, countries with similar road safety challenges have elevated the matter of road safety and amongst others, these countries publish comprehensive annual State of Road Safety reports with an objective to drive the road safety agenda at the highest level possible.

However, key challenges remain a hindrance in the South African context including:

- Limited data collection and information processing to understand macro and micro societal factors affecting the set targets in road safety;
- The various platforms that exist in the fraternity, noting that multiple stakeholders are interlinked with Road Safety in South Africa including and not limited to the South African Police Service, provincial and local government, non-governmental agencies and the private sector – each pursuing their priority activities aligned to their mandate;
- The inherent corruption associated with the road traffic fraternity, which extends from the acquisition of a driver's license to road traffic law transgressions and limited implications thereafter;
- Road user behaviour remains a challenge in the country including:
    - Driving at an inappropriately high speeds in certain sections of the road;
    - Driving under the influence of alcohol; and
    - Distracted driving notably, the use of a mobile phone whilst driving.

4 Structure and Culture

4.1 CHARACTERISTICS

South Africa, the southernmost country on the African continent, renowned for its varied topography, great natural beauty, and cultural diversity, all of which have made the country a favoured destination for travellers since the dawn of democracy in 1994. The vast majority of black South Africans were not enfranchised until 1994.

South Africa is a developing country and ranks 114th on the Human Development Index, the seventh highest in Africa. It has been classified by the World Bank as a newly industrialized country, with the second-largest economy in Africa, and the 33rd-largest in the world. South Africa also has the most UNESCO World Heritage Sites in Africa. The country is a middle power in international affairs; it maintains significant regional influence and is a member of the G20.

Today South Africa enjoys a relatively stable mixed economy that draws on its fertile agricultural lands, abundant mineral resources, tourist attractions, and highly evolved intellectual capital. Greater political equality and economic stability, however, do not necessarily mean social tranquillity. South African society at the start of the 21st century continued to face steep challenges: rising crime rates, ethnic tensions, great disparities in housing and educational opportunities, and the AIDS pandemic.

South Africa is bordered by Namibia to the northwest, by Botswana and Zimbabwe to the north, and by Mozambique and Swaziland to the northeast and east. Lesotho, an independent country, is an enclave in the eastern part of the republic, surrounded by South African territory. South Africa's coastlines border the Indian Ocean to the southeast and the Atlantic Ocean to the southwest.

4.2 POPULATION

According to Statistics South Africa (Stats SA), the midyear population of South Africa has increased to an estimated 60,4 million people in 2021. The population of Gauteng is approximately 15,8 million, the province with the highest portion of the county's population. KwaZulu-Natal follows with the second highest portion of the population with 11,5 million people with the Northern Cape province having the smallest portion of the population of only 1,3 million. Stats SA estimates the female population to be 30,7 million females (51,1%) of the total population.

An estimated 28,3% of the population is aged younger than 15 years and approximately 9,2% (5,5 million) is 60 years or older. Of those younger than 15 years of age, the majority reside in KwaZulu-Natal (21,8%) and Gauteng (21,4%). Of the elderly (those aged 60 years and older), the highest percentage 24,1% (1,31 million) reside in Gauteng. The proportion of elderly persons aged 60 and has grown from 7,6% in 2002 to 9,2% in 2021 (Stats SA, Mid-Year 2021 Report).

Table 1
National and Provincial Mid-2021 Population Estimates

Province	2021 Mid – Year Estimated Population	
	n	*% of total*
Eastern Cape	6 738 223	11.1
Free State	2 913 531	4.8
Gauteng	15 882 396	26.3
KwaZulu-Natal	11 563 357	19.1
Limpopo	6 063 742	10.0
Mpumalanga	4 733 276	7.8
North West	4 158 730	6.9
Northern Cape	1 320 924	2.2
Western Cape	7 092 527	11.7
Total	**60 466 705**	**100.0**

Figure 2: South African population per province

4.3 CLIMATE

South Africa's long coastline – some 2,800 kilometres – influences much of the climate. On the west coast is the cold Atlantic Ocean, and the warmer Indian Ocean on the south and east. Starting at the hot and arid desert border with Namibia in the northwest, South Africa's coastline runs south down the cold Skeleton Coast, around the Cape Peninsula to Cape Agulhas. This is the southernmost tip of Africa, said to be where the Atlantic and Indian oceans meet. In fact, it is here, slightly offshore, that two coastal currents meet, currents that determine the different coastal climates. The cold Benguela current sweeps the west coast, and the warm Agulhas current the east.

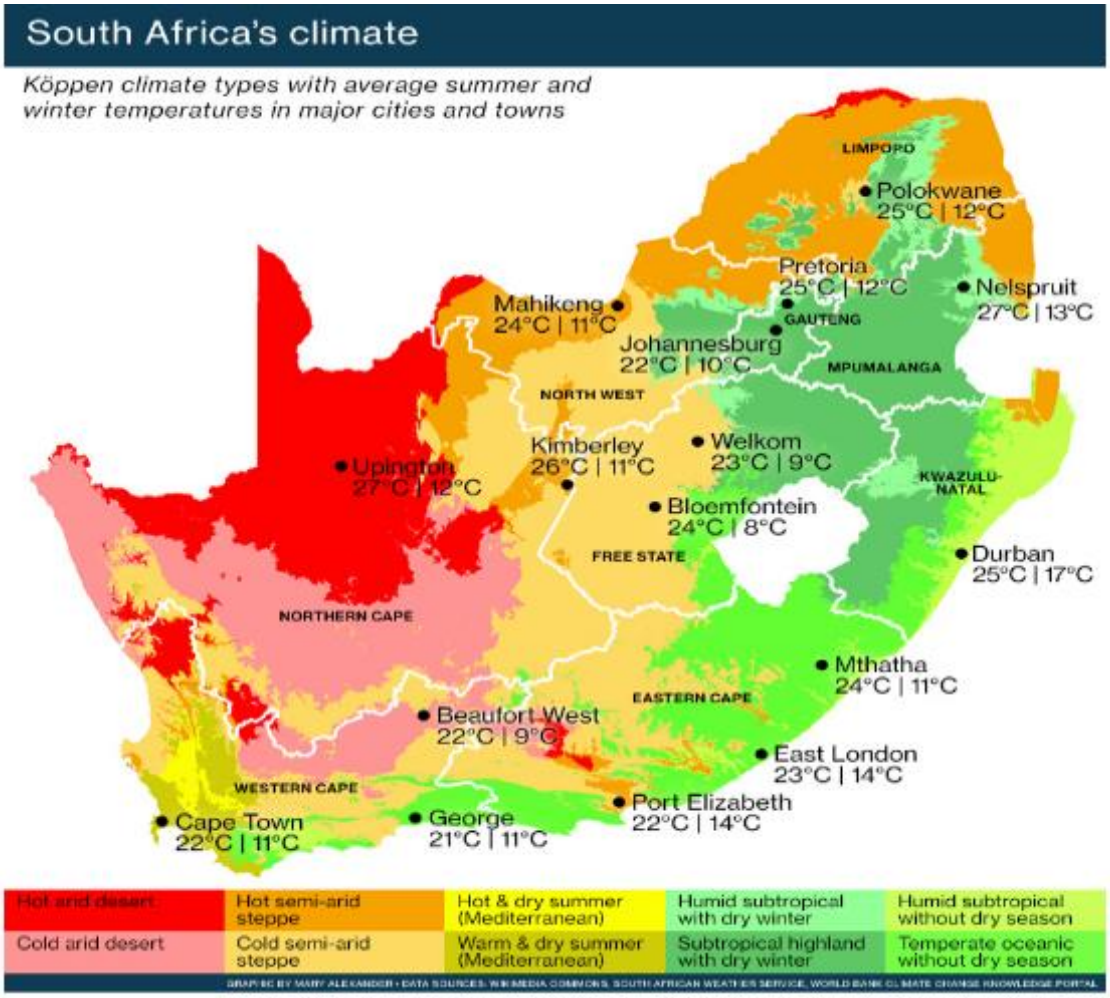


Figure 3: South African climate

From Cape Agulhas the coastline moves east and slowly northwards, and the climate becomes warmer and wetter. The Western Cape's pretty green Garden Route gives way to the forested Wild Coast in the Eastern Cape, and then humid subtropical KwaZulu-Natal coast, famous for its beaches. In the northeast, the coast reaches the border of Mozambique.

Running along most of the coast is a narrow low-lying strip of land, which soon gives way to a higher plateau – the Great Escarpment. The high altitude of South Africa's interior means the country is generally much cooler than southern hemisphere countries at the same latitude, such as Australia.

4.4 ROAD NETWORK

The South African Road Network consists of approximately 750,000 km of road and is estimated to be the tenth largest road network in the world. The following table illustrates the breakdown of the road network of road authorities within the country.

Table 1: Breakdown of South African road network in km

Road Authority	Surfaced	Unsurfaced	Total
SANRAL	21 946	0	21 946
Provinces - 9	42 411	226 273	268 684
Metros - 8	51 682	14 461	66 143
Local Municipalities	37 691	219 223	256 914
Total	153 730	459 957	613 687
Un-Proclaimed (Estimate)		133 291	133 291
Estimated Total	153 730	593 248	746 978

The National, or roads under the jurisdiction of the South African Roads Agency (SANRAL) accounts for 3.6% of proclaimed roads with the road network of the

9 provincial road authorities accounting for 43.8% of the network (see graph below).

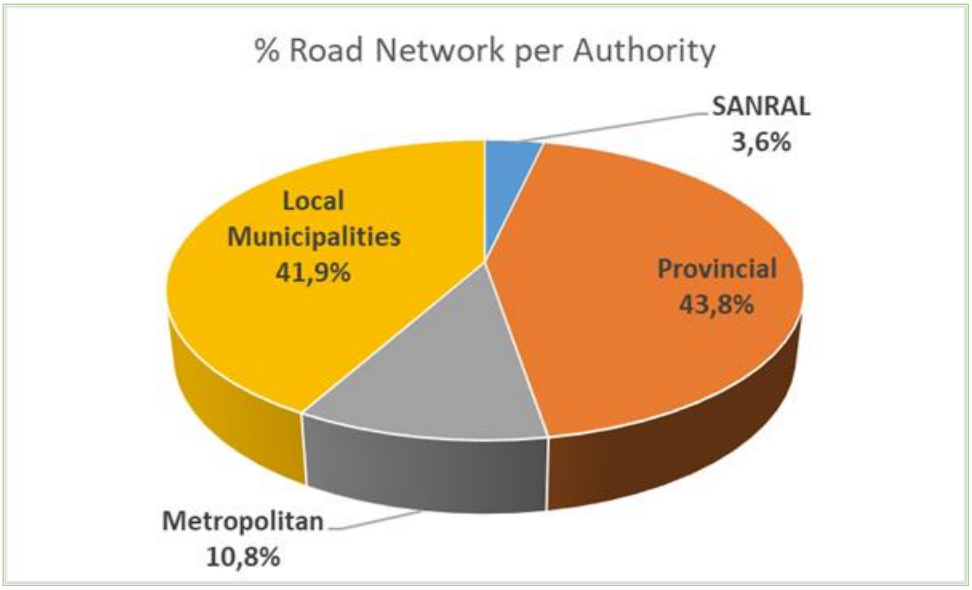


Figure 4: Percentage vehicles per road authority

Surfaced roads in South Africa consists of 25.1% of proclaimed roads and unsurfaced (earth/gravel) roads 74.9%.

4.5 VEHICLE POPULATION

South Africa is the middle-income country with a high number of registered vehicles. Based on July 2021 mid-year population estimates South Africa has 60 142 978 people.

Table 2: Number of registered vehicles per type

Number of Registered Vehicles Motorised Vehicles	Number registered Dec 2020	Number registered Dec 2021	Change	% Change	% of Group Dec 2021	% of Total Dec 2021
Motorcars	7 498 920	7 652 045	153 125	2,04	65,25	59,06
Minibuses	341 853	349 671	7 818	2,29	2,98	2,70
Buses	64 888	64 339	-549	-0,85	0,55	0,50
Motorcycles	339 046	347 624	8 578	2,53	2,96	2,68
LDV's - Bakkies	2 616 337	2 671 293	54 956	2,10	22,78	20,62
Trucks	377 787	389 112	11 325	3,00	3,32	3,00
Other & Unknown	248 380	252 392	4 012	1,62	2,15	1,95
Total Motorised	**11 487 211**	**11 726 476**	**239 265**	**2,08**	**100,00**	**90,50**
Towed Vehicles						
Caravans	97 913	97 824	-89	-0,09	7,95	0,75
Heavy Trailers	209 400	221 267	11 867	5,67	17,98	1,71
Light Trailers	888 507	897 181	8 674	0,98	72,90	6,92
Other & Unknown	14 702	14 460	-242	-1,65	1,17	0,11
Total Towed	**1 210 522**	**1 230 732**	**20 210**	**1,67**	**100,00**	**9,50**
All Vehicles	**12 697 733**	**12 957 208**	**259 475**	**2,04**		**100,00**

As at the end of December 2021 the number of registered vehicles increased with 2.04% from 12.698 million in 2020 to 12.957 million in 2021 as depicted in the table above. Within the motorised vehicles category, trucks and motorcycles have recorded the highest percentage change of 3% and 2,53% respectively.

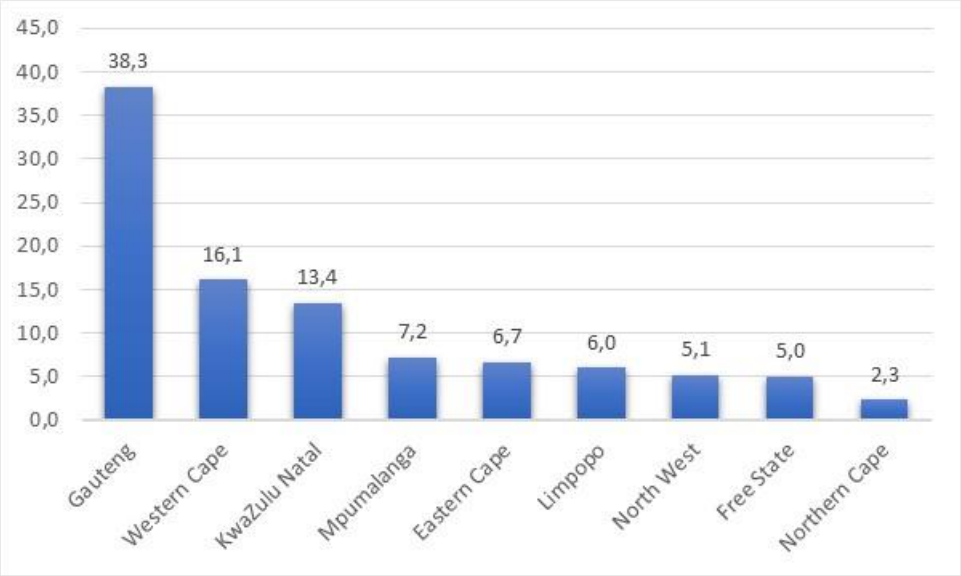


Figure 5: Percentage vehicles registered per province on 31 December 2021.

At a provincial level in South Africa as at the end of December 2021; most vehicles are registered in Gauteng with a distribution of 38,3% followed by Western Cape at 16% and KZN at 13%. The three provinces Gauteng, Western Cape and KwaZulu Natal share a percentage distribution of 67,8%.

4.6 STRUCTURE OF ROAD SAFETY MANAGEMENT

The National Department of Transport is responsible for the policy and legislation governing roads and public transport. This is implemented through provincial departments, local government and public entities. In terms of Schedule 5 of the Constitution, provincial roads and traffic are an exclusive provincial function, while municipal roads, traffic and parking are exclusive Schedule 5B municipal functions. Public transport is a concurrent Schedule 4A function of both national and provincial government. While municipal public transport is a Schedule 4B concurrent municipal function.

The strategy of the DoT has been guided by five strategic priorities that define the work of the Department and the political agenda over the term of this administration. The following key five (5) priorities have been identified which will guide the effort of the sector:

- Safety as an enabler of service delivery;
- Public transport that enables social emancipation and an economy that works;
- Infrastructure build that stimulates economic growth and job creation;
- Building a maritime nation, elevating the oceans economy; and
- Accelerating transformation towards greater economic participation

The Department of Transport Road Agencies:

Figure 6: Entities of the Department of Transport

4.6.1 Road Accident Fund

The Road Accident Fund (RAF) is a juristic person established by an Act of Parliament, namely, the Road Accident Fund Act, 1996 (Act No. 56 of 1996) as amended ("RAF Act"). It commenced operations on 1 May 1997, assuming at

the time, all the rights, obligations, assets and liabilities of the Multilateral Motor Vehicle Accidents Fund.

The RAF is responsible for providing appropriate cover to all road users within the borders of South Africa; rehabilitating and compensating persons injured as a result of motor vehicles in a timely and caring manner; and actively promoting the safe use of all South African roads. Section 3 of the RAF Act stipulates, "the object of the Fund shall be the payment of compensation in accordance with this Act for loss or damage wrongfully caused by the driving of a motor vehicle".

4.6.2 South African National Roads Agency Limited

The South African National Roads Agency SOC Ltd (SANRAL) is a South African parastatal responsible for the management, maintenance and development of South Africa's proclaimed National Road network which includes many (but not all) National ("N") and some Provincial and Regional ("R") route segments

4.6.3 Cross-Border Road Transport Agency

The Cross-Border Road Transport Agency (C-BRTA) exists to improve the cross-border flow of commuters and freight operators who make use of road transport. Its function as an interstate operations agency is to reduce mobility constraints for road transport operators, in the form of regulating market access and issuing cross-border permits, while facilitating sustainable social and economic development in the Southern African Development Community (SADC) region.

4.6.4 Road Traffic Infringement Agency

The Road Traffic Infringement Agency (RTIA) performs its functions in terms of subsection (1)(a) of the AARTO Act. The objectives of the agency are, to administer a procedure to discourage the contravention of road traffic laws and

to support the adjudication of infringements; to enforce penalties imposed against persons contravening road traffic laws; to provide specialised prosecution support services; and to undertake community education and community awareness programmes to ensure that individuals understand their rights and options.

4.6.5 ROAD TRAFFIC MANAGEMENT CORPORATION

The RTMC operates under the stewardship of the Department and facilitates an effective partnership between national, provincial and local spheres of government in the management of road traffic matters.

The overriding aim of the Road Traffic Management Corporation (RTMC) is to overcome the current fragmentation of traffic management functions across hundreds of provincial and local jurisdictions, and to bring a new professional coherence and improved morale into the entire system; in support of enhanced co-operative and co-ordinated road traffic strategic planning, regulation, facilitation and law enforcement; strengthening national and provincial governments' collective capacity to govern road traffic through partnerships with local government bodies and the private sector; and focussing government on effective strategic planning, regulation, facilitation and monitoring.

5 Road Safety Performance Indicators

5.1 SPEED OPERATIONS

The following speed operations were conducted nationwide:

A total of 52 648 Speed Operations were conducted from the period of January to December 2021.

For the first quarter 5 708, second quarter 17 559, third quarter 12 779 and fourth quarter 16 602 speed operations were conducted.

5.2 ALCOHOL OPERATIONS CONDUCTED

The following alcohol operations were conducted nationwide:

A total of 7 280 alcohol operations were conducted from January until December 2021.

Quarter one 360, quarter two 1305, quarter three 2 997 and quarter four 2618 alcohol operations were conducted.

5.3 AWARENESS INTERVENTIONS

A total of 3 860 awareness interventions (vs. 4 835 in 2020) were carried out from January until December 2021. From April to September 754 awareness interventions were conducted due to the impact of the National State of Disaster Management related to COVID – 19.

For the period starting in January to March 1 212 interventions were carried and 2 648 interventions were carried out conducted in the period April to December.

5.4 SCHOOLS INTERVENTIONS IN ROAD SAFETY PROGRAMMES

A total of 2 288 schools were involved in Road Safety School Programs (vs. 2 509 in the previous year) from January until December 2021. The average number of Learners per school is estimated at 496 and it can be postulated that 1 365 264 Learners were reached through this programme. There was no school-based road safety activity between April and September 2021 due to COVID-19 regulations and restrictions on extra curricula activities.

6 PERFORMANCE ON NATIONAL ROAD SAFETY STRATEGY

The implementation of the National Road Safety Strategy (NRSS) 2016-2030 is driven by the 82 outlined initiatives. With each of these initiatives aligned to the five pillars of the Decade of Action for Road Safety, they are led by various agencies viz.

- Pillar 1: Road Safety Management – RTMC and the Department of Transport (DOT)
- Pillar 2: Safer Roads - SANRAL and Provincial Authorities
- Pillar 3: Safer Vehicles - The Department of Trade and Industry (and its agencies namely, the National Regulator for Compulsory Specification (NRCS), South African Bureau of Standards (SABS)
- Pillar 4: Safer Road User - RTMC and DOT SOEs with the Road Safety mandate
- Pillar 5: Post Crash Care - Department of Health and the Road Accident Fund (RAF)

This section aims to provide an update on the 82 initiatives outlined in the NRSS, noting that; the finalisation of a coherent implementation plan and the cost of implementing the NRSS is still outstanding. The approach to address this shortcoming is addressed in Annexure A of this report.

6.1 PILLAR 1: ROAD SAFETY MANAGEMENT

This pillar has the following strategic intents:

- **Improve Coordination and Management**

There are six interventions under this strategic intent - 1A(i) to 1A(vi)

NRSS ID	Coordinating Agencies	NRSS Project Plan – December 2021
1A(i)	**DoT**	Establish a National Road Safety Oversight Council for governance and oversight of the strategy
1A(ii)	**DoT**	Continue to support improvement measures to address the problem areas within road safety e.g. freight transport as they relate to road safety management efforts on national and provincial roads. E.g. roadworthiness, overloading, driver fatigue, etc.
1A(iii)	**RTMC**	Establish an annual conference on Road Safety to enhance evidence-based solutions
1A(iv)	**DTI**	Support and influence the development of guidance for liquor licencing to include road safety considerations
1A(v)	**DoT**	Monitor and improve compliance by road authorities to strategy targets
1A(vi)	**RAF**	Continuous improvement of co-ordination between private and public health services to improve post-crash response rates across all areas

- Objective 1A(i) is being considered by the Department of Transport in a bid to advance the initiatives of the NRSS programme. The cost and the completion date are still to be determined.
- Intervention 1A(ii) is partially implemented which include the approval of the Road Transport Freight Strategy, involving stakeholders in awareness campaigns and Traffic Law Enforcements Agencies prioritises freight supervision.
- Under intervention 1A(iii), Annual Road Safety Conferences are being held, except for the years under National Disaster Management related to COVID – 19.
- Engagements with the Department of Trade, Industry and Competition are to be concluded by the end of Q1 2022/23 financial year in pursuance of intervention 1A(iv).
- The Department of Transport's Roads Entities and Provincial Departments of Transport's non-financial performance reports are filed on a quarterly basis in compliance with intervention 1A(v), and
- Intervention 1A(vi) is especially upheld during the peak traffic periods.

- **Ensure Adequate Funding and Capacity**

There are four interventions under this strategic intent namely 1B(i) - 1B(iv) only intervention 1B(ii) is being implemented - notable by the RTMC ' s Road Traffic Training College.

NRSS ID	NRSS Project Plan - December 2021
1B(i)	National road safety budget to be approved by Treasury
1B(ii)	Develop and roll out (standardised, modernized and improved) training packages for traffic officers and other road safety practitioners to increase education standards and level of professionalism
1B(iii)	Complete a full resource and capacity assessment to determine a baseline to deliver the NRSS
1B(iv)	Find alternative sources of funding for road safety interventions (consider both public and private sector)

- The Road Safety Strategy Budget is still to be finalised and currently the Road safety initiatives are provided for on the operational budgets of the Department of Transport and the related Roads Entities in compliance with 1B(i),
- The cost for intervention 1B(ii) is estimated at R 2 723 139 022 until 2030 linked to the training of the 1000 National Traffic Police and other personnel in the fraternity, including upskilling of traffic officers across the country and management within the fraternity.
- The Department of Transport is to finalise the specifications of the intervention 1B(iii), and
- The alternative sources of funding have been identified and work have started to engage the regulations for specific revenue streams in compliance with intervention 1B(iv).

- **Eliminate Fraud and Corruption**

There are three interventions under this strategic intent namely 1C(i) - 1C(iii),

NRSS ID	NRSS Project Plan - 28 June 2020
1C(i)	Support the development of the new anti-corruption strategy followed by marketing and communications plan including drafting norms and standards for the corruption strategy.
1C(ii)	Standardise and improve employment conditions for road safety professionals
1C(iii)	Identify and address opportunities for fraud and corruption in driver and vehicle licensing

- Intervention 1C(i) is being implemented by various Roads Entities and Provincial Departments.
- Intervention 1C(ii) is on-going with the first group of RTMC's Road Safety Officers have completed the theoretical training and are expected to undergo mentorship supervision in the 2022/23 FY.
- Technological enhancements at DLTC's and on the National Traffic Information System have contributed to the curbing of corruption activities in compliance with 1C(iii),

- **Improve Road Safety Data Systems**

There are five interventions under this strategic intent namely 1D(i) - 1D(v),

NRSS ID	NRSS Project Plan – 28 June 2020
1D(i)	Develop a new crash reporting framework for improving the collection and accuracy of data and development of new forms
1D(ii)	Publication of annual statistics to be achieved within 6 months of the following year - *State of Road Safety Report(s)*
1D(iii)	Commission research into situational conditions of crashes (time of day, weather, other vehicles present/involved), which should feed into road safety guidelines.
1D(iv)	Strengthen programme to share data across the private and public sector; including short-term insurance industry to discuss the effective use of this data to introduce new services and products jointly between the private and public sector
1D(v)	Identify availability and potential integration of other crash data sources

- Interventions 1D(i) – crash data methodology has been developed and approved.
- Interventions 1D(ii), 1D(iv), 1D(v) are being implemented based on the framework (crash data methodology) that has been approved
- Intervention 1D(iii) has been partially implemented and reported accordingly in annual calendar road safety reports.

- **Enhance the Use of Technology to Protect Road Users**

There are three interventions under this strategic intent namely 1E(i) - 1E(iii).

NRSS ID	NRSS Project Plan - December 2021
1E(i)	Technology review, procurement and training
1E(ii)	Legislate use of tachograph for all freight and public transport vehicles
1E(iii)	Implement system for utilisation of technology to build a road safety knowledge management system; using information such as Geographical information systems, Geolocation, etc.

- Interventions 1E(i) is being implemented as certain technology has been procured,
- The implementation of the intervention 1E(ii) is delayed and re-scheduled for 2022/23 financial year.
- 1E(iii) in being implemented

- **Implementation of Standards as a tool to support the implementation of the Decade of Action**

There are four interventions under this strategic intent namely 1E(iv) - 1E(vii)

NRSS ID	NRSS Project Plan – December 2021
1E(iv)	Promotion, marketing and awareness initiatives towards implementation of the Road Traffic Safety Management Systems (ISO39001), both within Government and Industry.
1E(v)	Partnering with SANAS and SABS and other industry partners to put in place

NRSS ID	NRSS Project Plan – December 2021
	measures to ensure that the requirements for Certification Bodies and accreditation of the Standards Auditors are adequately addressed.
1E(vi)	Develop and implement regulatory tools and accreditation schemes
1E(vii)	Develop sector specific implementation manuals to support participating industries

- Interventions 1E(iv) and 1E(vi) are being implemented,
- Intervention 1E(vi) is being piloted and the estimated cost is R 6 500 000,
- Interventions 1E(v) and 1E(vii) are to be finalised in May 2022.
- The provisional costs for 1E (iv) is estimated at R 884 400

6.2 PILLAR 2: SAFER ROADS AND MOBILITY

The focus of this Pillar is ensuring that engineers and planners design forgiving roads, that is, roads which will ensure road users are not killed and serious injuries are minimised as a result of an error by a road user. This pillar is largely led by SANRAL and Provincial Authorities responsible for road construction and rehabilitation.

- **Identifying and Addressing High Road Safety Risk Locations**
  - There are 3 interventions 2A(i – iii)

NRSS ID	NRSS Project Plan – December 2021
2A(i)	Implementation of Hazardous Location Programme
2A(ii)	Develop Road Safety Assessment Capacity within Road Authorities
2A(iii)	Implementation of Road Safety Assessment Programme

- Intervention 2A(i) is being implemented as part of the 365 Road Safety Plan and the costs are incorporated in the operational plans,
- Intervention 2A(ii) is being implemented and the associated costs are estimated at R 3 000 000,
- Intervention 2A(iii) is being implemented by the South African Road Agency and the estimated costs are R 3 533 144,

- **Providing Self-Explaining and Forgiving Road Environments**

NRSS ID	NRSS Project Plan – December 2021
2B(i)	Provide self-explaining and forgiving road environment for all road users.
2B(ii)	Employ adequately experienced and qualified staff to support upskilling and training of staff
2B(iii)	Ensure application of road signage and road markings standards are effectively applied.
2B(iv)	Develop and implement a road improvement and maintenance prioritisation model (with focus to rural roads based on information driven strategic data)

- There are four interventions namely 2B(i) - 2B(iv) and all partially being implemented as part of operations.

Notwithstanding that road authorities such as SANRAL determine hazardous Location Programmes on their respective road network, the RTMC assists on a macro level where Hazardous Road Segments or segments of road within a defined SAPS Area which are most hazardous are provided through the National Road Safety Committee (NRSS) to law enforcement of all spheres of government and through the National Road Traffic Engineering Committee (NRTETC) to road authorities.

The RTMC through the NRTETC further promote the development of road safety assessment capacity within road authorities as well as the implementation of the iRAP road safety assessment programme on a national level.

The provision of a self-explaining and forgiving road environment for all road users are prioritised at NRTETC meeting discussions with the RTMC sponsoring two major national projects viz.: research on and Road Restraint

Systems (RRS) Methodology/Guideline as well as the updating of the South African Road Safety Audit Manual (SARSAM).

- **Implementing Road Safety Audit Programmes**

There are three interventions under this intent, namely 2C(i) - 2C(iii),

NRSS ID	NRSS Project Plan – December 2021
2C(i)	Review Legislation pertaining to Road Safety Audits to make it mandatory for All Road Authorities to have Road Safety Audit Policy and Programmes in place.
2C(ii)	Develop Road Safety Auditor Capacity
2C(iii)	Implement Road Safety Audit Programmes

- All three interventions are being implemented.

6.3 PILLAR 3: SAFER VEHICLES

This pillar focuses on introducing technology to improve vehicle safety, which aims to actively prevent road crashes (e.g. stability control) and passively to minimise the impact of the crash (e.g. airbag). The Safer Vehicles Pillar objectives entail:

- **Ensuring That Vehicles on Road Networks Are Roadworthy**
  - There are four interventions namely 3A(i) - 3A(iv),

NRSS ID	NRSS Project Plan – December 2021
3A(i)	Immediately increase traffic (law) enforcement around vehicle roadwor-thiness
3A(ii)	Improved surveillance of vehicle testing stations to combat corruption and ensure that vehicle testing is robust
3A(iii)	Implement periodic roadworthy testing programme for all vehicles as well as specifying incremental checks for public transport vehicles
3A(iv)	Improve the roadworthiness of the Public Transport vehicle fleet

- Interventions 3A(i), 3A(ii) and 3A(iv) are being implemented as part of the day-to-day operations.

- **Increasing Vehicle Safety Standards**

There two interventions under this strategic intent namely 3B(i) and 3B(iv) and not yet implemented,

NRSS ID	NRSS Project Plan – December 2021
3B(i)	Enhance visibility of vehicles through "Lights-On" programme
3B(iv)	Research new technologies in vehicle testing, and set standards to internationally acceptable levels including the use of latest technology (e.g. dash-cameras, tachometers)

- The interventions are being implemented as new vehicles are fitted with automatic light switch on system,
- Technology such as dashboard cameras are installed in most of the Traffic Law Enforcement vehicles.

6.4 PILLAR 4: SAFER ROAD USERS

The strategic objective of this pillar aims to improve road utilisation behaviour through road safety education and awareness. The key initiatives for this pillar are:

- **Improve Road User Behaviour Through Awareness and Involvement**

There are nine interventions under this strategic intent namely 4A(i) - 4A(ix)

NRSS ID	NRSS Project Plan – December 2021
4A(i)	Incorporate road safety education and awareness campaigns directly under the coordination of the RTMC
4A(ii)	Coordination of public awareness campaigns - Develop and rollout public education campaigns (Focus on speed, seatbelt use and drunk/drug-driving, distracted driving behaviour)
4A(iii)	Rollout a responsive campaign empowering public transport passengers and other road users to report poor and/or dangerous driving ('Speak out' campaign).
4A(iv)	Develop and rollout programmes of community-based engagements by introducing the National Prayer Day and other road safety awareness programmes
4A(v)	Devise focused persuasive road safety behaviour change campaigns targeting all road users.

NRSS ID	NRSS Project Plan – December 2021
4A(vi)	Conduct research into new opportunities for youth, women and people with disabilities in road safety and create opportunities for them to pursue careers in road safety
4A(vii)	Involve citizens especially the youth in leading safer road user behaviour (Introduce Road Safety Badge System – at local organisation and community development level e.g. scout clubs, youth clubs, school badges etc.).
4A(viii)	Explore and implement sports and popular-culture based road safety interventions.
4A(ix)	Conduct research into incentives for compliant road user (specifically fleet owners and drivers) behaviour (Behavioural economics research).

- Five interventions namely 4A(i), 4A(ii), 4A(iii), 4A(iv) and 4A(v) are being implemented by various Road Entities namely, RTMC, SANRAL, RAF, CBRTA and RTIA under various Road Safety Programmes.
- The cost of the five interventions is incorporated into the day-to-day operations of the Roads Entities,
- Interventions 4A(vi) and 4A(ix) are to be planned to be conducted during the 2022/23 and 2023/24 financial periods.
- Interventions 4A(vii) will be concluded in May 2022,
- Intervention 4A(viii) is being implemented at the initial cost of R 99 000 000,
- The four interventions namely 4Avi) - 4A(ix) are scheduled to be completed between June 2021 and November 2021.

- **Improve Road User Behaviour Through Education and Training**

There are 17 interventions under this strategic intent from 4B (i) - 4C(x).

NRSS ID	NRSS Project Plan - December 2021
4B(i)	Develop and rollout public education programme to protect VRUs
4B(ii)	Enhance school-based safety programmes including scholar patrol, pedestrian safety and cyclist education.
4B(iii)	Implement traffic management plans for education institutions.
4B(iv)	Revise driver training processes and testing (all license types, including K53 and Learners Licence tests) - Investigate opportunity for school and TVET-based graduated learner driver programmes to enable learners to acquire drivers' licensing together with their grade 12 or technical and vocational qualifications.
4B(v)	Teach children from pre-school level about keeping safe on roads.

NRSS ID	NRSS Project Plan - December 2021
4B(vi)	Introduce sustained road safety education in the basic education curriculum.
4B(vii)	Incorporate technology for driver training and licensing to improve driving abilities of new drivers.
4C(i)	Ensure that traffic departments provide a 24/7 service nationally
4C(ii)	Develop, implement and enforce intelligence-led adherence to road laws, with focus on protection of VRUs and passengers, through the use of seatbelts and child re-straints
4C(iii)	Urgently investigate the deficiencies in current enforcement practices and systems and rectify.
4C(iv)	Enforce stricter adherence to seatbelts safety standards on all road-based public transport vehicles and the use thereof.
4C(v)	To improve police enforcement intelligence through appropriate use of latest tech-nology (e.g. integrated enforcement system, speed-over distance technology).
4C(vi)	Identify and address of high risk road users for focused interventions
4C(vii)	Start regular national traffic patrols along hazardous/high risk locations.
4C(viii)	Improve enforcement and consider the introduction of Traffic Courts.
4C(ix)	Implement repeat offender disqualification together with rehabilitation programmes for license reinstatement (refers to drivers exhibiting reckless behaviour e.g. intoxi-cation, negligence etc.)
4C(x)	Implement medical disqualification - and rehabilitation - (physically unfit drivers)

- Interventions 4B(i,ii,v) are being implemented,
- Intervention 4B(ii) is partially costed at R 2 000 000 for scholar patrol,
- Intervention 4B(vi) is in the process of rolled in partnership with the Department of Basic Education. The estimated cost is R 30 000 000.
- Intervention 4B(vii) is being piloted through the Learner License Programme using the Motion Driving Simulators for High School Learners & TVET Students at initial costs of R 3 500 000,
- Interventions 4C(i,ii,iii,iv,v,vi,vii) are being implemented at an estimated cost of R 5 643 650.
- Intervention 4C(viii) is being partially implemented as it is currently available at Metropolitan Municipalities,
- Intervention 4C(ix) is being partially implemented and awaiting Constitutional Court Case. The estimate cost for the roll out of the programme is estimated at R 15 000 000.
- Intervention 4C(x) will be finalised in 2022/23 financial year.

- **Increase Protection for Vulnerable Road Users**

There are 3 interventions under this strategic intent namely 4D(i) - 4D(iii)

NRSS ID	NRSS Project Plan – December 2021
4D(i)	Establishment of community-based pedestrian/VRU safety teams.
4D(ii)	VRU safety to be included as a key component of Road Safety Manual.
4D(iii)	Implement NMT policy requiring roads authorities to prioritise vulnerable road users.

- Intervention 4D(i) is being implemented as part of the day-to-day operations of RTMC and the Provincial Departments,
- Intervention 4D(ii) is to be completed for implementation in May 2022,
- Intervention 4D(iii) is being implemented by local municipalities,

6.5 PILLAR 5: POST-CRASH RESPONSE

In the event that Pillars 2 - 4 did not provide the adequate protection required to prevent a road crash, pillar 5 focuses on preventing fatalities (by saving injured lives) and to reduce to impact of serious injuries when a crash has occurred. As such, the immediate response for medical assistance and treatment thereafter is largely led by the Department of Health and much later, by the Road Accident Fund (RAF). The key initiatives under the pillar are:

- **Increasing Effectiveness of First Responses Post A Road Crash**

There are 9 interventions under this strategic intent namely 5A(i) - 5A(ix).

NRSS ID	NRSS Project Plan – December 2021
5A(i)	Deployment of ambulances at high-risk locations during peak periods
5A(ii)	Strengthen interaction with DoH and private medical sector in post-crash response (Also HPCSA, medical schools, MRC, etc.).
5A(iii)	Clarification of on-scene response roles / Areas between SAPS, National Traffic Police, Metro Police, Provincial Traffic, Municipal Traffic, etc.
5A(iv)	Investigate the feasibility for Traffic Police to be legislated to handle fatal crash investigations.
5A(v)	Introduce technology use on crash scene to obtain precise location of crashes.

5A(vi)	Increase crash investigation capacity at SAPS and other agencies involved with the function.
5A(vii)	Mobilisation of intensive care ambulances for high-risk rural sites.
5A(viii)	Increase the number of trained trauma medical personnel, nurses, paramedics, etc. in collaboration with the Health and Welfare Sector Education and training Authority (HWSETA).
5A(ix)	Incentivize Private Health establishments to treat road crash victims

- Intervention 5A(i,vii) is being partially implemented during peak traffic periods,
- Intervention 5A(ii,iii,iv,viii,ix) to be finalised in May 2022,
- Intervention 5A(v) is being implemented by the Crash Investigation Teams,
- Intervention 5A(vi) is being implemented through training partnerships between the Crash Investigation Team and SAPS,

- **Simplify Access to Post-Crash Care**

NRSS ID	NRSS Project Plan – December 2021
5B(i)	Full roll-out of the Road Accident Fund model to improve access to quality healthcare and to make the application for financial assistance efficient and easily accessible to all communities.
5B(ii)	Implement a single emergency response number across South Africa.
5B(iii)	Introduce RABS into the Social Security System

There are 3 interventions under this strategic intent namely 5B(i) - 5B(iii).

- Intervention 5B(i) is being implemented,
- Interventions 5B(ii,iii) still to be finalised with the Department of Transport.

6.6 SUMMARY OF THE IMPLEMENTATION STATUS

The table below is derived from the summation of quarterly performance reports of the Roads Entities and Provincial Departments of Transport.

The Stakeholders implements interventions without a nationally developed implementation plan, within limited budgetary costs and when funds are permitting.

Table 3: Summary of NRSS implementation status

IMPLEMENTATION STATUS	SHORT TERM	MEDIUM TERM	LONG TERM	%	TOTAL
Being Implemented	36	14	8	71%	58
Yet to be started	13	7	4	29%	24
Percentage (Implemented)	73%	67%	66%		
TOTAL	49	21	12	100%	82

71% of the interventions are being implemented and 29% still pending implementation and 73% of the Short Term and 67% of the Medium-Term interventions are being implemented.

6.7 CHALLENGES TO DATE

Over the last two years, the Corporation has been reporting on NRSS based on information published in the quarterly performance reports of the stakeholders.

Whilst this indicated that efforts made by various stakeholders to implementation the initiatives, the overall conclusion was that:

- The efforts were not coordinated and provide the best chance of success;
- There was a limited opportunity to fairly evaluate the impact if these were not coordinated optimally; and

- There was a limited opportunity to solicit external funding if the costs were unknown.

The work undertaken by the Corporation in 2017/18 began to pave uniformity in the implementation of the NRSS; however, systematic constraints led to disruptions in the process such as:

- The then strategic programmes were not amended to integrate NRSS-linked initiatives, and this led to the NRSS being considered to be additional work **without additional funding in the current MTEF budget cycle;**
- Unsigned off performance achievements linked to the NRSS by Accounting Officers were not auditable and thus systematically, they were equivalent to additional voluntary performance information; and
- The above-mentioned challenge led to provinces reverting to Annual Performance Plan targets (including transversal indicators) – which were consolidated for the RTMC and the DOT. In certain cases, NRSS-linked work was kept at an operational level which other simply dropped it.

The above-mentioned challenges are however, addressed in the revised approach in the engagement of stakeholders.

7 EFFECT OF COVID-19 ON ROAD SAFETY

South Africa has never experience lockdown like it was in 2020. In 2021 the country moved through different alert levels of Coronavirus COVID-19 lockdown. The highest level was level 4 in 2021 with movements partially restricted for entry and exit in and out of Gauteng.

In essence the lockdown regulation of 2021 had no major impact on the usage of the road in the year 2021. The Covid-19 effect on the road users was negligible.

8 ROAD SAFETY OUTCOMES

At least 10 611 fatal crashes were reported by end of year 2021. This is an increase of 26,4% when compared to 2020 figures and 2% when compared to 2019 figures. The lowest fatal crash figures were recorded in 2020. The year 2020 was the year that South Africa was on total lock-down the most due to COVID-19. Travel and movement were restricted, curfew was imposed, sale of alcohol was banned from time to time. Therefore the 2020 figures are not a true reflection of the normal road activities in South Africa.

Table 4: Fatal crashes per province

YEAR	EC	FS	GP	KZN	LP	MP	NC	NW	WC	RSA
2019	1320	642	2180	2012	1132	1064	316	702	1013	10381
2020	1075	500	1649	1768	924	853	232	609	795	8405
2021	1316	609	2293	2143	1118	1013	327	704	1088	10611
2019/2021 CHANGE	-4	-33	113	131	-14	-51	11	2	75	230
2020/2021 CHANGE	241	109	644	375	194	160	95	95	293	2206
2019/2021 % CHANGE	-0,3%	-5,1%	5,2%	6,5%	-1,2%	-4,8%	3,5%	0,3%	7,4%	2,2%
2020/2021 % CHANGE	22,4%	21,8%	39,1%	21,2%	21,0%	18,8%	40,9%	15,6%	36,9%	26,2%

When considering the changes per province between the year 2021 and 2019; the most percentage decrease is in Free State at -5.1% followed by Mpumalanga at -4.8%. The highest percentage increase is in Western Cape at 7.4% increase, followed by KwaZulu Natal at 6.5% increase, then Gauteng at 5.2% increase.

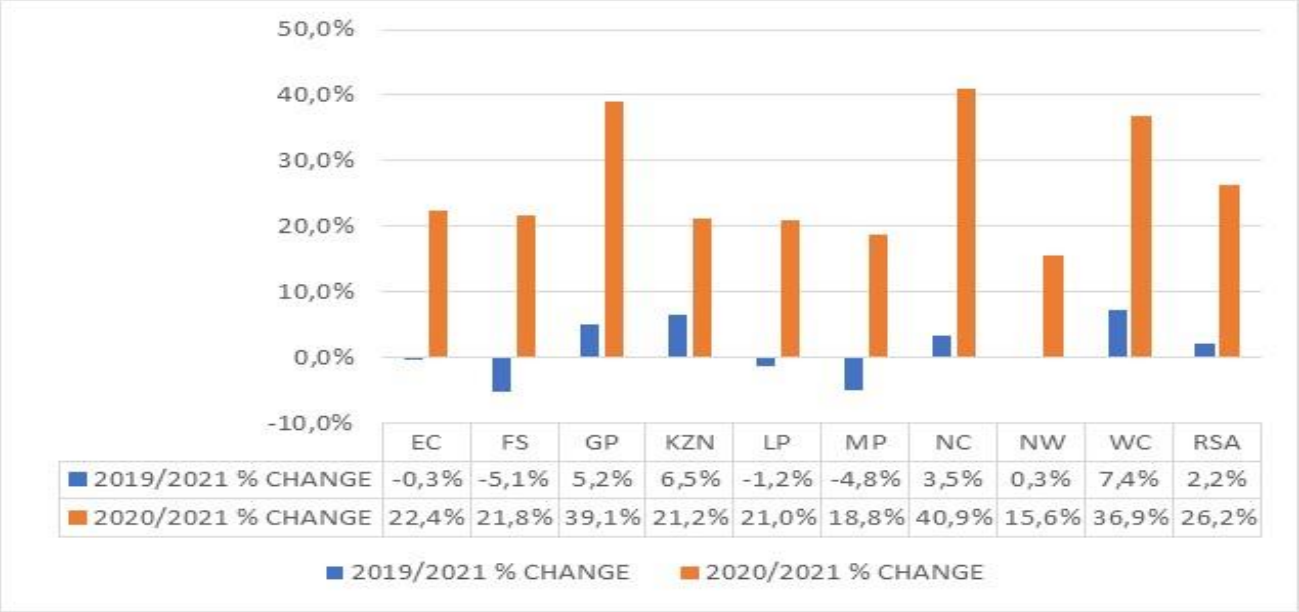


Figure 7: Percentage change in number of fatal crashes per province from 2019 to 2021

Table 5: Fatalities per province

YEAR	EC	FS	GP	KZN	LP	MP	NC	NW	WC	RSA
2019	1603	860	2453	2331	1496	1343	384	855	1178	12503
2020	1336	647	1855	2031	1161	1046	265	720	908	9969
2021	1533	799	2561	2409	1400	1261	403	908	1271	12545
2019/2021 CHANGE	-70	-61	108	78	-96	-82	19	53	93	42
2020/2021 CHANGE	197	152	706	378	239	215	138	188	363	2576
2019/2021 % CHANGE	-4,4%	-7,1%	4,4%	3,3%	-6,4%	-6,1%	4,9%	6,2%	7,9%	0,3%
2020/2021 % CHANGE	14,7%	23,5%	38,1%	18,6%	20,6%	20,6%	52,1%	26,1%	40,0%	25,8%

The table above depicts the number and percentage changes in the number of road fatalities between the years 2019, 2020 and 2021. In 2021 10 611 fatal crashes resulted in 12 545 fatalities. Road fatalities increased by 25.8% from year 2020 to year 2021. Road fatalities increased by 0,3% from year 2019 to 2021. The 2020 figures are not a true reflection of the normal road activities in South Africa, this is due to l9ockdown levels in 2020.

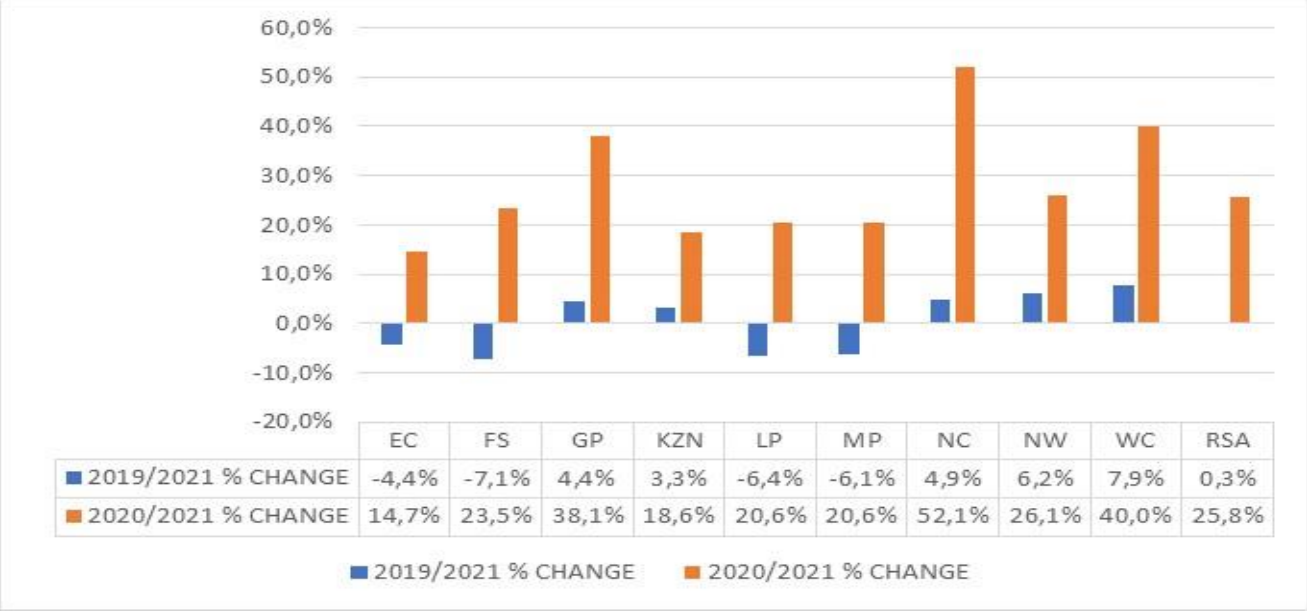


Figure 8: Annual Percentage change in fatalities per province from 2019 to 2021

The fatality rate per 100 000 of human population or the Death Rate according to the WHO, for 2019 is 21.7, for 2020 is 16.72 and for 2021 is 20.85. The reduction from 21.7 (in 2019) to 16.72 (in 2020) can be attributed to the COVID-19 lockdown restrictions. When comparing the 21.7 (2019) to 20.85 (2021) we notice a decline, meaning that although the population grew the fatality rate per 100 000 people decreased.

The number of fatalities per 10 000 registered motorised vehicles reduced from 10.90 in 2019 to 8.69 in 2020. When comparing the 10.9 (2019) to 10.69 (2021) we notice a decline of 2%, meaning that although the number of registered increased the fatality rate per 100 000 people decreased.

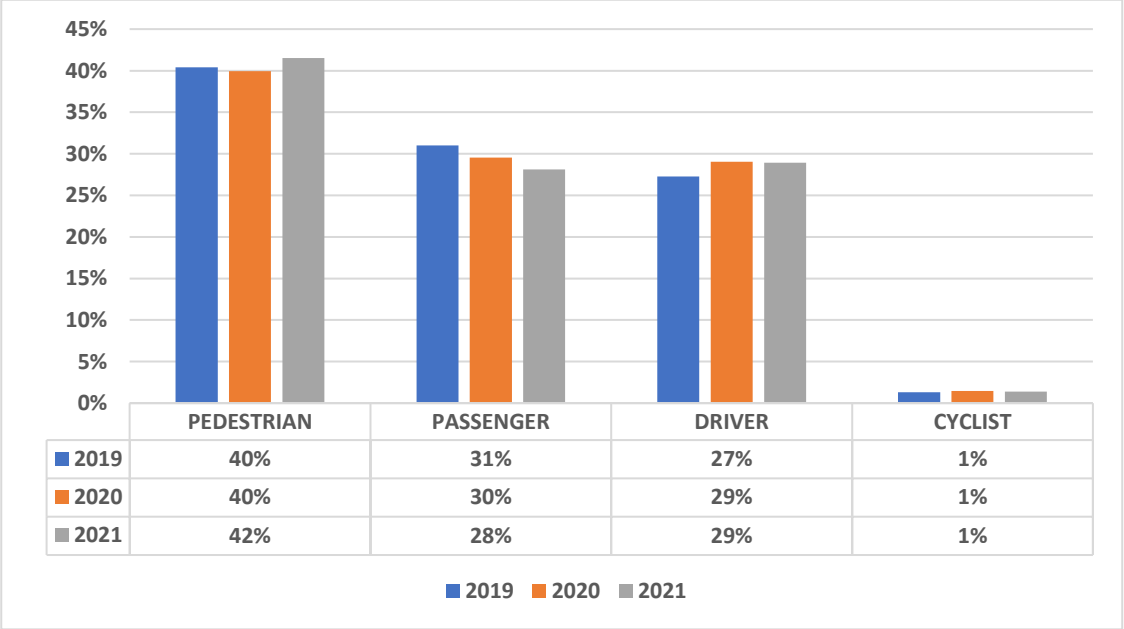
The figure below depicts the distribution of fatalities per road user type. The percentage distribution for pedestrians for the 2019 and 2020 remained the

same at 40%. The percentage of passenger fatalities decreased from 31% in 2019 to 28% in 2021.

The driver fatalities is between 27% and 29%.

According to WHO (2018), Vulnerable Road Users (VRU) are disproportionately impacted by road related deaths, globally, with pedestrians and cyclists representing 26% of all road related deaths. WHO (2018) further states that 29% of all deaths are car occupants, with 23% pedestrian fatalities globally.

Pedestrians' fatalities contribute 40% of all road fatalities in South Africa, and this is a big a challenge.

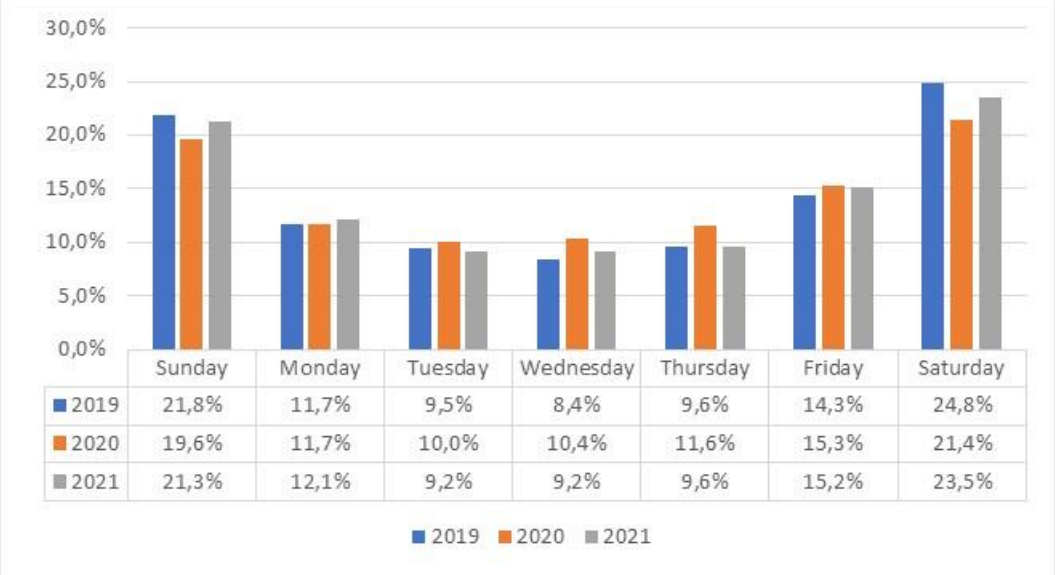


	PEDESTRIAN	PASSENGER	DRIVER	CYCLIST
2019	40%	31%	27%	1%
2020	40%	30%	29%	1%
2021	42%	28%	29%	1%

Figure 9: Percentage distribution of fatalities per road user type

The figure below shows the percentage of fatal crashes per day for each year. From year to year it can be seen that fatal crashes start peaking on Fridays (14%), Saturdays (average 23.6%) until Sunday (average 21.7%). On average fatal crashes over the weekend contribute 60% of all crashes. The remaining

40% is distributed throughout the other four days of the week (i.e. Monday to Thursday).



	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
2019	21,8%	11,7%	9,5%	8,4%	9,6%	14,3%	24,8%
2020	19,6%	11,7%	10,0%	10,4%	11,6%	15,3%	21,4%
2021	21,3%	12,1%	9,2%	9,2%	9,6%	15,2%	23,5%

Figure 10: Fatal crashes per day of the week

The trend is the same year on year with the largest proportion of fatalities within the age group 25 to 39 totalling 41,6% of all fatalities. The percentage fatalities for children up to an age of 14 is 11% year on year.

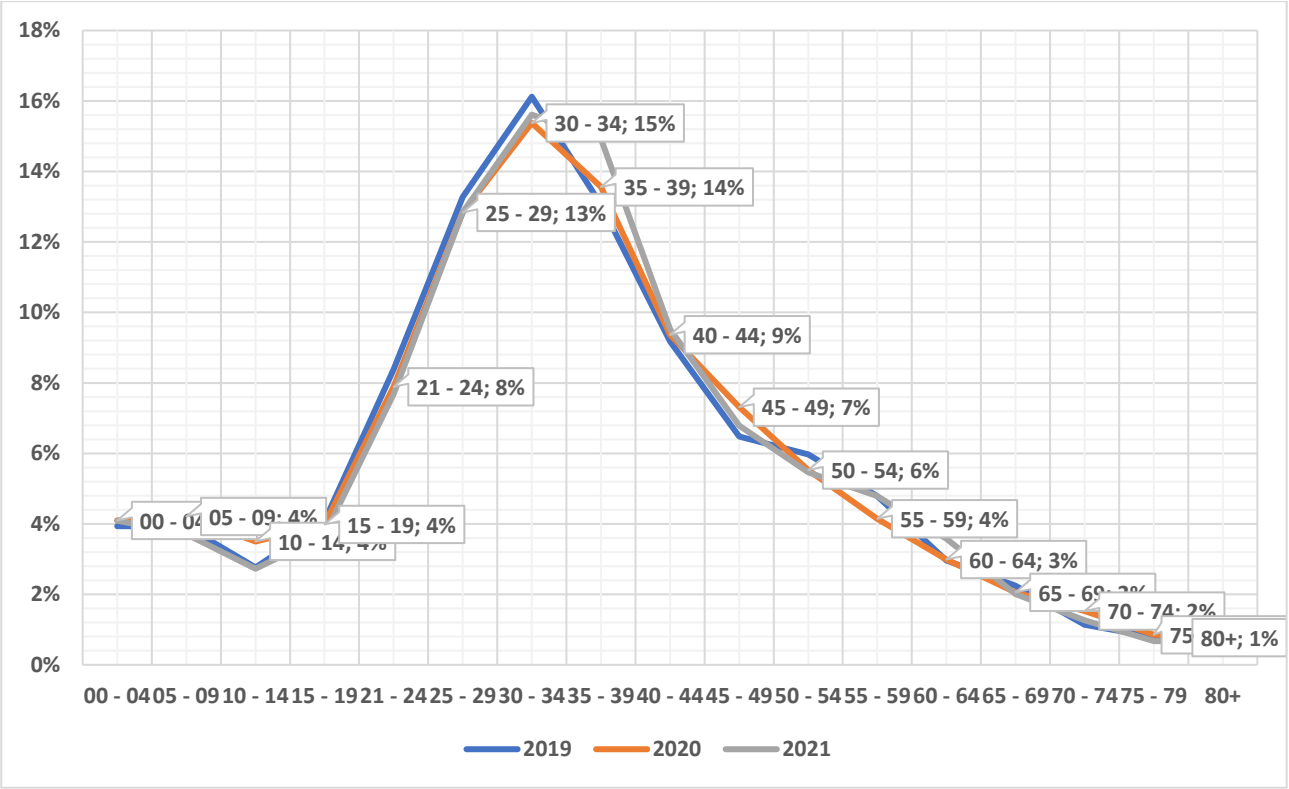


Figure 11: Percentage distribution of fatalities per age group for 2019 - 2021

No significant change was observed in the gender split for fatalities during the analysis period with males that demised on the road being three quarters of all fatalities or average of 75% year on year. Driver's license card holders registered on the NaTIS System constitutes a 61,1/38,9 per cent male/female split; it could thus be argued that more males are killed as drivers in context of licenced drivers.

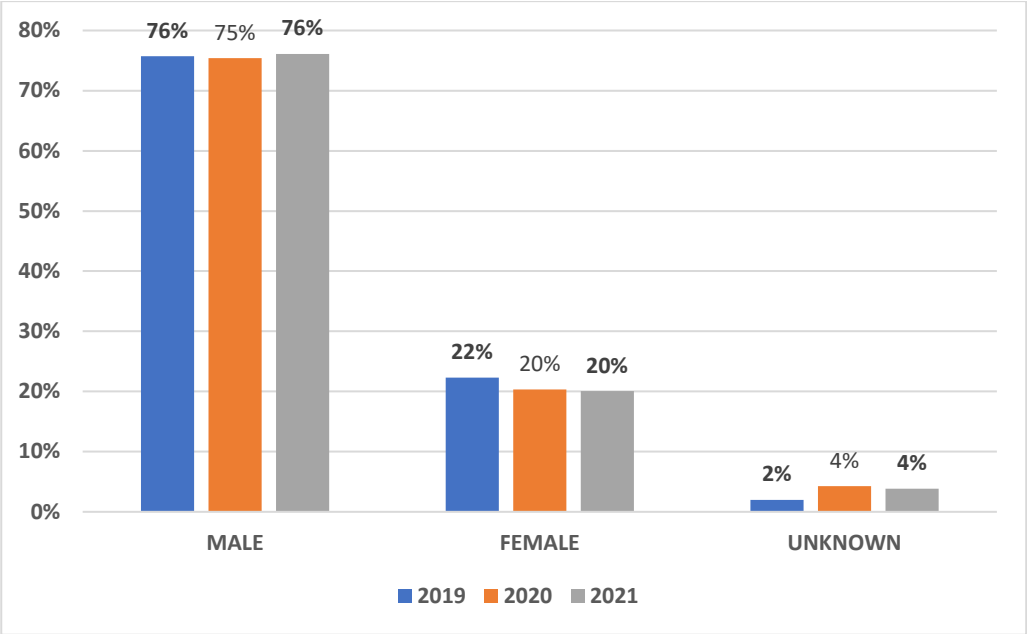
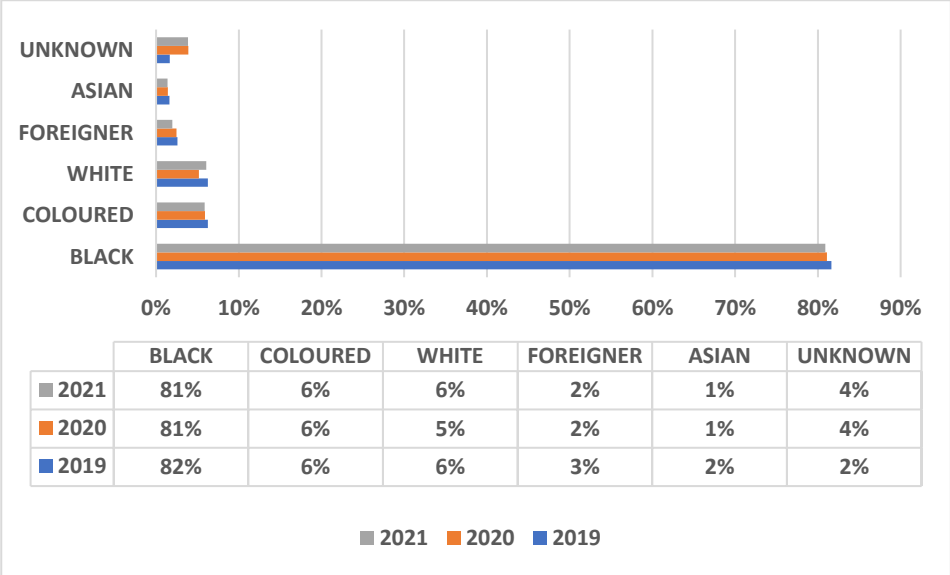


Figure 12: Percentage distribution of fatalities per gender for 2019 - 2021

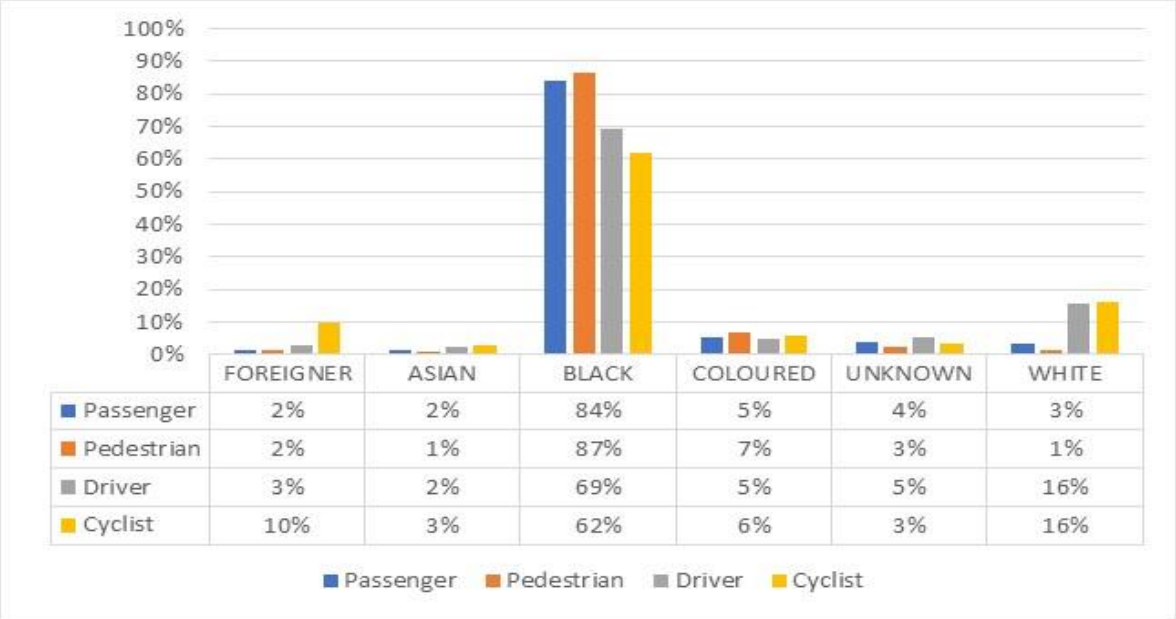
The distribution of fatalities per population group indicates on average 81% of all road fatalities are black persons with the rest taking up the remainder of the 19%.



	BLACK	COLOURED	WHITE	FOREIGNER	ASIAN	UNKNOWN
2021	81%	6%	6%	2%	1%	4%
2020	81%	6%	5%	2%	1%	4%
2019	82%	6%	6%	3%	2%	2%

Figure 13: Percentage distribution of fatalities per population group

From the figure below 87% of pedestrians killed on the road are black, 84% of passengers are black, 69% of drivers are black and 62% of cyclists are also black.



	FOREIGNER	ASIAN	BLACK	COLOURED	UNKNOWN	WHITE
Passenger	2%	2%	84%	5%	4%	3%
Pedestrian	2%	1%	87%	7%	3%	1%
Driver	3%	2%	69%	5%	5%	16%
Cyclist	10%	3%	62%	6%	3%	16%

Figure 14: Percentage distribution of fatalities per population group per road user

The trend throughout the years is that human factors are a major contribution to road fatalities. As shown on the figure below human factors are constantly in the 85% region.

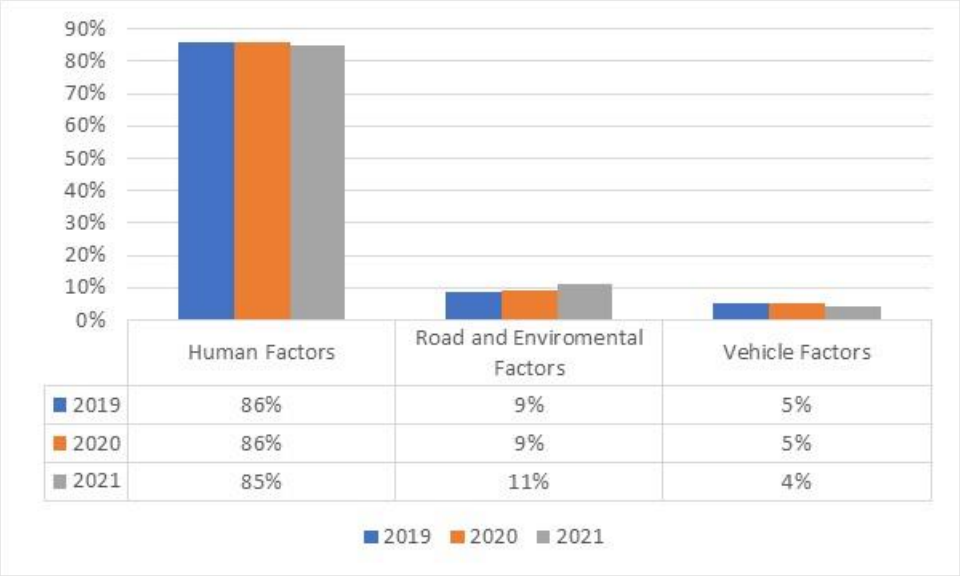


Figure 15: Percentage distribution of fatalities per major contributory factors

The Figure below illustrate a breakdown of the top 15 contributory factors which constitutes 96% of all the 41 types of contributory factors reported.

The largest contributor to any type of fatal crash in 2021 is Jay-Walking Pedestrians (Human factor) at 32% from 34% in 2019 and 31% in 2020. This is followed by Hit-and-run (Human factor) at 22% in 2021, 20% in 2019 and 21% in 2020.

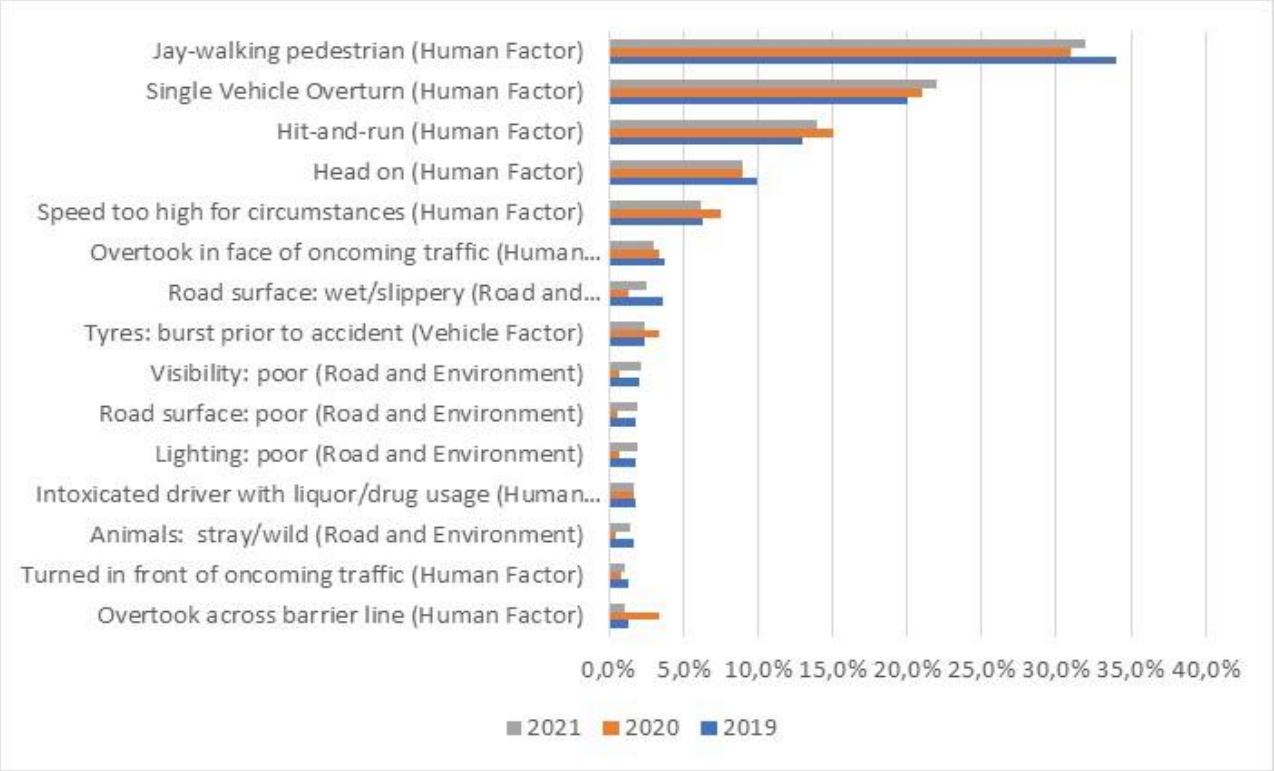


Figure 16: Percentage distribution of fatalities per contributory factor

From the figure above, the top six contributory factors are reported as being human factors with the highest in 2021 Road Environmental factor being road surface being slippery or wet at 2.5% The highest Vehicle Factor i.e., Tyres burst prior to crash at 2.4% in 2021.

9 PEDESTRIAN SAFETY

9.1 PEDESTRIAN FATALITIES

Pedestrian safety remains the most significant road safety challenge in South Africa with an average of 40% of all fatalities being pedestrians.

Table 6: Pedestrian fatalities

YEAR	Pedestrian Fatalities	Percentage
2019	5062	40%
2020	3968	40%
2021	5211	42%

Table 7: Pedestrian fatal crashes per province

YEAR	EC	FS	GP	KZN	LP	MP	NC	NW	WC	RSA
2019	603	203	1178	1108	430	396	119	313	574	4 924
2020	479	163	847	989	336	301	87	231	442	3 875
2021	631	208	1231	1285	395	339	126	264	640	5119

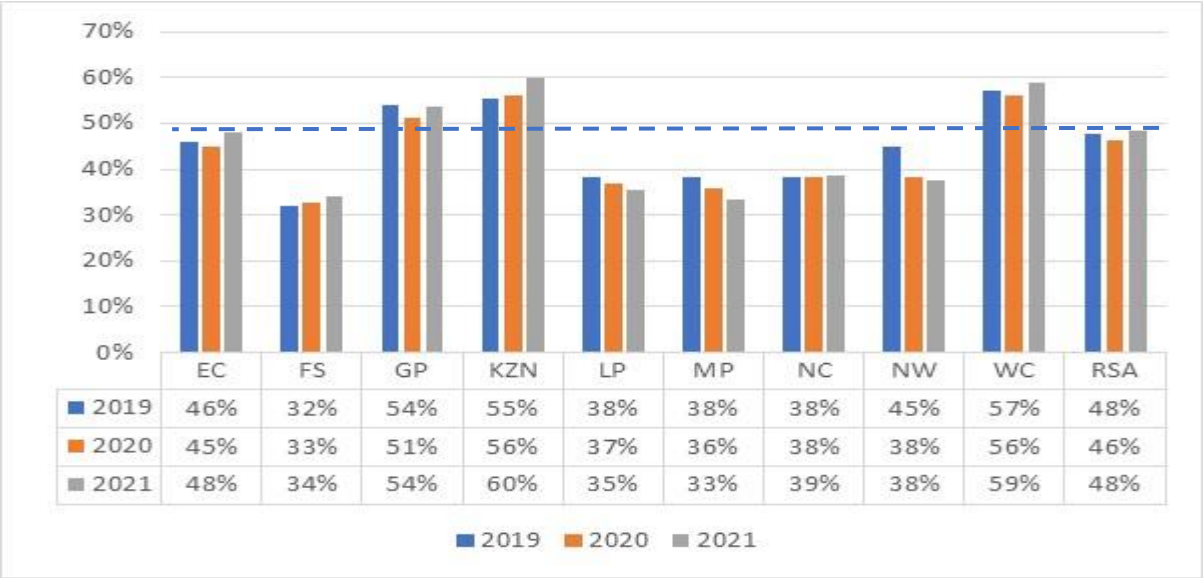


Figure 17: % Pedestrian fatal crashes of all fatal crashes per province

From the figure above, most pedestrian fatal crashes, or crashes resulting in pedestrian death in the respective province, were reported in KwaZulu-Natal, Western Cape and Gauteng. The three provinces are consistently above the national percentage throughout the three years. On average for the three years 47% of fatal crashes involve pedestrians.

The table below shows pedestrian deaths per province during the period analysed. In line with the recorded fatal pedestrian crashes above, KwaZulu-Natal, Western Cape and Gauteng provinces have the highest pedestrian deaths with more than 50% recorded in the three provinces. The province with the lowest number of pedestrian fatalities is Northern Cape, however the province with the lowest percentage of pedestrian fatalities (that is in relation to the total fatalities for that province) is Free State.

Table 8: Pedestrian fatalities per province

YEAR	EC	FS	GP	KZN	LP	MP	NC	NW	WC	RSA
2019	618	214	1199	1121	449	417	123	328	593	5 062
2020	493	168	866	1003	354	311	87	237	449	3 968
2021	644	208	1260	1308	402	341	127	269	652	5211

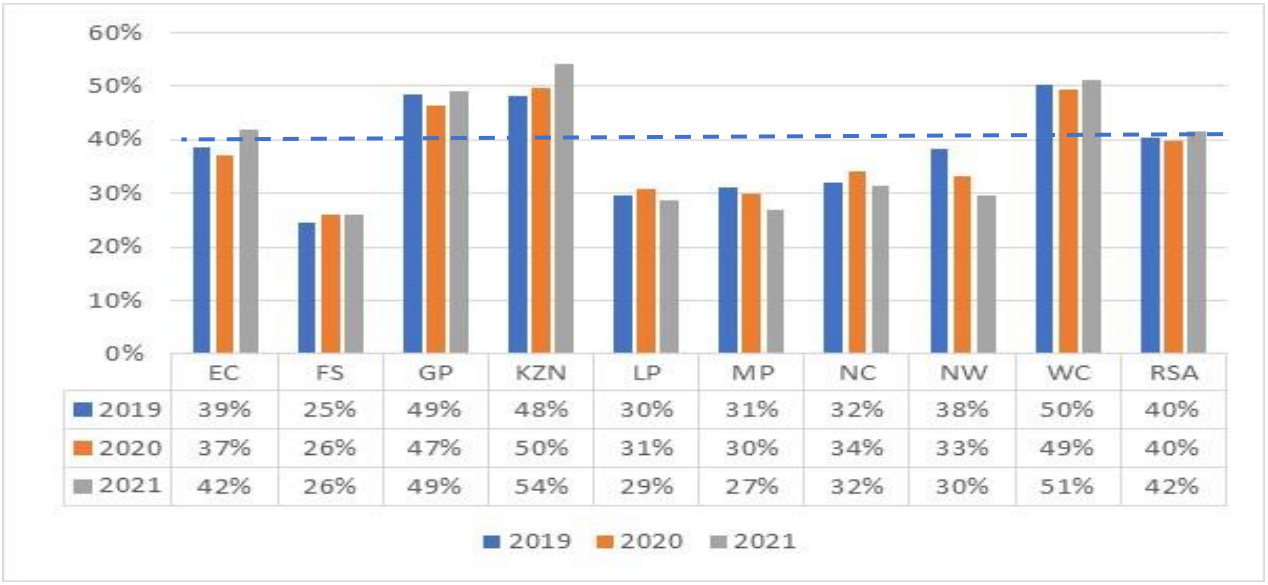
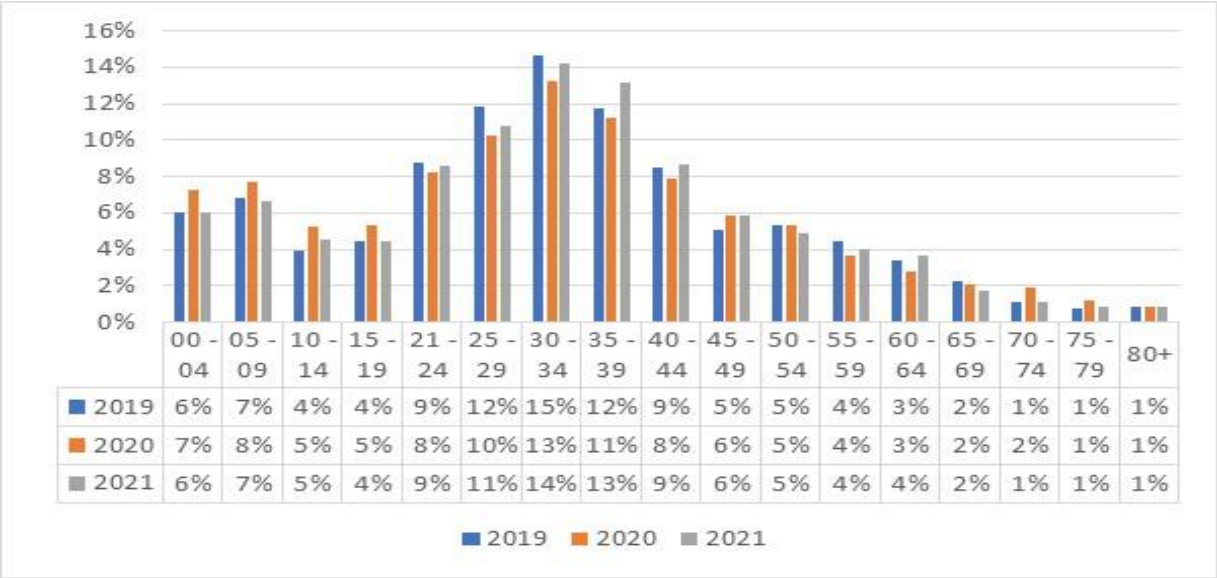


Figure 18: % Pedestrian fatalities of all fatalities per province

From the figure above, KwaZulu-Natal, Western Cape and Gauteng are the main contributors to pedestrian fatalities. The three provinces exceed the national average year on year.

From the figure below it can be observed that similar to the country profile on age of pedestrian road crash fatalities, most pedestrians killed on pedestrian road crashes are between the ages of 25 and 39, on average 36% of all pedestrian fatalities are in this age bracket. An average of 18% of pedestrian fatalities are of the 0 to 14 age bracket.



	00 - 04	05 - 09	10 - 14	15 - 19	21 - 24	25 - 29	30 - 34	35 - 39	40 - 44	45 - 49	50 - 54	55 - 59	60 - 64	65 - 69	70 - 74	75 - 79	80+
2019	6%	7%	4%	4%	9%	12%	15%	12%	9%	5%	5%	4%	3%	2%	1%	1%	1%
2020	7%	8%	5%	5%	8%	10%	13%	11%	8%	6%	5%	4%	3%	2%	2%	1%	1%
2021	6%	7%	5%	4%	9%	11%	14%	13%	9%	6%	5%	4%	4%	2%	1%	1%	1%

Figure 19: Pedestrian fatalities per age group

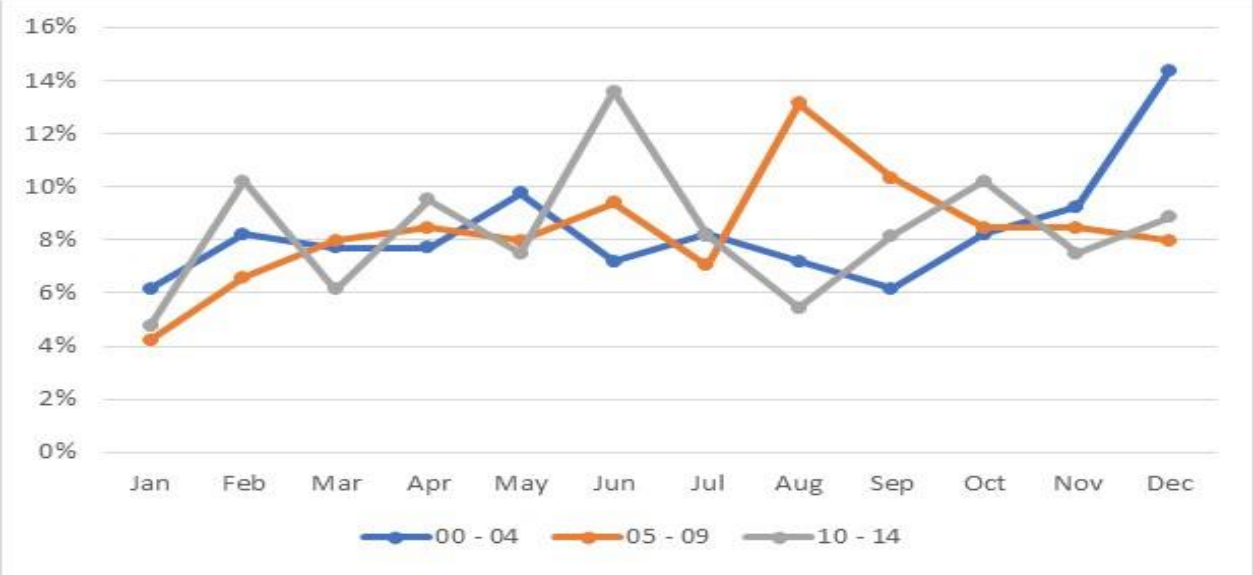


Figure 20: Pedestrian fatalities (age 0 – 14 years)

Based on the figure above the highest percentages of pedestrian fatalities for pedestrians from ages between 0 and 14 occurred in December 2021 (31%) and June 2021 (30%). The highest pedestrian fatalities percentage for age group 0-4 years is 14% in December 2021. The highest pedestrian fatalities percentage for age group 5-0 is 10% in September 2021. The highest pedestrian fatalities percentage for age group 10-14 is 14% in June 2021.

From the figure below 70% of age group 10-14 are involved in fatal crashes as pedestrians between the hours 13:00 and 20:00; during the same period 68% and 63% of age groups 5-9 and 0-4 respectively are also involved in fatal crashes as pedestrians.

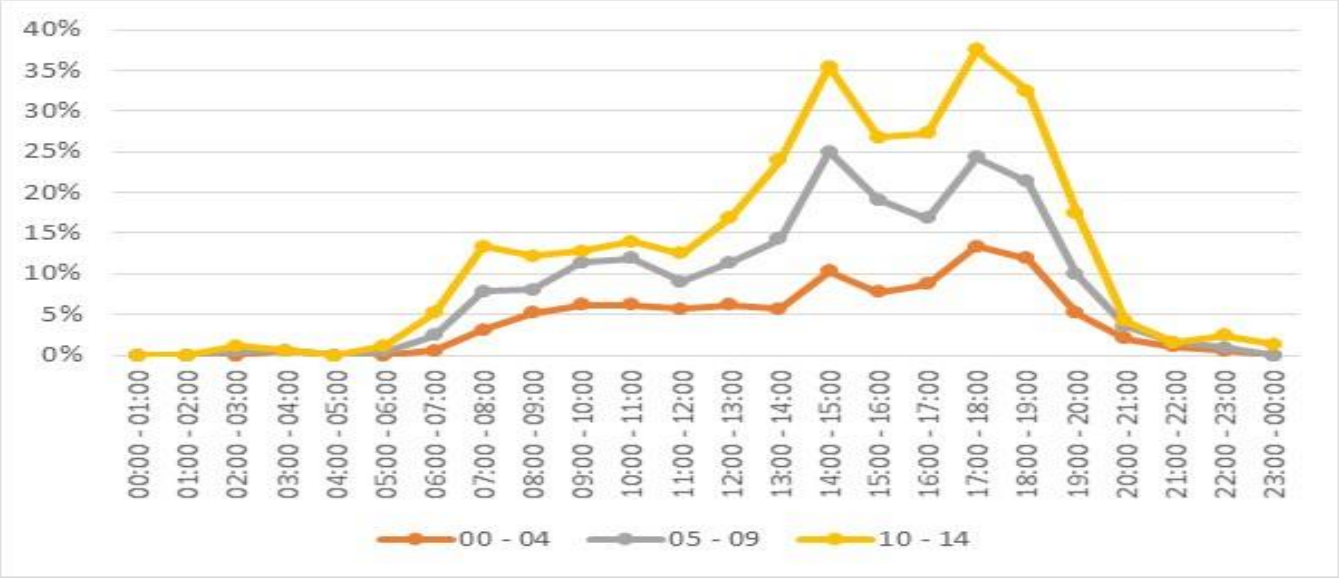


Figure 21: Crashes distribution per time of day for Pedestrian (age 0 – 14 years)

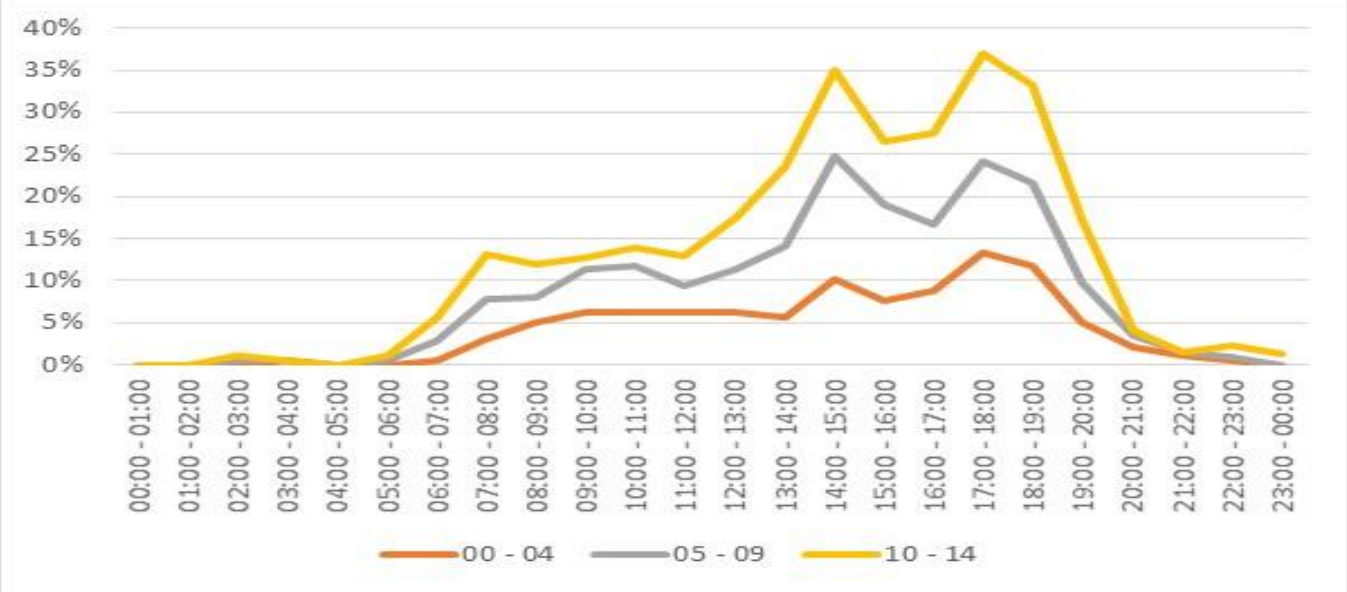


Figure 22: Fatalities distribution per time of day for Pedestrian (age 0 – 14 years)

The above figure and the table below show percentage fatalities of ages 0 to 14 years distribution per time of day. The patterns are the same for different age groups. These patterns match the fatal crashes with pedestrians between the ages of 0 to 14 years per time of day.

Table 9: Pedestrian fatalities per time of day (age 0-14 years)

	AGE		
Time	00 - 04	05 - 09	10 - 14
00:00 - 01:	0%	0%	0%
01:00 - 02:	0%	0%	0%
02:00 - 03:	0%	0%	1%
03:00 - 04:	1%	0%	0%
04:00 - 05:	0%	0%	0%
05:00 - 06:	0%	0%	1%
06:00 - 07:	1%	2%	3%
07:00 - 08:	3%	5%	5%
08:00 - 09:	5%	3%	4%
09:00 - 10:	6%	5%	1%
10:00 - 11:	6%	6%	2%
11:00 - 12:	6%	3%	3%
12:00 - 13:	6%	5%	6%
13:00 - 14:	6%	8%	10%
14:00 - 15:	10%	15%	10%
15:00 - 16:	8%	11%	7%
16:00 - 17:	9%	8%	11%
17:00 - 18:	13%	11%	13%
18:00 - 19:	12%	10%	12%
19:00 - 20:	5%	5%	7%
20:00 - 21:	2%	1%	1%
21:00 - 22:	1%	0%	0%
22:00 - 23:	1%	0%	1%
23:00 - 00:	0%	0%	1%

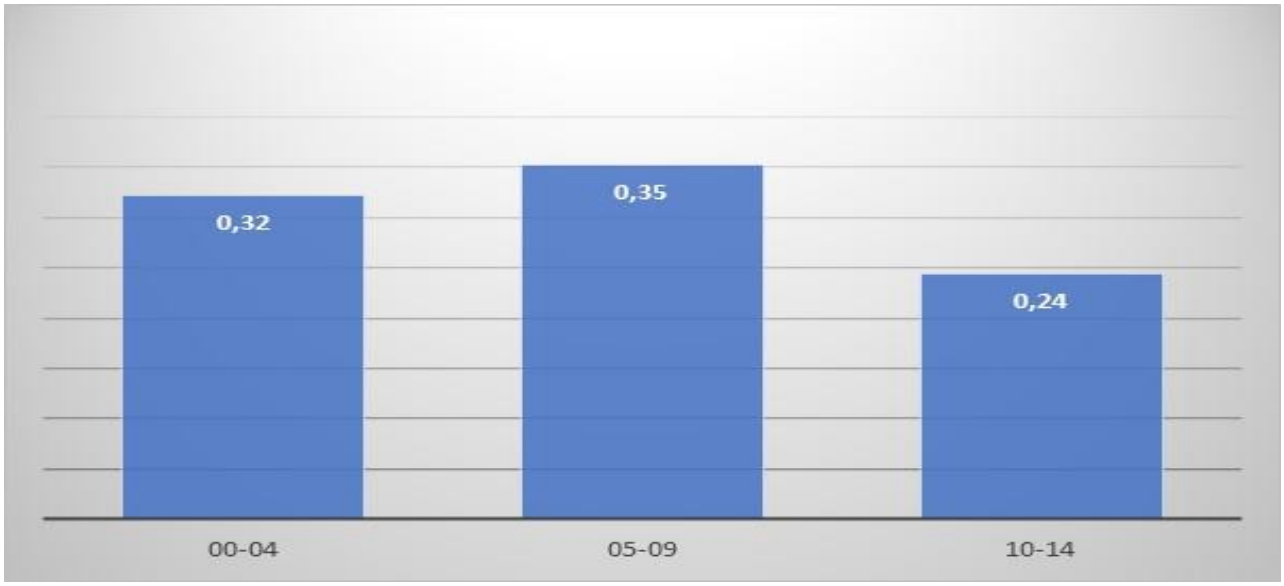
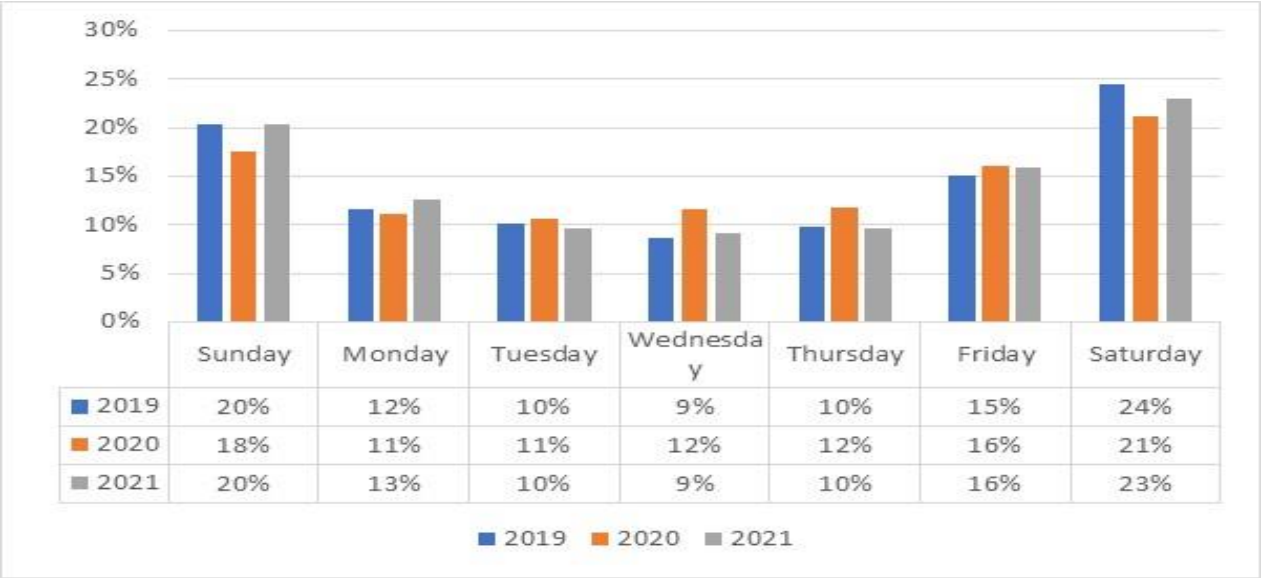


Figure 23: Average number of fatalities per 100 000 population (age 0 – 14 years)

The above figure shows that out of every 100 000 children in the age group 0-4 0.32 are highly likely to die as pedestrians and in age group 5-9 0.35 and in the age group 10-14 0,24.

The figure below illustrates the percentage of pedestrian deaths per day of the week. Most pedestrian fatalities occur over the weekend days (Friday, Saturday and Sunday). The three days average 58% of total pedestrian deaths in a week, with Saturday being the main contributing day at an average of 23%.



	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
2019	20%	12%	10%	9%	10%	15%	24%
2020	18%	11%	11%	12%	12%	16%	21%
2021	20%	13%	10%	9%	10%	16%	23%

Figure 24: Pedestrian fatalities per day of the week

The table below shows analysis of the time and day of pedestrian fatal crashes. are depicted in the table below. The top 10% time-bins in which pedestrian fatal crashes occur per day of week are indicated in dark red.

As can be seen the top 10% starts on Friday from 17:00 until 23:00 and again on Saturday during the same time slot. On Sunday is between 18:00 and 21:00.

21% of pedestrian fatal crashes happen between 18:00 and 20:00 time slot.

Table 10: Percentage of fatal pedestrian crashes per day of the week and time bin

Time/Day	Sunday	Monday	Tuesday	Wednesda	Thursday	Friday	Saturday	% Per Time Slot
00:00 - 01:	1,0%	0,4%	0,2%	0,2%	0,0%	0,2%	0,6%	2,6%
01:00 - 02:	1,0%	0,2%	0,2%	0,1%	0,1%	0,2%	0,6%	2,4%
02:00 - 03:	0,7%	0,2%	0,2%	0,1%	0,1%	0,1%	0,3%	1,7%
03:00 - 04:	0,6%	0,2%	0,1%	0,1%	0,1%	0,2%	0,4%	1,6%
04:00 - 05:	0,5%	0,3%	0,1%	0,1%	0,1%	0,3%	0,5%	2,0%
05:00 - 06:	0,4%	0,5%	0,2%	0,4%	0,5%	0,4%	0,4%	2,8%
06:00 - 07:	0,7%	0,9%	0,3%	0,3%	0,5%	0,6%	0,4%	3,6%
07:00 - 08:	0,5%	0,7%	0,6%	0,4%	0,5%	0,8%	0,4%	3,9%
08:00 - 09:	0,4%	0,5%	0,5%	0,2%	0,2%	0,2%	0,6%	2,7%
09:00 - 10:	0,5%	0,3%	0,2%	0,3%	0,3%	0,2%	0,4%	2,3%
10:00 - 11:	0,5%	0,2%	0,2%	0,2%	0,3%	0,4%	0,4%	2,3%
11:00 - 12:	0,5%	0,4%	0,2%	0,2%	0,2%	0,4%	0,4%	2,3%
12:00 - 13:	0,5%	0,2%	0,3%	0,3%	0,2%	0,3%	0,4%	2,3%
13:00 - 14:	0,5%	0,6%	0,5%	0,4%	0,5%	0,7%	0,7%	3,9%
14:00 - 15:	0,5%	0,5%	0,6%	0,5%	0,4%	0,8%	0,8%	4,2%
15:00 - 16:	1,0%	0,7%	0,4%	0,4%	0,4%	0,5%	0,7%	4,3%
16:00 - 17:	0,8%	0,7%	0,7%	0,5%	0,7%	0,8%	0,9%	5,0%
17:00 - 18:	1,0%	0,9%	0,7%	0,8%	0,7%	1,2%	1,3%	6,8%
18:00 - 19:	2,0%	1,2%	1,2%	1,0%	1,0%	1,5%	2,9%	10,6%
19:00 - 20:	2,3%	1,2%	0,8%	1,1%	0,7%	1,7%	3,3%	11,1%
20:00 - 21:	1,7%	0,8%	0,6%	0,6%	0,7%	1,6%	2,1%	8,0%
21:00 - 22:	1,1%	0,5%	0,4%	0,4%	0,4%	0,9%	1,7%	5,4%
22:00 - 23:	0,9%	0,3%	0,2%	0,3%	0,4%	1,2%	1,6%	4,9%
23:00 - 00:	0,6%	0,2%	0,2%	0,2%	0,3%	0,6%	1,1%	3,2%
	20,3%	12,6%	9,7%	9,1%	9,6%	15,9%	22,9%	100,0%

10 COST OF CRASHES

The high number of road traffic crashes and their associated consequences has a significant impact on South African society, which in turn continues to hamper socio-economic development and affects the well-being of all South Africans. This impact is measured in terms of human lives lost, "pain, grief and suffering", as well as an increasing cost to the economy.

A study to determine the Cost of Crashes for South Africa for 2015 was published in September 2016. Calculating the cost of crashes included human casualty costs, vehicle repair costs and incident costs which was and estimated R142.6 billion for 2015. The RTMC calculate/adjust the cost of crashes on annual basis with respective annual Consumer Price Index (CPI) and the number of fatal crashes and fatalities per year.

The estimated adjusted cost of crashes for 2021 is R188.3 billion (3.98% of the GDP for 2021) as indicated in the table below.

Estimated Cost of Crashes (CoC) per Calendar Year (Nominal)										
Year	Period	Days	**Fatalities	Fatalities per Day	**Fatal Crashes	CoC R*Billion	Change R*Billion	% Change	***Est. Unit Cost Death	****Est. Unit Cost Fatal Crash
2015	1Jan15 - 31Dec15	365	12 944	35	10 613	**142,95**	-	-	R 3 916 187	R 5 435 261
*2016	1Jan16 - 31Dec16	365	14 071	39	11 676	**167,63**	+24,68	+17,27%	R 4 174 264	R 5 793 445
*2017	1Jan17 - 31Dec17	365	14 050	38	11 437	**172,72**	+5,09	+3,04%	R 4 390 908	R 6 094 125
*2018	1Jan18 - 31Dec18	365	12 921	35	10 564	**166,72**	-6,00	-3,48%	R 4 588 499	R 6 368 360
*2019	1Jan19 - 31Dec19	365	12 503	34	10 381	**170,60**	+3,88	+2,33%	R 4 778 004	R 6 631 373
*2020	1Jan20 - 31Dec20	366	9 969	27	8 405	**142,59**	-28,01	-16,42%	R 4 932 334	R 6 845 567
*2021	1Jan21 - 31Dec21	366	12 545	34	10 611	**188,31**	+45,72	+32,07%	R 5 159 714	R 7 161 147

*Adjusted with CPI from 2015 (Cost of Crashes in South Africa - Published September 2016)
**Actual fatal crashes & fatalities recorded; 5% added in CoC calculation for underreporting
***Est. Unit Cost of one Death for respective year; CoC include serious, slight and no injuries.
****Est. Unit Cost of one Fatal Crash for respective year; CoC include major, minor and damage only crashes.

Average annual CoC (7 yrs) = R164,5 bn
Total CoC (7 yrs) = R1151,51 bn

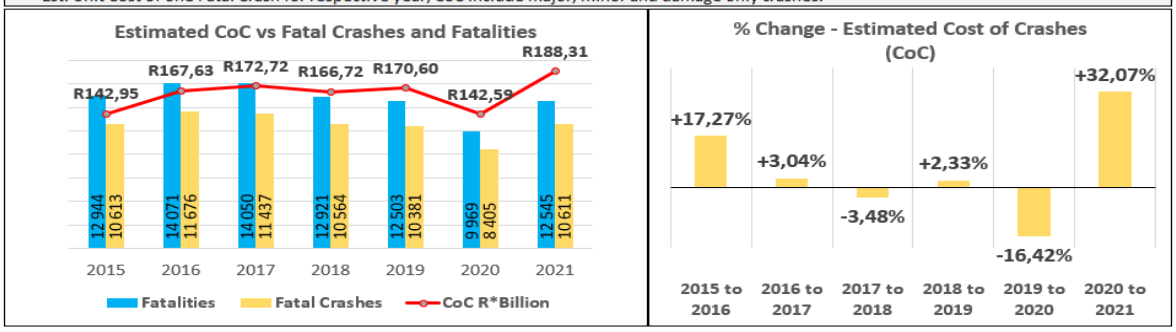


Figure 25: Estimated Cost of Crashes

11 Road Safety Research and Engineering

11.1 ROAD SAFETY RESEARCH

The RTMC concluded various research projects in 2021 which included four Literature Reviews on pertinent road safety subject matter as well as a study 'South African Fatal Crashes in Context' to inform on best practices and to provide insight into fatal crashes in South Africa respectively.

Towards understanding best practices to be incorporated into national guidelines road safety related guidelines, in line with the Safe System approach in line with the 2nd United Nations Decade of Action. The studies are linked to the interventions of the National Road Safety Strategy (NRSS) 2016-2030. The literature reviews were conducted to inform and guide on international best practice on pertinent road safety related subject matter.

The 2021 research reports are discussed as follows:

- Traffic Injury Study
- Road Restraint Systems
- Road Safety Audits
- South African Fatal Crashes in Context

11.1.1 Traffic Injury Study (Literature Review)

The number of serious injuries recorded annually play a significant role in inter alia, determining the total annual cost of crashes as well as in determining hazardous locations where road safety initiatives need to be implemented towards reducing the number of fatalities and serious injuries due to Road Traffic Crashes (RTCs).

Various international research has shown that serious injuries reported by police services are a gross overestimate with United Kingdom (UK) research in 2015

indicating that only an estimated 20.3% of reported serious injuries defined as serious of nature by clinical definition.

Towards understanding the difference between reported and actual serious injuries due to road traffic crashes in South Africa, in line with international best practices, the Road Traffic Management Corporation (RTMC) commissioned research on and the undertaking of research on, and a Traffic Injury Study for to in the main determine:

- Injury severity caused by traffic accidents and classified as serious injury in the reported SAPS data vs. Maximum Abbreviated Injury Scale (MAIS) 3+ injury in hospital databases and determine correction factors;
- Formulation of recommendations regarding the way forward in using MAIS data; and
- Formulation of recommendations for related further research.

The literature review highlighted the International Classification of Diseases, ninth edition (ICD-9) and tenth edition (ICD-10) as a widely used method of determining injury severity around the world, especially in countries performing on road safety.

It was determined that latest version of the ICD i.e., Version 10 (ICD-10) is used with various tools used for converting ICD codes to the Abbreviated Injury Scale (AIS) coding system. The study explored the use of different conversion tools from ICD-10 codes to AIS and a Mapping Tool used to convert clinical defined injury types to AIS developed by the Chicago based Association for the Advancement of Automotive Medicine (AAAM) and which is used by the European Union, was proposed to be explored under South African conditions.

The AIS is used to determine the Maximum Abbreviated Injury Scale (MAIS) code and descriptions for which a MAIS index of 3 and larger (MAIS3+) is deemed to be clinically serious injuries.

The literature review recommended that case study be undertaken to compare SAPS reported injuries to clinically defined injury severity converted by the AAAM mapping tool to define MAIS3+ (serious injuries) vs SAPS reported serious injuries to determine the disparity between the SAPS reported and MAIS3+ in South Africa.

The recommended case study was commissioned as a second phase of the project by the RTMC and will be published end March 2022. South Africa is the first on the African continent to conduct explore the advantages of understanding the nature of actual serious injuries due to RTCs versus reported serious injuries.

The Literature Review may be downloaded from the RTMC website at the following link.

https://www.rtmc.co.za/images/rtmc/docs/research_dev_rep/Literature-Review---Traffic-Injury-Study-March-2021.pdf

11.1.2 Road Restraint Systems (Literature Review)

Road Restraint Systems (RRS) are primarily used to protect vehicle occupants from impacting road furniture or hazards, and vehicles reaching opposing road carriageways. They are also intended to protect pedestrians, and any other road users such as motorcycles.

There is a worldwide movement towards the "Safe System' approach to RRS design, which is based on the principle that life and health should not be compromised by the need to travel. No number of fatalities or serious injury should be acceptable on road transport networks. Human fallibility and vulnerability need to be considered. The goal of Safe System is to ensure that road user mistakes do not lead to a crash; or, if a crash does occur, it is sufficiently controlled to not cause death or a serious injury.

Towards understanding international best practice on RRS design and the implementation of RRS systems, the RTMC commissioned research on, and the

development of South African RRS methodology and Guideline/Manual to guide effective RRS on South African roads

The Literature Review determined the need for a South African Road Restraint Systems Guideline/Manual which, is the Phase 2 of the project and will be informed by the best practices identified by the Literature Review; the RRS Manual and Risk Assessment Procedure will be published in March 2022.

The Literature Review may be downloaded from the RTMC website at the following link.

https://www.rtmc.co.za/images/rtmc/docs/research_dev_rep/Literature-Review---Road-Restraints-Systems---March-2021.pdf

11.1.3 Road Safety Audits (Literature Review)

The current South African Road Safety Audit Manual (SARSAM) was published by the RTMC in 2012. A review of the SARSAM was identified and conducted by the RTMC in 2018 which provided recommendations towards the updating of the SARSAM-2012.

The updating of the SARSAM, in line with the review recommendations is critical to guide road safety practitioners to conduct road safety audits, road safety investigations and network level road safety assessments towards more forgiving roads in South Africa.

During the past eight years, since the publication of SARSAM 2012, extensive development within the road safety discipline has taken place in this regard. Developments include the inclusion of the 'Safe System' principles to road safety, Vision Zero and lessons learned during the first United Nations Decade of Action (UNDA) 2010-2020.

The literature review focused on international practice and local experience, towards updating the SARSAM-2012 into a practical document ready for use on the South African road and street network.

The literature review entailed a search for scientific/peer reviewed publications as well as best practice guidelines and popular articles published on the topics related to road safety audit, road safety reviews/assessments/appraisals and network (safety) screening methodologies.

Road safety audits subject matter contained in reputable Road Safety Audit (RSA) manuals, including definitions of road safety inspection or road safety audit related terminology were identified during the Literature Review and recommended to be incorporated in the updated SARSAM.

The Phase 2 of the project, which will be informed by the best practices identified by the Literature Review including a South African Road Restraint Systems Manual (SARRSM) will be published in March 2022.

The Literature Review may be downloaded from the RTMC website at the following link.

https://www.rtmc.co.za/images/rtmc/docs/research_dev_rep/Literature-Review---South-African-Road-Safety-Audit-Manual-SARSAM---March-2021.pdf

11.1.4 South African Fatal Crashes in Context

The Analysis was conducted to provide a more in-depth analysis of the type of vehicle involved in fatal crashes vs the proportion of respective vehicle population. This is needed to identify over or under representation of such type or class of vehicles. The over or under representation of vehicle type vs the respective vehicle population provides an indication of where possible intervention might be needed relating to the actual type or class of vehicles in South Africa.

More in depth analysis to include inter alia the age category and colour of vehicles involved in fatal crashes vs same for the respective vehicle population is also included in the analysis.

In addition to the above, more in depth analysis of the vehicle classifications of vehicles involved in fatal crashes over the study period which received speed infringements vs total vehicle population is also included as a third dimension in the analysis.

The aim of the study is to provide input to road safety programmes regarding the 'type of vehicle' which is involved in fatal crashes. In addition, through the analysis of speed infringements of the type of vehicle that is involved in fatal crashes, possible over- underrepresentation of vehicle type in fatal crashes and or involved speed infringements are analysed and discussed.

The output establishes over- underrepresentation on the following National Administration Traffic Information System (NaTIS) defined vehicle parameters for vehicles involved in fatal crashes vs for the total registered vehicle population in South Africa:

- vehicle CATEGORY,
- vehicle MAKE,
- vehicle MODEL,
- vehicle DESCRIPTION,
- vehicle COLOUR,
- vehicle AGE,
- vehicle OWNERSHIP, and
- combinations of the above vehicle parameters.

Over- underrepresentation of the above vehicle parameters involved in fatal crashes & the speed infringements for the same vehicle parameters vs total vehicle population were also analysed.

The count of the number of fatal crashes for each of the 7 vehicle classifications, and combinations thereof were ranked, and a comparative analysis conducted on the top 20 for:

- Number of self-propelled vehicles vs
- Number of vehicles involved in fatal crashes &
    - Administrative Adjudication of Road Traffic Offenses (AARTO) speed infringements for same vehicles

The analysis period of the study was for vehicles involved in fatal crashes between 1 October 2017 to 30 June 2021, over a period of 3.8 years, 114 months, or 1,369 days. A total of 48,330 vehicles were involved in fatal crashed over the analysis period in 37,583 fatal crashes with 66.9% of the vehicle registrations that could be traced to their respective NaTIS classification.

The report further provides baseline analysis for further research as well as recommendations for further research and analysis that would provide scientific input towards reducing death and injury because of road crashes.

The study found, inter alia:

- Overrepresentation for both heavy passenger vehicles and heavy load vehicles (equipped to draw) by 6.9% and 5.4% respectively for fatal crashes vs Total Vehicle Population (TVP) is very concerning. Considering that heavy passenger vehicles (mostly public transport type vehicles) and heavy load vehicles travel more million vehicle kilometres vs other classes and would thus be exposed to more on-road conflict situations and/or to driver fatigue, one could expect more fatal crashes for this type of classes.

The rationale for the over/under representation needs to be further analysed per province/metro to provide better intelligence. More concentrated traffic law enforcement, or speed over distance enforcement could address overrepresentation in Speed Infringements (SIs) indicated.

- Toyota Quantum vehicles are overrepresented by 9.0% on SIs and by 2.9% for fatal crashes vs TVP, which is reason for serious concern. The number of Volkswagen Polo vehicles involved in fatal crashes are within 1.0% of the TVP but are overrepresented by 4.5% for SIs vs TVP. Other over- or underrepresentation of note are 3.2% and 1.9% overrepresentation for both BMW 3 Series and Mercedes-Benz W2 Series vehicles respectively for SIs.

- Contrary to common belief, the results of international research do not apply to SA statistics as the number of white vehicles involved in fatal crashes are in fact overrepresented by 7% vs TVP. However, consideration should be given that most mini/minibus taxis, Light Delivery Vehicle (LDV) type and fleet vehicles are mostly white which could skew the results as these vehicles travel more million vehicle kilometres at higher risk than the norm.

- Vehicles up to two years old are underrepresented by 5.2% in fatal crashes vs TVP which, is most probably due to better vehicle safety features on newer model vehicles. However, concerning is the overrepresentation of vehicles aged between 2 and 10 years which are overrepresented by 7.8% in fatal crashes vs TVP. Of note is that vehicles aged between 10 to 30 years old are underrepresented by 20.2% in SIs vs TVP however, vehicles ages 2 to 10 years old are overrepresented by 27.4% vs TVP.

- Vehicles registered to females are underrepresented by 7.8% in fatal crashes vs TVP but overrepresented by 1.8% in SIs vs TVP whereas vehicles registered to their male counterparts were inversely

overrepresented in fatal crashes vs TVP by 2.2% and underrepresented by 4.7% in SIs vs TVP. The interpretation of the latter should be done cautiously as in SA, many vehicles registered by male persons who are the breadwinners but are 'owned' driven by family members which include females.

- Vehicles registered to private individuals are underrepresented in both SIs vs TVP and in fatal crashes by 4.7% and 3.3% respectively. On the other hand, vehicles registered to business entities are overrepresented in both SIs vs TVP and in fatal crashes by 5.0% and 1.5% respectively.

- White Toyota Quantum vehicles are involved in most fatal crashes when ranked by the grouping of vehicle make, model and colour with 5.4% of all fatal crashes followed by White Toyota Hilux vehicles with 3.1% involved in fatal crashes.

In addition to the analysis output, further analysis / research is proposed on various elements relating to vehicles involved in fatal crashes. The Study Report may be downloaded from the RTMC website at the following link.

https://www.rtmc.co.za/images/rtmc/docs/research_dev_rep/South-African-Fatal-Crashes-in-Context---Dec2021---Fin.pdf

11.2 ROAD SAFETY ENGINEERING

In line with the Safe System approach, providing safe road infrastructure is essential to, in an event of a crash, provide forgiving roads to reduce serious injury and fatalities. The RTMC, through the National Road Traffic Engineering Technical Committee (NRTETC) which, resorts under the National Road Safety Steering Committee (NRSSC) coordinate road traffic and safety engineering in South Africa.

Various subcommittees and working groups resort under the NRTETC which, meets on a quarterly basis and reports to the NRSSC. The NRTETC membership include road traffic engineering officials from the Department of Transport (DoT), the South African National Road Agency, the South African Local Government Association (SALGA), the 9 provincial road authorities and the 8 Metropolitan Municipalities.

The structuring of the NRTETC (Chairmanship of the RTMC) include the following Fora:

Subcommittees (Chairmanship):

- Road Safety Engineering and Road Signs Subcommittee (DoT)
- Loads Subcommittee (Abnormal Loads Chaired by DoT and Overloading which resorts under the Law Enforcement Technical Committee Chaired by the RTMS)

Working Groups (Chairmanship):

- Road Safety Audits Subcommittee (RTMC)
- Tourism Signage Working Group (DoT)
- Speed Limits Working Group (RTMC)
- Outdoor Advertising Working Group (RTMC)
- Traffic Calming Working Group (RTMC)
- Innovative Road Safety Engineering Solutions Working Group (RTMC)

In addition to coordinating road traffic and safety engineering amongst the three spheres of government, the NRTETC and its Fora identify the need for engineering related research and updating of road safety related standards and guidelines.

To this effect the NRTETC identified the need for research on the two RTMC projects i.e., South African Road Restraints Systems Manual and updating of the

South African Road Safety Audit Manual projects which is discussed in Section 11.1 above.

12 POST-CRASH

Table 11: Registered emergency vehicles

NaTIS EMS Vehicles (31 October 2021)

Province	Ambulance	Breakdown	Fire engine	Hearse / Ambulance	Rescue vehicle	Grand Total
GP	2 639	4 248	581	1	901	8 369
ZN	1 427	2 270	980	0	103	4 781
WP	682	932	509	1	249	2 374
EC	1 073	690	202	0	235	2 200
MP	485	868	603	0	128	2 085
L	464	624	166	1	74	1 329
NW	513	467	134	0	76	1 190
FS	541	370	108	1	65	1 086
NC	227	156	63	0	30	476
Grand Total	8 051	10 624	3 347	6	1 862	23 890
	93,2	70,6	224,1	125000,0	402,8	31,4
	645,6	851,9	268,4	0,5	149,3	1915,7
Km Roads in SA:		750 000 km		EMS-vehicles per 1 000 km :		31,85
2021 Mid-Year Population:		60,14 million		EMS-vehicles per 100 000 inhabitants :		39,72

There are almost 24 000 vehicles registered as emergency vehicles throughout the country with more than 8 000 of the emergency vehicles registered as Ambulances.

Reviewed and Supported by:

…… **……**

Mr Thabiso Ndebele **Date**

Executive Manager: RSM & S

Reviewed and Supported by:

…… **……**

Mr Stephen Podile **Date**

Executive Manager: LE

Reviewed and Supported by:

…… **……**

Mr Kevin Kara-Vala **Date**

Executive Manager: RTI & T

Recommended by:

……	**……**
Adv. Makhosini Msibi	**Date**
CEO	

Approved by:

……	**……**
Mr Zola Majavu CD (SA)	**Date**
Chairman of the Board	

Road Traffic Management Corporation
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Highveld Ext 79
Tell: 012 999 5200

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