



Road Traffic
Management Corporation



State of Road Safety in South Africa

‘January to December 2020’



transport

Department:
Transport
REPUBLIC OF SOUTH AFRICA

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List of Acronyms and Abbreviations

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

The review of the State of Road Safety in South Africa over the last 12 months is split into two, from January to March and from April to December. This is due to the National wide COVID-19 lockdown that took effect from 27 March 2020. This is because almost all economic activities were halted to reduce the impact of the pandemic and as such, the road traffic environment saw significantly reduced volumes on South African roads.

Furthermore, additional regulations which positively affected safety on South African roads, notably, the ban of consumable alcohol and night-time driving. As such, quarter on quarter road crash fatalities reduced by 61%. This was further demonstrated by an 80% reduction in Easter fatalities in April due to limited movements and no social gatherings; however, key patterns indicated the abuse of the emptier space on the road which is linked to road user behaviour.

The country continues to battle with drink driving and the lockdown months provided a limited impact review of alcohol not only on South African roads but as well as the medical fraternity. The bill to propose zero alcohol limits is currently in Parliament, with comments from the public being accepted.

Majority of the Road Safety programmes were halted in a number of provinces between April and December 2020 – due to restrictions in travel and interpersonal engagement. This extended to non-achievement of provincial KPIs linked to the transportation of school-going children and additional restrictions when the Department of Education implemented a risk-adjusted strategy for Grades 7 and 12.

Whilst the Corporation, DOT SOEs and provincial Road Safety Education units adopted the use of technology to drive road safety messages; however, the key focus during the quarter was on COVID-19. Furthermore, it is acknowledged that

this mode of engagement is limited in a country which is a hybrid of the First and Third world.

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 and amongst these, are the rise of informal settlements next to major freeways, poor town planning which does not prioritise non-motorised transport and limited action towards safer vehicles in South Africa. The 2019 AA Vehicle Safety Report provides an indication of poor consumer knowledge on vehicle safety matters and a proactive interest 'sporty' aspect of a vehicle during purchase and not safety.

Pedestrians remain the most vulnerable road user on South African roads, accounting for more than 35% of the fatalities. Whilst this figure is much higher for Gauteng, KwaZulu Natal and Western Cape – key efforts are required to (1) educate the road user more intensively and (2) provide protection to these road users through engineering infrastructure. This remains a challenge in a country or province which still has to prioritise the elimination of gravel road in key parts of the country. This does also provide an opportunity to build safer roads.

2 INTRODUCTION

This report aims to provide an overview of the state of road safety in South Africa between January and December 2020. 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 nor has the rate of reduction indicated that the 2016 - 2030 National Road Safety Strategy (NRSS) targets will be met.

2.1 NRSS TARGET

The NRSS 2016-2030 sets the target of reducing fatalities in the country by 50 % from 13,967 fatalities that was recorded in 2010 by 2030. The graph below depicts an initial smaller annual target from 2017 to 2021 where after a larger linear annual decrease is set until 2030 to allow for the implementation of initial NRSS interventions. The actual recorded fatalities for 2018, 2019 and 2020 are below the targets set respectively. Once traction is gathered with the implementation of the initial NRSS interventions, the targets will be aligned to the actual recorded fatalities and new target set for the remaining years; it is envisaged that this will be done with the commencement of the 2021/22 financial year.

So stated in the NRSS 2016-2030, a reduction in serious injuries of equal amount would also be considered a strategic target, however current data limitations make measuring this progress difficult. Improving and addressing information shortcomings such as collecting data on road crash injuries has therefore also been identified as a strategic theme of this strategy.

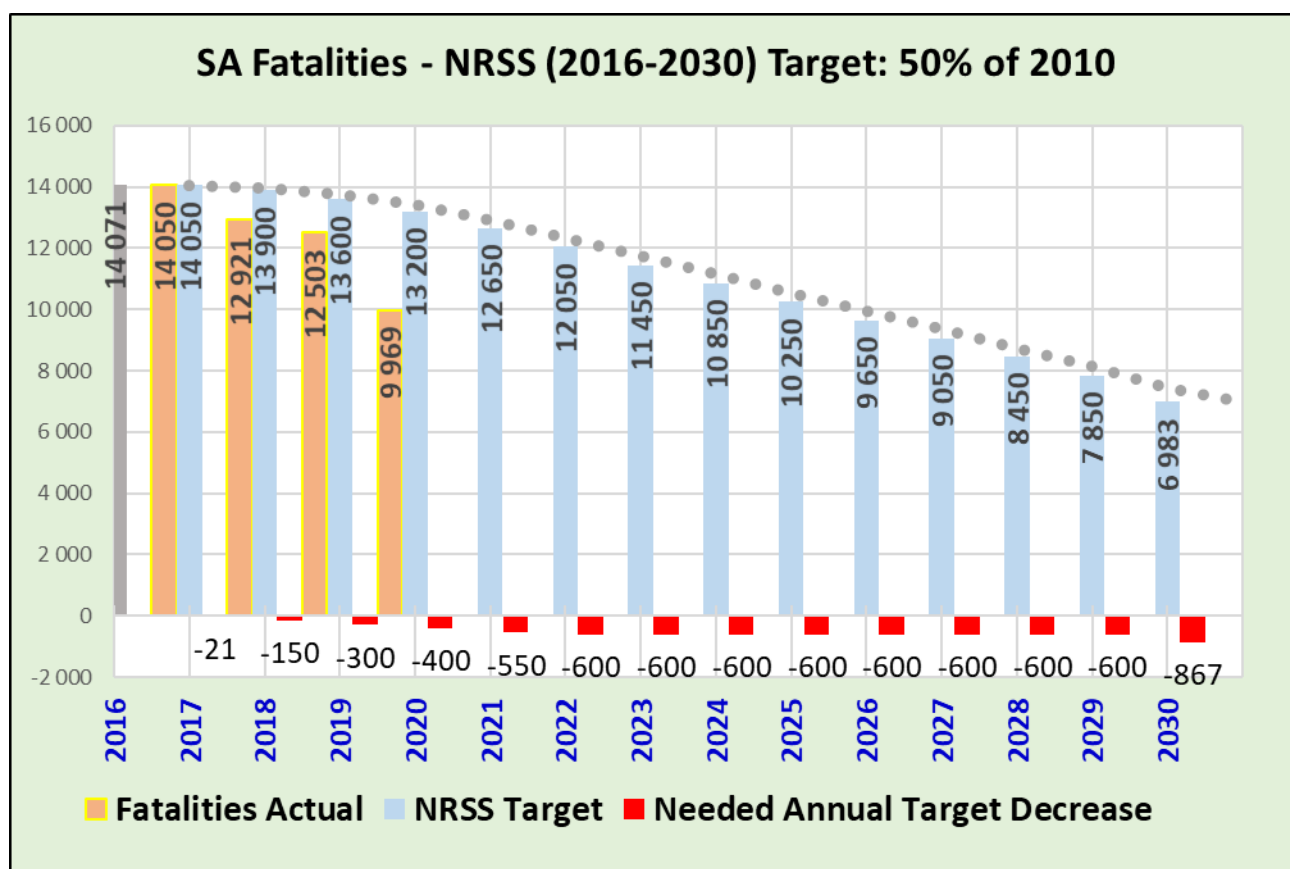


Figure 1: Progression towards NRSS Target

There are key focus areas that 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.

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.

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 still a need for in-depth research to be conducted to collect scientific base facts to complement the administrative data.

2.3 ROAD TRAFFIC LAW ENFORCEMENT METHODOLOGIES AND DATA LIMITATION

The Road Traffic Law Enforcement Unit is primarily responsible for the harmonization and alignment of road traffic enforcement operations within the three spheres of government. The data is collected through reporting templates received from Provinces and consolidated to write a report.

2.3.1 Road Traffic Law Enforcement Data Flow

Provinces submit reports to the RTMC on monthly basis through the NREP/EMISA forms. These forms are submitted to the Corporation by email.

2.3.2 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.

2.3.3 Limitations

The information contained in the report is based mainly on the road traffic law enforcement performance from Provinces and Municipalities with disintegrated systems, which results in delays when reports are submitted. The delays are in most cases resulted by regions submitting reports late to Provincial Office for consolidation. There is a need to develop an integrated system which will be used by all data capturers from all authorities and Supervisors to authorise reports before the RTMC can extract information.

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, Road Traffic 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 Africa Police Service, provincial and local government, non-governmental agencies and the private sector – each pursuing its 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 113th 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 59,62 million in 2020. The population of Gauteng is approximately 15,5 million (26,0%), the province with the highest portion of the country'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 at only 1,29 million. Stats SA further estimates that the female population is an estimated 30,5 million females (51,1%) of the total population.

In addition, about 28,6% of the population is aged younger than 15 years and approximately 9,1% (5,4 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 9,1% in 2020 (Stats SA, Mid-Year 2020 Report).



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.

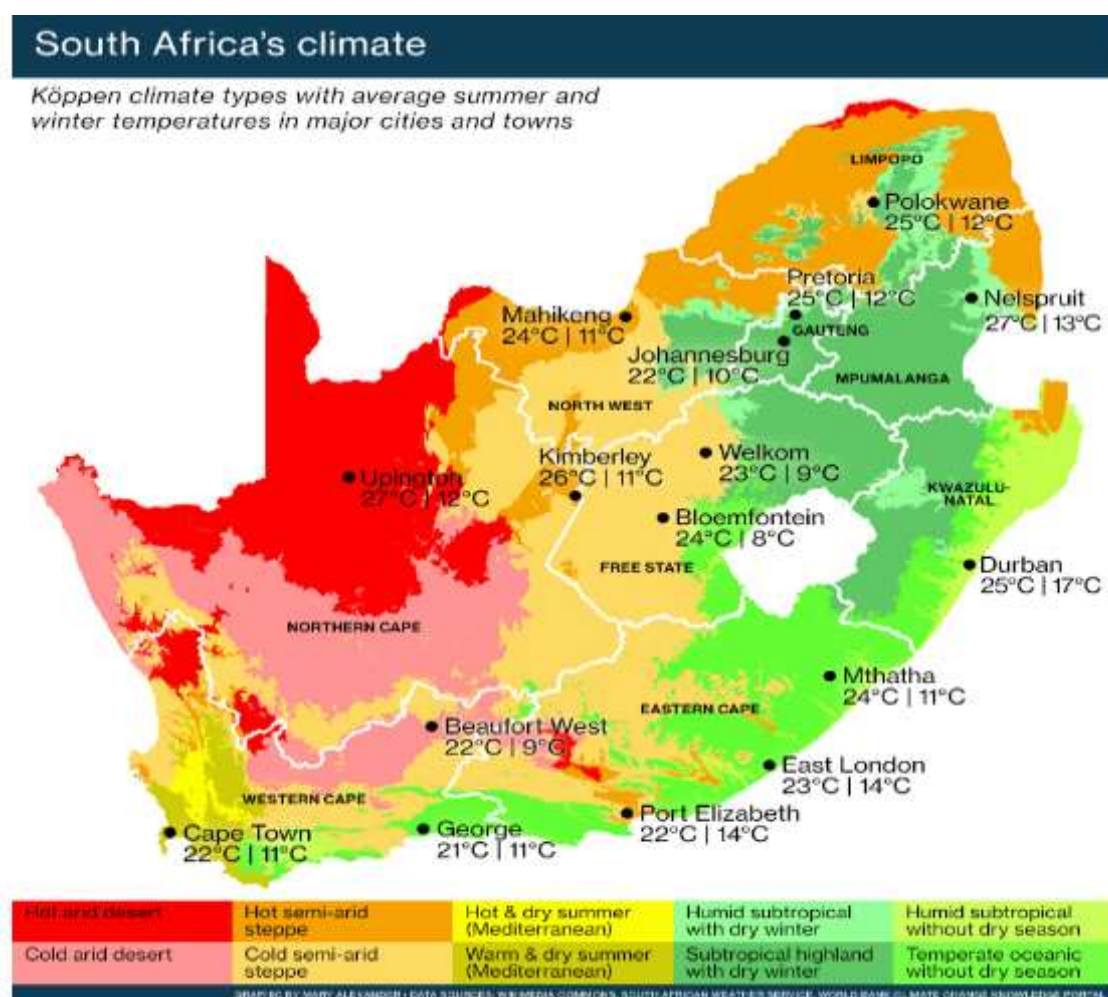


Figure 3: South African climate

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

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).

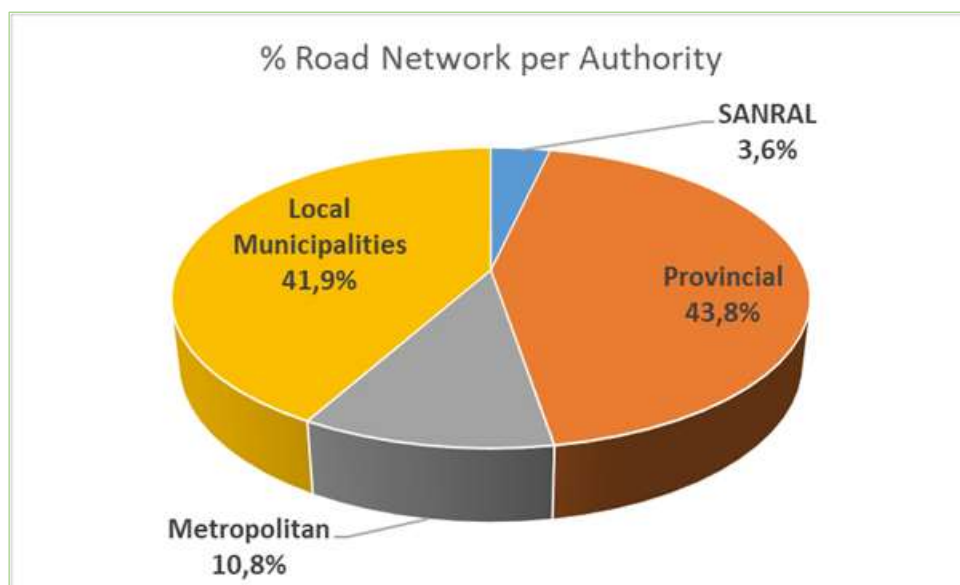


Figure 4: Percentage vehicles per road authority

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 amongst the top ten (10) countries with the highest vehicles per capita in Africa. Similarly, remains to be in the top ten (10) with regards to the population based on 2020 population figures per country.

Table 2: Number of registered vehicles per type

Vehicle Type	Number Registered 31 Dec 2019	Number Registered 31 Dec 2020	Change	% Change	% of Group Dec 2020	% of Total Dec 2020
Self-Propelled Vehicles						
Motor cars and station wagons	7 498 988	7 498 955	-33	0,0%	65,4%	59,1%
Minibuses	342 735	341 853	-882	-0,3%	3,0%	2,7%
Buses, bus trains, minibuses	65 230	64 889	-341	-0,5%	0,6%	0,5%
Motorcycles, quadracycles, tricycles	343 397	339 053	-4 344	-1,3%	3,0%	2,7%
LDV's, panel vans, other light load veh's GVM <= 3500kg	2 609 767	2 616 359	6 592	0,3%	22,8%	20,6%
Trucks (Heavy load vehicles GVM > 3500kg) Other self-propelled vehicles	380 710	377 788	-2 922	-0,8%	3,3%	3,0%
Other self-propelled vehicles	234 891	233 613	-1 278	-0,5%	2,0%	1,8%
Total self-propelled vehicles	11 475 718	11 472 510	-3 208	0,03%	100,0%	90,3%
Towed Vehicles						
Caravans	99 590	97 913	-1 677	-1,7%	8,2%	0,8%
Light load trailers GVM <= 3500kg	889 185	888 507	-678	-0,1%	74,3%	7,0%
Heavy load trailers GVM > 3500kg	206 917	209 400	2 483	1,2%	17,5%	1,6%
Total Towed	1 195 692	1 195 820	128	0,01%	100,0%	9,4%
All other and unknown vehicles	30 220	30 166	-54	-0,2%	100,0%	0,2%
Total number	12 701 630	12 698 496	-3 134	0,02%		100,0%

The 2020 end year vehicle population decreased slightly with 0.002% from 12.701 million in 2019 to 12.698 million in 2020, depicted in the table above. The only increase within self-propelled vehicles was for LDV's, panel vans, other light load vehicles GVM <= 3500kg (+0.3% or +6 592) with Heavy load trailers GVM > 3500kg showing the only other increase during end 2020 (1.2% or +2 485).

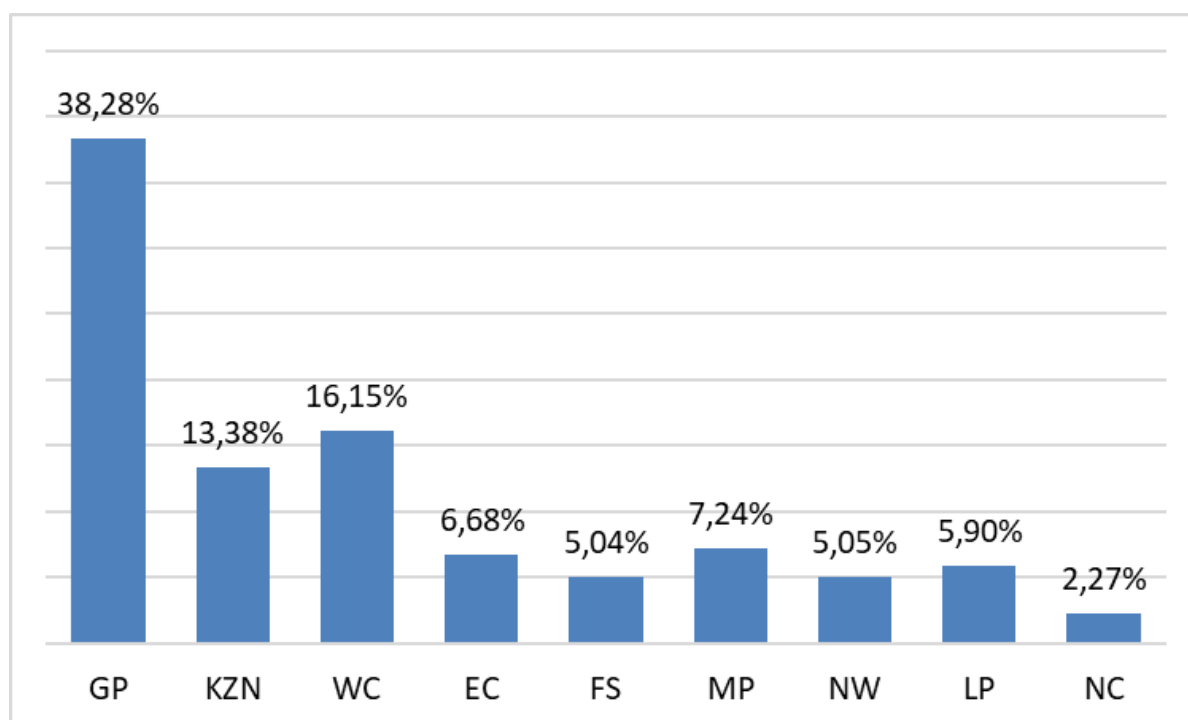


Figure 5: Percentage vehicles registered per province on 31 December 2020.

Of the nine provinces in South Africa, the most vehicles registered end 2020 were the Gauteng province (38.28%) as depicted in the figure above. In Western Cape and Kwa-Zulu a combined total of 29.53% were registered and the least vehicles were registered in the Northern Cape province.

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:



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 road traffic 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

A total of 56 316 Speed Operations were conducted from the period of January to December by the Provincial Road Traffic Law Enforcement Agencies.

For the first quarter 20 0270, second quarter 5 708, third quarter 17 559 and fourth quarter 12 779 speed operations were conducted.

5.2 ALCOHOL OPERATIONS CONDUCTED

A total of 8 780 alcohol operations were conducted from January until December 2020.

Quarter one 4 128, quarter two 360, quarter three 1 305 and quarter four 2 997 alcohol operations were conducted.

5.3 AWARENESS INTERVENTIONS

A total of 4 835 awareness interventions (vs. 5 328 in 2019) were carried out from January until December 2020. Between April and June 2020, there was a significant decline in Road Safety Interventions due to COVID-19 restrictions.

For the period starting in January to March 1 085 interventions were carried and 3 750 interventions were carried out conducted in the period April to December.

5.4 SCHOOLS INVOLVED IN ROAD SAFETY PROGRAMS

A total of 2 509 schools were involved in Road Safety School Programs (vs.8 658 the previous year) from January until December 2020. There was no school-

based road safety activity between April and June 2020 due to COVID-19 regulations and restrictions on extra curricula activities.

5.5 ROAD TRAFFIC LAW ENFORCEMENT DRIVER & VEHICULAR ACTIVITIES

South Africa is facing a challenge of road users who are not complying with the traffic laws. This non-compliance is the reason more and more crashes are occurring on daily basis. In order to reduce crashes on our roads, visibility and traffic monitoring become key to ensure compliance with traffic rules, leading to Road Traffic Law Enforcement Agencies conducting operations in order to:

- ensure total compliance of all road users with all road traffic regulations;
- create a safe road traffic environment for all road users;
- stabilise hazardous location throughout the country;
- ensure intelligence driven deployment;
- promote zonal policing in villages and towns.

A total of 17 663 roadblocks were conducted countrywide between January and December 2020. During these roadblocks, 10 060 438 vehicles were stopped and checked.

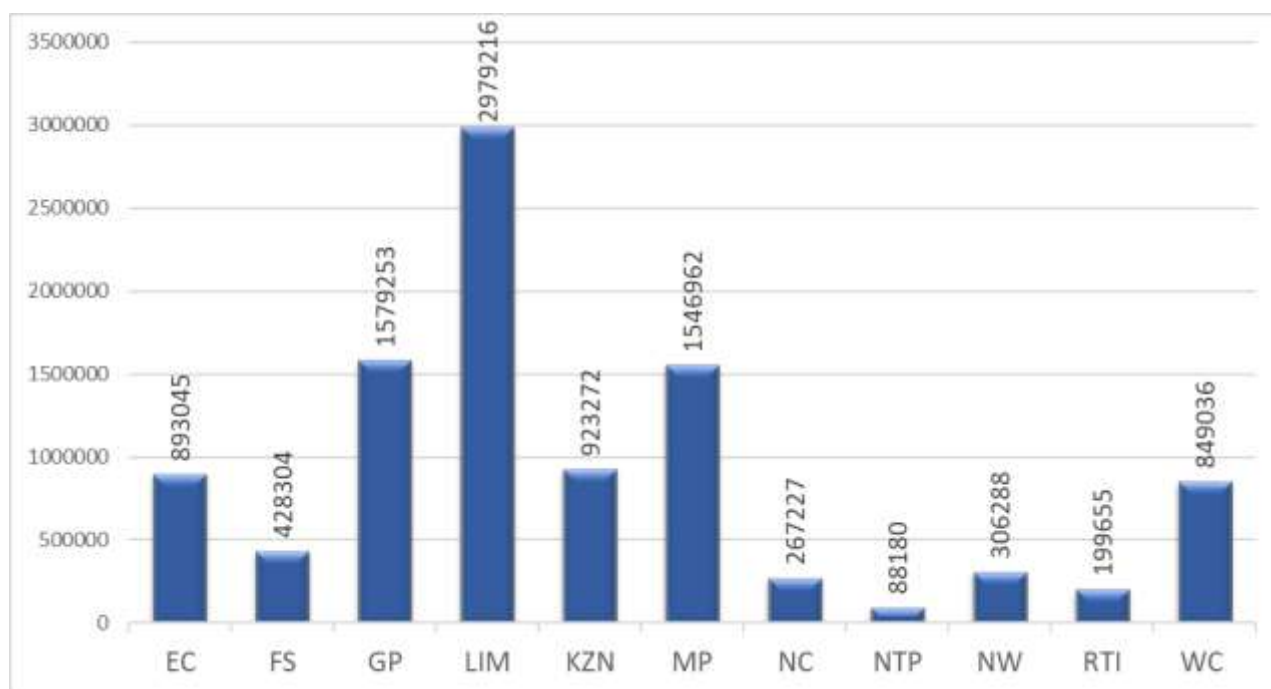


Figure 7: Number of vehicles stopped and checked per province

From the total vehicles which were stopped, 1 570 395 road users were issued with notices for committing various offences. Of the total notices issued, the following were most notorious ones:

- driving on excessive speed: 321 148
- driving without having driver's license: 155 128
- driving without fastening seat belt: 130 653
- driving vehicles with worn out tyres: 67 893
- violating traffic signs: 16 1423

Adding to notices issued, vehicles which were found to be un-roadworthy and those carrying excessive load were taken off the road as they might cause crashes on the road. A total of 23 087 vehicles were discontinued while 17 978 vehicles were impounded during the period under review.

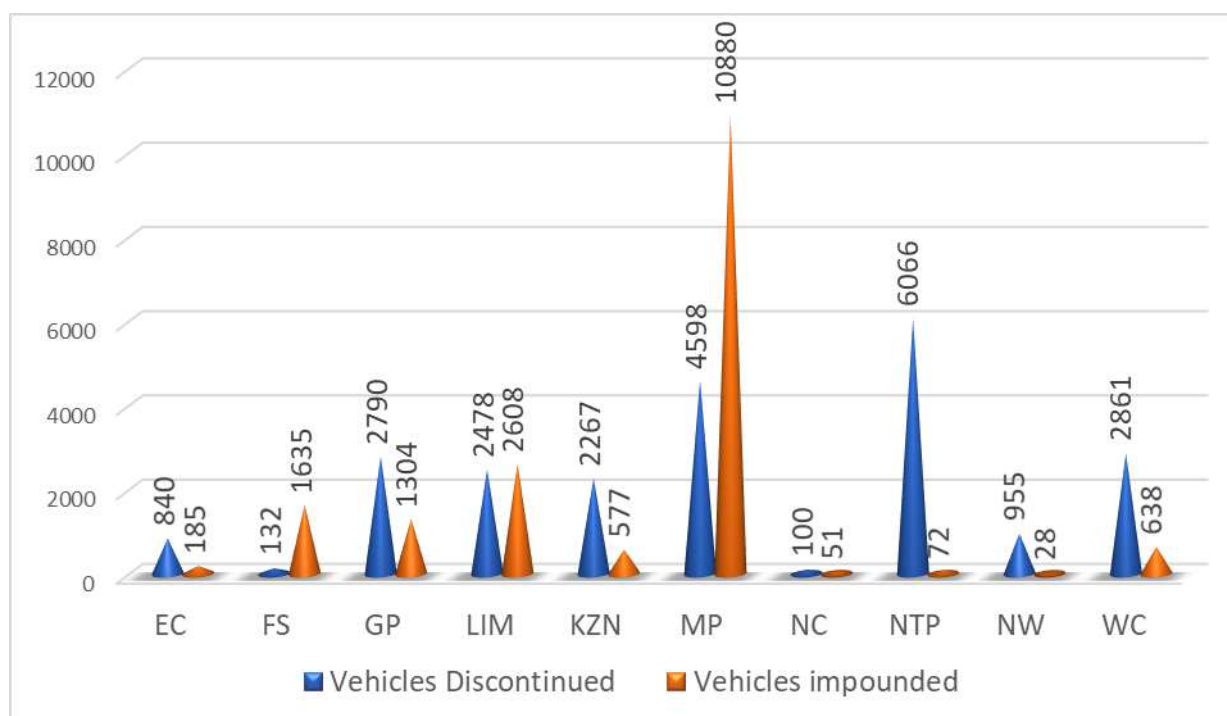


Figure 8: Number of vehicles discontinued and impounded per province

Speed and driving being under the influence of alcohol can result into road crashes where people can sometimes lose lives and some sustain injuries which might lead to permanent disability. Various operations were conducted aiming at reducing the lawlessness on the road thereby ensuring arrests are effected for road users who were transgressing the traffic laws. The said operations resulted into 35 343 road users being arrested for offences highlighted on table below.

Table 3: Number of arrests reported per province

Arrests	EC	FS	GP	LIM	KZN	MP	NC	NTP	NW	WC	Total
Drink Driving	92	66	4453	2344	343	44	3	998	110	956	9409
No Driving Licence	51	6	84	4	14	12	0	16	1	6	194
Speed	23	1287	619	176	38	81	15	405	0	164	2808
Overload Goods	0	0	519	10	7	27	0	13	4	55	635
Overload Passengers	0	0	7	0	13	1048	1	0	0	17	1086

Arrests	EC	FS	GP	LIM	KZN	MP	NC	NTP	NW	WC	Total
Inco, Rec. & Neg.	5	25	202	20	47	31	0	27	0	138	495
Permits / Operating Permits	0	233	62	46	692	2483	14	94	0	1	3625
Warrants Executed	432	0	274	8178	96	565	236	7	611	2	10401
False Documentation	12	3	41	2	96	9	0	68	4	217	452
Other Arrests	330	640	2056	410	650	155	0	1511	9	477	6238
Total	945	2260	8317	11190	1996	4455	269	3139	739	2033	35343

6 ROAD SAFETY RESEARCH

The RTMC, in collaboration with the SAMRC-UNISA Violence, Injury and Peace Research Unit (VIPRU) has investigated the role of driver alcohol intoxication as a risk factor for fatal road traffic crashes in the country for the period 2016-2018. The research is based on the analysis of data collected by the RTMC and included records of 13 074 fatal crashes with known driver risk factors and was published by the RTMC in March 2020.

Extrapolating from RTMC data and other research nationally, driver alcohol intoxication accounted for 27.1% of fatal crashes in the country where driver error is the primary attribution; with an associated estimated cost of R 18.2 billion. This is considerably higher than current estimates.

Given evidence globally to indicate that driver error may be involved in over 90% of all fatal crashes, it is possible that driver alcohol intoxication is implicated in at least one in four of all fatal crashes in the country, regardless of cause.

Reference:

http://www.rtmc.co.za/images/rtmc/docs/research_dev_rep/Driver%20intoxication%20and%20fatal%20crashes%20Report%20-%20March_2020.pdf

Other research published in March 2020, in line with the Safe System Approach towards providing more forgiving roads in the country are a literature review on speed and speed limits in SA, as Phase A of the improved driver behaviour project and research on the effect of outdoor advertising on road safety and a draft safety engineering manual for outdoor advertising in South Africa.

References:

http://www.rtmc.co.za/images/rtmc/docs/research_dev_rep/Literature%20Review%20-%20Speed%20and%20Speed%20Limits%20in%20SA%20Report%20-%20March_2020.pdf

http://www.rtmc.co.za/images/rtmc/docs/research_dev_rep/Outdoor%20Advertising%20Literature%20Review%20and%20Engineering%20Manual%20Report%20-%20March_2020.pdf

The following research related projects commenced in 2020:

- Traffic Injury Study
- Road Safety Performance Monitoring (Literature Review and Methodology)
- Research on and Road Restraint Systems (RRS) Methodology/Guideline
- Updating of the South African Road Safety Audit Manual (SARSAM)

Literature reviews for all four projects will be finalised in March 2021 with the projects concluded in March 2022 except for the Road Safety Performance Monitoring project where both the Literature Review and Methodology will be concluded in March 2021).

All research related projects are in line with the intervention implementation of the NRSS and the RRS SARSAM projects directly related to providing more forgiving roads in line with the 'Safe System' approach.

7 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.

7.1 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	NRSS Project Plan - 28 June 2020
1A(i)	Establish a National Road Safety Oversight Council for governance and oversight of the strategy
1A(ii)	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)	Establish an annual conference on Road Safety to enhance evidence-based solutions
1A(iv)	Support and influence the development of guidance for liquor licencing to include road safety considerations
1A(v)	Monitor and improve compliance by road authorities to strategy targets
1A(vi)	Continuous improvement of co-ordination between private and public health services to improve post-crash response rates across all areas

- Three of these interventions namely 1A(ii) – 1A(iv) are being implemented
- Objective 1A(i) is currently being undertaken by the RTMC in a bid to advance the initiatives of the NRSS programme
- The cost for intervention 1A(iv) is estimated at R605 200, with the other three interventions are still being determined,
- The two interventions are not implemented but undergoing approval phases for completion in July 2022. 1A(i) and 1A(v)

- **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 - 28 June 2020
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 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.
- Interventions 1B(i), 1B(iii) and 1B(iv) – 1B(iv) are scheduled to be completed for implementation by January 2022.

• **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) and 1C(iii) are being implemented by various entities however; implementation of online services remains the main avenue to reduce corruption in the fraternity.
- The cost of the above interventions is still to be determined – noting that various agencies have fraud and anti-corruption strategies.
- Intervention 1C(ii) is on-going with the first group of RTMC's Road Safety officers expected to graduate in the 2021/22 FY.

• **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 - <i>State of Road Safety Report(s)</i>
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
- The cost of the four interventions have not yet been determined.
- Intervention 1D(iii) is scheduled to be completed for implementation by November 2021.

• **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 - 28 June 2020
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) and 1E(iii) are being developed for implementation

- Intervention 1E(ii) is scheduled to be completed for implementation in October 2021.
- The initial and provisional costs for intervention 1E(ii) is estimated at R 409 250 and for intervention 1E(iii) is R 8 000 000
- The remainder of the costs are still to be determined.

- **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 - 28 June 2020
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 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,
- Interventions 1E(v) and 1E(vii) are scheduled to be completed for implementation in April 2021,
- The provisional costs for 1E (iv) is estimated at R 884 400 and the remainder of the costs are still to be determined

7.2 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**

NRSS ID	NRSS Project Plan - 28 June 2020
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

- There are three interventions under this strategic intent namely 2A(i) – 2A(iii), and all are being partially implemented.

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

NRSS ID	NRSS Project Plan - 28 June 2020
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 road traffic 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) and all three are being implemented.

NRSS ID	NRSS Project Plan - 28 June 2020
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

- The provisional costs for 2C(i) is R 2 000 000, and 2C(iii) is R 21 000 000.

7.3 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

NRSS ID	NRSS Project Plan - 28 June 2020
3A(i)	Immediately increase traffic (law) enforcement around vehicle roadworthiness
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

- There are four interventions namely 3A(i) – 3A(iv),
- Interventions 3A(i), 3A(ii) and 3A(iv) are being implemented as part of operations;
- The provisional cost for the interventions 3A(ii) is estimated at R 12 205 200 and the remainder of the costs are still to be determined.

• 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 - 28 June 2020
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 scheduled to be completed by April and July 2021.
- The estimated cost for the intervention 3B(iv) is R500 000 000.

7.4 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 - 28 June 2020
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.
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, RAF, CBRTA and RTIA under various Road Safety Programmes;
- The cost of the five interventions have not been finalized, considering that these programmes should be merged under one umbrella.
- The four interventions namely 4A(vi) - 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 - 28 June 2020
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.
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 restraints
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 technology (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. intoxication, negligence etc.)
4C(x)	Implement medical disqualification - and rehabilitation - (physically unfit drivers)

- Four of these interventions are being partially implemented, with the other half not yet determined,
- Thirteen objectives are scheduled to completed between November 2020 and September 2021,
- The provisional costs for the interventions 4C(i) is R1 543 650, 4C(iii) is R 1000 000, 4C(v) is R3 100 000.

• **Increase Protection for Vulnerable Road Users**

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

NRSS ID	NRSS Project Plan - 28 June 2020
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(iii) is being implemented
- The two interventions scheduled to be implemented by December 2021

7.5 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 - 28 June 2020
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

- Interventions 5A(i), 5A(ii), 5A(v), 5A(vii), and are being implemented.
- The remaining four interventions are scheduled to be completed between February 2021 and June 2024.
- The cost for intervention 5A(iv) is estimated at R3 300 000, whereas the remainder are still to be determined.

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

NRSS ID	NRSS Project Plan - 28 June 2020
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 with the other two are scheduled to be completed between October 2021 and November 2022.
- The costs are still to be determined.

7.6 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 4: 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.

7.7 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.

8 EFFECT OF COVID-19 ON ROAD SAFETY

An analysis to evaluate the effect of the Covid-19 lockdown and the consequent lockdown periods Levels show a correlation between the number of fatal crashes in 2020 vs 2019 during the different levels of lockdown. Crash data illustrated on the figure below depicts the number of fatal crashes on the same dates in 2020 vs 2019:

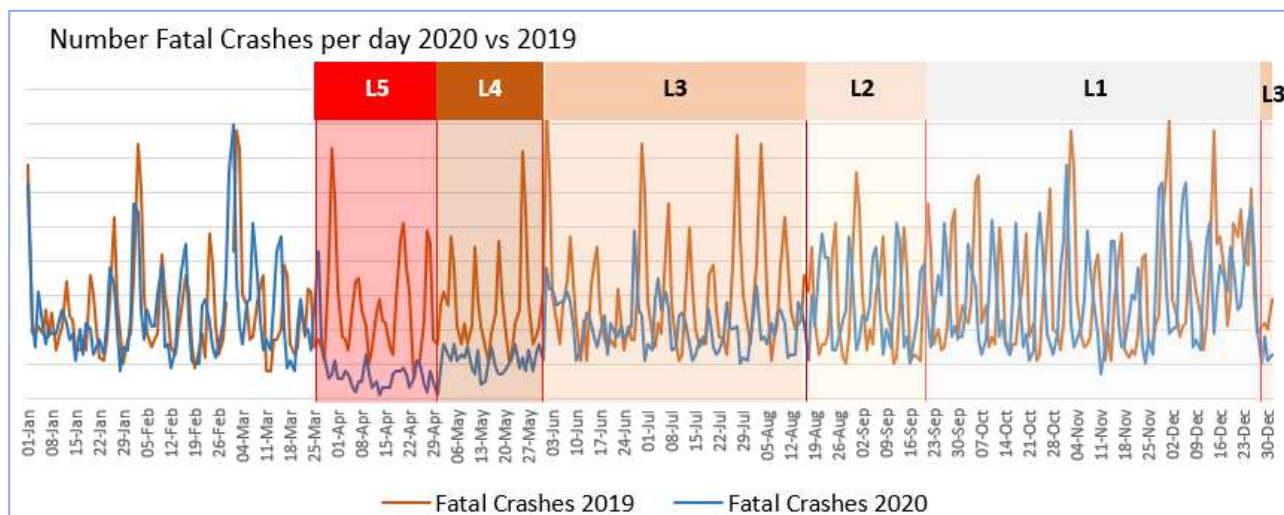


Figure 9: Effect of Covid-19 on fatal crashes during periods of lockdown

It is clear from the above graph, that the number of fatal crashes for the two periods followed very much the same trend from 1 Jan with a drastic drop in vehicle flow on 25 March 2020 when the Level-5 lockdown commenced. It could be argued that less vehicles on the road contributed to less fatal crashes due to less points of conflict due to amongst others less poor driving behaviour and less pedestrian activity when the lockdown commenced.

It is unfortunate to note that with the gradual relaxation of the lockdown levels from Level-5 to level-1, that the number of fatal crashes followed the same upward trend with the increase of road user activity. Very much the same daily numbers of fatal crashes were recorded between 2020 and 2019 towards the end of Level-1.

Relating the number of fatal crashes per month in 2019 to 2020 vs vehicle flow was done on a rural perspective by calculating the monthly % change from 2019 to 2020 for both parameters and comparing such.

The figure below depicts the monthly % change between 2020 and 2019 in vehicle flow on South Africa's national road network vs the same for the number of fatal crashes:

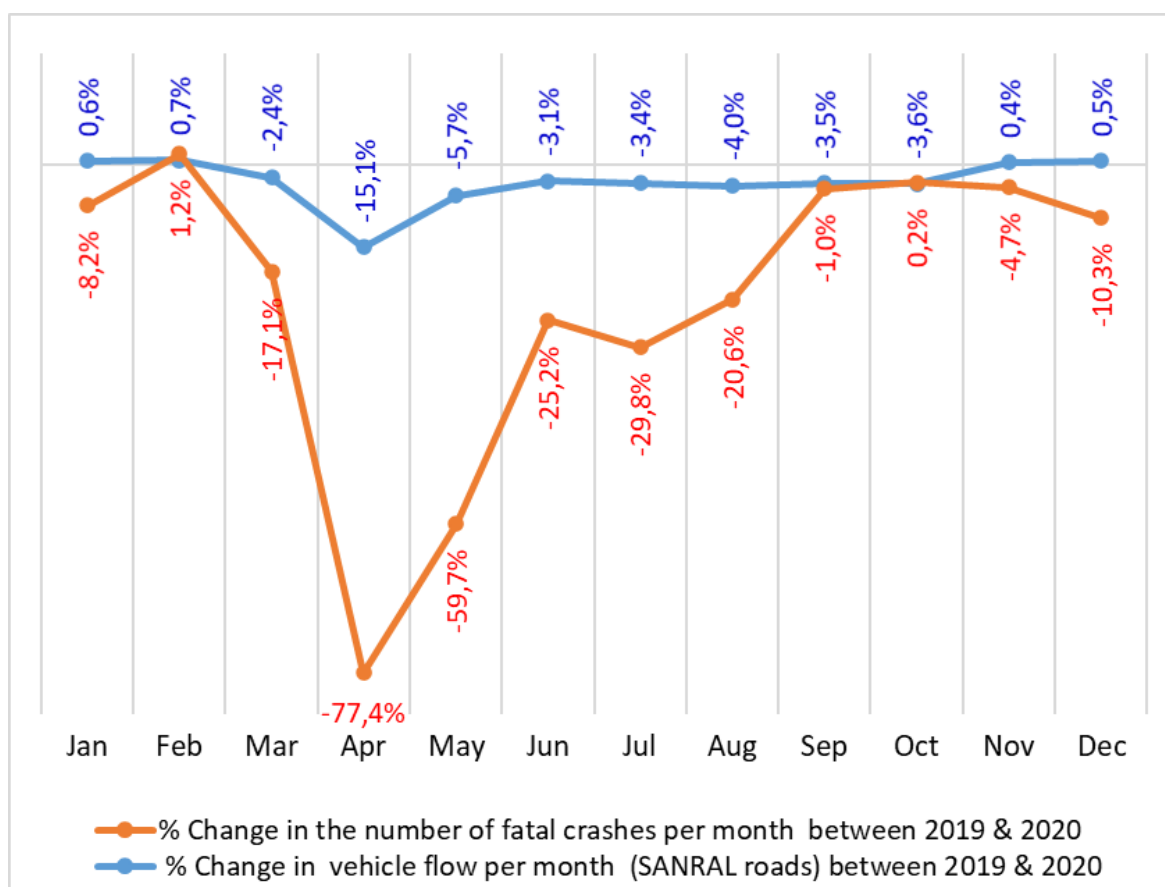


Figure 10: Monthly % change between 2020 and 2019 in vehicle flow on the national road network vs the same for the number of fatal crashes during the same period.

Even though the overall monthly % change for fatal crashes is much higher (peak & change: April = -77.4%) than for vehicle flow (peak & change: April = -15.1%) on the national road network, a similar trend is evident for both parameters in that there is a drastic relative decline in both with gradual normalisation towards small monthly change for both.

9 ROAD SAFETY OUTCOMES

During the 2020 calendar year, 8 405 fatal crashes were reported, a reduction in fatal crashes of 19.0% from 2019 when 10 381 fatal crashes were recorded. The large reduction in fatal crashes is directly related to the Covid-19 restriction of vehicle and people movement from 24 March 2020 to 31 December 2020.

Table 5: Fatal crashes per province

Year	EC	FS	GP	KZN	LP	MP	NC	NW	WC	RSA
2019	1 320	642	2 180	2 012	1 132	1 064	316	702	1 013	10 381
2020	1 075	500	1 649	1 768	924	853	232	609	795	8 405
Change	-245	-142	-531	-244	-208	-211	-84	-93	-218	-1 976
% Change	-18,6%	-22,1%	-24,4%	-12,1%	-18,4%	-19,8%	-26,6%	-13,2%	-21,5%	-19,0%

The largest percentage decrease in fatal crashes of more than 20% were recorded in the Northern Cape, Gauteng, Free State and Western Cape provinces with the lowest reduction in the KwaZulu-Natal province with a 12% reduction.

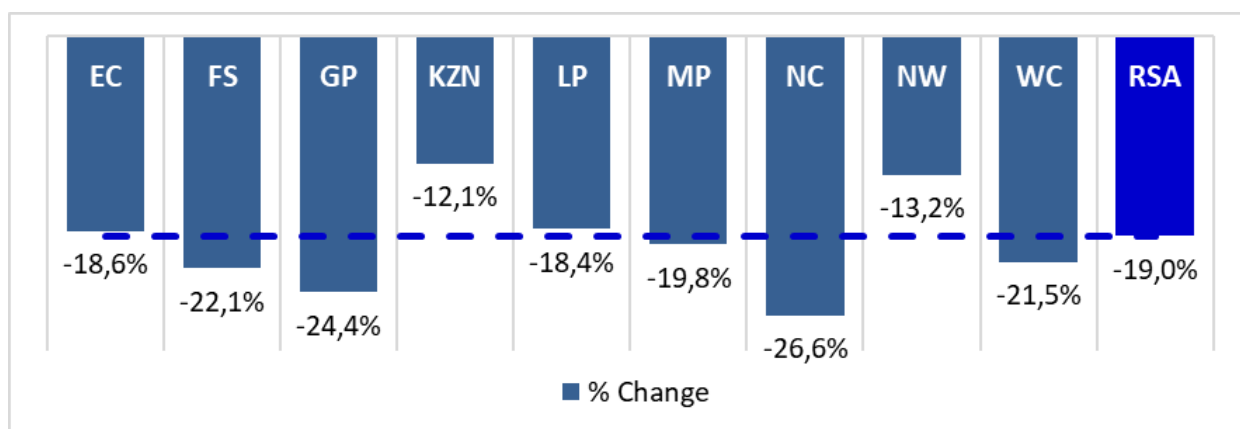


Figure 11: Percentage change in number of fatal crashes per province from 2019 to 2020

Table 6: Fatalities per province

Year	EC	FS	GP	KZN	LP	MP	NC	NW	WC	Total
2019	1 603	860	2 453	2 331	1 496	1 343	384	855	1 178	12 503
2020	1 336	647	1 855	2 031	1 161	1 046	265	720	908	9 969
Change	-267	-213	-598	-300	-335	-297	-119	-135	-270	-2 534
% Change	-16,7%	-24,8%	-24,4%	-12,9%	-22,4%	-22,1%	-31,0%	-15,8%	-22,9%	-20,3%

In line with the distribution of fatal crashes for 2020, the fatalities during the period followed the same trend per province in the country with a crash severity of 1,19 people dying per crash during the total period in 2020, slightly lower than as crash severity of 1.20 in 2019.

A total number of 9 969 fatalities were recorded in 2020 which is a decrease of -20.3% from 2019. Even though the Northern Cape recorded the largest percentage decrease from 2019 with -31%, an absolute decrease of 598 fatalities was recorded in the Gauteng province from 2019. The lowest percentage decrease was recorded in KwaZulu-Natal province at -12.9%. The % change for the country was -20.3% from 2019 to 2020.

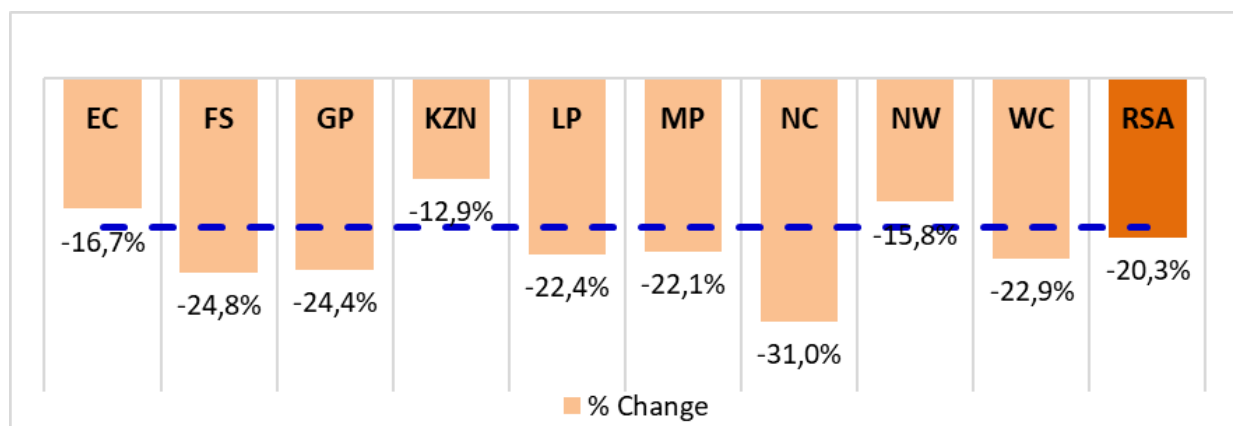


Figure 12: Percentage change in fatalities per province from 2019 to 2020

The fatality rate per 100 000 of human population or the Death Rate according to the WHO, for 2020 is calculated as 16,72; a reduction of 21.39% from 21,7 in 2019. Similarly, the number of fatalities per 10 000 registered motorised vehicles showed a reduction of 20.24% from 10.90 for 2019 to 8.69 for 2020.

The distribution of fatalities per road user type during the period of analysis followed the same trend as in 2019 without significant change. The 39,8% pedestrian fatalities recorded for 2020 is slightly less than the recorded 40.5% in 2019, notwithstanding that there was a reduction in fatalities of more than 20%. This trend in the percentage pedestrian deaths (WHO 2018) is very much the same as the estimated 40% for the African continent.

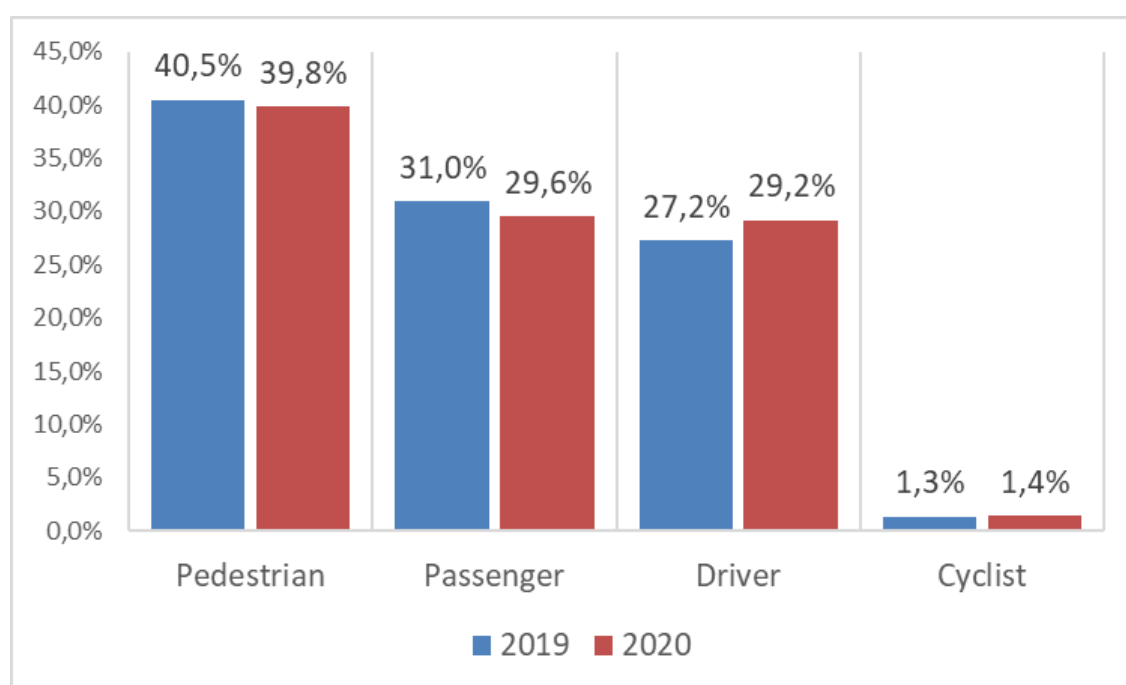


Figure 13: Percentage distribution of fatalities per road user type

From the Analysis of fatal crashes per day of week depicted in the figure below, there was a slight decrease over the weekends from 46,6% of fatal crashes on Saturday and Sundays in 2019 to 41,1% in 2020. If Friday is considered as the start of a weekend, then the total percentage for weekend fatal crashes is 56,3%

for the year 2020. Fatal crashes reported for the rest on the weekdays range between 10,0% and 11,7% for the year 2020.

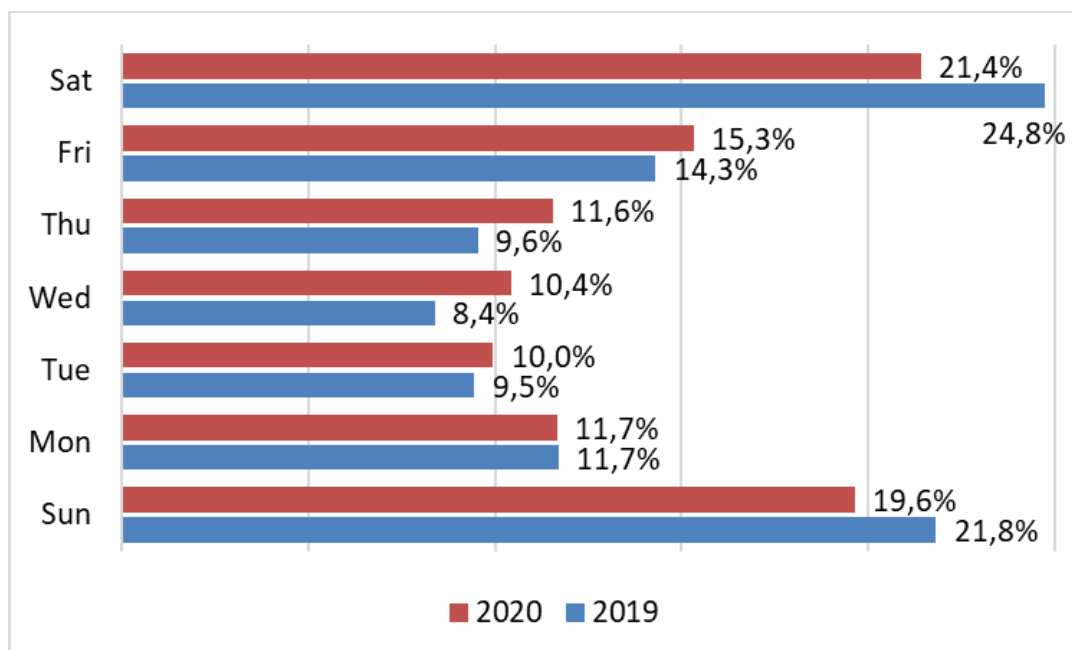


Figure 14: Fatal crashes per day of the week

Similar with the distribution of road fatalities per road user type, the age fatality breakdown followed the same trend during the same period in 2019 notwithstanding that there was a reduction in fatalities of more than 20%, illustrated in the figure below.

The trend continues 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 11,9%, a small increase from 11,1% during the same period in 2019.

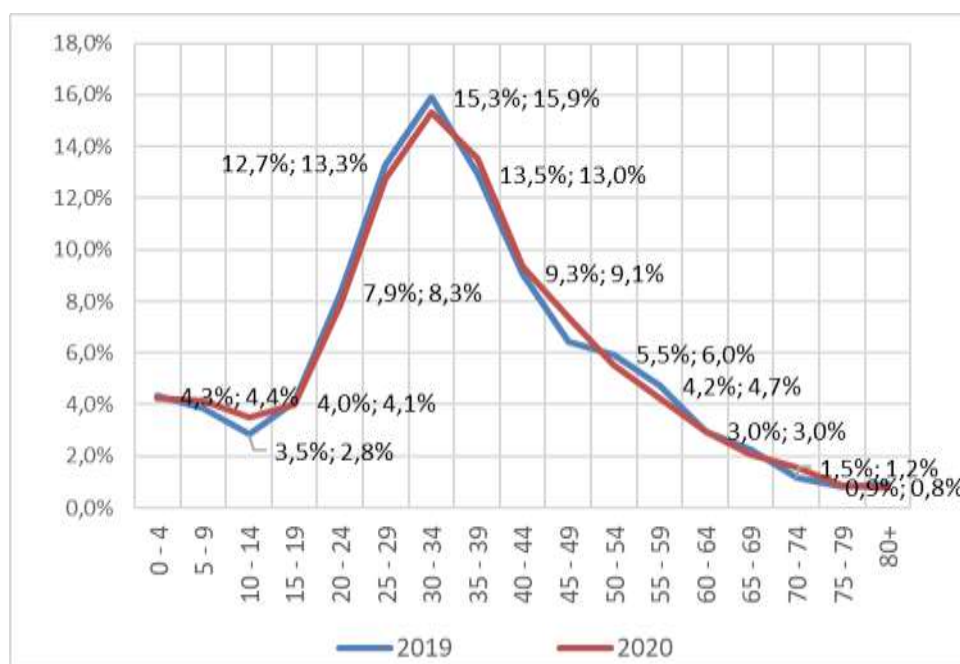


Figure 15: Percentage distribution of fatalities per age group for 2020

No significant change was recorded in the gender split for fatalities during the analysis period with males that died being three quarters of all fatalities or 78,4% for 2020. 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 female drivers.

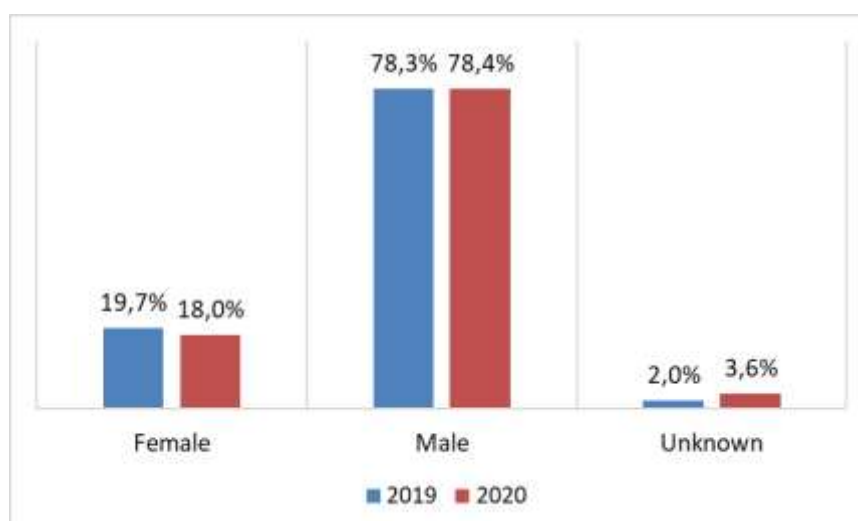


Figure 16: Percentage distribution of fatalities per gender for 2020

The distribution of fatalities per population group during the analysis period indicate that 82,6% of all fatalities, almost the same as the 81,3% of 2019 were black persons with the rest between 1,4% and 6,3% without significant variance from 2019 and 2020.

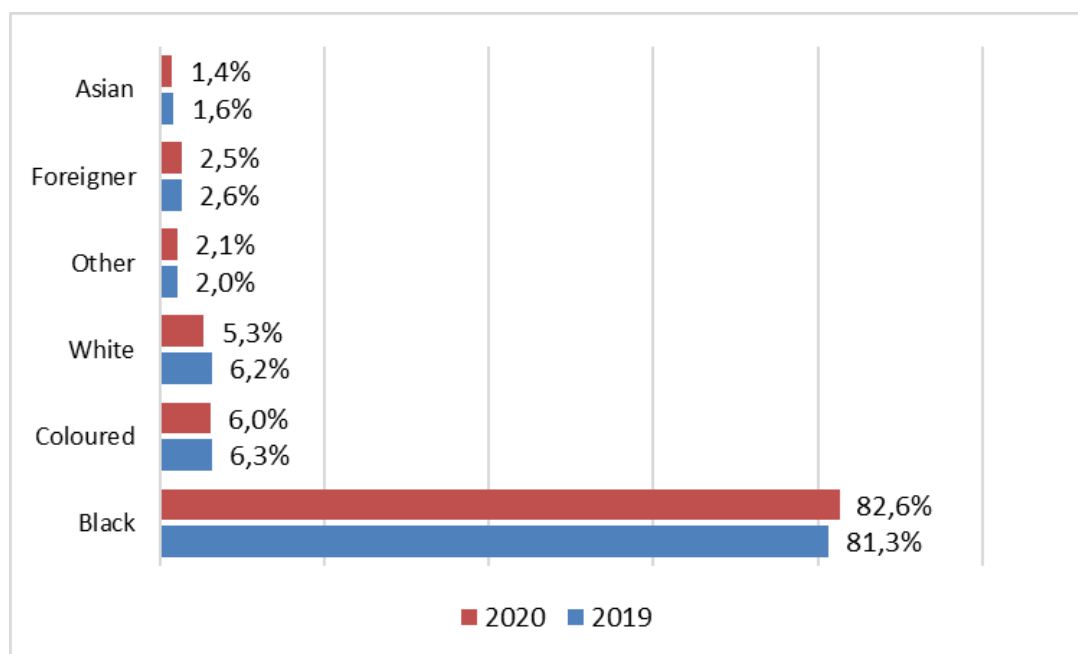


Figure 17: Percentage distribution of fatalities per population group

Further analysis of fatalities per population group for the 2020 calendar year are illustrated in the figure below. A total of 95,7% of all pedestrian fatalities were black and coloured citizens with passenger fatalities following the same trend with 87,7% being black. Most cyclists who died, i.e., 68,3% was black with 13,4% white. 75,2% of all driver fatalities were black persons with 12,8% white.

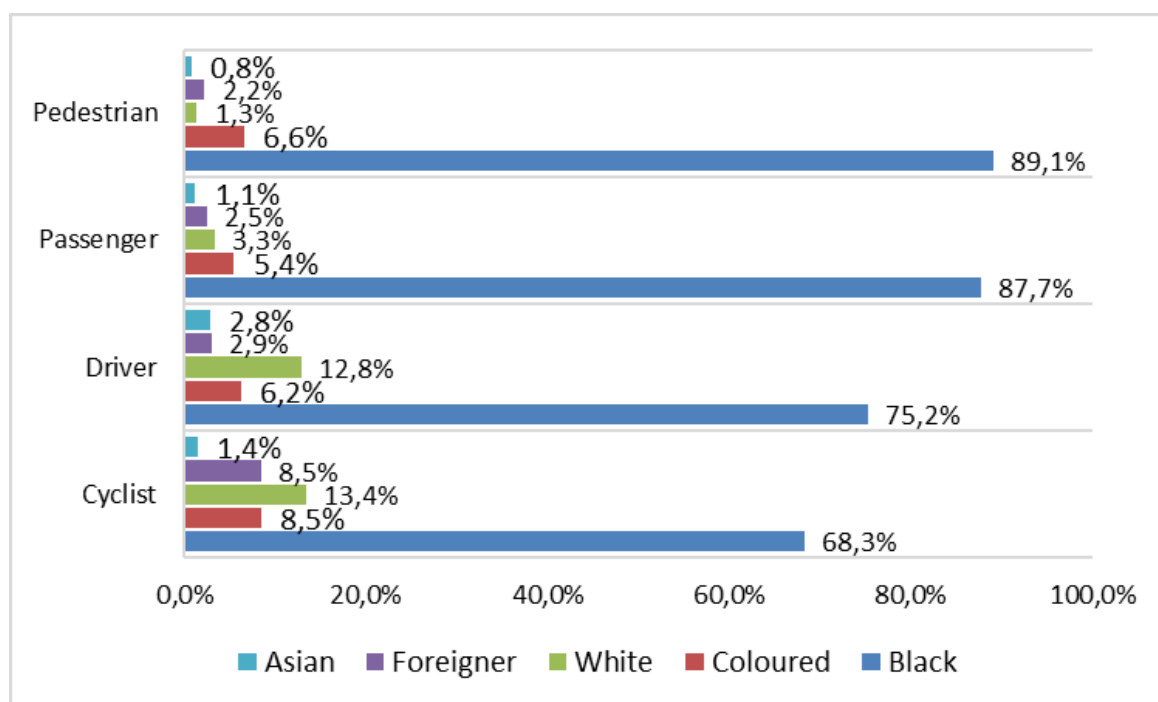


Figure 18: Percentage distribution of fatalities per population group per road user

Notwithstanding 20% less fatalities recorded for the analysis period in 2020 than in 2019, similar with above discussed analyses, the trends are very much similar from 2019 for major contributory factors to crashes with 85.6% of all fatal crashes having a human factor as major contributory factor in 2020, illustrated in the figure below.

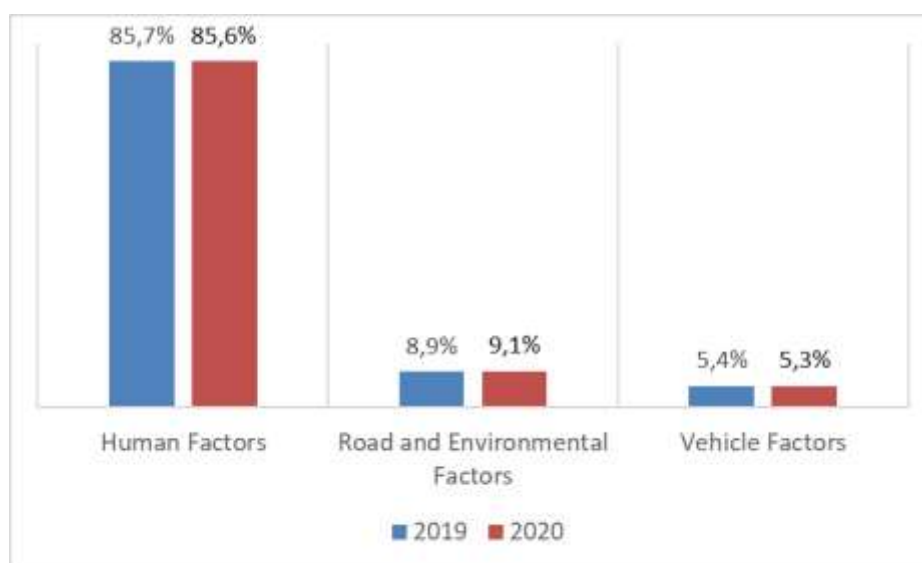


Figure 19: Percentage distribution of fatalities per major contributory factors

The Figure below illustrate a breakdown of the top 15 contributory factors which constitutes 87,4% of all the 41 types of contributory factors reported by SAPS.

The largest contributor to any type of fatal crash in 2020 is Jay-Walking Pedestrians (Human factor) at an estimated 33,8% from 32,2% in 2019 followed by Hit-and-run (Human factor) at 22,2%, slightly up from 19.9% in 2019.

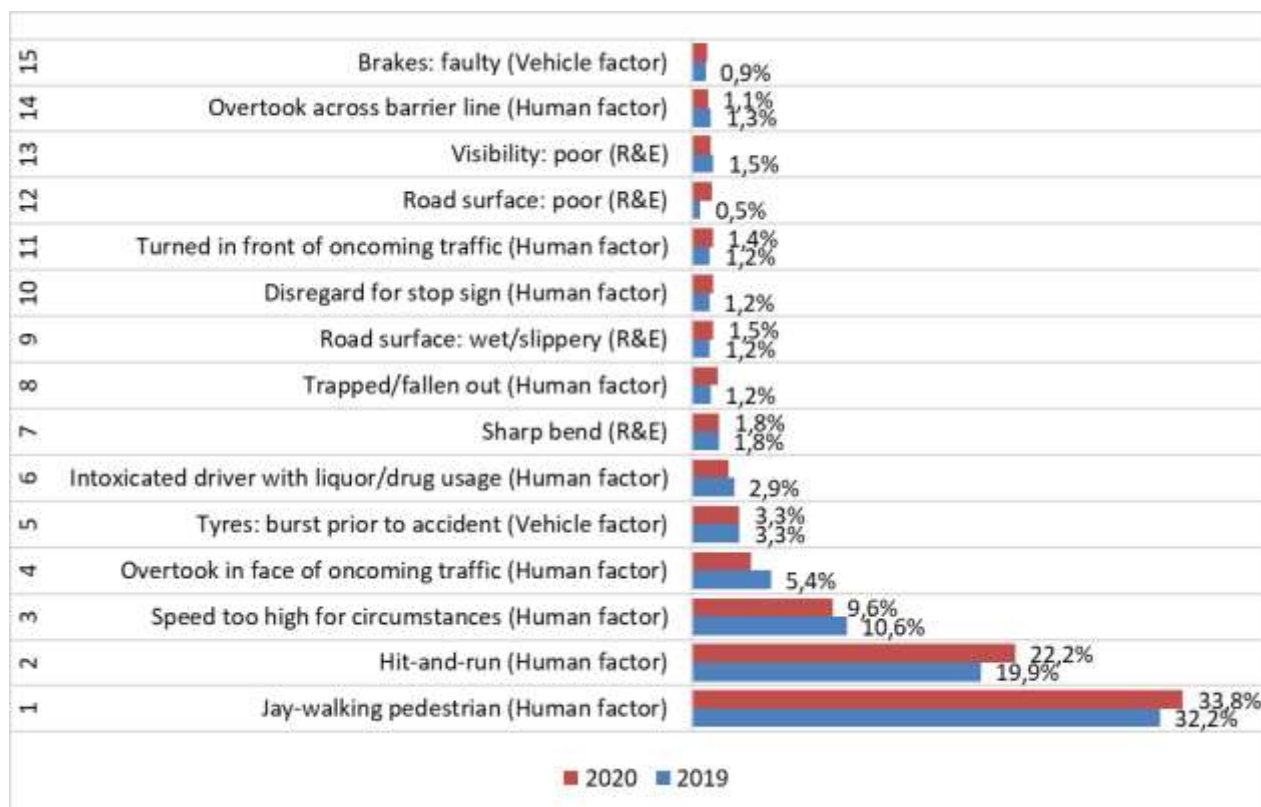


Figure 20: Percentage distribution of fatalities per contributory factors

From the figure above, the top four contributory factors were reported as being human factors with the highest Vehicle Factor i.e., Tyres burst prior to crash at 3,3% in 2020. The top Road and Environmental factor were reported as being Sharp Bend at 1,8% in 2020. Even though the rest of the contributory factors reported were less than 1% of all contributory factors, their significance are not taken lightly.

10 PEDESTRIAN SAFETY

10.1 PEDESTRIAN FATALITIES

Pedestrian safety remains the most significant road safety challenge in South Africa with 39.8% of all fatalities recorded in 2020 and slightly lower than 40.5% recorded in 2019. Pedestrian deaths are 21.6% lower than the same recorded for 2019 due to the restriction of people and vehicle movement from March 2020 to December 2020. Notwithstanding the large decrease in pedestrian deaths in from 2019 to 2020 the percentage of pedestrian deaths remains almost the same.

Table 7: Pedestrian fatalities

Pedestrian Fatalities	2019	2020	Change	% Change
Number of pedestrian deaths	5 062	3 968	-1 094	-21.6%
% of total fatalities	40.5%	39.8%	-2 534	-20.3%

Table 8: 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
Change	-124	-40	-331	-119	-94	-95	-32	-82	-132	-1049
% Change	-20,6%	-19,7%	-28,1%	-10,7%	-21,9%	-24,0%	-26,9%	-26,2%	-23,0%	-21,3%
% of all fatal crashes 2020	44,6%	32,6%	51,4%	55,9%	36,4%	35,3%	37,5%	37,9%	55,6%	46,1%

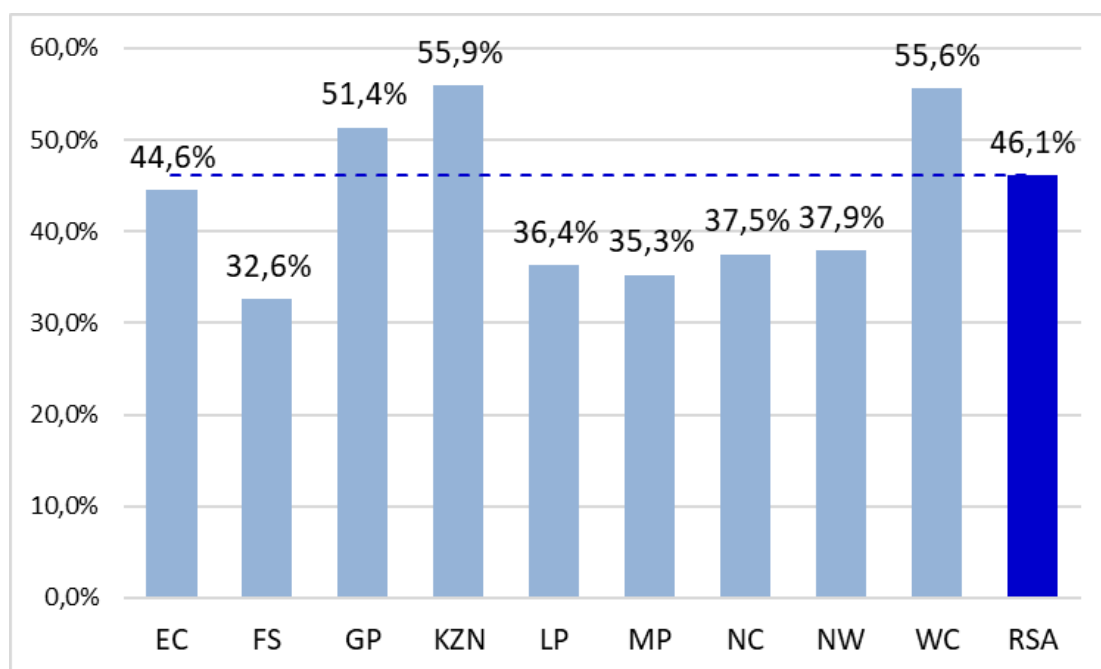


Figure 21: % Pedestrian fatal crashes of all fatal crashes per province

From the figure above, the most pedestrian fatal crashes, or crashes where one or more pedestrian were killed in a fatal crash of total fatal crashes in the respective province, were reported in the KwaZulu-Natal, Gauteng and Western Cape provinces with more than 50% of the respective fatal crashes involving pedestrian deaths, the same trend as in 2019. Nationally, in 46.1% of all crashes where reported, one or more pedestrian was killed. This means that in almost half of fatal crashes recorded in the country, one or more pedestrian is killed.

The table below depicts the pedestrian deaths per province during the period analysed. In line with the recorded fatal pedestrian crashes above, Gauteng, KwaZulu-Natal and the Western Cape provinces have the highest pedestrian deaths with more than 50% recorded in the three provinces. The province with the lowest percentage of pedestrian deaths is Free State.

Table 9: 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
Change	-125	-46	-333	-118	-95	-106	-36	-91	-144	-1094
% Change	-20,2%	-21,5%	-27,8%	-10,5%	-21,2%	-25,4%	-29,3%	-27,7%	-24,3%	-21,6%
% of all fatal crashes 2020	36,9%	26,0%	46,7%	49,4%	30,5%	29,7%	32,8%	32,9%	49,4%	39,8%

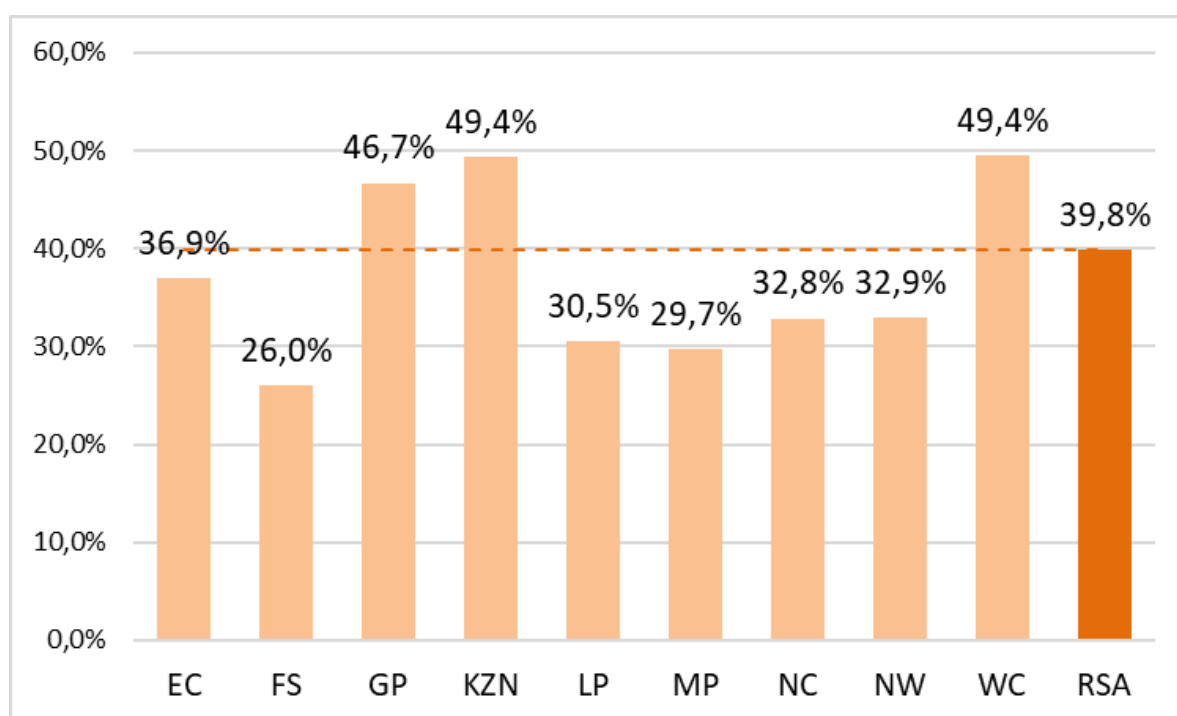


Figure 22: % Pedestrian fatalities of all fatalities per province

From the figure above, the most pedestrian deaths were reported in the KwaZulu-Natal and Western Cape provinces with more than 50% pedestrian deaths of all reported road deaths for the period in under review.

Similar to the country profile for age of road crash deaths, most pedestrians killed in road crashes are between the age of 25 and 39 with 34,4% of all pedestrians killed within this age group. Alarming however is that a 5th (20.5%) of all pedestrian killed are children up to 14 years of age.

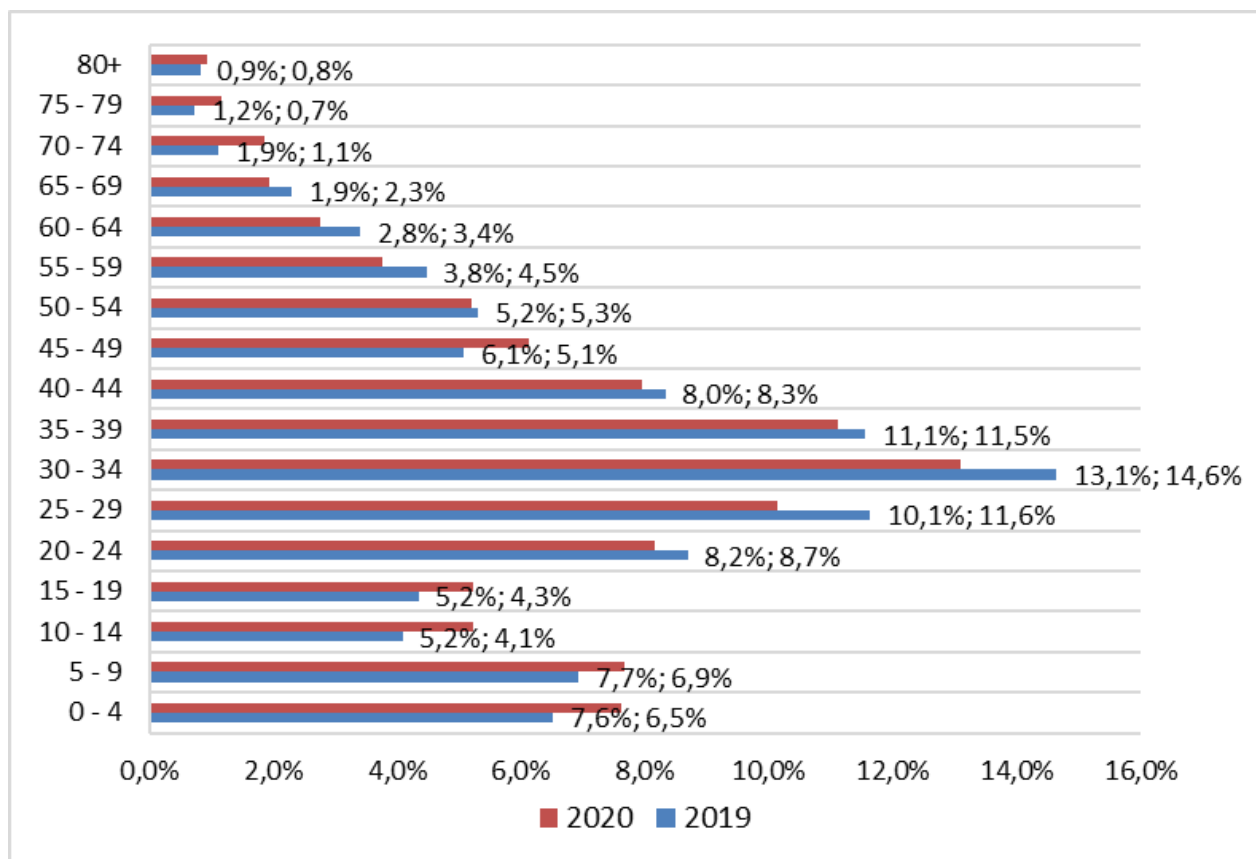


Figure 23: Pedestrian fatalities per age group

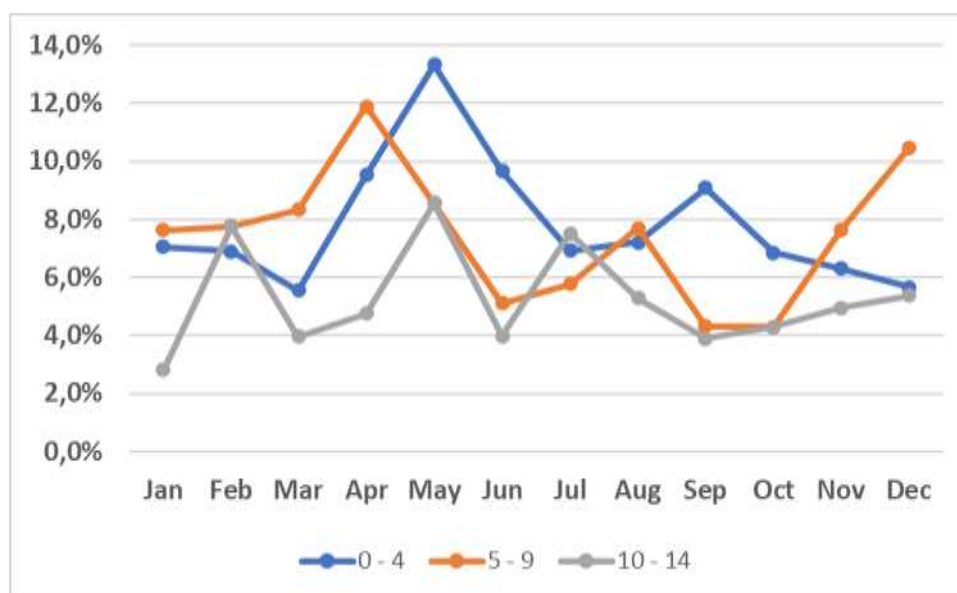


Figure 24: Pedestrian fatalities per age group for 0 – 14 years

Based on the figure above most fatalities for pedestrians below the age of 14 were recorded in May 2020. The highest fatalities were for age group 0-4 years at 13,3% followed by age group 5-9 years in April 2020 at 11,9%. A reduction has been observed from June with all age groups being less than 10%. There was an increase in November for age groups 5-9 and 10-14 with age group 10-14 reaching 10,5% December.

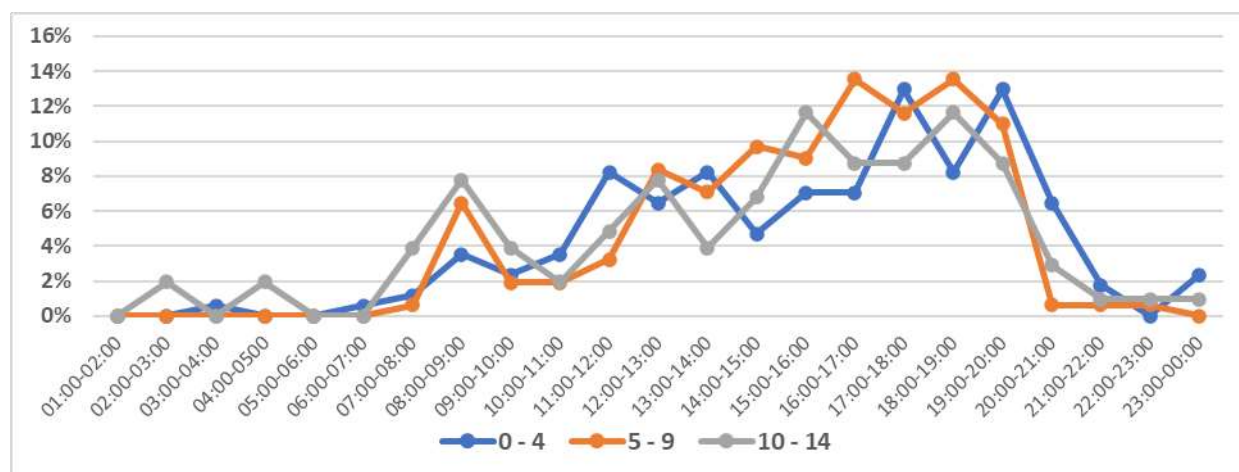


Figure 25: Crashes distribution per time of day for Pedestrian - age group 0 – 14 years

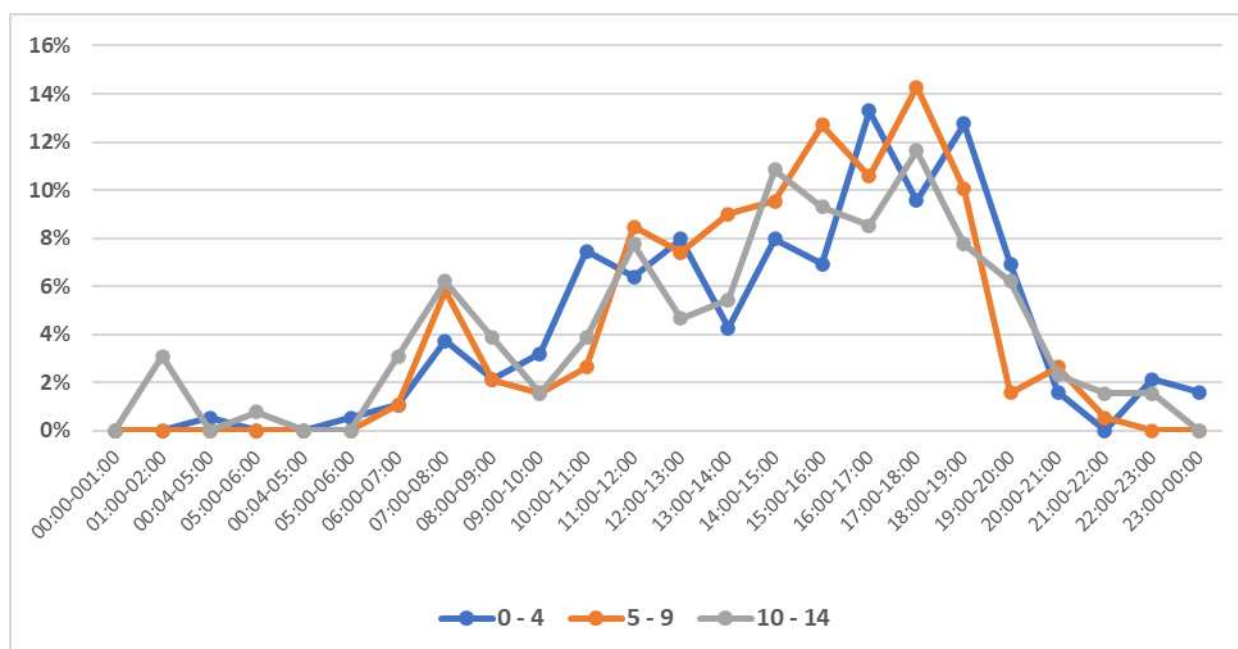


Figure 26: Fatalities distribution per time of day for Pedestrian - age group 0 – 14 years

Figures 23 and 24 above depict trends for crashes and fatalities distributions per day for pedestrians between age 0 – 14 years. Both crashes and fatalities start from 7:00, and takes a steady incline throughout the day. From 14:00 there is a sharp increase which peaks at 18:00 to 14% as can be seen on table below.

Table 10: Pedestrian fatalities per time of day (ages 0-14)

Time	AGE		
	0 - 4	5 - 9	10 - 14
00:00-01:00	0%	0%	0%
01:00-02:00	0%	0%	2%
02:00-03:00	1%	0%	0%
03:00-04:00	0%	0%	2%
04:00-05:00	0%	0%	0%
05:00-06:00	1%	0%	0%
06:00-07:00	1%	1%	4%
07:00-08:00	4%	6%	8%
08:00-09:00	2%	2%	4%
09:00-10:00	4%	2%	2%
10:00-11:00	8%	3%	5%
11:00-12:00	6%	8%	8%

Time	AGE		
	0 - 4	5 - 9	10 - 14
12:00-13:00	8%	7%	4%
13:00-14:00	5%	10%	7%
14:00-15:00	7%	9%	12%
15:00-16:00	7%	14%	9%
16:00-17:00	13%	12%	9%
17:00-18:00	8%	14%	12%
18:00-19:00	13%	11%	9%
19:00-20:00	6%	1%	3%
20:00-21:00	2%	1%	1%
21:00-22:00	0%	1%	1%
22:00-23:00	2%	0%	1%
23:00-00:00	2%	0%	0%

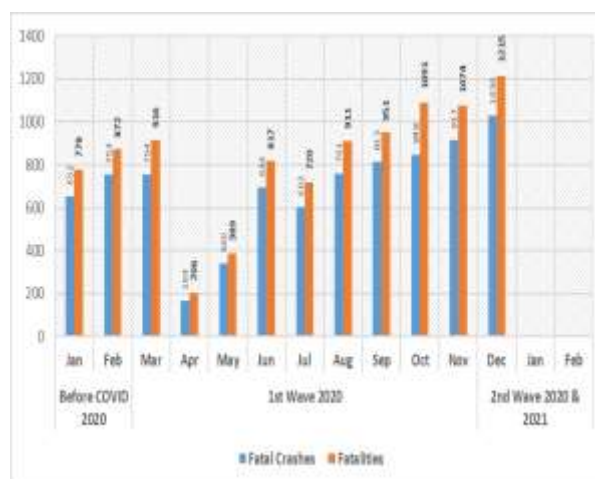
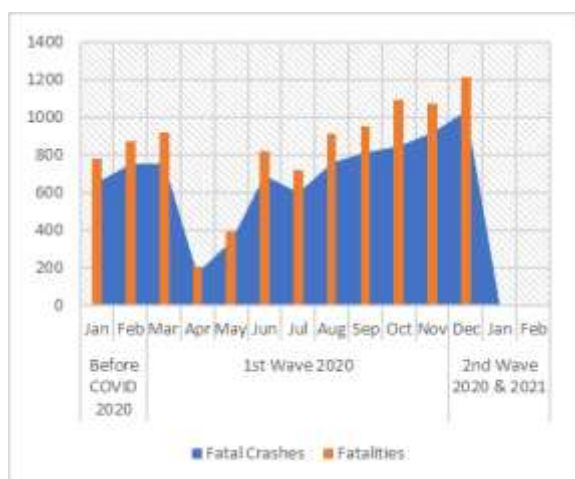


Figure 27: Fatalities distribution per time of day for Pedestrian - age group 0 – 14 years

The schools closed from the 18th of March 2020 due to the COVID-19 lockdown. The number of crashes and fatalities reduced from April due to travel restrictions. Schools re-opened on the 1st of June and re-closed again on the 27th of July due to the increase in number of COVID-19 infections and crashes also decreased in July. After July, there was an increase for both crashes and fatalities right up to December 2020.

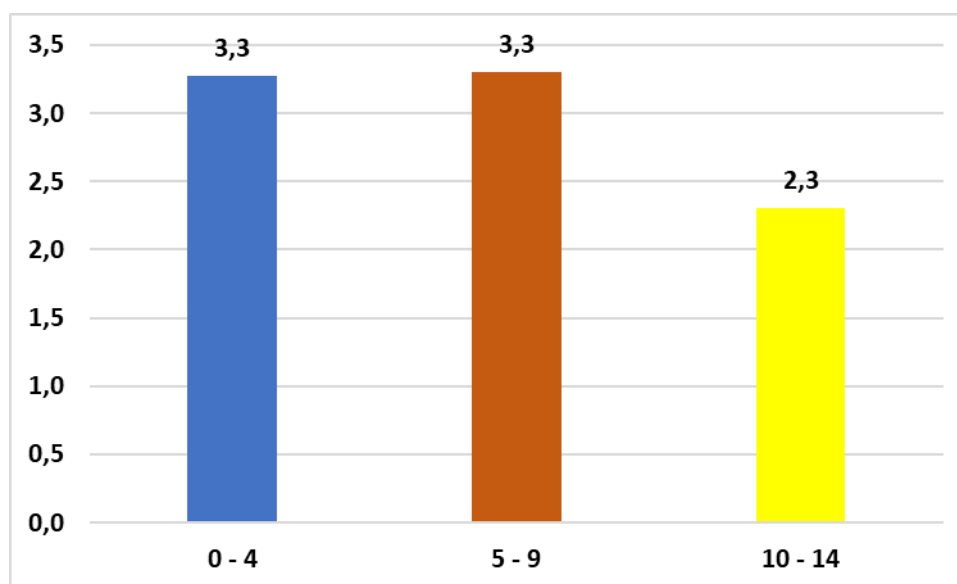


Figure 28: Average number of fatalities per 100 000 population - age group 0 – 14 years

Figure 26 shows that out of every 100 000 children in the age group 0-14 2,8 are highly likely to die as pedestrians from a car crash. With 3,3 in the age group 0-9 being faced with the same likelihood.

The figure below illustrates the percentage of pedestrian deaths per day of the week with Friday, Saturday and Sunday's recording the most pedestrian deaths.

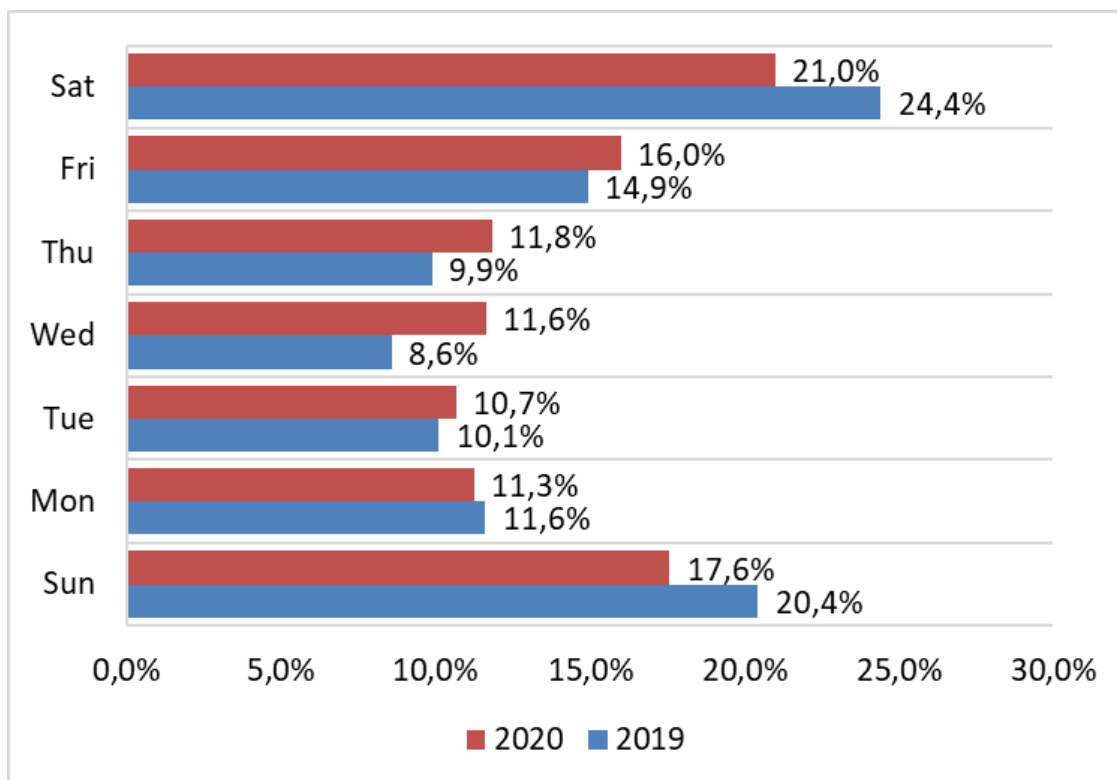


Figure 29: Pedestrian fatalities per day of the week

Further 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 from white fill (no pedestrian fatal crashes) to dark red fill where the highest percentage of all fatal pedestrian crashes occurred during the analysis period.

Within the top 10%, a singular spike occurred on Sundays from 00:00-01:00 with the rest occurring mostly between 17:00- 23:00 on Friday, Saturday, and Sunday's. The percentages per time bin for all crashes where pedestrians were killed (far-right column in the table below) indicates that almost a 5th or 19.68% of all pedestrian fatal crashes occurred between 18:00 and 20:00.

The percentage pedestrian fatal crashes per day of week indicates that most pedestrian crashes occurred on Saturdays with 21,0% followed by Sundays with 17,6%. In 2020,

in only one of the 168 time-bins (Thursday's from 02:00 – 03:00), as illustrated in the table below, no pedestrian fatal crashes were reported.

Table 11: Number of fatal pedestrian crashes per day of week and time bin

Time / Day	Sun	Mon	Tue	Wed	Thu	Fri	Sat	% Per Time Slot
00:00 - 01:00	1,3%	0,3%	0,2%	0,4%	0,2%	0,5%	0,7%	3,48%
01:00 - 02:00	0,8%	0,3%	0,2%	0,3%	0,2%	0,2%	0,5%	2,27%
02:00 - 03:00	0,7%	0,1%	0,1%	0,2%		0,2%	0,4%	1,51%
03:00 - 04:00	0,6%	0,1%	0,0%	0,2%	0,2%	0,1%	0,3%	1,44%
04:00 - 05:00	0,5%	0,4%	0,2%	0,2%	0,1%	0,2%	0,3%	1,76%
05:00 - 06:00	0,5%	0,3%	0,4%	0,3%	0,3%	0,5%	0,4%	2,80%
06:00 - 07:00	0,5%	0,8%	0,3%	0,5%	0,5%	0,8%	0,3%	3,81%
07:00 - 08:00	0,3%	0,5%	0,6%	0,7%	0,4%	0,6%	0,6%	3,73%
08:00 - 09:00	0,4%	0,3%	0,4%	0,3%	0,3%	0,5%	0,6%	2,70%
09:00 - 10:00	0,3%	0,4%	0,4%	0,3%	0,5%	0,3%	0,4%	2,39%
10:00 - 11:00	0,4%	0,4%	0,3%	0,4%	0,6%	0,5%	0,4%	2,97%
11:00 - 12:00	0,5%	0,4%	0,6%	0,5%	0,5%	0,5%	0,4%	3,35%
12:00 - 13:00	0,3%	0,3%	0,5%	0,3%	0,4%	0,6%	0,7%	3,13%
13:00 - 14:00	0,7%	0,4%	0,3%	0,4%	0,4%	0,4%	0,4%	3,05%
14:00 - 15:00	0,6%	0,5%	0,8%	0,5%	0,7%	0,8%	0,5%	4,31%
15:00 - 16:00	0,8%	0,6%	0,6%	0,7%	0,7%	0,7%	0,8%	4,81%
16:00 - 17:00	0,8%	0,6%	0,9%	0,8%	0,7%	1,1%	0,9%	5,67%
17:00 - 18:00	1,0%	0,9%	0,7%	0,5%	1,0%	1,2%	1,2%	6,40%
18:00 - 19:00	1,7%	1,5%	1,1%	1,0%	1,2%	1,4%	2,0%	9,85%
19:00 - 20:00	1,7%	0,8%	0,9%	1,4%	0,9%	1,7%	2,5%	9,83%
20:00 - 21:00	1,3%	0,7%	0,6%	0,9%	0,9%	1,0%	2,7%	8,17%
21:00 - 22:00	1,1%	0,5%	0,3%	0,5%	0,7%	1,0%	1,7%	5,75%
22:00 - 23:00	0,6%	0,1%	0,3%	0,2%	0,4%	0,8%	1,3%	3,76%
23:00 - 24:00	0,4%	0,2%	0,1%	0,4%	0,2%	0,7%	1,1%	3,07%
% Per day	17,6%	11,3%	10,7%	11,6%	11,8%	16,0%	21,0%	100,0%

11 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. Indicated in the figure below, the 2020 cost of road crashes is an estimated R142.6 billion; adjusted with CPI and crash statistics from the calculated R142.95 billion for 2015 – Published September 2016 (link below). The estimated cost of crashes showed a huge decrease of R28.01 billion or 16.42% from 2019 to 2020 which will be due to the Covid-19 related restrictions in 2020.

[HTTP://WWW.RTMCO.CO.ZA/IMAGES/RTMC/DOCS/RESEARCH_DEV_REP/SEPTEMBER%202016.PDF](http://www.rtmco.co.za/images/RTMC/DOCS/RESEARCH_DEV_REP/SEPTEMBER%202016.PDF)

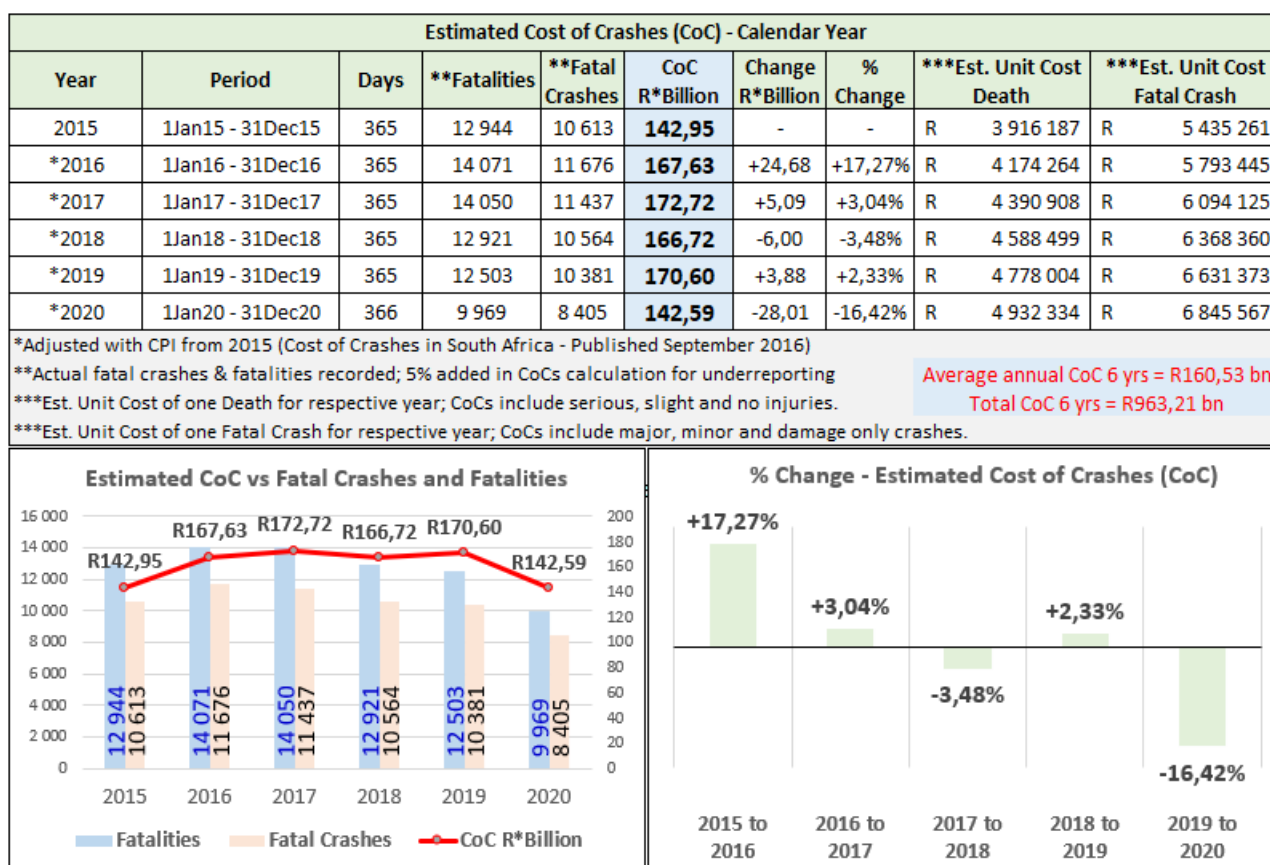


Figure 30: Estimated Cost of Crashes

12 POST-CRASH

Table 12: Registered emergency vehicles

NaTIS EMS Vehicles

Province	Ambulance	Breakdown	Fire engine	Hearse / Ambulance	Rescue vehicle	Grand Total
GP	2 428	4 151	617	2	863	8 061
ZN	1 313	2 218	1 041	1	99	4 672
WP	627	911	541	3	239	2 321
EC	987	674	215	1	225	2 102
MP	446	848	641	1	123	2 059
L	427	610	176	2	71	1 286
NW	472	456	142	1	73	1 144
FS	498	362	115	3	62	1 040
NC	209	152	67		29	457
Grand Total	7 407	10 382	3 555	14	1 784	23 142

Km Roads in SA:	750 000 km	EMS-vehicles per 1 000 km :	30,86
2020 Mid-Year Population:	59,62 million	EMS-vehicles per 100 000 inhabitants :	38,82

There are approximately 23 000 vehicles registered as emergency vehicles throughout the country with over 7 400 of the emergency vehicles registered as Ambulances.

Reviewed and Supported by:

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Date

Reviewed and Supported by:

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