

# Road Transport Accident Deaths in South Africa, 2007-2019

Report number: 03-09-07



IMPROVING LIVES THROUGH DATA ECOSYSTEMS



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# Road Transport Accident Deaths in South Africa, 2007–2019

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## **Preface**

Thematic health reports are part of a regular series of reports produced by Statistics South Africa (Stats SA) on an annual basis. This current health report focuses on external causes of death, specifically road transport accident deaths. The report utilises Stats SA data sourced from mortality and causes of death between 2007 and 2019 and from the mid-year population estimates (MYPE) for calculations of crude death rates and age standardised death rates.

The report presents information that examines trends and variations in road transport accident deaths in South Africa by type of road user, month of death, place of death, province of residence and province of death. Crude and age-standardised death rates are calculated to enable comparison between 2007 and 2019, to establish trends in road transport accident death rates.

The findings of this report provide insight into the burden of road transport accidents in South Africa and assist programme managers in planning, and policy makers during policy planning, so that they can make evidence-based decisions. The information can also be used by private researchers to further investigate the trends and profiles of certain indicators in order to create a better understanding of the observed levels.

Overall, results of this thematic health report will assist in measuring South Africa's progress and achievement of the Sustainable Development Goals (SDGs), Target 3.6 of halving the number of global deaths and injuries from road traffic accidents by 2030.



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**Statistician-General**



## Abbreviations

<b>ASMR</b>	Age-Standardised Death Rate
<b>CDR</b>	Crude Death Rate
<b>DHA</b>	Department of Home Affairs
<b>DoA</b>	Dead on Arrival
<b>ER</b>	Emergency Rooms
<b>ICD</b>	International Code of Diseases
<b>MaCOD</b>	Mortality and Causes of Death
<b>MYPE</b>	Mid-year Population Estimates
<b>NDP</b>	National Development Plan
<b>OPD</b>	Out-patients Department
<b>RTMC</b>	Road Transport Management Corporation
<b>SAS</b>	Statistical Analytical System
<b>SAPS</b>	South African Police Service
<b>SDGs</b>	Sustainable Development Goals
<b>Stats SA</b>	Statistics South Africa
<b>WHO</b>	World Health Organization

## **Definitions**

### ***Cause of death***

Diseases, morbid conditions or injuries which either resulted in or contributed to the death and circumstances of the accident or violence which produced any such injuries.

### ***Recorded death***

A death registered at the Department of Home Affairs and processed at Statistics South Africa.

### ***Road transport accident***

Any accident involving a device designed primarily for, or being used at the time primarily for, conveying persons or goods from one place to another.

### ***Road transport accident death***

A death resulting from injuries sustained in a road transport accident including those of pedestrians, pedal cyclists, motorcycle riders, occupants of three-wheeled motor vehicles, occupants of pick-up trucks or vans, occupants of heavy transport vehicles, bus occupants, and individuals injured in other land transport accidents (e.g. animal riders, occupants of a railway train, etc.).

### ***External causes of death***

External causes of death comprise all deaths that were not attributable, or may not have been attributable to natural causes and in South Africa, in terms of the Inquests Act (Act No. 58 of 1959), these deaths are subject to medico-legal investigation.

### ***Underlying cause of death***

The disease or injury that initiated the train of morbid events leading directly to death or the circumstances of the accident or violence that produced the fatal injury (United Nations, 1991). The underlying cause of death is commonly adopted as the cause for tabulation of mortality statistics as it is the most useful single cause for public health purposes.

### ***Immediate cause of death***

The disease, injury, or complication that directly precedes death, which is the ultimate consequence of the underlying cause of death.

## Key findings

The current thematic health report is on road transport accident deaths that occurred between the years 2007 up to 2019, with the following key findings:

### **Results on trend analysis for 2007–2019 road transport accident deaths are as follows:**

There was a steady increase in the percentage contribution of external causes of morbidity and mortality to the overall deaths from 9,0% in 2007 to 12,4% in 2019. Contribution of all transport accident deaths to the non-natural causes show a fluctuating pattern of road transport accident deaths, with lowest percentage observed in 2008 (10,9%) while the highest percentage was recorded in 2016 (12,4), decreasing to 11,4% in 2017 and again declining to 11,3% in 2019. Road transport accident deaths showed an increase in the number of deaths from 6 190 in 2007 to 6 423 in 2019.

The most common age groups to die from road transport accidents were 25–29, 30–34, and 35–39 years. December had the highest number of deaths except for 2008, 2013 and 2017 respectively. January and February were the months with fewest recorded deaths (6,8% and 6,3%), respectively.

People who died as car occupants increased from 363 in 2007 to 548 in 2019, while those who died as pedestrians increased from 640 deaths in 2007 to 771 deaths in 2019. Results show that hospitals were the common place of death for road transport accident deaths for all the years under review, for most provinces except for Western Cape, Northern Cape, and Free State. Road transport accident deaths that occurred in province of usual residence were higher than those that occurred outside the province of residence.

### **Results on 2019 road transport accident deaths are as follows:**

Females between the ages 20–44 years accounted for 49,8% of female deaths while males accounted for almost two-thirds of male deaths (62,1%) due to road transport accidents.

People who died as pedestrians contributed 12,0% of road transport accident deaths, followed by those who died as car occupants at 8,5%. The percentage of female pedestrians who died of road transport accidents was higher than the percentage of males (12,4% females and 11,8% males). KwaZulu-Natal, Limpopo, and Eastern Cape recorded higher percentages at 24,4%, 19,8% and 14,7% respectively.

Generally, females contributed a higher percentages of people who died as pedestrians and car occupants above their male counterparts, while males had percentages above females for people who died as motorcyclists and pedal cyclists.

## Chapter 1: Introduction

The first chapter of this report presents information on the background, purpose, objectives, sources of data and methods used to analyse road transport accident deaths data used to compile this report.

### 1.1 Background

Statistics South Africa (Stats SA) has a mandate to provide statistical information for South Africa, hence the establishment of a Health Statistics directorate within the organisation. The directorate is responsible for providing information on health statistics in the country. On an annual basis, a theme is selected to produce a thematic health report, based on available data both at Statistics South Africa (Stats SA) and externally. The theme selected for the 2022/2023 health report is road transport accident deaths in South Africa 2007–2019, which is a continuation of Road Transport Accident Deaths in South Africa, 2001–2006, including evidence from the death notification report which was released in 2009. Accidents can lead to injuries that cause damage to the body and can lead to disability and sometimes ill-health and even death.

According to Arrive Alive, 2020, a road transport accident is an accident, incident, event, collision or crash between two or more vehicles, a vehicle and a train, a vehicle and a cyclist, a vehicle and a pedestrian, a vehicle and an animal, a vehicle and a fixed object, such as a bridge, building, tree, post, etc., or a single vehicle that overturned on or near a public road. An accident is a single road transport incident, regardless of the number of vehicles or persons involved. Road accidents can further be classified as fatal and non-fatal. Fatal accidents are defined as accidents resulting in the death of one or more persons. Persons killed may be drivers and passengers of vehicles, or cyclists and pedestrians. Such accidents can include serious and slight injuries.

Road transport injuries and deaths cause economic losses to people and the country, as it accounts for lost productivity for those who died or were disabled due to their injuries (World Health Organization, 2023). Injuries and violence are substantial causes of death and a burden of disease in all countries (Brett Bowman et al, 2006). Deaths due to injury are higher in low-income countries relative to those in high-income countries. In addition, people from poorer economic backgrounds have higher rates of fatal and non-fatal injuries than people from wealthier economic backgrounds, as observed in high-income countries (World Health Organization, 2021).

South Africa is still facing a quadruple burden of disease (Rifqah Abeeda Roomaney, 2022). The quadruple burden of health challenges facing the country relates to: diseases such as tuberculosis; maternal and child morbidity and mortality; non-communicable diseases (mainly related to lifestyle); and violence, injuries and trauma (National Department of Health, 2020). The burden of disease resulted in South Africa adopting the National Development Plan (NDP) which is the country's vision for 2030 aimed at reducing deaths due to violence and injury (e.g. deaths due to motor vehicle accidents) (National Department of Health, 2020).

One of the goals of the NDP is to improve the health status of all South Africans through a multi-sectoral approach, cutting across government systems to achieve “A Long and Healthy Life for All South Africans” (National Department of Health, 2020). The key partner related to road accidents is the Department of Transport, through the Road Transport Management Corporation (RTMC). The Department of Transport developed a National Road Safety Strategy in 2006, with the aim of reducing deaths due to unnatural causes (Department of Transport, 2010).

The Sustainable Development Goals (SDGs) include two global targets on road safety, a global imperative which was extended to 2030 by a UN General Assembly resolution adopted in 2021 (World Health Organization, 2022). The first global target on road safety is SDG Target 3.6 which aims to halve the number of global deaths and injuries from road transport accidents. The second global target on road safety is SDG Target 11.2 which is to provide access to safe, affordable, accessible and sustainable transport systems for all, improving road safety, notably by expanding public transport, with special attention to the needs of those in vulnerable situations, women, children, persons with disabilities and older persons” (United Nations, 2021).

South Africa is following an international trend, with factors causing the high rates of road accidents among others, including poor driver attitude where 95% of crashes are due to transport violations; the “culture of impunity” with respect to payment of transport fines, resulting in little behavioural change for offenders; travelling through informal settlements and rural areas where the number of pedestrian activities is high (World Bank, 2009).

The strategy to improve the situation faced by South Africans should include the following, among others: enforcement (heavy, visible, with follow-up of fines and identification of repeat offenders); education and communication (emotive advertisements, showing consequences of unsafe behaviour, and dealing with a single common offence at any one time, with a public relations campaign to ensure support of communities); engineering (low-cost engineering at hazardous locations to have the highest possible impact, a substantial amount of which must be aimed at protection of pedestrians); evaluation (research to ensure a data-driven, scientifically based strategy); and cooperation and coordination between all role players, and involvement of business, industry and civil society (World Bank, 2009).

## **1.2 Purpose of the report**

This report is aimed at refreshing and continuing the trend analysis for the years 2007 to 2019. It is on this basis that Stats SA prepared this updated report on road transport accident deaths with the aim of providing recent information on the extent to which accident deaths contributed to unnatural deaths and the burden of diseases in the country. This report will assist in health policy making and monitoring of transport and health programmes in South Africa. The use of this statistical information will hopefully provide insight that can contribute towards a long and healthy life for all South Africans.

## **1.3 Objectives of the report**

This thematic report aims to provide an in-depth analysis of statistics on registered road transport accident deaths in South Africa based on cause of death data recorded on death notification forms. Specifically, the report examines road transport accident deaths in 2019, as well as trends of road transport accident deaths during the period from 2007 to 2019. The report draws on secondary data from Mortality and Causes of Death (MACOD) data to provide detailed information regarding the impact that road accidents have on the rate of deaths in the country. Specifically, the report examines current trends of deaths due to road transport accidents and highlights variations of road transport accident deaths, with the following objectives:

- To give an overview of the overall deaths for 2007–2019
- To present trends of road transport accident deaths between 2007 and 2019
- To show age-standardised death rates from 2007 to 2019
- To highlight road transport accident deaths for 2019

## **1.4 Methods**

This section of the report presents information on sources of data and methods used to analyse data on road transport accident deaths.

### **1.4.1 Data sources**

Stats SA has a mandate to provide official statistics to the South African society. According to the Statistics Act (Act No. 6 of 1999), the purpose of official statistics is to assist organs of state, businesses, other organisations or the public in planning; decision-making or other actions; and monitoring of policies.

In South Africa, data on road transport accidents is collected, stored and analysed by a variety of agencies which include the Road Transport Management Corporation (RTMC), Statistics South Africa (Stats SA) and the National Injury Mortality Surveillance System (NIMSS). This health report is compiled using only Mortality and Causes of Death (MACOD) 2007–2019 data by Stats SA.

### **Mortality and causes of death**

Information on mortality and causes of death is drawn from death notification forms in the civil registration system maintained by the Department of Home Affairs (DHA). The information is based on all deaths that were registered at the DHA, and the forms were received by Stats SA for processing. Analysis in this report focuses on deaths for which the underlying cause of death is transport accidents, as derived based on the International Coding of Diseases, Tenth Revision (ICD-10) diagnostic tool for coding diseases, signs, symptoms and other factors causing morbidity and mortality (World Health Organization, 2009). External causes of death are profiled based on all external causes of morbidity and mortality (ICD-10 code V01-Y98) derived from the causes of death specified on the death notification forms. Transport accidents (ICD-10 code V01-V99), form part of the main groups of external causes of morbidity and mortality.

### **1.4.2 Data analysis**

Analyses undertaken in this report are descriptive, indicating frequencies, cross-tabulations, percentage distributions, and mortality rates. Data was analysed using SAS software and exported to Microsoft Excel for further calculations and computations where necessary. Results are presented in the form of data tables and graphs disaggregated by age, sex and province.

## Chapter 2: Literature review

This section presents a review of literature related to injuries and accidents, as well as causes of death. The chapter further highlights literature on road transport accidents at a global level, continental level (i.e. in Africa), regional level (i.e. in sub-Saharan Africa), and country level in South Africa.

Injuries continue to be a problem in some countries and are an important public health concern. Globally, most injuries result from road transport crashes, falls, drowning, burns, poisoning and acts of violence against oneself or others, among other causes (World Health Organization, 2021). Millions of people suffer from non-fatal injuries each year, leading to emergency department and acute care visits, hospitalizations or treatment by general practitioners and often result in temporary or permanent disability and the need for long-term physical and mental health care and rehabilitation (World Health Organization, 2021).

Leading causes of death due to injury and disability globally are road transport injuries and falls. Road accident injuries are in the top eight leading causes of death for all age groups and the leading cause of death for children and young adults aged 5–29 years. Road transport injuries are among the leading causes of death and life-long disability globally (Davies Adeloye et al, 2016) and the leading cause of death among young people aged 15–29 years. (World Health Organization, 2022).

Globally, 1,3 million people still die as a result of road transport crashes each year, with more than half of all deaths among vulnerable road users such as pedestrians, cyclists, and motorcyclists (World Health Organization, 2021). The WHO reported that daily, about 3 700 people are killed globally in crashes involving cars, buses, motorcycles, bicycles, trucks, or pedestrians (World Health Organization, 2023). Approximately 90% of the global fatalities on the roads are reported in low- and middle-income countries, even though these countries have approximately 60% of the world's vehicles (Sirwan Ahmed et al, 2023).

The United Nations' Decade of Action for Road Safety 2011–2020 calls on national governments in sub-Saharan Africa and worldwide to direct substantial resources to stem the increasing burden of road transport injuries (World Bank, 2022). African nations have made strong commitments to improve road safety outcomes through initiatives such as the African Road Safety Action Plan, the African Road Safety Charter, and by adopting the targets set out in the UN SDGs (World Bank, 2022).

Africa has the highest road transport fatality rate of all continents, despite having the fewest vehicles per capita and the smallest road network. The African continent has seen a significant rise in road transport injuries since 2000, with an almost 50% increase in healthy life-years lost (World Health Organization, 2021). One other common problem in Africa is the under-reporting of road transport accidents in most African countries. Police records in most African countries are the primary source used to determine the magnitude of road accidents and injuries (Watkins et al 2009).



The population-representative surveys done in 12 African countries reported that 42% of African motorcyclists have exceeded speed limits outside built-up areas; 11% of motorcycle drivers reported drinking and driving under the influence; 75% of motor vehicle passengers reported not using safety belts; and almost 50% of motorcycle riders reported not using helmets (World Bank, 2021).

South Africa continues to record a high number of road transport crashes and their associated consequences have had a significant impact on South African society. There were 12 921 road fatalities in 2018 (an 8% decrease from 2017), and the number of transport deaths per 100 000 individuals in South Africa increased by 18% between 2000 and 2018. The year 2018 reported 23 transport deaths per 100 000 individuals when compared to 20 per 100 000 in 1990 (International Transport Forum, 2019).

The South African Police Service (SAPS) released a report named “Police Recorded Crime Statistics for the Republic of South Africa” for April 2021 to March 2022. According to the report, “driving under the influence of alcohol or drugs” is recorded as a crime and national results show that 35 860 were reported in 2020/21 compared to 43 873 in 2021/22 (a 22,3% increase) over a 12-month period (South African Police Service, 2023).

The cost of crashes in South Africa leads to the loss of more than 14 000 lives, with 7 000 permanently disabled people and 40 000 serious injuries annually, as well as around R43 billion cost to the state, communities and individuals. In terms of unnatural deaths, transport related fatalities fall in seventh place after HIV/AIDS, heart and lung disease, homicide and violence, and strokes (Department of Transport, 2006). Accidental injuries accounted for 8,1% of all causes of death that were reported in 2018 while transport accidents contributed 1,4% to all deaths that occurred in 2018 (Statistics South Africa, 2021).

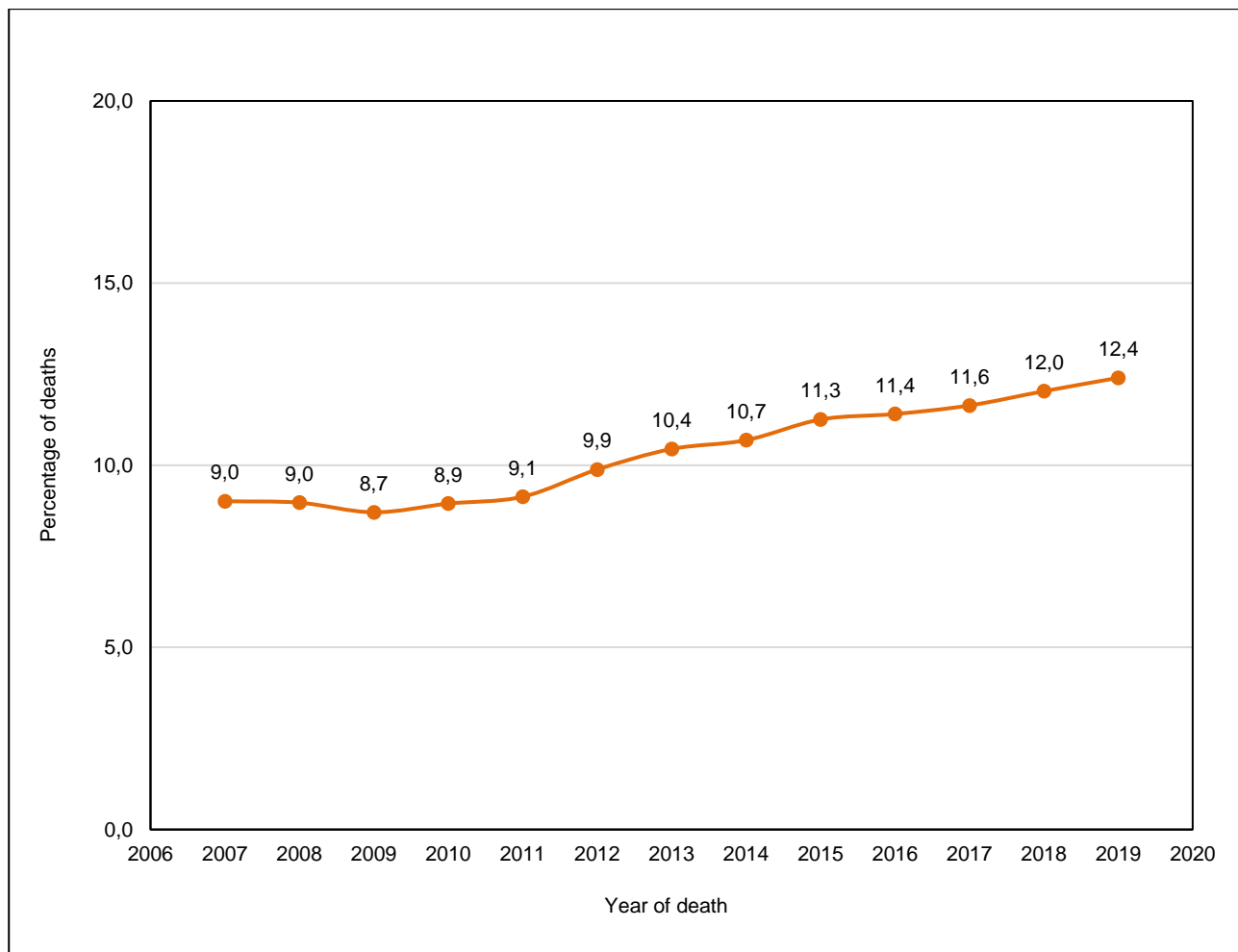
The Government of South Africa signed a global declaration on the Sustainable Development Goals, SDG Target 3.6 on halving the number of global deaths and injuries from road transport crashes by 2020. The declaration was further extended to halve the number of global deaths and injuries from road transport accidents by 2030. This report will assist to measure progress towards attaining the stipulated SDGs.

### Chapter 3: Overall deaths, 2007–2019

This section presents information on the percentage distribution of external causes of morbidity and mortality (non-natural causes) to the overall deaths that occurred between 2007 and 2019 (see Appendix 1).

There was a steady increase in the percentage contribution of external causes of morbidity and mortality to the overall deaths from 9,0% in 2007 to 12,4% in 2019. The only decrease observed was in the percentage of external causes of morbidity and mortality recorded between 2008 and 2009 (9,0% to 8,7%).

**Figure 3.1: Percentage contribution of non-natural causes to the overall deaths, 2007–2019**



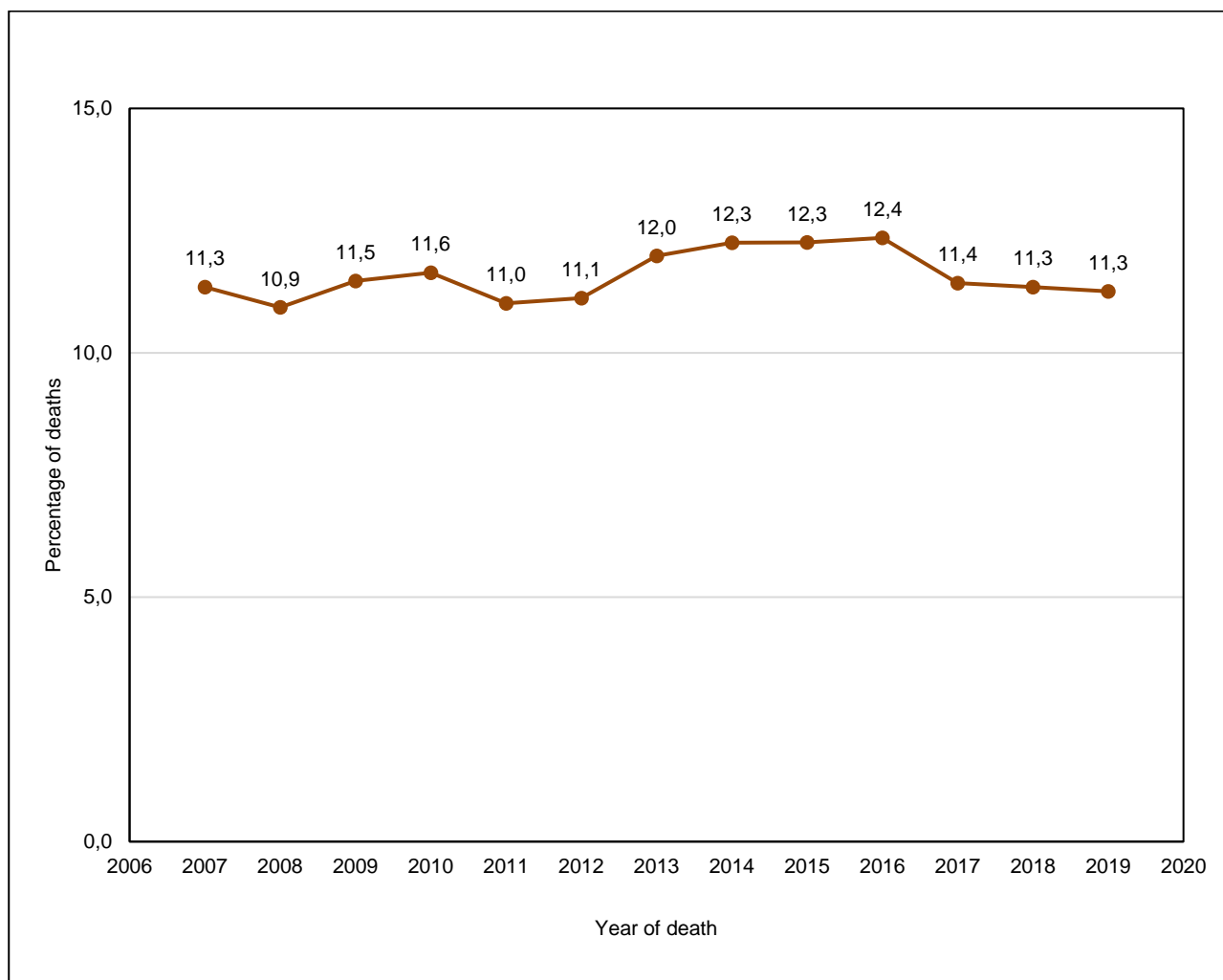
### 3.1 External causes of morbidity and mortality

This section presents information on the percentage contribution of transport accidents to external causes of morbidity and mortality (non-natural causes) for deaths that occurred between 2007 and 2019.

Transport accidents cover all deaths related to transport, namely road/land, air and water. Road transport accident deaths include pedestrians, car occupants, pedal cyclists, motorcyclists, occupants of three-wheeled motor vehicles, occupants of pick-up trucks or vans, occupants of heavy transport vehicles, bus occupants and individuals injured in other land transport accidents (animal riders, occupants of a railway train, etc.).

Figure 3.2 shows that there was a fluctuating pattern of road transport accident deaths between the reporting years. The lowest percentage was observed in 2008 (10,9%) while the highest percentage was recorded in 2016 (12,4), decreasing to 11,4% in 2017 (see Appendix 1).

**Figure 3.2: Percentage contribution of transport accidents to non-natural causes, 2007–2019**



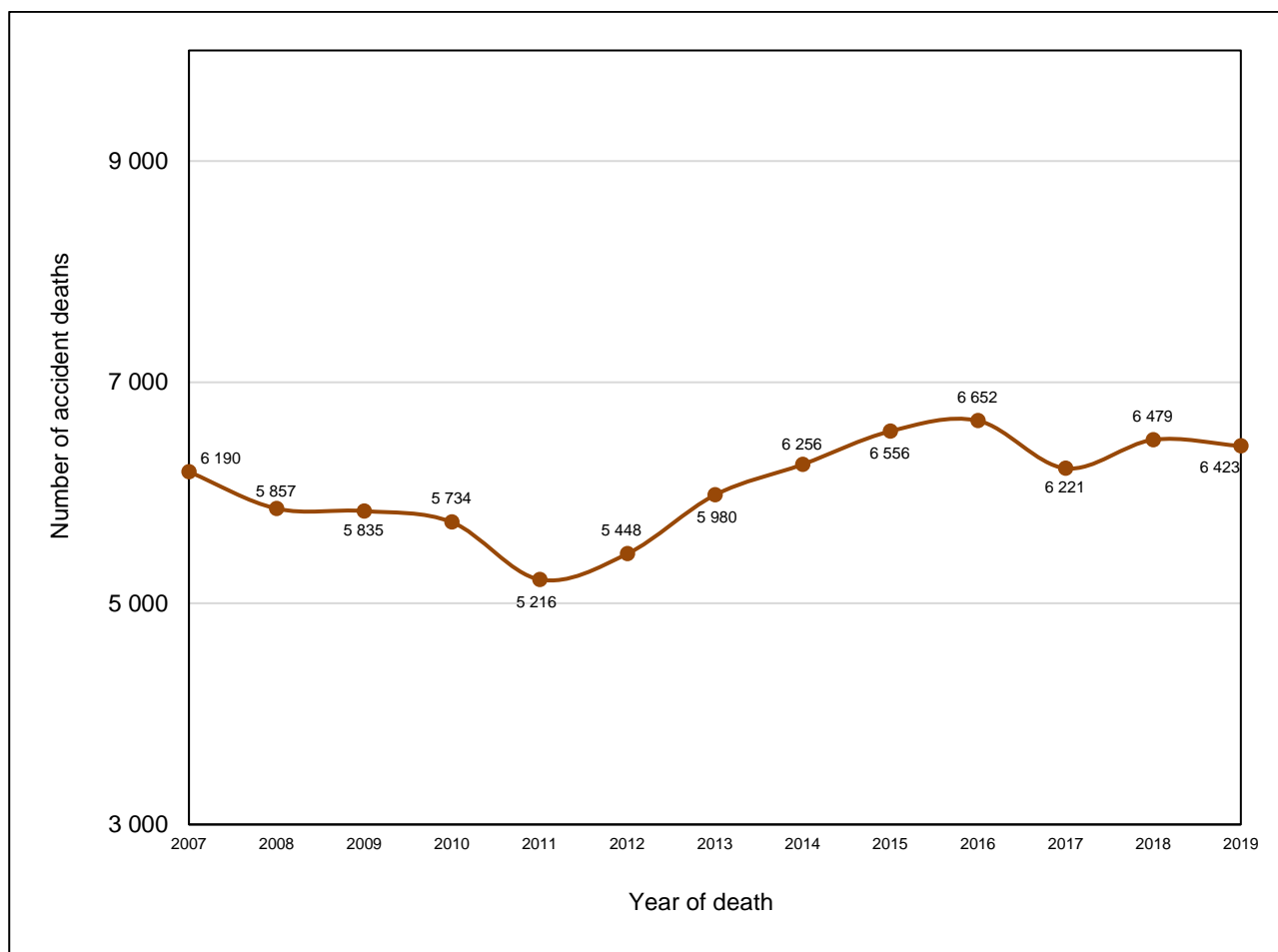
## Chapter 4: Trend analysis of road transport accident deaths

This chapter presents trend analysis for road transport accident deaths that occurred between 2007 and 2019. Information presented in this report is based on deaths that have transport accidents as the underlying cause of death for ICD-10 (Code V01-V99). It outlines the overall trends of road transport accident deaths by year of death, road transport accident deaths by month of death, road transport accident deaths by type of road user, road transport accident deaths by place of death and road transport accident deaths by province.

### 4.1 Road transport accident deaths by year of death, 2007–2019

Figure 4.1 below presents information on road transport accident deaths for the years 2007–2019. Generally, there was an increase in the number of deaths from 6 190 in 2007 to 6 423 in 2019. In between the reporting years, there was a decrease in road transport accidents deaths between 2007 and 2011, where 2011 recorded 5 216 deaths, increasing to 6 652 deaths in 2016. A marginal decline was observed from 6 652 deaths in 2016 to 6 423 deaths from road transport accidents in 2019.

**Figure 4.1: Number of road transport accident deaths by year of death, 2007–2019**



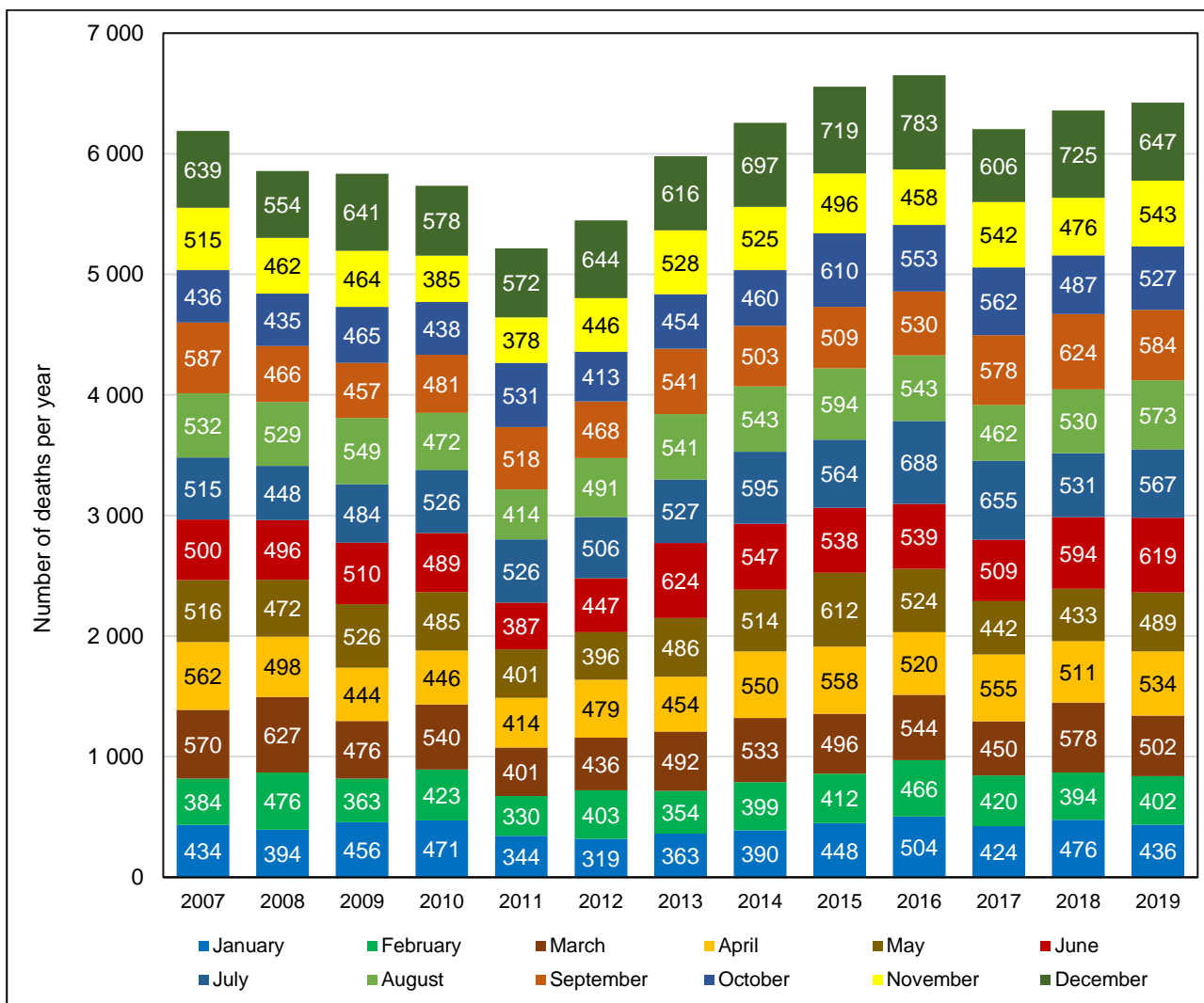
### 4.2 Road transport accident deaths by month of death, 2007–2019

This section presents information on road transport accident deaths by month of death between 2007 and 2019. Figure 4.2 below shows that December was the month during which most road transport accident deaths were recorded in South Africa, recording the highest number of road transport accident deaths with the exception of 2008, 2013 and 2017.

For the year 2008, the month that recorded the highest number of deaths was March (627 deaths), with 2013 recording the highest number of deaths in June (624 deaths), while 2017 had the highest number of road transport accidents deaths in July (655 deaths). The months that had the lowest number of deaths throughout the years were February, January and November.

The year 2016 had the highest number of road transport accident deaths, recording the highest number of 783 deaths in December and the lowest number of deaths in November (458 deaths). The year 2011 had the lowest number of deaths recorded in February (330 deaths) and the lowest number of deaths in December (572 deaths).

**Figure 4.2: Number of road transport accident deaths by month of death occurrence, 2007–2019**



### 4.3 Road transport accident deaths by type of road user, 2007–2019

This section presents information on road transport accident deaths by type of road user between 2007 and 2019. The types of road users are classified as pedestrians, car occupants, pedal cyclists or motorcyclists, etc. For the purpose of this section, only two types of road users were selected for further analysis: people who died as pedestrians; and those who died as car occupants.

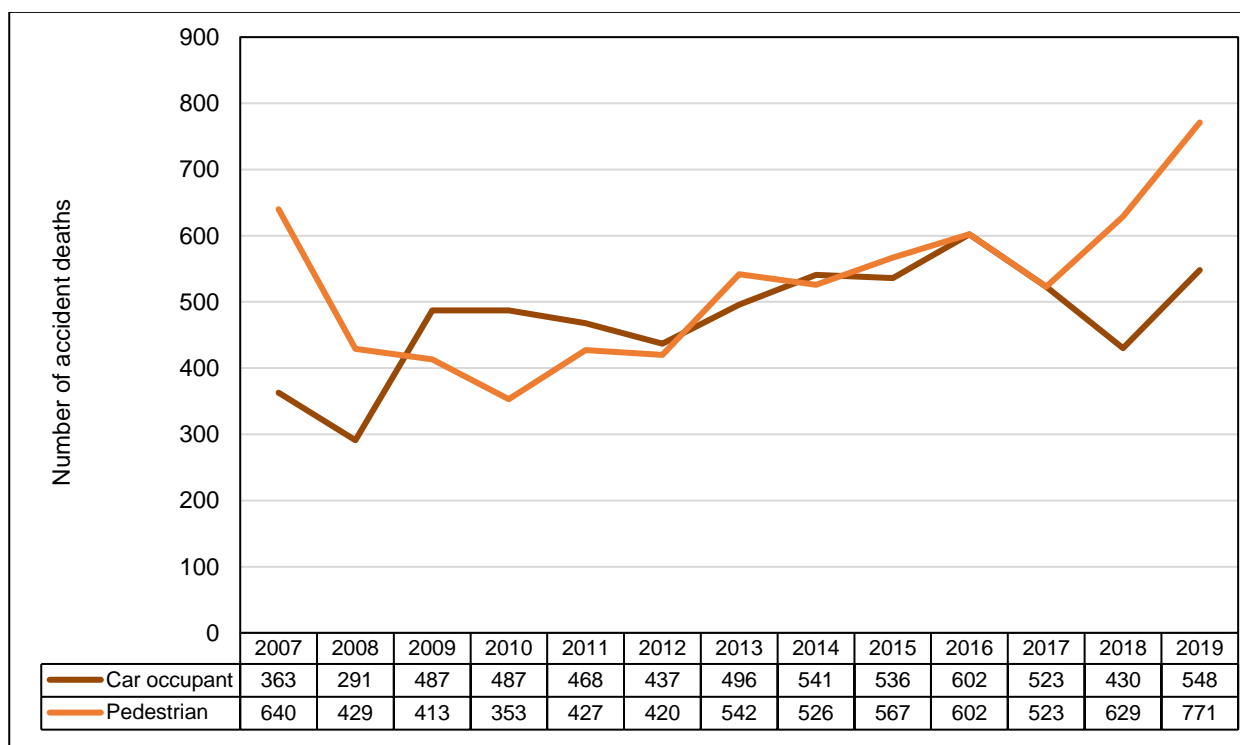
#### 4.3.1 Road transport accident deaths by selected types of road user

Figure 4.3 below presents road transport accident deaths by selected types of road users from 2007 to 2019. People who died as pedestrians were higher than those who died as car occupants in 2007, 2013 and 2019.

The number of people who died as car occupants increased from 363 deaths in 2007 to 548 deaths in 2019. The year 2016 recorded the highest number (602 deaths) of car occupants' deaths while 2008 recorded the lowest number of car occupants at 291 deaths.

There was an increase in the number of people who died as pedestrians from 640 deaths in 2007 to 771 deaths in 2019. Pedestrian deaths fluctuated between 2007 and 2019, while the year 2010 recorded the lowest number of pedestrian deaths at 353 and the year 2019 recording the highest number of 771 pedestrian deaths.

**Figure 4.3: Number of road transport accident deaths by selected type of road user, 2007–2019**



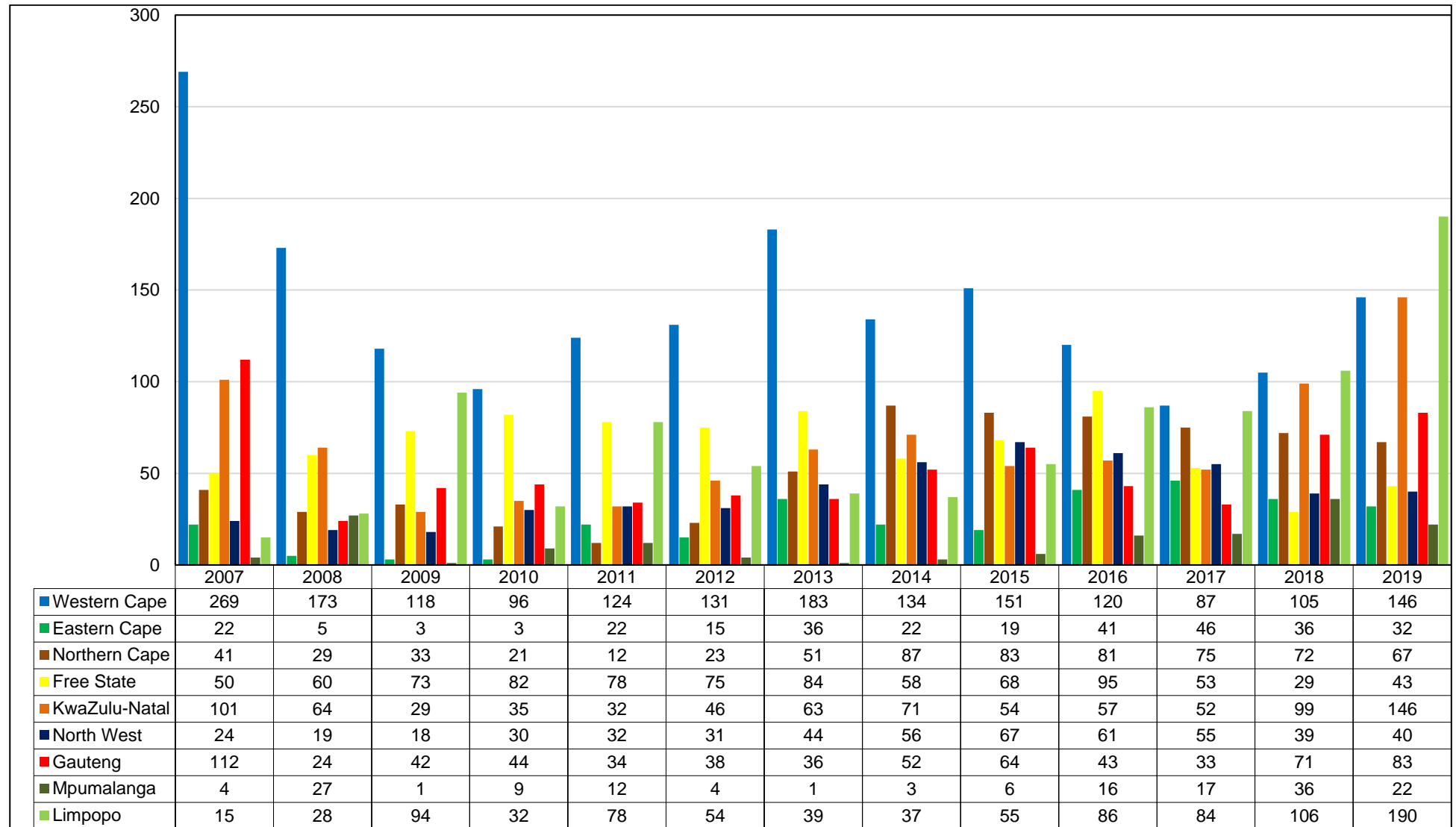
### 4.3.2 Pedestrian deaths by province and year of death, 2007–2019

Figure 4.4 below shows the number of pedestrian deaths by province and year of death for the period 2007 to 2019. This section only covers road transport accident deaths for those who died as pedestrians.

Results show that Western Cape recorded the highest number of pedestrian deaths due to road transport accidents except in 2018 and 2019, where Limpopo recorded the highest number of pedestrian deaths at 106 in 2018 and 190 in 2019. Though Western Cape has been recording the highest number of pedestrian deaths, the number of pedestrian deaths decreased in the province from 269 in 2007 to 146 in 2019.

The number of deaths in other provinces have been fluctuating over years, with Limpopo showing an increasing trend. Mpumalanga recorded the lowest number of pedestrian deaths in the majority of the reporting years.

**Figure 4.4: Number of pedestrian deaths by province and year of death, 2007–2019**





### **4.3.3 Car occupant deaths by province and year of death, 2007–2019**

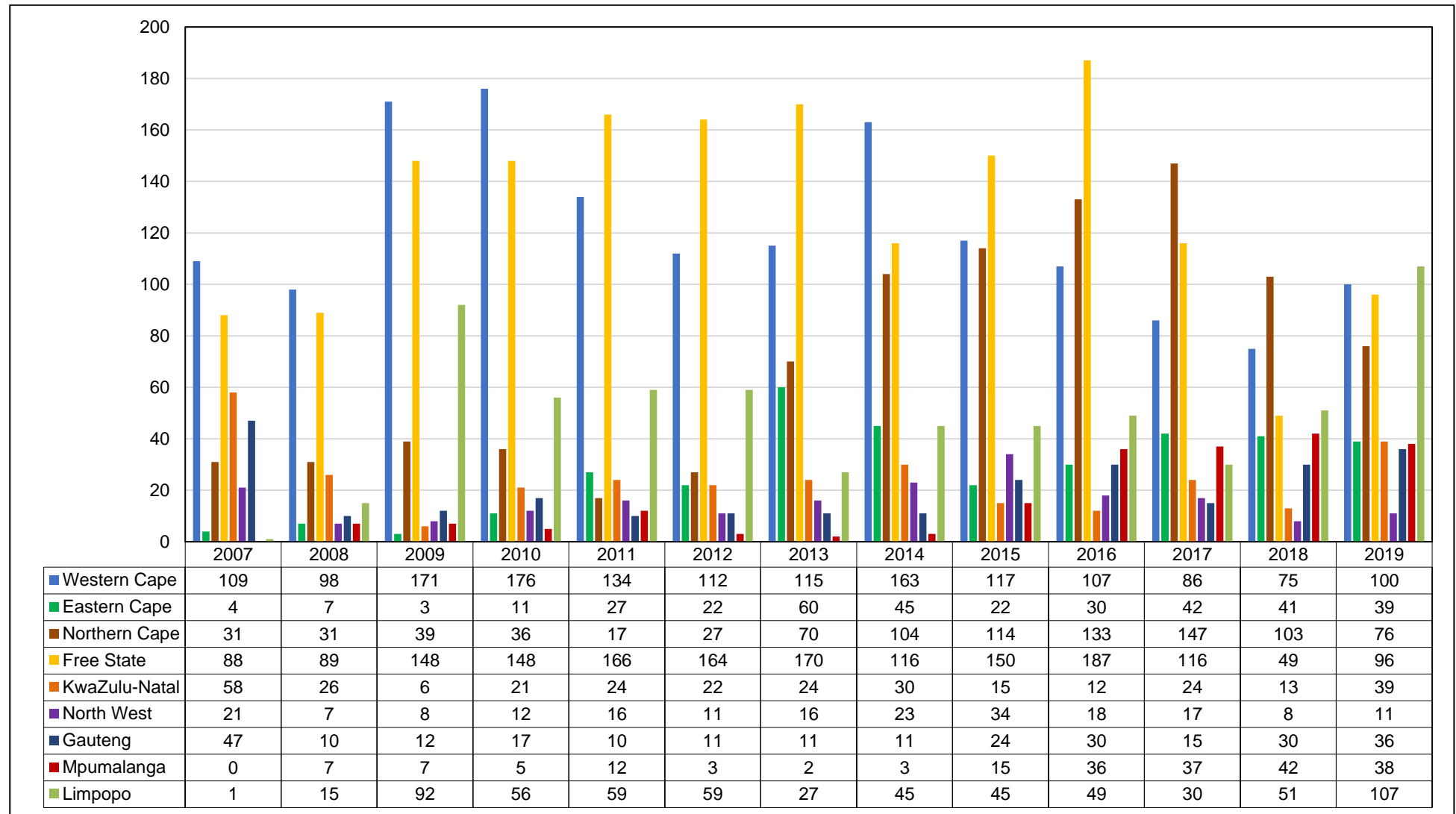
This section highlights information on people who died as car occupants by province and year of death between 2007 and 2019. It covers only those road transport accident deaths where people died as car occupants. The general trend for all the provinces was fluctuating for the reported years.

Western Cape and Free State interchangeably recorded higher number of car occupants' deaths between 2007 and 2015. Northern Cape recorded a higher number of deaths for 2017 and 2018 (147 and 103 deaths, respectively), while Limpopo had the highest number of car occupants' deaths in 2019 at 107.

Though Western Cape and Free State were not recording the highest number of car occupants between 2017 and 2019, they were still ranking second and third in terms of car occupants' deaths.

Free State reported the highest number of car occupants' deaths of 187 deaths in 2016. The province that had ever reported the lowest number of car occupants' deaths was Eastern Cape with three deaths in 2009. Eastern Cape had been recording the lowest number of deaths between 2007 and 2015; thereafter North West had lower numbers of car occupants' deaths.

**Figure 4.5: Number of car occupants' deaths by province and year of death, 2007–2019**



## 4.4 Road transport accident deaths by place of death, 2007–2019

This section presents information on road transport accident deaths by place of death, such as a hospital, emergency room (ER) / outpatient department (OPD) of the hospital, nursing home, at home or those who were declared dead on arrival (DoA). For the purpose of this section, further analysis is done only for hospitals, dead on arrival and emergency rooms as common places of death.

### 4.4.1 Common place of death and year of death

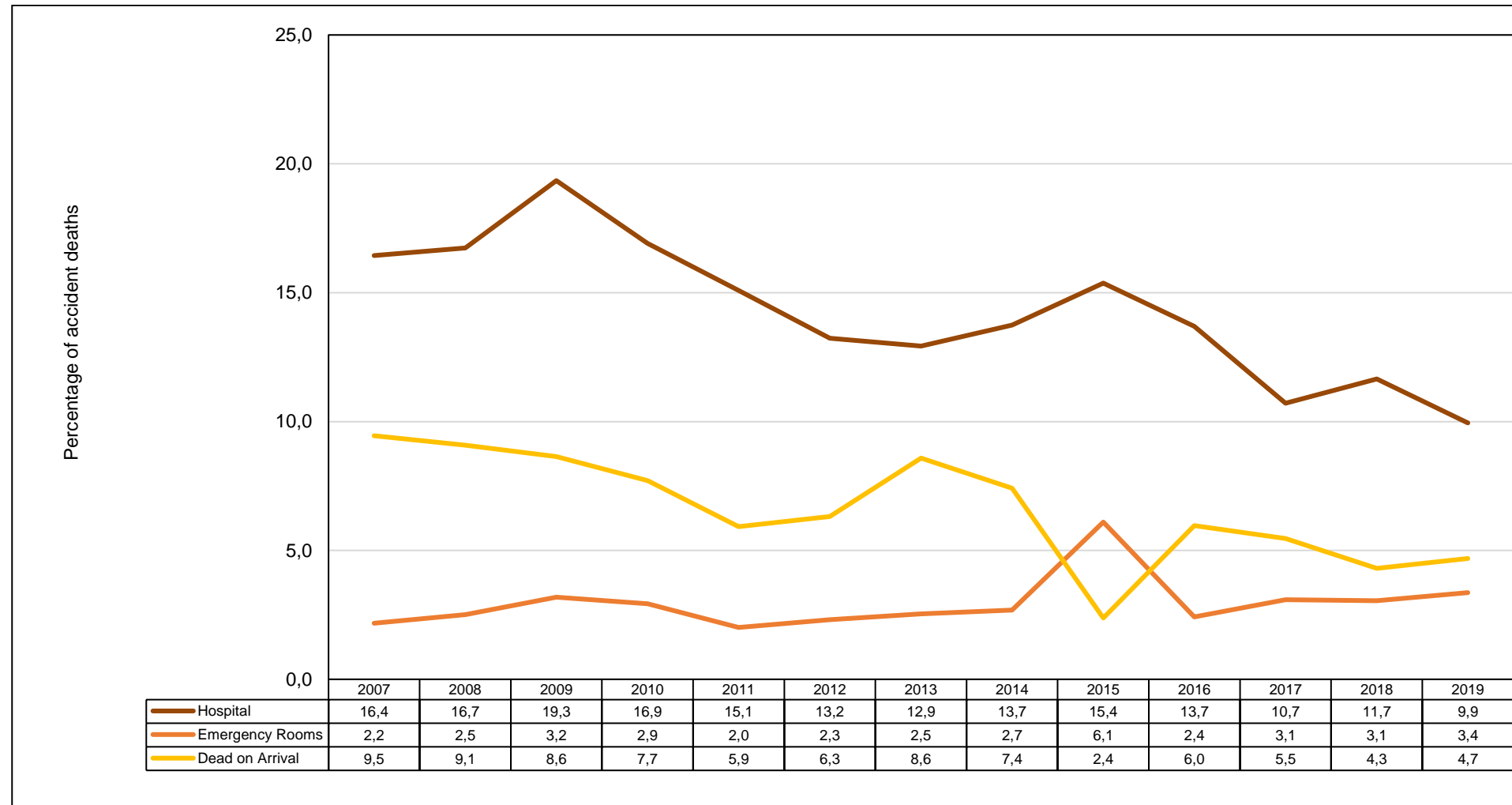
Figure 4.6 shows the percentage of road transport accident deaths by common place of death and year of death for 2007 to 2019. Hospitals were the most common place of death for all the years under review, followed by those who died before they arrived (DoA) at a health facility, and those who died in emergency rooms (see Appendix 2).

Among the deaths that occurred in hospitals, a decrease in deaths was seen from 16,4% in 2007 to 9,9% in 2019. There was an upward trend from 2007 until 2009 where a peak was reached at 19,3%, decreasing to 9,9% in 2019.

Among people who died in emergency rooms, an increase in deaths was seen from 2,2% in 2007 to 3,4% in 2019. Deaths that occurred in emergency rooms fluctuated between 2,0% and 3,4%, except in 2015 where 6,1% deaths were recorded.

For people who were declared dead on arrival (DoA) in a health facility, a decrease in deaths was seen from 9,5% in 2007 to 4,7% in 2019. People who died on arrival (DoA) decreased between 2007 and 2011, where a fluctuating trend was observed with a decrease in 2015 at 2,4%.

**Figure 4.6: Percentage of road transport accident deaths by common places of death and year of death, 2007–2019**



#### 4.4.2 Common place of death by province

Figure 4.7 below highlights common places of death by province for the years 2007 to 2019. Generally, Limpopo reported the highest number of deaths in hospitals, as compared to other provinces. People who died in emergency rooms were seen more in Eastern Cape while people who were declared dead on arrival were more in Western Cape, Free State and Northern Cape.

In Western Cape, most people died before they arrived in a health facility (595 deaths), followed by those who died in hospitals at 579 deaths and lastly, those who died in emergency rooms (116 deaths).

Eastern Cape had the most deaths happening in hospitals (1 613 deaths), followed by those who died before arriving in health facilities at 717 deaths, then those who died in emergency rooms (627 deaths).

Northern Cape recorded a high number of people dying before arriving in health facilities (1 043 deaths), followed by those who died in hospitals (401 deaths), then by those who died in emergency rooms (172 deaths).

Free State recorded most of the deaths for those who died before arriving at health facilities (1 168 deaths), then those dying in hospitals at 869 deaths, and lastly those who died in emergency rooms (266 deaths).

KwaZulu-Natal reported the most deaths in hospitals (1 995 deaths), then emergency rooms (477 deaths), followed by those who died before reaching health facilities (297 deaths).

North West had a higher number of people dying in hospitals (796 deaths), followed by those dying before arriving in health facilities (343 deaths), then those who died in emergency rooms (71 deaths).

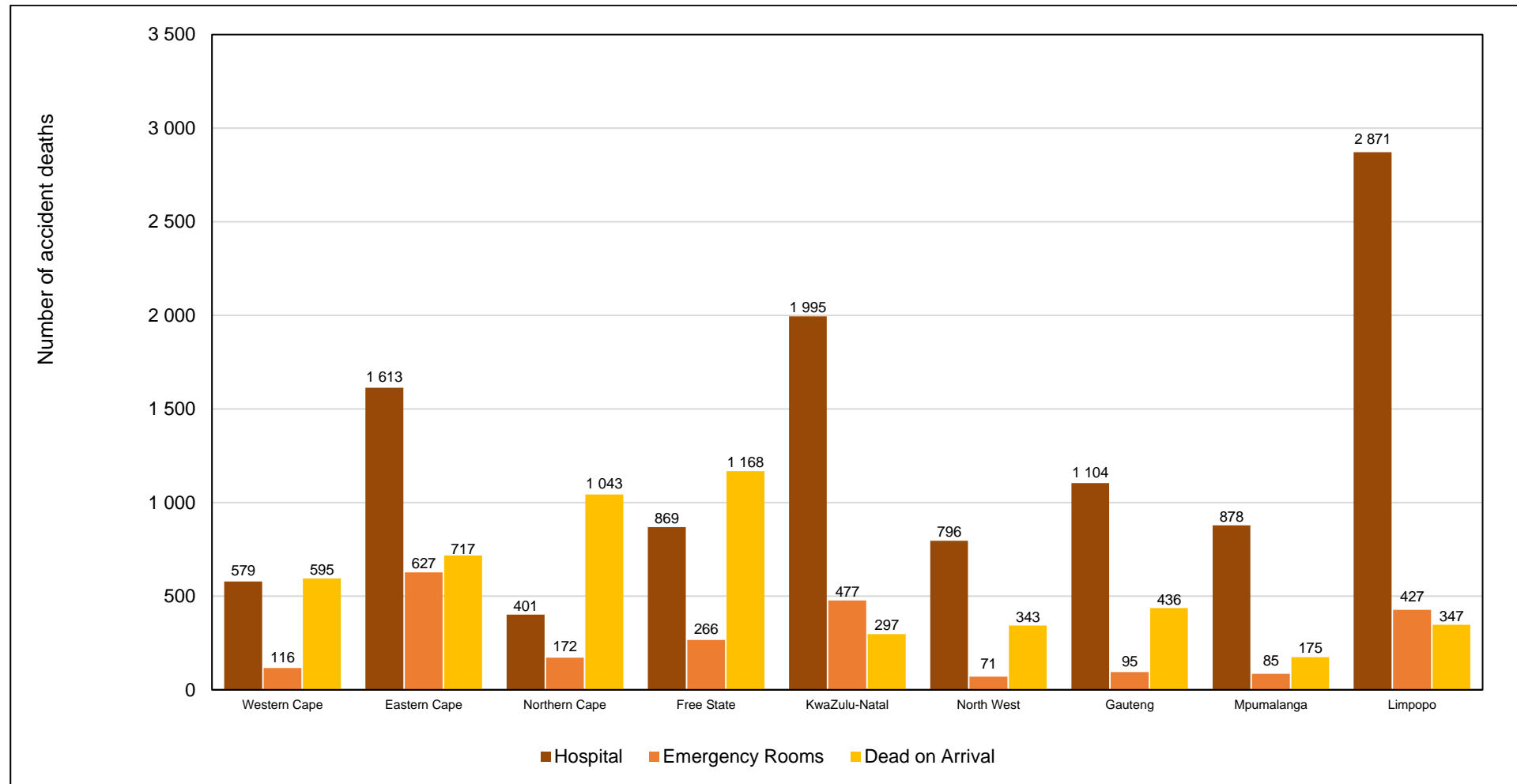
Gauteng recorded the most deaths in hospitals (1 104 deaths), followed by those who died before arrival in health facility (436 deaths), then emergency rooms at 95 deaths.

Mpumalanga had a higher number of deaths in hospitals (878 deaths), followed by those who were declared dead on arrival at 175 deaths, then emergency rooms (85 deaths).

Limpopo had the most deaths in hospitals (2 871 deaths), followed by those in emergency rooms (427 deaths) and those who died before arriving in health facilities at 347 deaths.

Western Cape, Northern Cape and Free State were the only provinces with higher numbers of people who were declared dead on arrival in health facilities (DoA). All the remaining provinces recorded higher numbers of people who died in hospitals between 2007 and 2019.

**Figure 4.7: Number of road transport accident deaths by common place of death and province, 2007–2019**



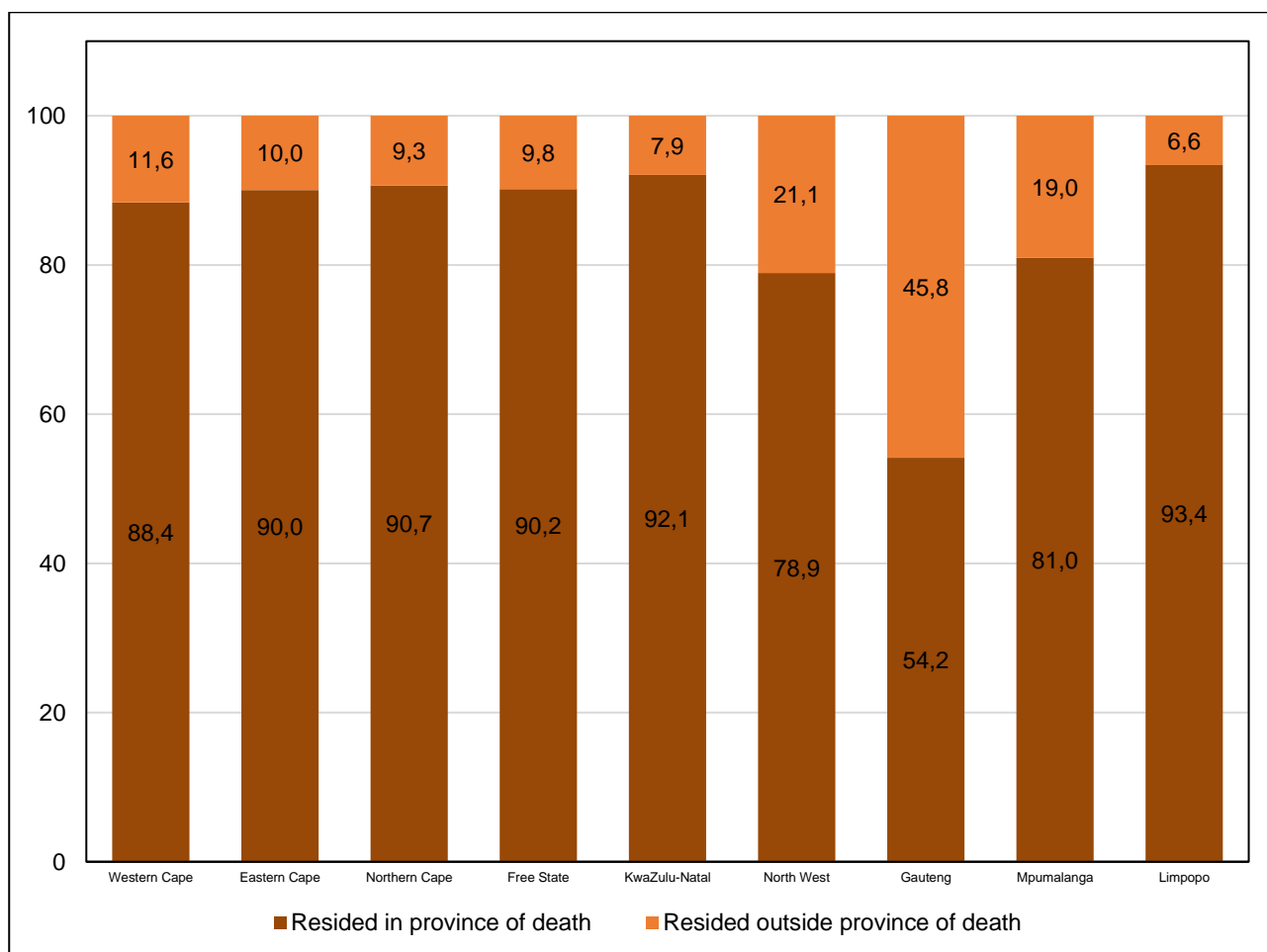
### 4.5 Province of residence and province of death

This section presents road transport accidents deaths for 2007 to 2019 by province of usual residence and province of death. Province of usual residence is defined as the province where the deceased usually resided and the province of death is the province where the death occurred.

Figure 4.8 below shows that road transport accident deaths occurring in the province of usual residence were higher than those that occurred outside the province of residence. Percentages of people who died in their province of residence were 90% and above in most provinces, with the exception of Western Cape (88,4%), Mpumalanga (81,0), North West (78,9%), and Gauteng (54,2%).

KwaZulu-Natal and Limpopo reported higher percentages of people who died in their province of usual residence (92,1% and 93,4%, respectively), while Gauteng recorded a lower percentage of people who died in their province of usual residence at 54,2% (see Appendix 3).

**Figure 4.8: Percentage of road transport accident deaths by province of residence and province of death, 2007–2019**



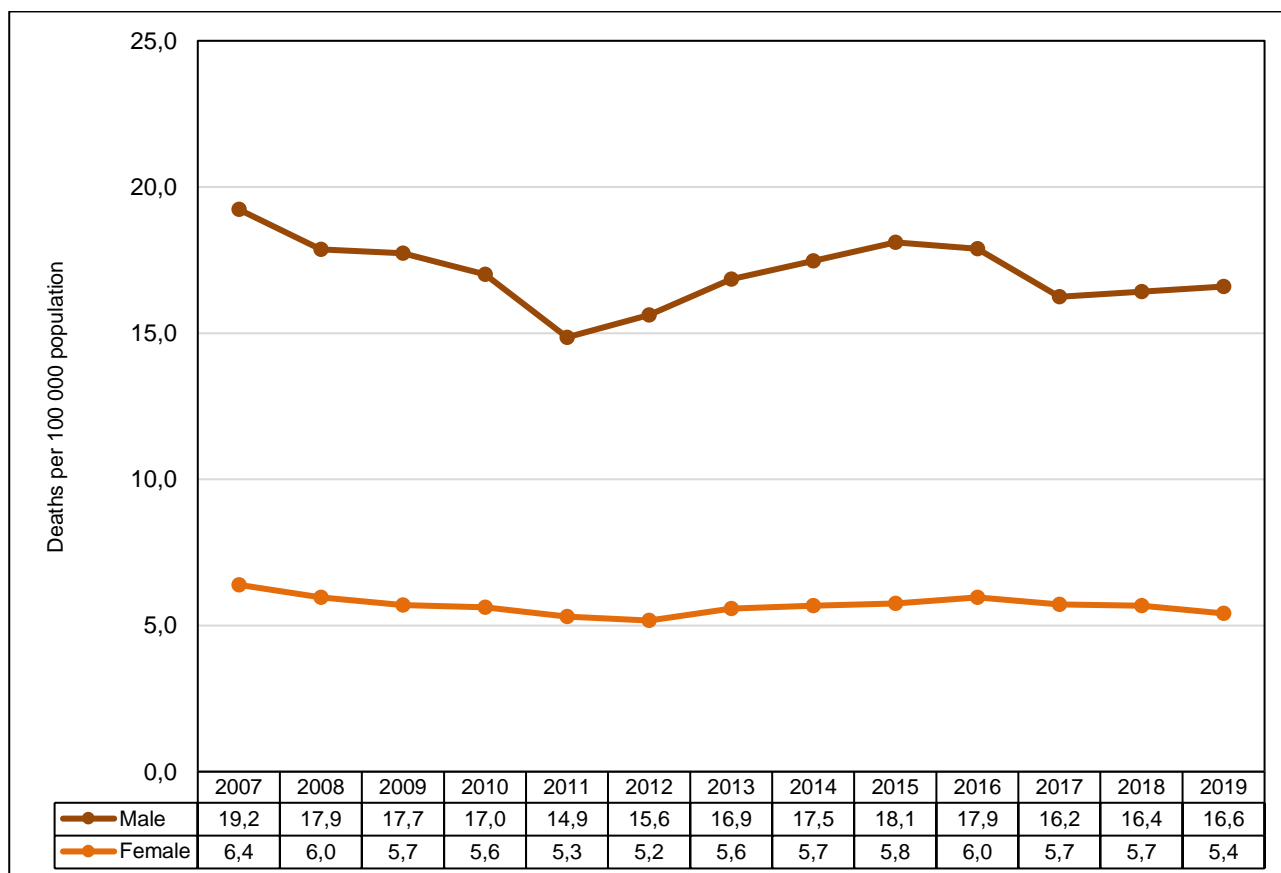
## Chapter 5: Death rates for road transport accident deaths

This chapter presents information on crude death rates (CDR) and age-standardised death rates (ASDR) on road transport deaths from 2007 to 2019. CDR is defined as the number of road transport deaths in South Africa divided by the total population in South Africa in a given year, and it is an unadjusted rate. ASDR is defined as the weighted average of the age-specific death rate per 100 000 populations. The numerator used for both definitions was the road traffic accident deaths for the reporting years (2007–2019) and the denominator used was the mid-year population estimates (MYPE) for each reporting year (2007–2019). The World Standard Population developed by WHO is used in the analysis of ASDR.

### 5.1 Crude death rates for road transport accident deaths

Figure 5.1 below presents crude death rates (CDR) by sex for road transport accident deaths that occurred between 2007 and 2019. CDR for males were significantly higher than for females. The average CDR for males from 2007 to 2019 was 17,1 deaths per 100 000 populations while for females was 5,7 per 100 000 populations. This is an indication of risky behaviour (see Appendix 4).

**Figure 5.1: Crude death rates for road transport accident deaths by sex and year of death, 2007–2019**





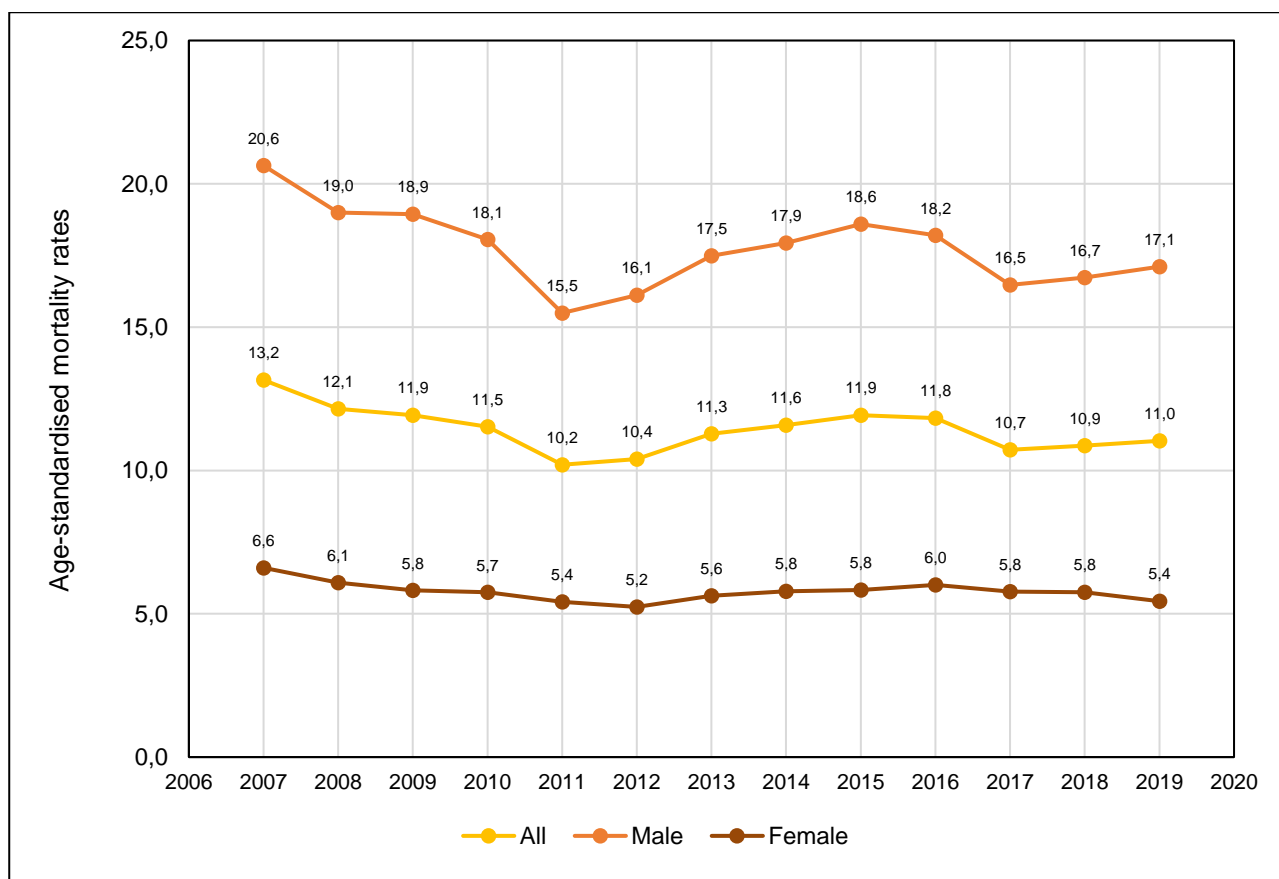
### 5.2 Age-standardised death rates for road transport accident deaths by sex

Road transport accident deaths occur differently between males and females. Besides risky behaviour, men are more likely to own and drive a vehicle. A simple CDR does not take into account these differences. Standardisation facilitates a comparison of road transport accident death rates between males and females. For the purpose of this report, a direct age-standardised road-transport death rate for sex was used (see Appendix 5).

Figure 5.2 below presents information on ASDR for road transport accident deaths by sex and year of death, 2007–2019. Results show ASDR for males ranged between 15,0 and 21,0 per 100 000 while those for females ranged from 5,0 to 7,0 per 100 000.

The ASDR among males decreased from 20,6 in 2007 to 17,1 in 2019, while those for females decreased from 6,6 in 2007 to 5,4 in 2019. The risk of dying from road transport accident deaths was higher in 2007 for both males and females, and lower in 2011 (15,5) for males and lower in 2012 for females (5,2 per 100 000).

**Figure 5.2: Age-standardised death rates by sex and year of death, 2007–2019**



## Chapter 6: In-depth analysis of road transport accident deaths

The chapter presents an in-depth analysis of road transport accident deaths for 2019. It outlines deaths by age group and sex, road transport accident deaths by type of road user, road transport accident deaths by place of death, road transport accident deaths by month of death, and road transport accident deaths by province.

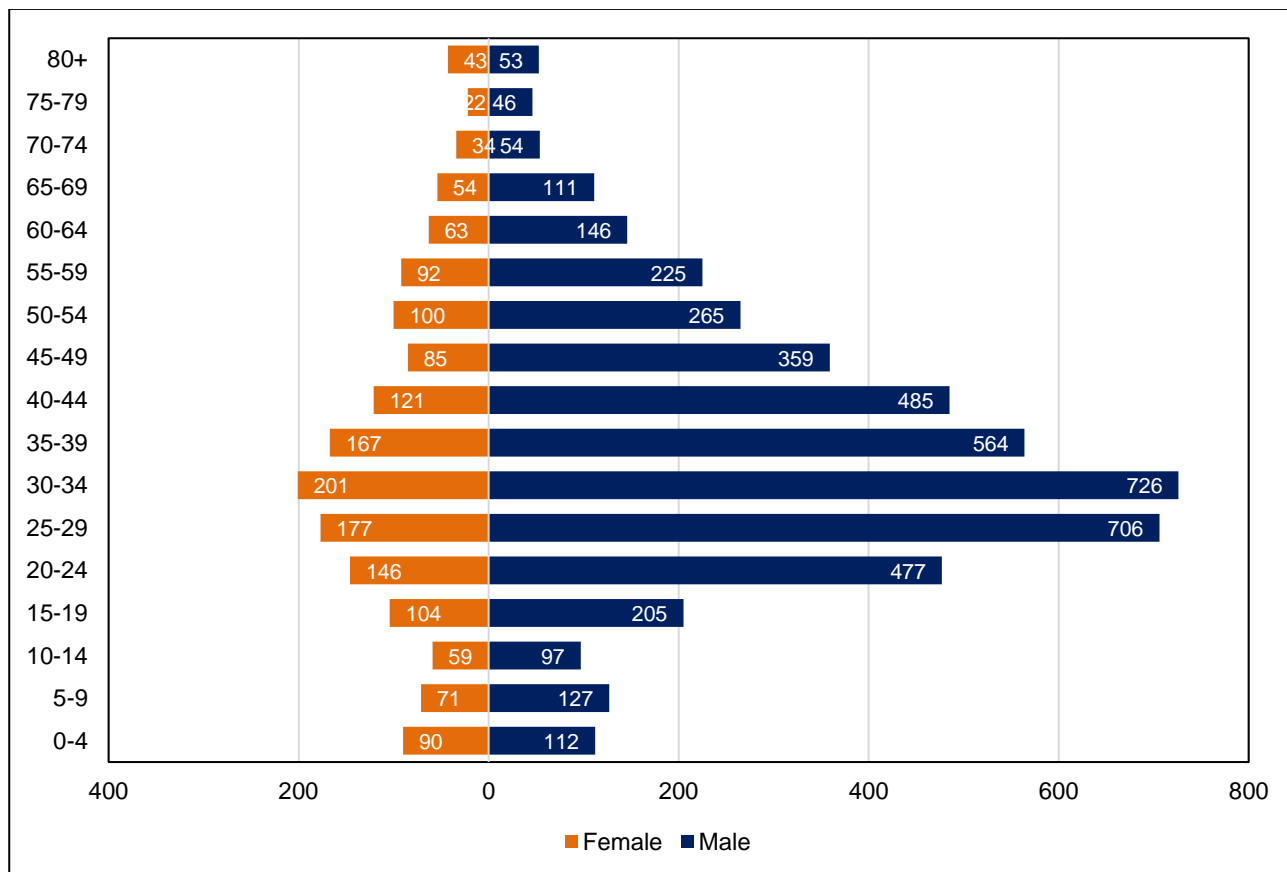
### 6.1 Road transport accident deaths by age group and sex, 2019

This section presents information on 2019 road transport accident deaths by age group and sex. There were more road transport accident deaths among males than road transport accidents deaths among females.

The highest numbers of road transport accident deaths were recorded in the age group 30–34 years with 726 deaths among males and 201 deaths among females. The lowest number of road transport accident deaths was recorded amongst males and females in the age group 75–79 years (46 deaths and 22 deaths respectively).

Females aged 20–44 years accounted for almost 50% of female deaths (49,8%) due to road transport accidents, while males in the age group 20–44 years accounted for almost two-thirds (62,1%) of road transport accident deaths.

**Figure 6.1: Road transport accident deaths by age group and sex, 2019**



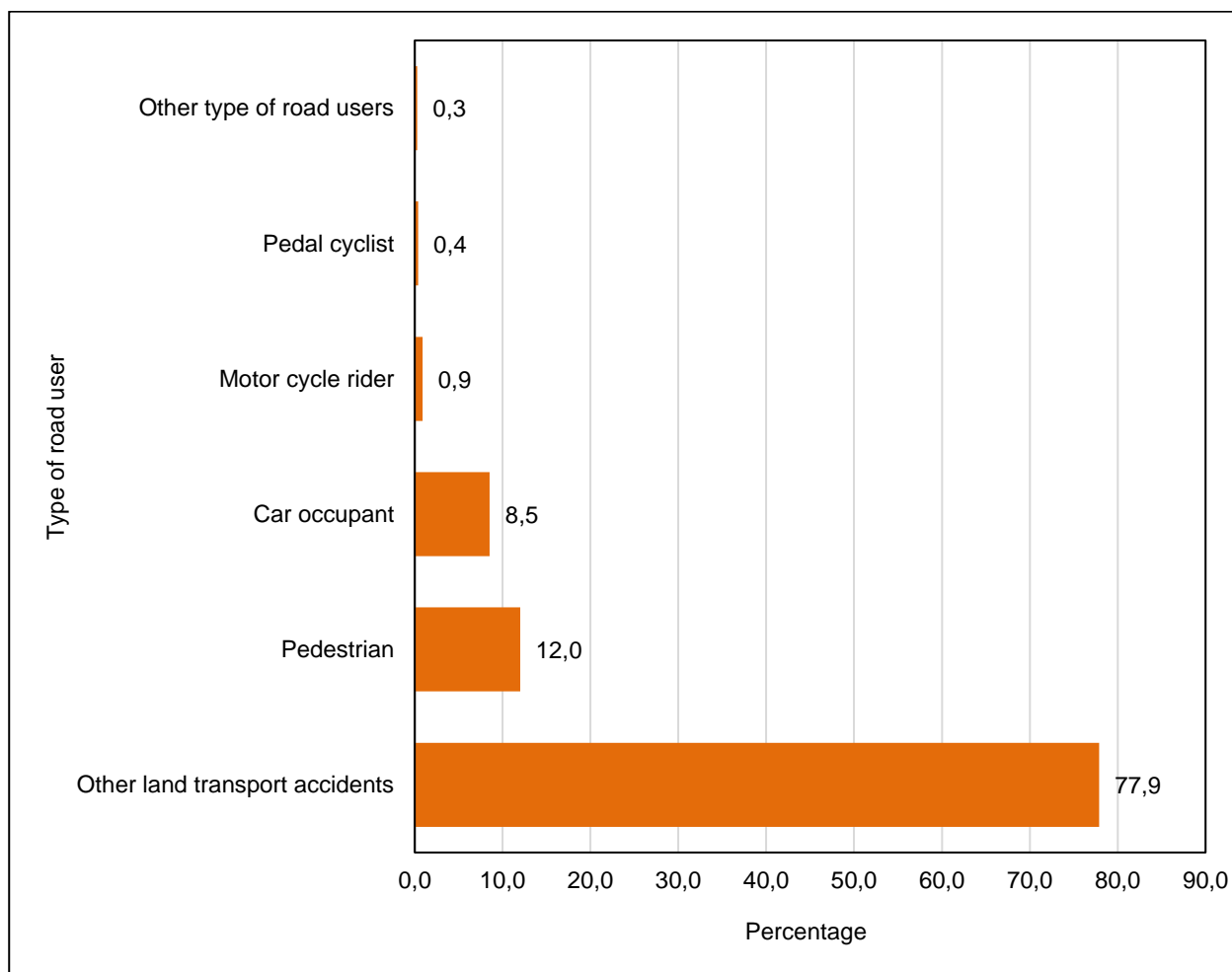
### 6.2 Road transport accident deaths by type of road user, 2019

This section presents information on road transport accident deaths in 2019 by type of road user. Road users are those people who were injured using a particular type of transport and died from those injuries, e.g. pedestrians, pedal cyclists, motorcycle riders, or car occupants and other types of road users (see Appendix 6).

The category of “other types of road user” includes occupants of three-wheeled motor vehicles, occupants of pick-up trucks or vans, occupants of heavy transport vehicles, bus occupants and individuals injured in other land transport accidents (animal riders, occupants of a railway train, etc.).

The other land transport accidents category includes types of road users that were unspecified or labelled as unknown and they contributed 77,9%, followed by those who died as pedestrians at 12,0%, then those who died as car occupants at 8,5%. The remaining two types of road users recorded deaths below 1% (0,9% for those who died as motorcyclists and 0,4% for those who died as pedal cyclists).

**Figure 6.2: Percentage of road transport accident deaths by type of road user, 2019**



### 6.2.1 Selected type of road user by age group

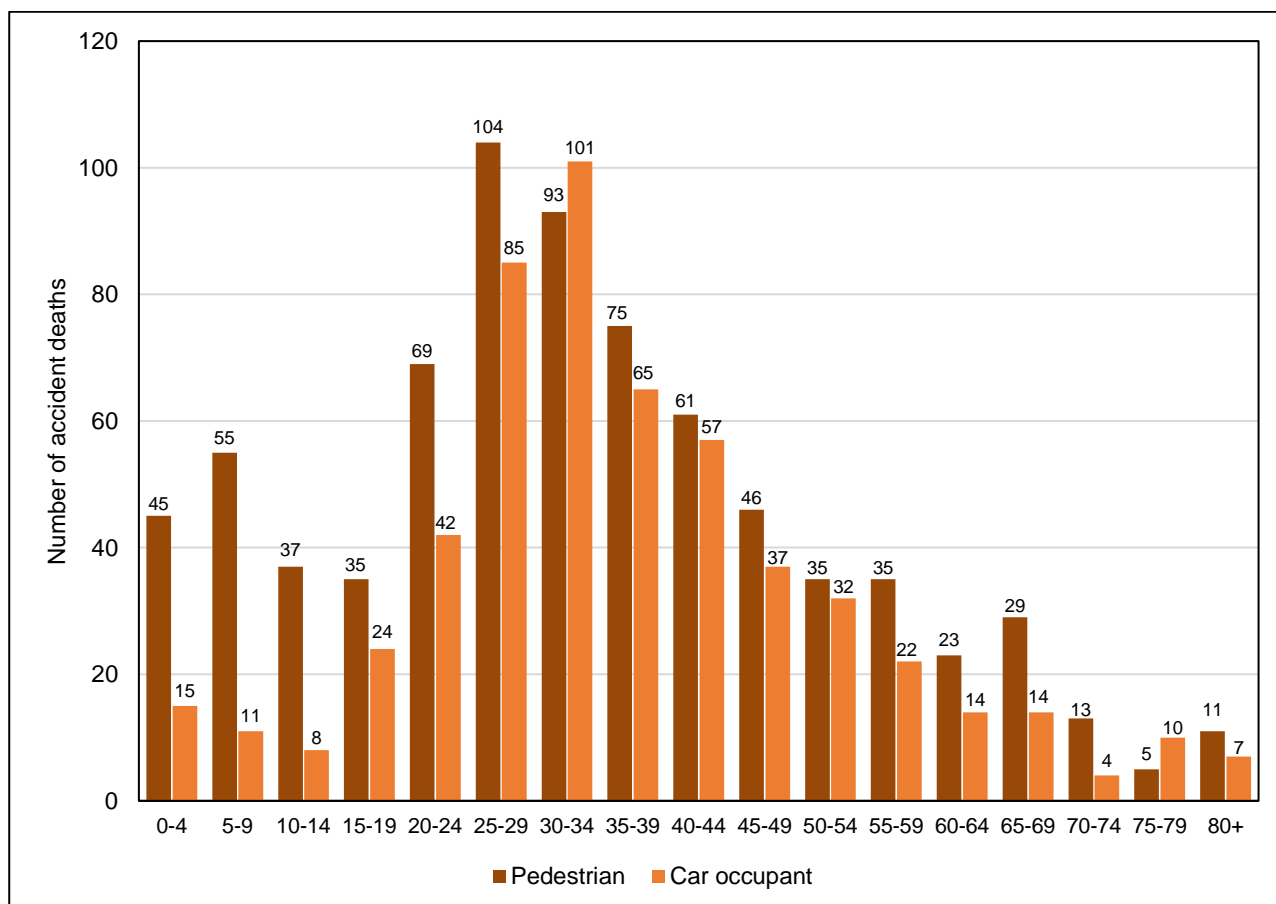
This section presents information on selected types of road user by age group for deaths that occurred in 2019. Selected types of road users were pedestrians and car occupants because of the availability of the number of deaths in each category.

Generally, people in the age groups 25–29 and 30–34 years were more likely to die from road transport accidents than other age groups, while children and older people are less likely to die from road transport accidents.

Among people who died as car occupants, most deaths occurred among those aged 30–34 years (101 deaths) and those 25–29 years (85 deaths). Older age groups (70–74 years [4 deaths]; 80+ years [7 deaths]; and 75–79 years [10 deaths]) were less likely to die as car occupants, as well as children aged 10–14 years with 8 deaths and children aged 5–9 years with 11 deaths.

Most pedestrian deaths were higher in age groups 25–29 and 30–34 years (104 and 93 deaths, respectively). Lower percentages of pedestrian deaths were observed in 70–74 years (13 deaths), 75–79 years (5 deaths) and those in 80 years and older (11 deaths).

**Figure 6.3: Number of road transport accident deaths by selected type of road user and age group, 2019**



### 6.2.2 Type of road user by sex

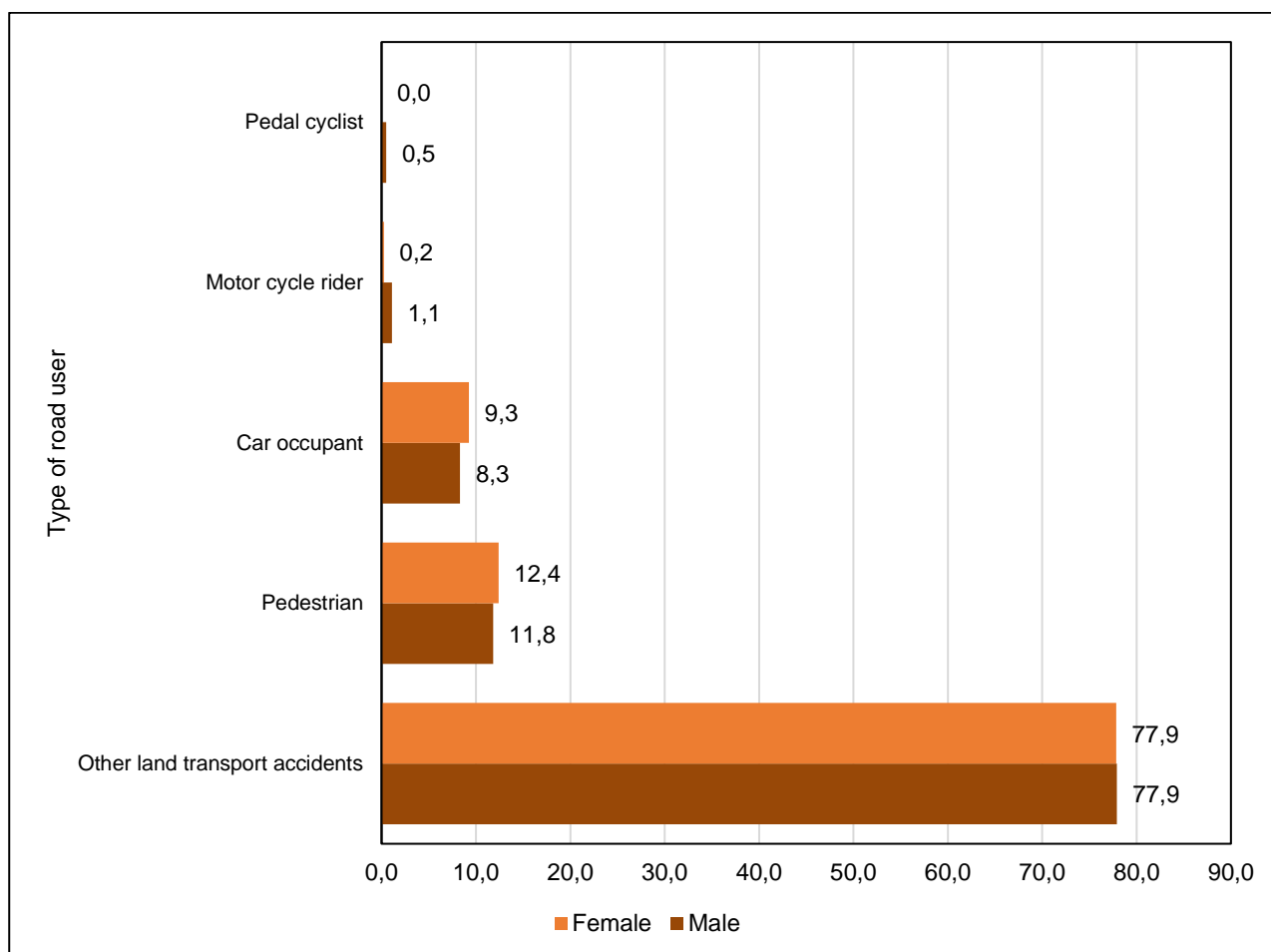
Figure 6.4 below shows the percentage of road transport accident deaths by type of road user and sex in 2019. Males and females contributed the same percentage of deaths for those who died from other land transport accidents (see Appendix 7).

Generally, females contributed a higher percentage of people who died as pedestrians and car occupants above their male counterparts.

Among those who died as pedestrians, females had a higher percentage of deaths compared to their male counterparts (12,4% females and 11,8% males). Females also contributed a higher percentage to car occupants' deaths with 9,3% deaths while only 8,3% deaths were male car occupants.

A higher percentage of male motorcyclists died at 1,1% compared to females at 0,2%. For people who died as pedal cyclists, males contributed a percentage higher than their female counterparts.

**Figure 6.4: Percentage of road transport accident deaths by type of road user and sex, 2019**



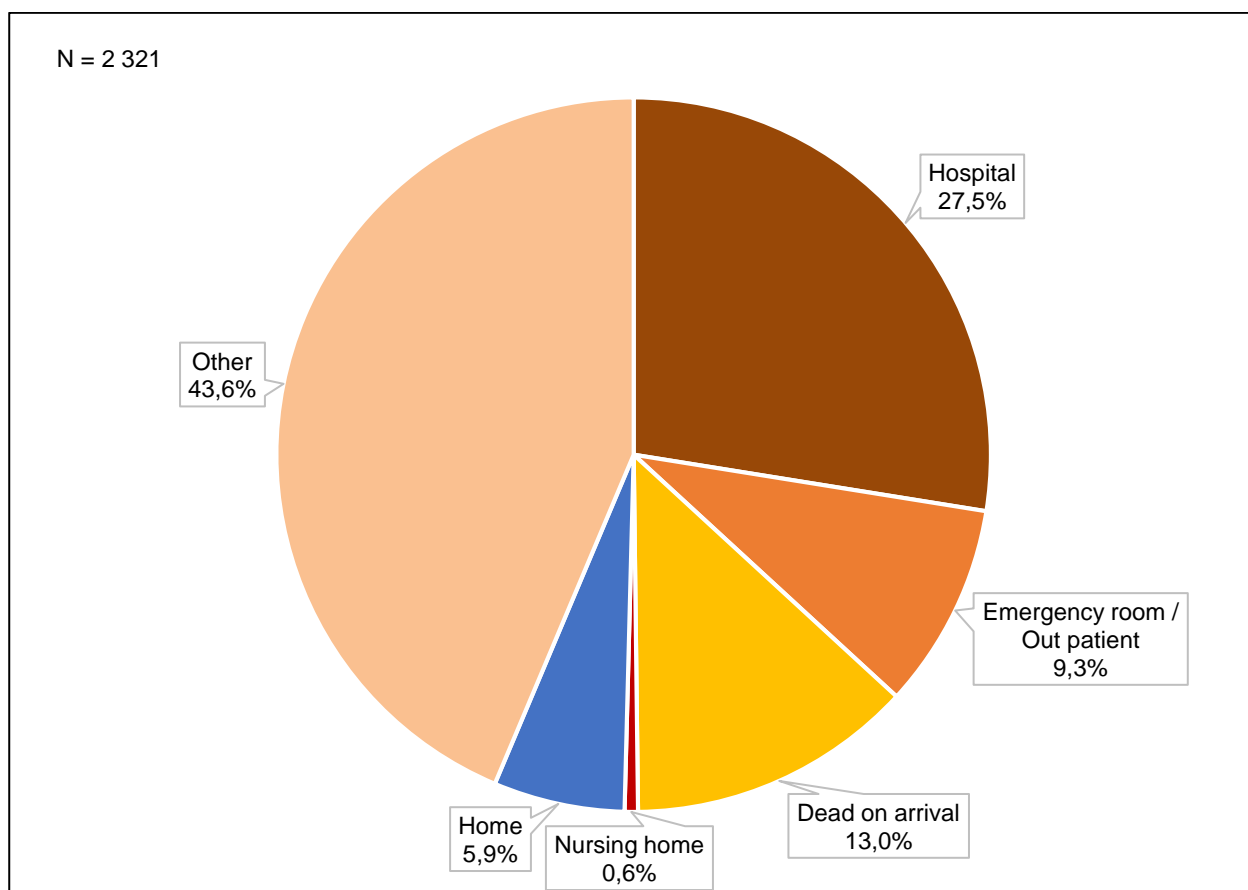
### 6.3 Road transport accident deaths by place of death, 2019

This section presents information on the place of death, namely: hospitals; emergency rooms (ER) or outpatient department (OPD) of the hospital; nursing home (facilities that take care of vulnerable groups such as older persons); at home; or those who were dead on arrival (see Appendix 8).

Figure 6.5 below shows the percentage of road transport accident deaths by place of death for 2019. Results show that the most common place where deaths occurred were hospitals at 27,5%. People who died before arriving in any health facility (i.e. dead on arrival) accounted for 13,0%, followed by those who died in emergency rooms of hospitals who accounted for 9,3% of road transport accident deaths.

The category “other” includes deaths which might have occurred at the scene of the accident comprising 43,6% of road transport accident deaths. Homes and nursing homes were the least likely places for road transport accident deaths to occur (5,9% and 0,6%, respectively).

**Figure 6.5: Percentage of road transport accident deaths by place of death, 2019**



\*Excluding unspecified or unknown place of death.

\*\*“Other” category, which might include the actual accident scene where the death occurred

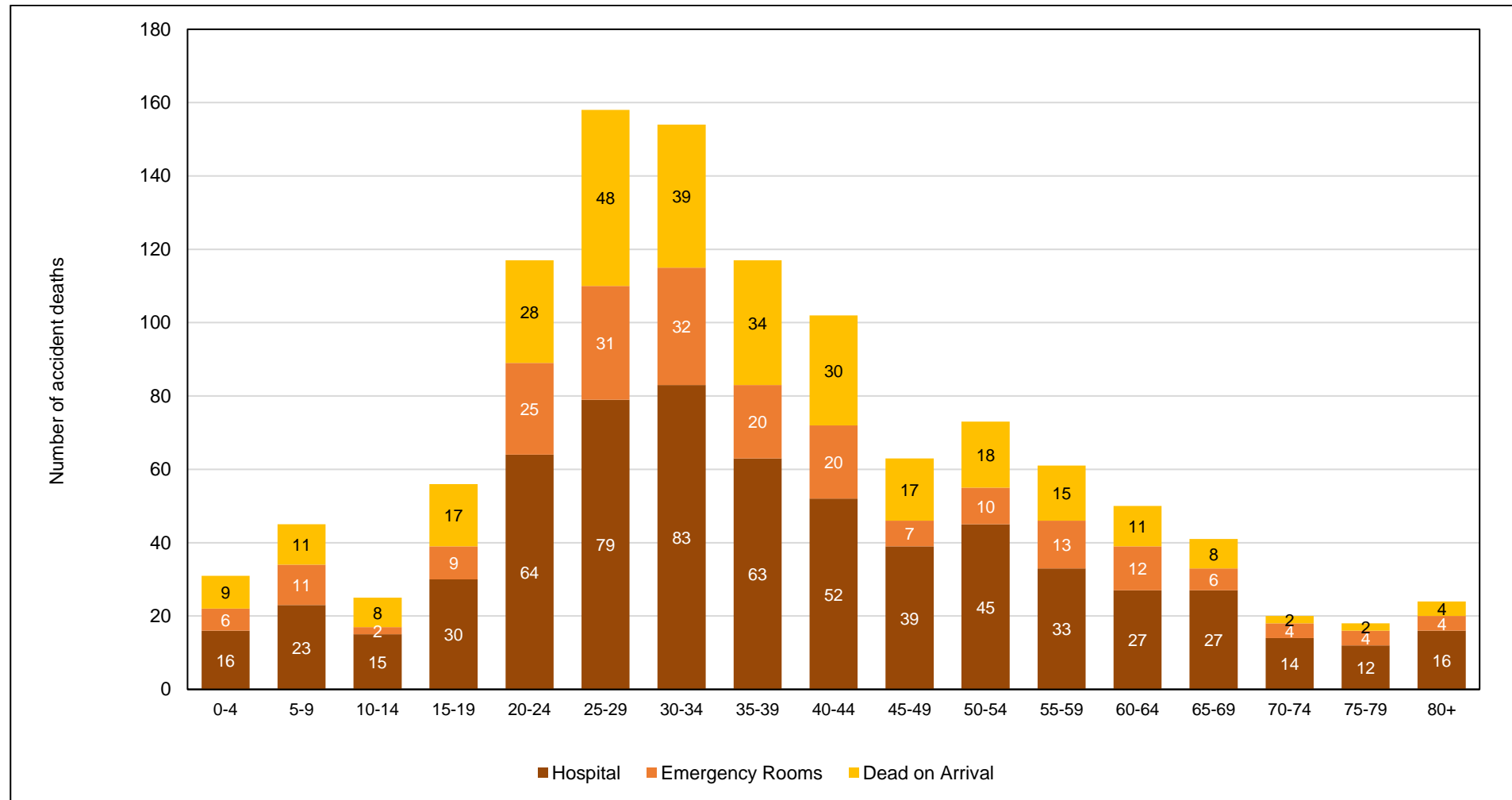
### 6.3.1 Common place of death by age group

This sub-section presents information on 2019 road transport accident deaths that occurred in common places of death by age group, namely: hospitals; emergency rooms; and dead on arrival. There was a higher number of deaths that occurred in hospitals among those aged 30–34 years (83 deaths), followed by those in the 25–29-year group (79 deaths). The fewest number of deaths occurring in hospitals was recorded among those 75–79 years (12 deaths), 70–74 years (14 deaths), 10–14 years (15 deaths), 0–4 years (16 deaths), and 80 years and older with 16 deaths.

The second most prevalent place of death for road transport accident deaths was among people who were dead on arrival (DoA) in health facilities. Most DoA deaths from road transport accidents were seen among the age groups 30–34 years (39 deaths) and 25–29 years (48 deaths). The age groups with the fewest deaths on arrival were 70–74 and 75–79 years (two deaths each).

A less common place of death for road transport accident deaths was in emergency rooms of health facilities. Most emergency room deaths from road accidents were seen among the age groups 25–29 years (31 deaths), and 30–34 years (32 deaths). Fewer deaths for this place of death were observed among the groups 10–14 years (2 deaths), 70–74 years, 75–79 years, 80 years and older (4 deaths each) and 0–4 years (6 deaths).

**Figure 6.6: Number of road transport accident deaths by common place of death and age group, 2019**





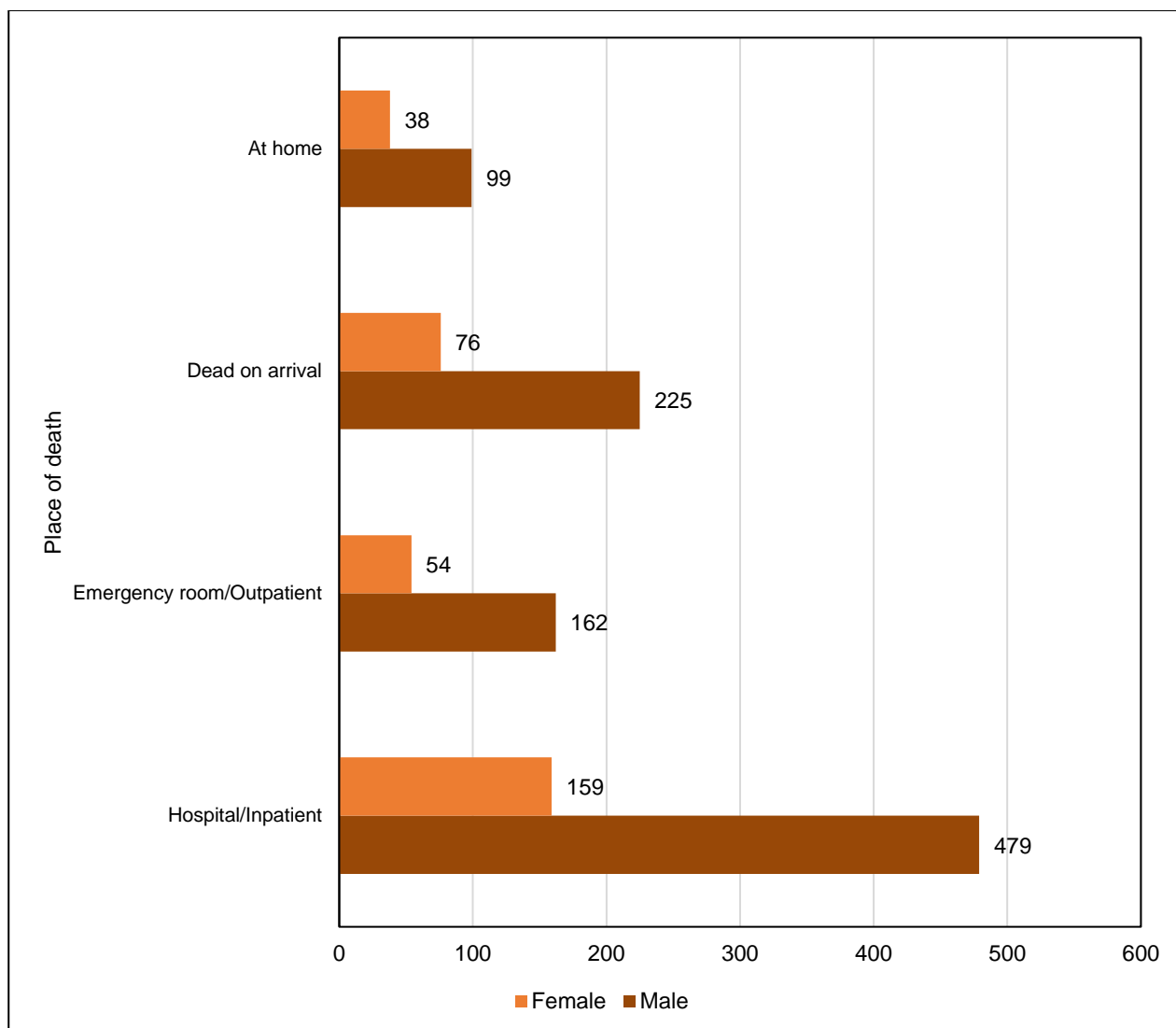
### 6.3.2 Common place of death by sex

This section presents information on road transport accident deaths in 2019 by common place of death and sex. Figure 6.7 shows that there were more males dying in all the places of death compared to their female counterparts.

Among people who died in hospitals, there were 479 deaths for males and 159 deaths for females, while emergency rooms had 162 deaths for males and 54 deaths for females.

For people who died before arriving at any health facility, there were 225 deaths for males and 76 deaths for females, while people who died at home had 99 deaths for males and 38 deaths for females.

**Figure 6.7: Number of road transport accident deaths by common place of death and sex, 2019**

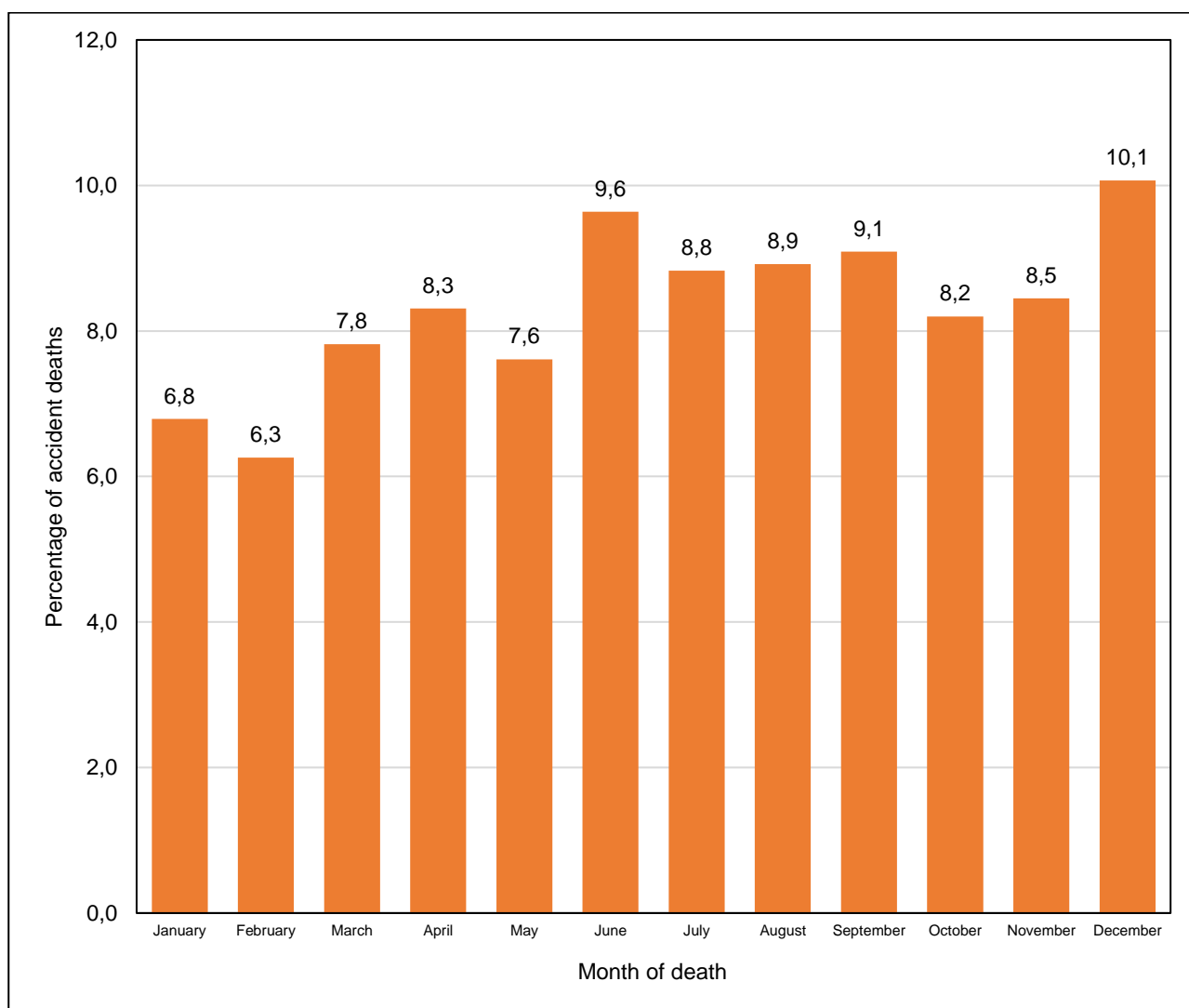


### 6.4 Road transport accident deaths by month of death, 2019

This section presents the percentage of road transport accident deaths in 2019 by month of death. There was a fluctuating pattern of road transport accident deaths for most months in 2019. January and February were the months with the fewest recorded road transport accident deaths (6,8% and 6,3%, respectively) compared to the other months of 2019 (see Appendix 9).

December recorded the most road transport accident deaths (10,1%) in 2019, followed by June at 9,6% and September at 9,1%. December was the only month that recorded a figure above 10% of the 2019 road transport accident deaths.

**Figure 6.8: Percentage of road transport accident deaths by month of death, 2019**



### 6.5 Deaths by province of death, 2019

This section presents information on 2019 road transport accident deaths by province. KwaZulu-Natal recorded a higher percentage of 24,4%, followed by those who died in Limpopo at 19,8% and Eastern Cape at 14,7% (see Appendix 10).

The three provinces mentioned above were the only provinces that recorded above 10% of road transport accident deaths. Lower percentages of deaths were seen in Free State at 4,5%, then Northern Cape and Gauteng at 6,3% and 6,2%, respectively. Free State is the only province that recorded less than 5% of road transport accident deaths in 2019.

**Figure 6.9: Percentage distribution of road transport accident deaths by province, 2019**

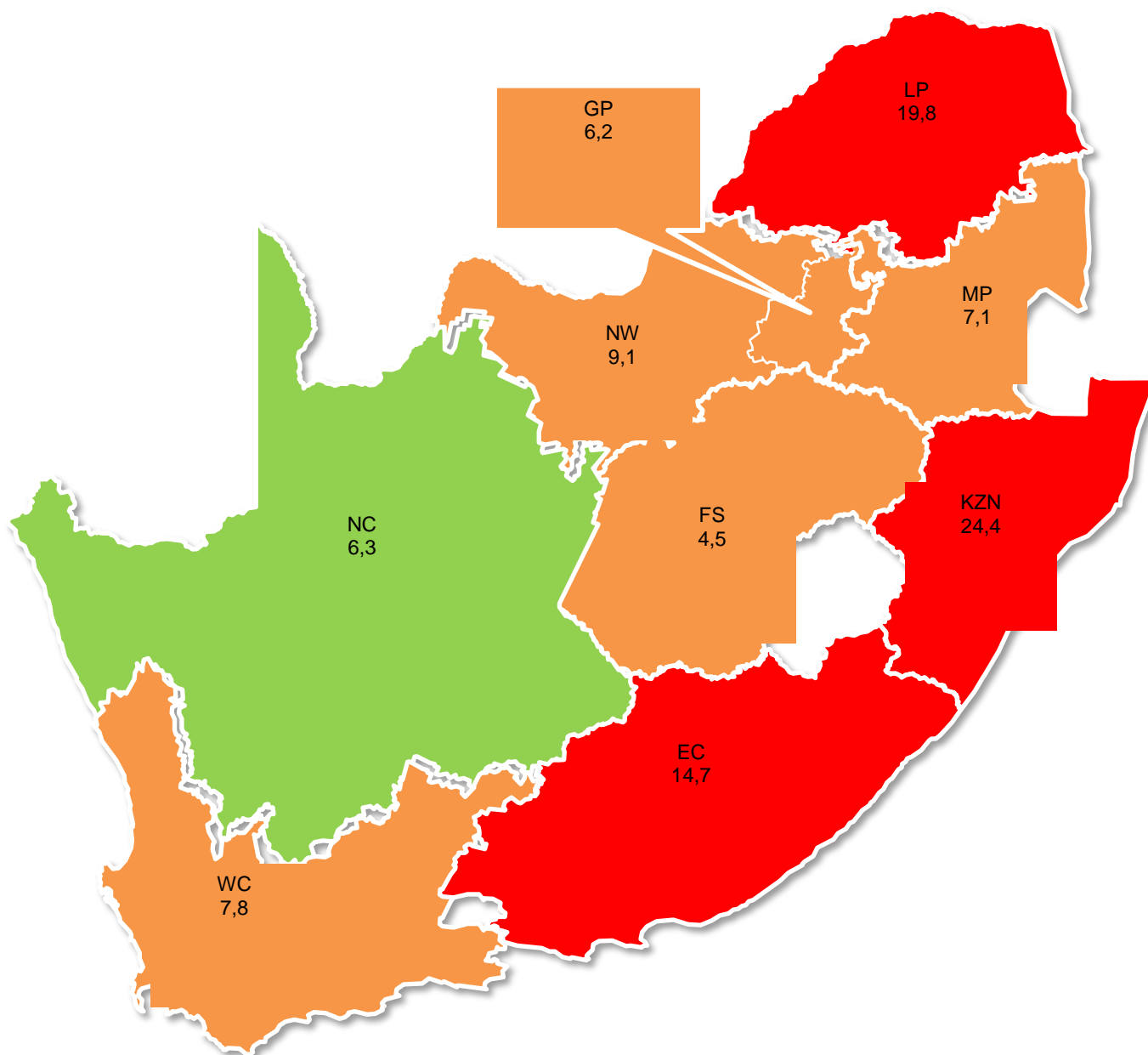
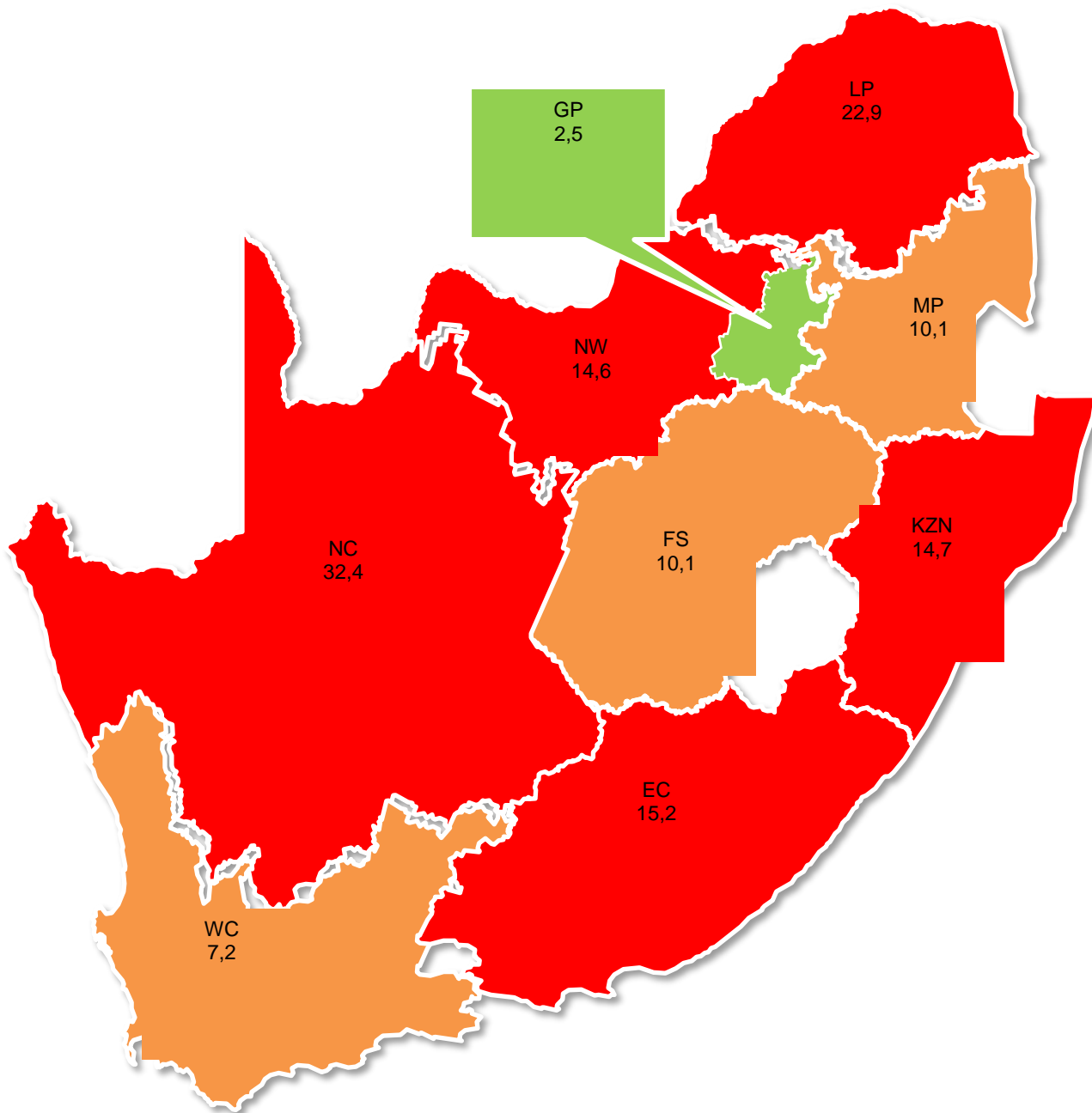


Figure 6.10 shows the age-standardised death rates (ASDR) for 2019 road transport accident deaths by province. Though KwaZulu-Natal recorded the highest percentage of road transport accidents deaths in 2019, Northern Cape recorded the highest ASDR at 32,4, followed by Limpopo at 22,9 deaths per 100 000 population. Gauteng had the lowest ASDR at 2,5 deaths per 100 000 population.

**Figure 6.10: Age-standardised death rates by province, 2019**



## Overall summary

This current thematic report is on deaths from road transport accidents for the period 2007 to 2019. The source of information for this report is data from mortality and causes of death published by Statistics South Africa.

External causes of morbidity and mortality, which include transport-related accidents contributed 12,4% (57 162 deaths) to all deaths that occurred in 2019. Transport accidents which ranked third among external causes of morbidity and mortality accounted for 11,3% (6 423 deaths) of the external causes of morbidity and mortality.

There was a steady increase in the percentage contribution of external causes of morbidity and mortality to the overall deaths from 9,0% in 2007 to 12,4% in 2019. Contribution of transport accident deaths to the non-natural causes show a fluctuating pattern of road transport accident deaths, with lowest percentage observed in 2008 (10,9%) while the highest percentage was recorded in 2016 (12,4), decreasing to 11,4% in 2017 and again declining to 11,3% in 2019.

The trend analysis for 2007-2019 show that there was an increase in the number of deaths from 6 190 in 2007 to 6 423 in 2019. December was the month during which most road transport accidents deaths were recorded in South Africa for all the years with the exception of 2008, 2013 and 2017.

The number of people who died as pedestrians increased from 640 in 2007 and to 771 in 2019. Western Cape recorded a higher number of pedestrian deaths above other province for most years, while Mpumalanga recorded lower number in most years. Among people who died as car occupants, there was an increase from 363 in 2007 to 548 in 2019. Western Cape and Free state recorded higher numbers of car occupants' deaths than other provinces while Mpumalanga and KwaZulu-Natal recorded lower numbers in most reporting years.

Hospitals were the most common place of deaths for road transport accident deaths for all the years under review, with a decrease from 16,4% in 2007 to 9,9% in 2019. It was followed by those who died before they arrived at a health facility, with a decrease from 9,5% in 2007 to 4,7% in 2019 and those who died in emergency rooms of the hospital. The number of people who died in emergency rooms increased from 2,2% in 2007 to 3,4% in 2019.

Results on provinces show that KwaZulu-Natal and Limpopo recorded higher percentages of people who died in their province of usual residence while Gauteng recorded a higher percentage of people who died in other provinces outside their province of usual residence.

There was a decrease in the ASDR from 13,2 in 2007 to 10,2 in 2011, followed by an increase in ASDR between 2012 and 2015 (10,4 to 11,9) before declining from 11,9 in 2015 to 10,7 in 2017, then a slight increase to 11,0 in 2019.

Results of 2019 deaths show that the most common age groups to die from road transport accidents in 2019 were 25–29 (706 deaths among males and 177 deaths among females) and 30–34 years (726 deaths among males and 201 deaths among females). People who were less likely to die from road transport accidents were those in the older age groups, 75–79 years (46 deaths among males and 22 deaths among females); and children aged 10–14 years (97 deaths among males and 59 deaths among females).

December was the only month that recorded 10,1% of road transport accident deaths in 2019, followed by deaths that occurred in June at 9,6%, then deaths that occurred in September at 9,1%. January and February were the months with the fewest recorded deaths (6,8% and 6,3%, respectively) from road transport accidents as compared to the other months in 2019.

Majority of 2019 road transport accident deaths were of those who died as pedestrians at 12,0%, then those who died as car occupants at 8,5%. Age groups 25-29 and 30-34 years were more likely to die as car occupants (85 deaths and 101 deaths, respectively). Older age groups 70–74 years (4 deaths); 80+ years (7 deaths); and 75–79 years (10 deaths) were less likely to die as car occupants including children aged 10–14 years (8 deaths). Most pedestrian deaths were higher in age groups 25–29 and 30–34 years (104 and 93 deaths, respectively). Lower percentages of pedestrian deaths were observed in the groups 70–74 years (13 deaths), 75–79 years (5 deaths) and those in 80 years and above (11 deaths).

Hospitals remain the most common place of deaths for road transport accidents at 25,7% in 2019. People who died before arriving in any health facility (i.e. dead on arrival) accounted for 13,0% of all deaths, followed by those who died in emergency rooms of hospitals and accounted for 9,3%. There was a higher number of deaths that occurred in hospitals among those aged 30–34 years (83 deaths), followed by those in the 25–29 years' group (79 deaths). The lowest numbers of deaths occurring in hospitals were recorded among the 0–4 years (16 deaths), 10–14 years (15 deaths), 70–74 years (14 deaths), 75–79 years (12 deaths) and 80 years and older with 16 deaths.

People who were declared dead on arrival recorded 48 deaths among 25–29 years and 39 deaths among 30–34 years. The lowest number of deaths for those who were declared dead on arrival was observed among the groups 70–74 years and 75–79 years (2 deaths each). Emergency rooms recorded higher numbers among those aged 25-29 and 30-34 years (31 and 32 deaths, respectively), while the age group 10-14 years recorded 2 deaths from road transport accidents.

Provincial distribution of road transport accident deaths in 2019 shows that KwaZulu-Natal recorded a higher percentage of 24,4%, followed by those who died in Limpopo at 19,8% and Eastern Cape at 14,7%. The three provinces mentioned above were the only provinces that recorded percentages above 10% of road transport accident deaths. Lower percentages of deaths were seen in Free State at 4,5%, then Northern Cape and Gauteng (6,3% and 6,2%, respectively). Free State is the only province that recorded less than 5% of road transport accident deaths in 2019.

## Data limitations

This section discusses important limitation related to mortality and causes of death data. Some limitations discussed are related to completeness regarding the demographics of the deceased, inadequate specification of causes of death, under or late registration of deaths.

### Trends of unspecified age and sex, 2007–2019

This section shows deaths due to unspecified age and sex. Results indicate that the recording of age improved from 2011 to 2013 and 2017 to 2019, after which the quality declined to 2013. There was another improvement in the recording of age from 2016 to 2017.

Regarding the recording of sex, there was improvement in the reporting of variable between 2009 and 2011, then fluctuation until 2016, where it declined again to 2017.

### Percentage of road transport accident deaths with specified/unknown age and sex by year of death, 2007–2019

Year of death	Total number of deaths (N)	Percentage of deaths with unspecified/unknown age	Percentage of deaths with unspecified/unknown sex
2007	6 190	0,8	0,1
2008	5 857	1,0	0,4
2009	5 835	1,0	0,1
2010	5 734	1,0	0,3
2011	5 216	1,2	0,7
2012	5 448	1,1	0,5
2013	5 980	0,8	0,6
2014	6 256	0,8	0,4
2015	6 556	0,7	0,5
2016	6 652	0,7	0,5
2017	6 205	0,9	0,2
2018	6 359	0,5	0,5
2019	6 423	0,0	0,5

## Appendices

### Appendix 1: Total number of natural, non-natural and transport accident deaths for 2007–2019

Year of death	Natural causes	Non-natural causes	Transport accident deaths
2007	551 922	54 664	6 201
2008	544 911	53 709	5 870
2009	533 520	50 894	5 839
2010	502 996	49 422	5 751
2011	471 689	47 420	5 223
2012	447 436	49 065	5 456
2013	428 311	49 959	5 987
2014	427 464	51 153	6 269
2015	422 290	53 563	6 566
2016	418 820	53 922	6 660
2017	412 534	54 345	6 210
2018	410 969	56 211	6 377
2019	403 844	57 162	6 435



**Appendix 2: Number and percentage of road transport accident deaths by place of death and year of death, 2007–2019**

Place of death / year	Hospital		Emergency room / Out patient		Dead on arrival		Nursing home		Home		Other		Unknown/ unspecified		Total	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
2007	1 018	16	135	2,2	585	9,5	27	0,4	171	2,8	2 516	40,6	1 738	28,1	<b>6 190</b>	<b>100,0</b>
2008	980	17	147	2,5	532	9,1	23	0,4	151	2,6	2 517	43	1 507	25,7	<b>5 857</b>	<b>100,0</b>
2009	1 129	19	186	3,2	504	8,6	34	0,6	153	2,6	2 503	42,9	1 326	22,7	<b>5 835</b>	<b>100,0</b>
2010	970	17	168	2,9	442	7,7	24	0,4	139	2,4	2 246	39,2	1 745	30,4	<b>5 734</b>	<b>100,0</b>
2011	787	15	105	2	309	5,9	8	0,2	135	2,6	1 450	27,8	2 422	46,4	<b>5 216</b>	<b>100,0</b>
2012	721	13	126	2,3	344	6,3	9	0,2	124	2,3	1 239	22,7	2 885	53	<b>5 448</b>	<b>100,0</b>
2013	773	13	152	2,5	513	8,6	15	0,3	160	2,7	1 312	21,9	3 055	51,1	<b>5 980</b>	<b>100,0</b>
2014	860	14	168	2,7	464	7,4	5	0,1	139	2,2	1 360	21,7	3 260	52,1	<b>6 256</b>	<b>100,0</b>
2015	1 008	15	400	6,1	156	2,4	8	0,1	146	2,2	1 604	24,5	3 234	49,3	<b>6 556</b>	<b>100,0</b>
2016	911	14	161	2,4	397	6	11	0,2	137	2,1	1 805	27,1	3 230	48,6	<b>6 652</b>	<b>100,0</b>
2017	665	11	192	3,1	339	5,5	17	0,3	116	1,9	1 327	21,4	3 549	57,2	<b>6 205</b>	<b>100,0</b>
2018	741	12	194	3,1	274	4,3	12	0,2	128	2	1 156	18,2	3 854	60,6	<b>6 359</b>	<b>100,0</b>
2019	639	9,9	216	3,4	301	4,7	4	0,2	138	2,1	1 013	15,8	4 102	63,9	<b>6 423</b>	<b>100,0</b>
<b>Total</b>	<b>11 22</b>		<b>2 350</b>		<b>5 160</b>		<b>207</b>		<b>1 837</b>		<b>22 048</b>		<b>35 907</b>		<b>78 711</b>	

**Appendix 3: Number of road transport accident deaths by province of residence and province of death, 2007–2019**

Residential province	Death province											Total
	Western Cape	Eastern Cape	Northern Cape	Free State	KwaZulu-Natal	North West	Gauteng	Mpumalanga	Limpopo	Outside SA	Unknown/Unspecified	
Western Cape	5 323	299	153	54	45	13	33	17	26	18	41	<b>6 022</b>
Eastern Cape	213	10 133	72	191	409	28	49	28	89	1	40	<b>11 253</b>
Northern Cape	52	30	3 113	77	6	62	15	27	35	5	12	<b>3 434</b>
Free State	27	56	100	4 537	57	83	64	30	59	4	14	<b>5 031</b>
KwaZulu-Natal	51	283	25	264	12 508	20	56	214	69	13	81	<b>13 584</b>
North West	17	30	201	180	26	4 334	360	28	238	5	73	<b>5 492</b>
Gauteng	88	127	107	842	232	446	4 071	295	1 152	63	93	<b>7 516</b>
Mpumalanga	9	48	25	68	133	20	141	4 246	471	10	72	<b>5 243</b>
Limpopo	39	32	40	60	46	105	172	231	12 385	4	145	<b>13 259</b>
Outside SA	30	26	35	194	78	69	34	85	434	15	6	<b>1 006</b>
Unknown/unspecified	681	651	155	286	1 476	549	417	552	1 716	42	346	<b>6 871</b>
<b>Total</b>	<b>6 530</b>	<b>11 715</b>	<b>4 026</b>	<b>6 753</b>	<b>15 016</b>	<b>5 729</b>	<b>5 412</b>	<b>5 753</b>	<b>16 674</b>	<b>180</b>	<b>923</b>	<b>78 711</b>

**Appendix 4: Crude death rates and age-standardised death rates by year of death, 2007–2019**

<b>Year of death</b>	<b>Mid-year population estimates</b>	<b>Number of deaths</b>	<b>Crude death rate</b>	<b>Age-standardised death rate</b>
2007	49 088 699	6 190	12,6	13,2
2008	49 794 560	5 857	11,8	12,1
2009	50 544 931	5 835	11,5	11,9
2010	51 328 662	5 734	11,2	11,5
2011	52 129 117	5 216	10,0	10,2
2012	52 930 356	5 448	10,3	10,4
2013	53 751 096	5 980	11,1	11,3
2014	54 574 401	6 256	11,5	11,6
2015	55 406 634	6 556	11,8	11,9
2016	56 252 336	6 652	11,8	11,8
2017	57 097 857	6 205	10,9	10,7
2018	57 939 226	6 359	11,0	10,9
2019	58 775 022	6 423	10,9	11,0

**Appendix 5: Number of age-standardised death rates by sex and year of death, 2007–2019**

Year	Male			Female		
	Mid-year population estimates	Deaths	ASDR	Mid-year population estimates	Deaths	ASDR
2007	23 716 554	4 561	20,6	25 372 145	1 622	6,6
2008	24 084 246	4 303	19,0	25 710 314	1 532	6,1
2009	24 470 249	4 340	18,9	26 074 682	1 487	5,8
2010	24 872 137	4 230	18,1	26 456 526	1 488	5,7
2011	25 284 863	3 757	15,5	26 844 254	1 425	5,4
2012	25 697 905	4 014	16,1	27 232 452	1 408	5,2
2013	26 117 346	4 401	17,5	27 633 750	1 542	5,6
2014	26 537 411	4 635	17,9	28 036 989	1 592	5,8
2015	26 961 734	4 883	18,6	28 444 900	1 637	5,8
2016	27 390 632	4 900	18,2	28 861 703	1 721	6,0
2017	27 819 944	4 520	16,5	29 277 913	1 674	5,8
2018	28 247 177	4 639	16,7	29 692 049	1 686	5,8
2019	28 672 747	4 759	17,1	30 102 275	1 630	5,4

**Appendix 6: Number and percentage of road transport accident deaths by type of road user, 2019**

Type of road user	Number	%
Other land transport accidents	5 004	77,9
Pedestrian	771	12,0
Car occupant	548	8,5
Motorcycle rider	57	0,9
Pedal cyclist	24	0,4
Bus occupant injured	8	0,1
Occupant of 3-wheeled vehicle	5	0,1
Occupant of pick-up truck	4	0,1
Occupant of heavy-transport vehicle	2	0,0
<b>Total</b>	<b>6 423</b>	<b>100,0</b>

**Appendix 7: Number and percentage of road transport accident deaths by type of road user and sex, 2019**

Sex / type of road user	Male		Female	
	Number	%	Number	%
Other land transport accidents	3 708	77,9	1 269	77,9
Pedestrian	563	11,8	202	12,4
Car occupant	396	8,3	151	9,3
Motorcycle rider	53	1,1	4	0,2
Pedal cyclist	24	0,5	0	0,0
Bus occupant injured	6	0,1	2	0,1
Occupant of 3-wheeled vehicle	4	0,1	1	0,1
Occupant of pick-up truck	3	0,1	1	0,1
Occupant of heavy-transport vehicle	2	0,0	0	0,0
<b>Total</b>	<b>4 759</b>	<b>100,0</b>	<b>1 630</b>	<b>100,0</b>

**Appendix 8: Number and percentage of road transport accident deaths by place of death, 2019**

Place of death	Number	%
Hospital	639	27,5
Emergency room / Out patient	216	9,3
Dead on arrival	301	13,0
Nursing home	14	0,6
Home	138	5,9
Other	1 013	43,5
<b>Total</b>	<b>2 321</b>	<b>99,8</b>

**Appendix 9: Number and percentage of road transport accident deaths by month of death, 2019**

Month of death	Number	%
January	436	6,8
February	402	6,3
March	502	7,8
April	534	8,3
May	489	7,6
June	619	9,6
July	567	8,8
August	573	8,9
September	584	9,1
October	527	8,2
November	543	8,5
December	647	10,1
<b>Total</b>	<b>6 423</b>	<b>100,0</b>

**Appendix 10: Number and percentage of road transport accident deaths by province, 2019**

Province of death	Number	%
Western Cape	499	7,8
Eastern Cape	947	14,7
Northern Cape	406	6,3
Free State	286	4,5
KwaZulu-Natal	1 565	24,4
North West	578	9,0
Gauteng	395	6,2
Mpumalanga	454	7,1
Limpopo	1 271	19,8
Unknown/unknown	22	0,4
<b>Total</b>	<b>6 423</b>	<b>100,0</b>

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