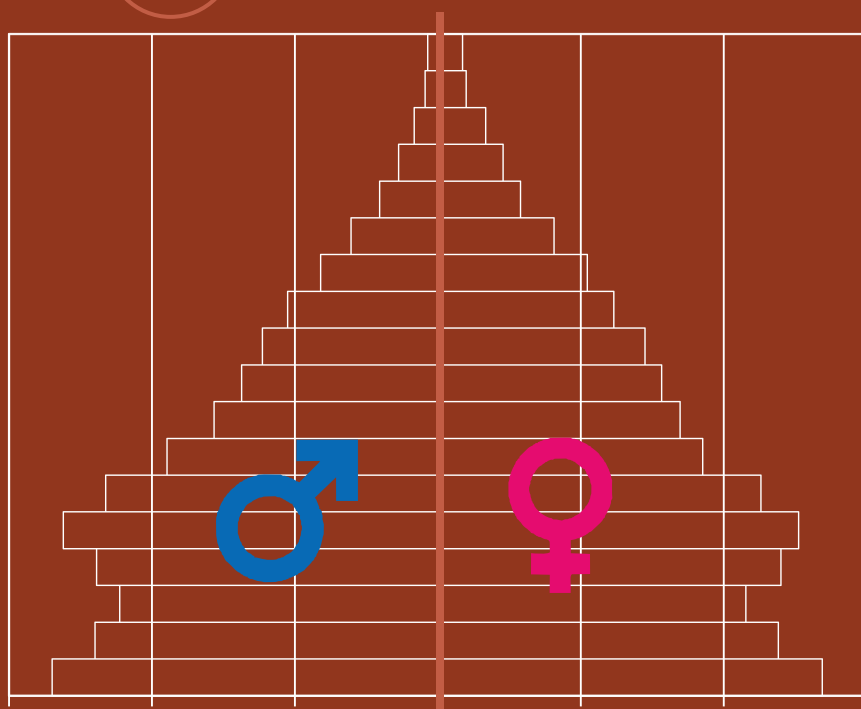


85+

# South African Age-Sex Structure, 1996-2022: Is the Population Ageing?



IMPROVING LIVES THROUGH DATA ECOSYSTEMS



stats sa

Department:  
Statistics South Africa  
REPUBLIC OF SOUTH AFRICA



# **South African Age-Sex Structure, 1996–2022: Is the Population Ageing?**

Report No. 03-00-23

Statistics South Africa

Risenga Maluleke  
Statistician-General

**South African Age-Sex Structure, 1996–2022: Is the Population Ageing?** / Statistics South Africa

Published by Statistics South Africa, Private Bag X44, Pretoria 0001

© Statistics South Africa, 2025

Users may apply or process this data, provided Statistics South Africa (Stats SA) is acknowledged as the original source of the data; that it is specified that the application and/or analysis is the result of the user's independent processing of the data; and that neither the basic data nor any reprocessed version or application thereof may be sold or offered for sale in any form whatsoever without prior permission from Stats SA.

Stats SA Library Cataloguing-in-Publication (CIP) Data

**South African Age-Sex Structure, 1996–2022: Is the Population Ageing?** / Statistics South Africa. Pretoria: Statistics South Africa, 2025

Report no. 03-00-23

84 pp

ISBN: 978-1-77997-419-8

A complete set of Stats SA publications is available at Stats SA Library and the following libraries:

National Library of South Africa, Pretoria Division  
National Library of South Africa, Cape Town Division  
Library of Parliament, Cape Town  
Bloemfontein Public Library  
Natal Society Library, Pietermaritzburg  
Johannesburg Public Library  
Eastern Cape Library Services, King William's Town  
Central Regional Library, Polokwane  
Central Reference Library, Mbombela  
Central Reference Collection, Kimberley  
Central Reference Library, Mmabatho

This report is available on the Stats SA website: [www.statssa.gov.za](http://www.statssa.gov.za)

For technical enquiries please contact:

Diego Iturralde

Tel.: 012 310 8922

Email: [Diegol@statssa.gov.za](mailto:Diegol@statssa.gov.za)

Lesego Olga Bodigelo

Tel.: 012 310 6914

Email: [OlgaM@statssa.gov.za](mailto:OlgaM@statssa.gov.za)

## Contents

<b>Acronyms .....</b>	<b>viii</b>
<b>Executive Summary.....</b>	<b>ix</b>
<b>Preface.....</b>	<b>x</b>
<b>Chapter 1: Introduction .....</b>	<b>1</b>
1.1 Background.....	1
1.2 Study Objectives.....	3
1.3 Method.....	3
1.3.1 Data .....	3
1.3.2 Study Analysis .....	3
1.3.3 Demographic processes, Age-sex structure and Population ageing .....	4
<b>Chapter 2: Quality assessment of age-sex structure, 1996-2022 .....</b>	<b>7</b>
2.1 Introduction .....	7
2.2 Patterns of population distributions by age and sex, 2022.....	7
2.3 Levels of Indexes Score, 1996-2022 .....	8
2.4 Age and Sex cohort analysis and percentage change, 2011 and 2022.....	9
<b>Chapter 3: Population composition: Age- Sex structure, 1996-2022 .....</b>	<b>12</b>
3.1 Introduction .....	12
3.2 Population distribution and percentage change .....	12
3.3 Distribution patterns of the population, 1996-2022.....	14
3.3.1 Distribution patterns by province, 1996-2022.....	14
3.3.2 Distribution patterns by 5-year age group and population group, 1996-2022 .....	16
3.4 Sex ratio.....	16
3.4.1 Sex ratio by 5-years age group .....	16
3.4.2 Sex ratio by province .....	17
3.4.3 Sex ratio by population group .....	18
3.5 Median Age.....	19
3.5.1 Median age by province.....	19
3.5.2 Median age by province and sex.....	19
3.5.3 Median age by population group .....	20
3.6 Dependency Ratio .....	21
3.6.1 Age dependency ratio.....	21
3.6.2 Old-age dependency ratio .....	23
3.7 Population Pyramid.....	25
3.7.1 Population Pyramid: South Africa 2022.....	25
3.7.2 Population pyramid by province, 2022 .....	25
3.7.3 Population pyramid by population group, 2022 .....	26

<b>Chapter 4: Ageing (Elderly) population in South Africa, 1996-2022.....</b>	<b>28</b>
4.1 Introduction .....	28
4.1.1 Distribution of the population by functional age groups.....	28
4.2 Distribution of the elderly population (60+) .....	29
4.2.1 Distribution of the elderly population (60+) by 5-year age groups and sex (numbers), 1996-2022 .....	29
4.2.2 Population distribution and percentage change of the elderly by population group and province .....	30
4.2.3 Distribution of the elderly population by sex .....	32
4.2.4 Distribution of the elderly population by population groups .....	32
4.2.5 Distribution of the elderly population by province .....	33
4.3 Sex ratio patterns of the elderly population .....	33
4.3.1 Sex ratio patterns of the elderly by Age group .....	33
4.3.2 Sex ratio patterns of the elderly by province .....	34
4.3.3 Sex ratio patterns of the elderly by population group .....	35
4.4 Ageing index .....	36
4.4.1 Ageing index by census year and sex .....	36
4.4.2 Ageing index by census year and population group.....	37
4.4.3 Ageing index by census year, population group and sex .....	38
4.4.4 Ageing index by census year and province .....	39
4.4.5 Ageing index by census year, province and sex .....	39
4.5 Potential support ratio.....	40
4.5.1 Potential support ratio by census year and sex/census year and population group .....	40
4.5.2 Potential support ratio by census year, population group and sex.....	41
4.5.3 Potential support ratio by census year and province.....	42
4.5.4 Potential support ratio by census year, province and sex .....	43
<b>Chapter 5: Summary and Conclusion .....</b>	<b>45</b>
5.1 Summary .....	45
5.2 Conclusion .....	48
<b>Reference .....</b>	<b>49</b>
<b>Appendix .....</b>	<b>54</b>

## List of figures

Figure 1: Trends in TFR, South Africa, 1980-2024 .....	4
Figure 2: Distribution of population born outside South Africa by age and sex, 2011 and 2022 .....	6
Figure 3: Distribution patterns of the population by single year age and sex (numbers), 2022 .....	7
Figure 4: Proportional distribution patterns of the population by 5-years age groups, 2011-2022 .....	8
Figure 5: Proportional distribution patterns of the population by 5-year age group and province, South Africa 2022.....	15
Figure 6: Distribution patterns of the population by 5-year age group and population group, South Africa, 2022.....	16
Figure 7: Sex ratio by 5-years age group in South Africa, 1996-2022 .....	17
Figure 8: Sex ratio by province, South Africa, 1996-2022.....	18
Figure 9: Sex ratio by population group, South Africa, 1996-2022 .....	18
Figure 10: Median Age by Province and South Africa, 1996-2022 .....	19
Figure 11: Median age by province and sex, South Africa, 2022.....	20
Figure 12: Median age by population group in South Africa, 1996-2022 .....	20
Figure 13: Age dependency ratio by sex, South Africa, 1996-2022.....	21
Figure 14: Age dependency ratio by province, South Africa, 1996-2022.....	22
Figure 15: Age dependency ratio by population group, South Africa, 1996-2022.....	22
Figure 16: Old-age dependency ratios by sex, 1996-2022 .....	23
Figure 17: Old-age dependency ratio by province, 1996-2022 .....	24
Figure 18: Old-age dependency ratio by population group, censuses of 1996-2022 .....	24
Figure 19: Population pyramid, South Africa, 2022 .....	25
Figure 20i-iv: Population Pyramid by selected provinces in South Africa, 2022 .....	26
Figure 21i-iv: Population Pyramid by population group in South Africa, 2022 .....	27
Figure 22: Percentage distribution of the population by functional) age groups, 1996-2022.....	28
Figure 23: Percentage of elderly population (60+) in South Africa by census year and sex, 1996-2022 .....	32
Figure 24: Percentage of elderly population (60+) in South Africa by census year and population group, 1996-2022.....	32
Figure 25: Percentage of elderly population (60+) in South Africa by census year and province, 1996-2022.....	33
Figure 26: Sex ratio patterns of the elderly by Age group, 1996-2022.....	34
Figure 27: Sex ratios patterns of the elderly by province, 1996-2022 .....	35
Figure 28: Sex ratios patterns of the elderly by population group, 1996-2011.....	36
Figure 29: Ageing index by census year and sex, 1996-2022 .....	37
Figure 30: Ageing index by census year and population group, 1996-2022 .....	37
Figure 31i-iv: Ageing index by census years, population group and sex, 1996-2022.....	38
Figure 32: Ageing index by census year and province, 1996-2022 .....	39

Figure 33i-iv: Ageing index by census year and province and sex, 1996-2022 .....	40
Figure 34i-ii: Potential support ratio by census year and sex and census year and population group, 1996-2022 .....	41
Figure 35i-iv: Potential support ratio by census year, population group and sex, 1996-2022 .....	42
Figure 36: Potential support ratio by census year and province, 1996-2022 .....	43
Figure 37i-iv: Potential support ratio by census year, selected province and sex, 1996-2022 .....	44
Figure 38v-ix: Population Pyramid by provinces in South Africa, 2022 .....	56
Figure 39: Percentage distribution of the population by major (functional) age groups and sex, 1996-2022 .....	60
Figure 40i-iv: Percentage distribution of the population by major (functional) age groups, population groups and census years, 1996-2022 .....	60
Figure 41i-ix Percentage distribution of the population by census year, major (functional) age groups and province, 1966-2022 .....	61
Figure 42v-ix: Ageing index by census year, province and sex, 1996-2022 .....	63
Figure 43v-ix: Potential support ratio by census year, province and sex .....	64

## List of tables

Table 1 - Life expectancy, IMR and U5MR in South Africa, 2002-2024.....	5
Table 2 - Measures of Whipple's index score, 1996-2022 .....	9
Table 3 - Measures of UN joint accuracy index score, 1996-2022 .....	9
Table 4 - Age and sex cohort analysis and percentage change, South Africa, 2011 and 2022 .....	10
Table 5 - Population distribution and percentage change by population group and province, South Africa, 1996-2022.....	13
Table 6 - Distribution of the population aged 60+ by 5-year age groups and sex, (numbers), 1996-2022.....	29
Table 7 - Population distribution and percentage change of the elderly (60+) by population group and province, 1996-2022.....	31
Table 8 - Distributions of elderly population by Province and Sex, 1996-2022.....	54
Table 9 - Distributions of elderly population by Population group and Sex, 1996-2022 .....	54
Table 10 - Median age by Sex, Province and Population group in South Africa, 1996-2022 .....	55
Table 11 - Distribution of the elderly population by 5-year age group, population group and sex (numbers and percentages), 1996-2022 .....	57
Table 12 - Distribution of the elderly population by 5-year age group, province and sex (numbers and percentages), 1996-2022 .....	58
Table 13i-ix - Age-Sex cohort analysis and percentage change, provinces, 2011-2022 .....	65



## Acronyms

GHS	General Household Survey
IMR	Infant Mortality Rate
MYPE	Mid-year Population Estimates
SDG	Sustainable Development Goals
Stats SA	Statistics South Africa
TFR	Total Fertility Rate
UN	United Nations
UNDISA	United Nations Department of Economics and Social Affairs
U5MR	Under-five Mortality Rate
WHO	World Health Organisation

## Executive Summary

The age and sex structure presented in the 2022 Census is consistent with expectations, suggesting that the data regarding age and sex is accurate. This assessment is corroborated by Whipple's and the United Nations' joint age-sex accuracy index scores, which serve as metrics for evaluating the quality of reported single-year age distributions. Compositional distribution patterns revealed a bulge, suggesting dominance of the youth in the population structure. This pattern manifests at the national level, among black African and coloured population groups and in some of the provinces, including Gauteng, Mpumalanga and Western Cape. Median age confirms that the national population is youthful (intermediate) at 28 years. Specifically, black Africans remain youthful, while Indians/Asians and white population are old according to standards. In 2022, Indian/Asian and white population groups observed a median age of 37 and 42 respectively. The sex ratio pattern indicated that there are slightly more females than males in the country, except in a few cases; this observation was consistent by disaggregation. Sex ratio was 102 among Indian/Asian population in 2022. Old-age dependency ratios are high and increasing overtime. Eastern Cape (13), Limpopo and Free State at a ratio of 11 observed the highest old-age dependency ratios.

Nationally, distribution patterns of the elderly population aged 60 years and above revealed an increase in size over the years. The increase was marked among women relative to men and among Indian/Asian and white population groups. However, ageing index suggest that the number of older persons is less than the number of young persons in the country. Results by population group presented an ageing index of more than 100 amongst Indian/Asian (107) and white population group (215). This finding confirms that these populations are noticeably ageing relative to other population groups. Potential support ratio revealed a decrease over the period, suggesting a shrinking support base of population aged 15-64 on whom the elderly population can depend. The study concludes that the South African population remains youthful except for Indian/Asian, white population groups, and in Gauteng and Western Cape provinces. Given the rate of demographic processes of fertility, mortality and migration taking place in the country, the national population is expected to experience gradual ageing.



**Risenga Maluleke**  
**Statistician-General**

## **Preface**

Statistics South Africa has conducted four population censuses (1996, 2001, 2011 and 2022) with the purpose of providing comprehensive statistics on population and households in South Africa. Statistics generated from census data are critical for socio-economic development planning, administration, monitoring and evaluation of policies, decision-making and research. Collected demographic characteristics of all persons in the country can help us in the understanding of population composition and to explore demographic concepts such as population ageing. This report used all the population censuses and adopted demographic measures to understand levels and trends of population dynamics, including population ageing in South Africa.

## Chapter 1: Introduction

### 1.1 Background

Age is the number of years a person has lived in his lifetime, measured in terms of chronological age and considered as completed years (Sudharsanan and Bloom, 2018; Fernandes et al., 2023). Sex is biological characteristics of being a male or female (Kaufman et al., 2023). Age and sex characteristics are prime variables, as they are two important data items of a population count and component of population analysis (Goodrick, 2013; Palamuleni, 2013; Udjo, 2005). They are the most important demographic characteristics captured in censuses and surveys as other variables are built around them, as such general indicators to the quality of a data set (Palamuleni, 2015; Udjo, 2024).

The composition of a population in terms of age and sex are of global interest and therefore significant to the government and other stakeholders. The information on age-sex composition is an essential prerequisite for the description and analysis of demographic data (UN, 2011). Demographic planning, programme and policy development are directly and indirectly related to the distribution of age and sex of the population (Stats SA, 2014; Udjo, 2005, 2024). Knowledge about age and sex distributions also has the benefit of being valuable for demographic evaluations (Palamuleni, 2013; Vostrikova, 1970; UN, 2011). Broadly, the age-sex structure of any population and its future growth play an important role in the development of the society and global sustainability (Boruah, 2022). No census is worth the name if it excludes questions on age and sex (Shyrock and Siegel, 1976).

In South Africa, there are concerns in terms of the quality of the age and sex data collected over the years in the country (Udjo, 2024). These concerns have preoccupied demographers, so much that the assessment and evaluation of age and sex statistics has become an integral part of demographic analysis (Palamulene, 2013). In support of these accessions, Udjo (2024) wrote that “The quality of the age-sex distributions in a census is a general pointer to the overall quality of the census data” (Udjo, 2024:1), hence the need for quality assessments.

Also, early studies (globally and South Africa) have expressed various views concerning the age and sex data collected in censuses and surveys. For example, in observing the interlink between demographic processes and age-sex structure, studies such as Alho (2008), Stats SA (2014), Udjo (2024), Newell (1997), Palamuleni (2013) have acknowledged that the age and sex characteristics are associated, and population compositions and aging are results of the interplay between major demographic processes of fertility, mortality and migration taking place in the country. Specifically, Udjo (2005) wrote that “age–sex distribution is determined by past fertility, mortality and migration. And that perhaps the most disturbing problem in the evaluation of age-sex distributions is migration” Udjo (2005:3). Therefore, in understanding the compositions and dynamics of these structures, these major demographic components must be considered.

In terms of measurement and evaluation, studies such as Moultrie and Dorrington (2024) recommended the use of balance equation and comparison with previous census results. Also, Udjo (2024) recommending the use of internal consistency evaluation and comparison with other external sources among others, as the proper approaches in evaluating demographic data in South Africa. Shipanga and Shinyemba (2022) applied the single-year distributions pattern, rates and ratio of age, including the Whipples and UN joint accuracy index in examining the quality of age-sex structures in their study in Namibia. More so, in applying similar methods in North West province, Palamuleni (2013) found that the quality of the reported age statistics in the province to be quite good, as in other provinces. According to the author, this is in contrast to those from most of the other sub-Saharan African countries (Palamuleni, 2013).

In terms of ageing, Stats SA (2014) highlighted the various measures of population ageing. According to the report, "Globally, there are basic measures of understanding the changing age structure. These include the ageing index, median age, dependency ratios (total, youth and old-age), the potential support ratio and the parent support ratio" (Stats SA, 2014:13). Broadly, these indicators are commonly used to understand the compositional patterns of the population (Palamuleni, 1995; Stats SA, 2014). They are also used to determine whether a country's population is ageing or not, (Stats SA, 2014).

Ageing is the process of a person becoming older (Stats SA, 2014). Population ageing can be understood as the increase in the size of the population aged 60 years and above; accompanied by a drop in the size of the population aged 15 years and younger (Stats SA, 2014; Goodrick, 2013). This process results from the interplay between major demographic processes. Global population ageing varies with the varying levels of economic and demographic transitions (Ismael et al., 2021). The more developed countries that have attained higher stages of transition are characterised by higher percentage of aged population, whilst the less developed countries with lower stages of transition are characterised with youthful populations (Majmundar and Hayward, 2018). With this, regions such as Europe and North America are therefore considered aged (ibid).

In this light, population ageing, including the size and emerging pace has also become a concern in developing countries. These are so, due to improving mortality patterns and longevity from increasing life expectancy (Miladinov, 2021). Outcome of declining births in the continent, together with declining deaths, will encourage population ageing in the future (Pillay and Maharaj, 2013). Statistical evidence revealed that "in 2020, 74.4 million people aged 60 and older resided in Africa (54.3 million in SSA), and around 18 countries had a 1.0 million mark or more in their elderly population size" (He et al., 2020:1). In South Africa, about 7% of the population were elderly in 1996 and 2001 and this increased to 8% in 2011 (Stats SA, 2014). Therefore, with the pace of increase in the aged population in Africa expected to surpass growth rates of world regions, the need for a review of this phenomenon in the region has become a concern.

Research commonly considers the chronological age of 60 as a cut-off age of elderly. For example, Stats SA (2014) considered the elderly as population aged 60 and above. Also, Knodel and Chayovan (2008) in a study in Thailand also defined the elderly as a population aged 60 and above. In South Africa, this age is related to the stage of retirement and introduces eligibility for government old-age pension grant (Hunter and May, 2013;

Maharaj, 2013). Therefore, given the fact that ageing impacts the demographic, socio-economic and social welfare of the country in diverse ways, current and future efforts to address the needs of elderly persons require statistical evidence (Stats SA, 2014). In support of these narratives, Stats SA (2014) in reference to Phaswana-Mafuya et al. (2013), observed that “Reliable statistics on older persons, their socio-economic standings as well as their access to services, are imperative in preventing distress, financial burdens and health deterioration of the growing number of elderly persons in South Africa” (Stats SA 2014:6).

In South Africa, few studies (e.g. Stats SA, 2014; Palamuleni, 2013, Udjo, 2024), have concerned themselves with the concept of population ageing. Therefore, given the current demographic processes taking place in the country, (i.e. changes in fertility, mortality and migration), the availability of new data from Census 2022, offers an opportunity to re-examine the phenomenon and carry out the study in a broader perspective. This study examined the South Africa population age-sex structure, 1996-2022, with the view of understanding if the population is ageing. Doing this is expected to bring about informed programme and policy development. It will also assist in the proper achievement of the Sustainable Development Goals (SDG) in the country.

## **1.2 Study Objectives**

The objective of this study was to examine the South Africa population age-sex structure, 1996-2022, with the view of understanding if the population is ageing. Specifically, the study assessed the quality and structural compositions of the data sets. It profiled (measured) the demographic status of elderly persons, looking at their trends and patterns disaggregated by selected demographics in the study period. Implications of the study findings were discussed with the view of understanding if the population is ageing, given the demographic processes currently taking place in the country.

## **1.3 Method**

### **1.3.1 Data**

The 1996, 2001, 2011 and 2022 population census data were used in the study. In obtaining the age and sex variables, each individual was asked to give their date of birth (day, month and year) and their biological sex. According to the United Nations definition and consistent with the South African retirement age, the elderly population are the population aged 60 years and above (Scherbor and Sanderson, 1999; Stats SA, 2014). Therefore, in profiling the ageing population, the elderly persons were defined as persons aged 60 years and older in the study.

### **1.3.2 Study Analysis**

The study is an in-depth analysis of the structure of the age-sex data collected in South Africa, 1996-2022. Demographic measures used in quality assessments, compositions and profiling (measuring) of the elder were employed in the study. These measures assisted in the unveiling of the quality of age-sex data, compositions and indicators of an ageing population in the study period. They include the proportional distribution patterns, index scores (UN joint and Whipples), sex and dependency ratios, median ages, ageing indexes, potential support ratios, including graphing of population pyramids, etc. The methods have been used by early studies

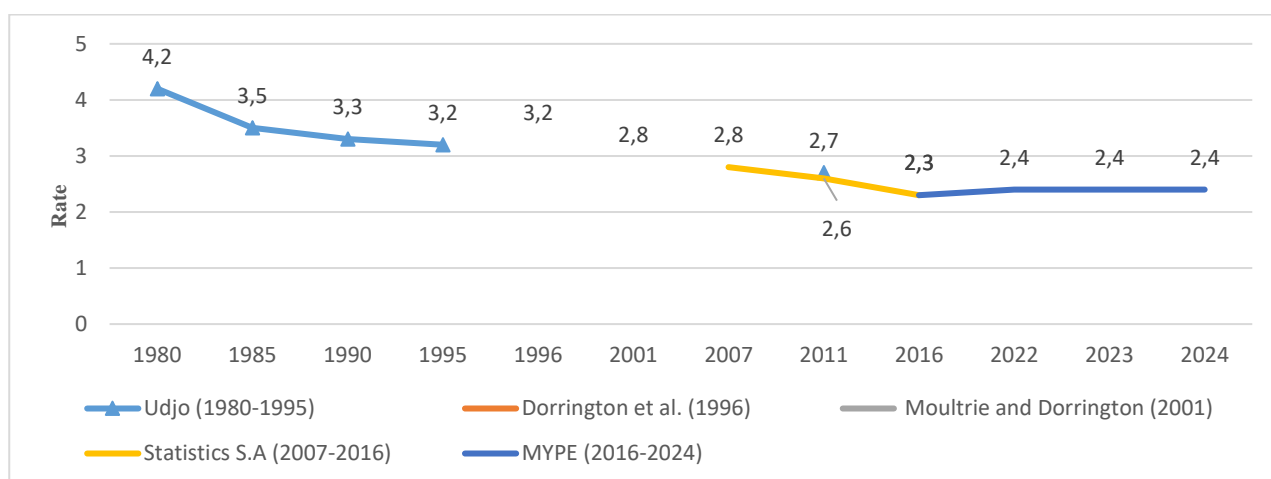
in South Africa (e.g. Stats SA, 2014, Palamuleni, 2013, Udjo, 2024) and therefore, highly recommended. Disaggregation was carried out by selected demographics (sex, population group and province) and findings were presented in charts and tables. Disaggregation by selected characteristics is important in understanding demographic variations of the population prevailing in the country. Implications of the study findings were discussed dominantly from the perspective of the demographic processes (fertility, mortality and migration) taking place in the country. These are so, with the view of understanding if the population is aging.

### 1.3.3 Demographic processes, Age-sex structure and Population ageing

Early studies on age-sex compositions and population ageing in South Africa (e.g. Palamuleni, 2013, Stats SA, 2014, Udjo, 2005 and 2024) have acknowledged that the age and sex composition of the country – including population ageing are a subject of the interplay between major demographic processes of fertility, mortality and migration. On the contrary, Lee and Zhou (2017) have argued that fertility rather than mortality is the main driver of contemporary ageing population. In using simulations research, the authors showed that fertility had the largest accounting effect on population ageing in the period 2005-2010.

Statistics South Africa (Stats SA) has documented fertility decline in South Africa, as the leading cause of fertility transition in sub-Saharan Africa. Figure 1 shows trends in Total Fertility Rate (TFR) from different sources in South Africa. Various research and institutions concur with the notion of fertility decline in the country. The TFR has been declining steadily from 4,2 in 1980 to 3,2 in 1996. It further declined to fertility levels below 3 in 2001. In 2011, TFR was at 2,7 children per woman. There was a significant decline from 2,7 in 2011 to 2,33 in 2016. The rate has stabilised to about 2,4 between 2022 and 2024 (Stats SA, 2024). Declining fertility results to lesser number of people in the younger ages of the population, which eventually results to an increase in the percentage of the elderly population, especially in the face of decreasing mortality (Teerawichitchainan and Low, 2021).

**Figure 1: Trends in TFR, South Africa, 1980-2024**



Studies have indicated that mortality is also a driver of population ageing, although at a lesser extent (Sudharsanan and Bloom, 2018). In explaining the impact of mortality on ageing, research points to factors such as prolonged human life, improved quality of life and increased prosperity as some of the defining features of population ageing.

The effect of mortality on population ageing can be two fold, it can encourage population rejuvenation if mortality in young age groups is decreasing, while in the alternative, it can create population ageing if mortality in higher age groups is declining (Miladinov, 2021). Broadly, global and national trends suggest declines in mortality rates, for example, results from Table 1 shows that the IMR dropped from 57,0 in 2002 to 22,9 in 2024, while the U5MR dropped from 79,7 to 28,6 in the same period in South Africa, (Stats SA, 2024a). Life expectation also increased from 54,7 to 66,5 in the same period.

**Table 1 - Life expectancy, IMR and U5MR in South Africa, 2002-2024**

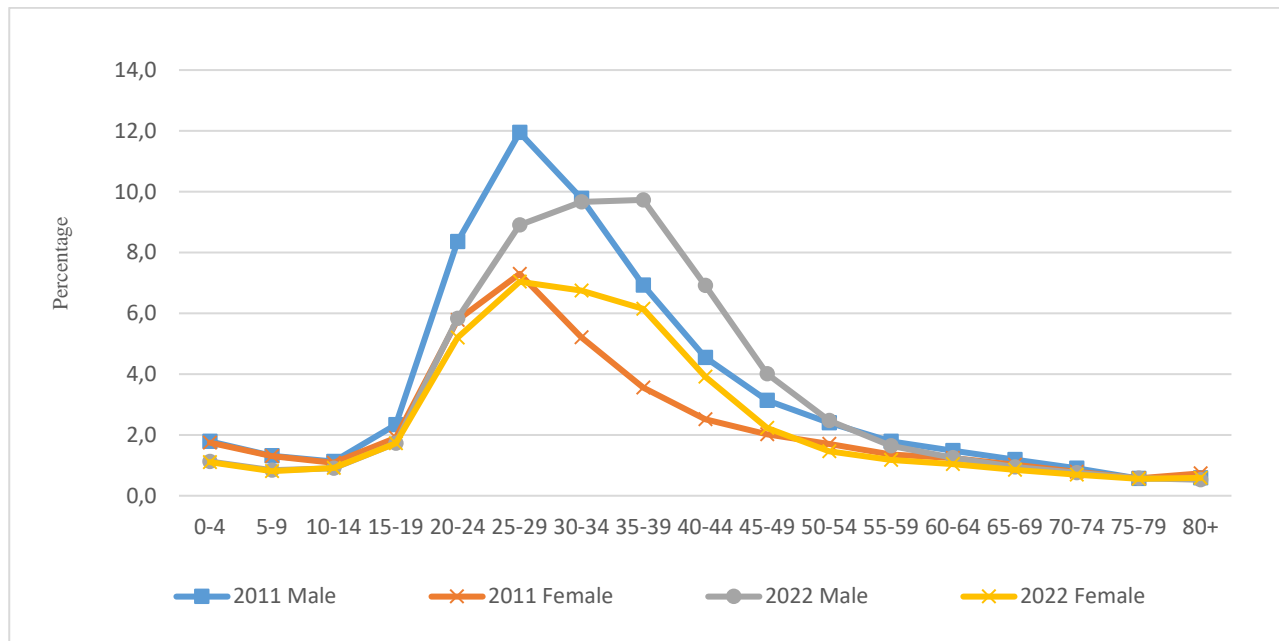
	Life Expectancy	IMR	U5MR
2002	54,7	57,0	79,7
2003	54,2	57,1	82,3
2004	53,9	57,2	81,3
2005	53,6	56,2	80,9
2006	53,6	55,1	78,2
2007	54,4	49,4	71,0
2008	55,3	48,9	63,8
2009	56,8	44,7	55,9
2010	58,4	41,9	50,6
2011	60,0	37,1	44,0
2012	61,4	34,6	40,4
2013	62,5	32,9	38,5
2014	63,3	30,9	37,4
2015	63,8	29,2	36,7
2016	64,0	28,2	36,2
2017	64,3	27,3	35,7
2018	64,9	25,6	33,4
2019	65,3	25,4	32,5
2020	65,6	24,5	31,4
2021	62,7	24,5	31,3
2022	63,9	24,9	31,2
2023	66,3	24,0	30,5
2024	66,5	22,9	28,6

Source: Stats SA, 2024a

Similar to other demographic processes, migration also has an effect on ageing. For example, statistics on migration of people into South Africa seen in Figure 2 revealed that majority of people moving into the country are dominantly between the ages 15 and 49, with the number of males higher than females. These numbers suggest that migration is both age and sex-selective. A large number of people in the middle ages, coupled with declining mortality and increase in life expectancy will result to population ageing in South Africa. Although Udjo (2024) has argued that compared to other major demographic compositions, “the impact of migration is more difficult to assess, primarily due to lack of reliable data” (Udjo, 2024:5). Given this narrative, it is therefore “difficult to control for the impact of migration in the evaluation of age-sex distributions of South Africa’s population” (ibid). However, in using case studies, Alho (2008) has shown the effects of migration on the population distribution. De Beer (2024) argued that immigration of selected age groups can reduce old age dependency ratio, relieve the burden of ageing and postpone the process of population ageing if immigrants settle permanently.



**Figure 2: Distribution of population born outside South Africa by age and sex, 2011 and 2022**



Source: Stats SA, 2023a

## Chapter 2: Quality assessment of age-sex structure, 1996-2022

### 2.1 Introduction

This chapter is an assessment of the quality of age-sex data (1996-2022) used in the study. Selected measures such as patterns and indexes scores were employed. Referred to as internal validity measures, studies such as Palamuleni (1995) and Udjo (2024) have used and recommended that these measures be applied as checks in assessing and evaluating demographic data. Also, Stats SA (2024) observed that in using these data sets, it is recommended that quality assessments be carried out.

### 2.2 Patterns of population distributions by age and sex, 2022

According to Shipanga and Shinyemba (2022) “The principal technique for identifying errors in the age data is to examine single-year distributions” (Shipanga and Shinyemba 2022:3). The patterns of single age by sex distributions assists in the understanding of the changing patterns of the population structure. It also provides insight into the smoothness of the data, and in doing so, the overall quality of census enumeration can be established (UN, 2012). Demographic principles demand that there should be slightly more males than females at birth and early ages, and more females than males especially at middle and the later ages in the South African population structure. When disaggregated by sex, Figure 3 shows the distribution patterns of the population by single year, age and sex (numbers) 2022. The result shows distribution patterns suggesting that the overall population decreases with age. Results also shows facts, supporting the notion that there are relatively more males than females at birth and the early ages, and more females than males at the older ages. Thus, supporting the notion that women have relatively higher life expectancies than men. Results also showed that the curves were reasonably smooth, indicating normality existing in the age-sex data and consistent with expectations in the South Africa.

**Figure 3: Distribution patterns of the population by single year age and sex (numbers), 2022**

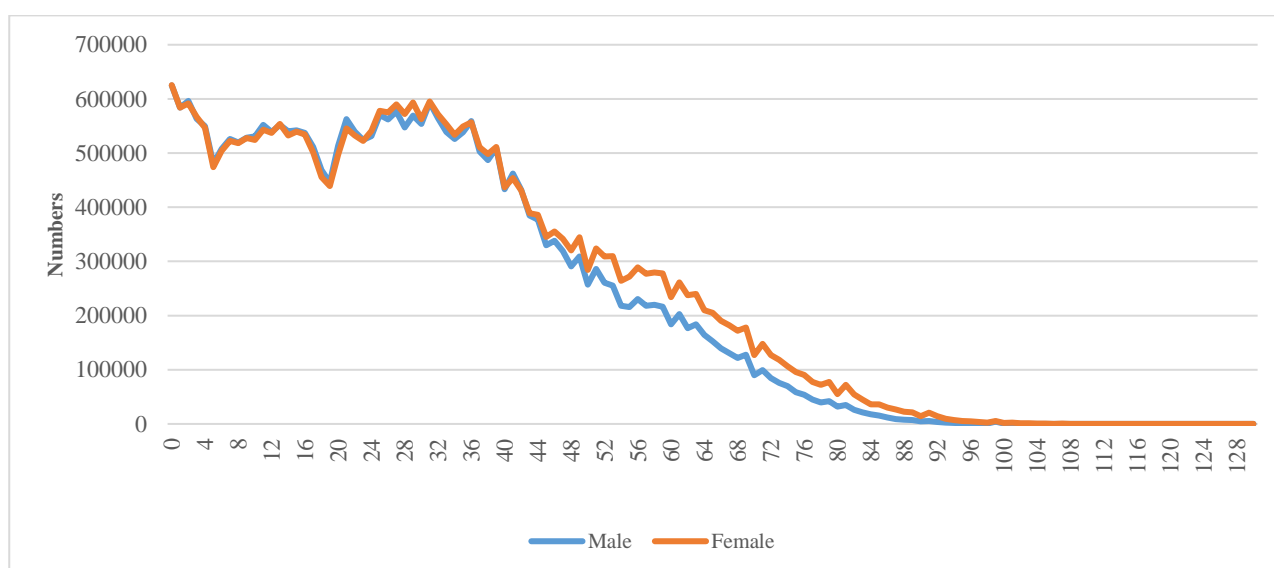
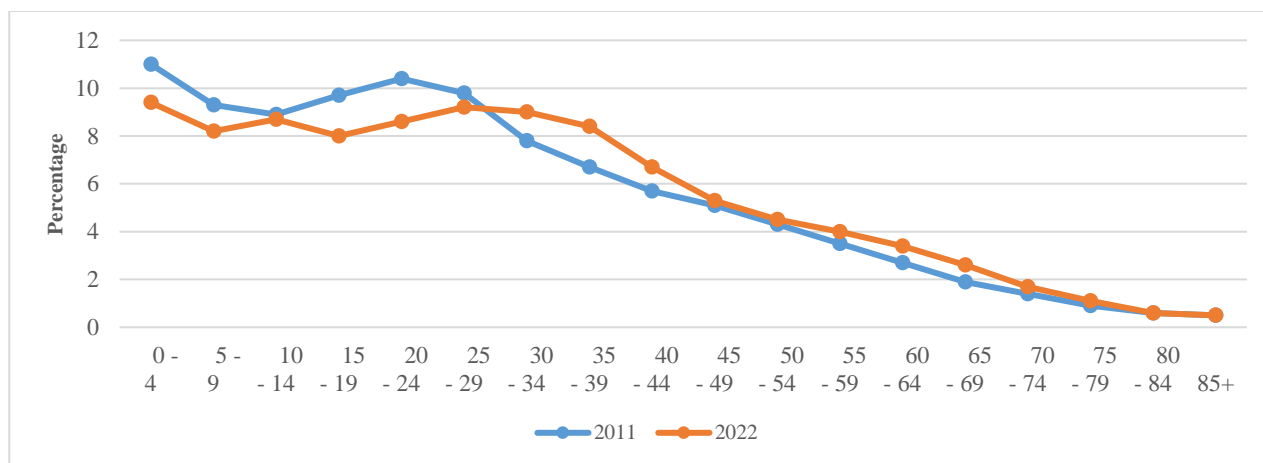


Figure 4 shows the proportional distribution patterns of the population by 5-year age groups from 2011 and 2022. Results in 2022 show a sharp decline between 0-9 years, with specific dips observed between 5-9 years and 15-19 years. The declines observed in the age group 0-9 in 2022 is also observed in 2011. The dip observed between ages 5-9 may possibly be explained by low birth registration observed in 2016 and 2017 as reported by the Stats SA Recorded Live Birth report (Stats SA, 2022). According to the report, the number of births registered recorded 10,6% and 8,8% declines respectively. Results also show patterns suggesting a higher number of the population among those in the middle age in 2022, which suggests a shift and a population distribution with many at the youthful age as currently prevailing in South Africa. Also, results indicate patterns that are less erratic, reflecting a distribution pattern which decrease with age. This is consistent with South African population structure. In assessing the quality of Census 2022 data, Udjo (2024) also found the data to be of less erratic (Udjo, 2024).

**Figure 4: Proportional distribution patterns of the population by 5-years age groups, 2011-2022**



**2.3 Levels of Indexes Score, 1996-2022**

According to studies, the Whipple's and UN joint age-sex accuracy index scores are used to evaluate the quality in reported single year age distributions (Stats SA, 2010; Shryock et al, 1976; Arriaga, 1994). Specifically, the Whipple's index is developed to reflect the preference for or avoidance of particular terminal digits (0 and 5) or of each terminal digit (UN, 2012). While the UN joint score index is used to evaluate “the quality of population distribution by age and sex” (Arriaga, 1994: 23), these indexes are both used to measure the levels of accuracy of the age and sex data and hence, provide quality levels and fitness for use. Table 2 and 3 shows the measure of Whipple's and the UN joint accuracy index score, using 1996–2022 data. Results show that the Whipple's index score was 100 in 1996 and 97 in 2022. The UN joint accuracy index score was 17,7 in 1996 and 17,4 in 2022. These scores indicate that the Census 2022 age-sex data are accurate. Data is highly accurate if the Whipple's index score value is equal to or less than 105 ( $\leq 105$ ) and accurate if the UN joint accuracy index score value is less than 20 ( $< 20$ ) (Palamuleni, 1995).

**Table 2 - Measures of Whipple's index score, 1996-2022**

Index/year	Male	Female	Index score level (Both Sex)	Direction of score	Comment on quality of score
Whipple's index					
1996	100	101	100	<105	Highly accurate
2001	97	97	97	<105	Highly accurate
2011	98	97	98	<105	Highly accurate
2022	97	97	97	<105	Highly accurate

**Table 3 - Measures of UN joint accuracy index score, 1996-2022**

UN Joint age-sex index score	Index score level	Direction of score	Comment on quality of score
1996	17,7	<20	Accurate
2001	19,2	<20	Accurate
2011	18,2	<20	Accurate
2022	17,4	<20	Accurate

## 2.4 Age and Sex cohort analysis and percentage change, 2011 and 2022

Table 4 shows the population in 2011 that has progressed to 2022 by age group and sex. The table indicates that the child cohort aged 0–4 that progressed to 10–14 decreased by -4,9% percentage points. The decrease of this cohorts across sexes was at -5,4% for males and -4,5% for females between the cohorts in 2022. Across all the age groups, there was a marked increase of the cohorts aged 10–14 and 15–19 in 2011 that survived to 2022 when they were aged 20–24 and 25–29. The percentage change for the two cohorts between the 10-year period was 15,6% and 14,6% respectively. There was a marked decrease of the cohorts aged 55–59 to 75–79 which survived to the later ages in 2022. For example, the cohort that was 60–64 in 2011 has decreased by -24,5% in 2022. The pattern among elderly cohorts suggests that females were likely to survive than their male counterparts.

**Table 4 - Age and sex cohort analysis and percentage change, South Africa, 2011 and 2022**

Age group	Birth year	Total Population	Male	Female	Total Population	Male	Female	Percentage change Total population (%)	Percentage change Male (%)	Percentage change Female (%)
		Census 2011			Census 2022					
0-4	2011-2007	5 685 452	2 867 585	2 817 867						
5-9	2006-2011	4 819 751	2 425 181	2 394 570						
10-14	2001-2006	4 594 886	2 344 275	2 250 611	5 404 124	2 713 448	2 690 676	-4,9	-5,4	-4,5
15-19	1996-2001	5 003 477	2 498 572	2 504 905	4 975 310	2 504 677	2 470 633	3,2	3,3	3,2
20-24	1991-1996	5 374 542	2 694 646	2 679 896	5 309 739	2 670 986	2 638 753	15,6	13,9	17,3
25-29	1986-1991	5 059 317	2 542 682	2 516 635	5 733 239	2 825 292	2 907 947	14,6	13,1	16,1
30-34	1981-1986	4 029 010	2 036 206	1 992 804	5 592 823	2 776 212	2 816 611	4,1	3,0	5,1
35-39	1976-1981	3 467 767	1 709 347	1 758 420	5 222 602	2 596 891	2 625 711	3,2	2,1	4,3
40-44	1971-1976	2 948 619	1 402 328	1 546 291	4 185 221	2 089 077	2 096 144	3,9	2,6	5,2
45-49	1966-1971	2 620 283	1 195 740	1 424 543	3 293 511	1 586 698	1 706 813	-5,0	-7,2	-2,9
50-54	1961-1966	2 218 289	1 011 349	1 206 940	2 769 139	1 277 910	1 491 229	-6,1	-8,9	-3,6
55-59	1956-1961	1 797 408	811 950	985 458	2 496 452	1 100 778	1 395 674	-4,7	-7,9	-2,0
60-64	1951-1956	1 385 768	612 364	773 404	2 095 667	912 280	1 183 387	-5,5	-9,8	-1,9
65-69	1946-1951	957 804	401 548	556 256	1 599 671	672 433	927 238	-11,0	-17,2	-5,9
70-74	1941-1946	748 330	293 498	454 832	1 046 007	419 393	626 614	-24,5	-31,5	-18,9
75-79	1936-1941	481 267	165 283	315 984	652 034	238 713	413 321	-31,9	-40,6	-25,7
80-84	1931-1936	322 916	100 694	222 222	394 814	132 074	262 740	-47,2	-55,0	-42,2
85+	1931-1927	255 673	75 543	180 130	311 533	79 665	231 868	-35,3	-51,8	-26,6

The provincial distribution (see appendix table 13 i-ix) shows that each province revealed patterns unique to its characteristics. However, some provinces reflected patterns not consistent with expected assumptions. For example, Gauteng and Western Cape showed an increase in the adolescent and youthful population aged 15–39 that survived to 2022. In Gauteng, the cohort aged 15–19 in 2011 progressed to 25–29 increasing by 71%. This may be associated to the impact of migration in the province. Eastern Cape and North West almost showed losses in population from 2011 cohorts that progressed to 2022. These patterns are consistent with the assumption of the method used. All provinces experienced noticeable loss among the elderly population aged 60–64 and older, especially Northern Cape, Free state and North West. Population of the elderly cohort 70–74 and 75–79 which survived to cohort 80–84 and 85+ decreased by -57% and -49% respectively. Overall, these patterns reflected the impact of demographic processes of mortality and migration manifesting in these provinces.

## Chapter 3: Population composition: Age- Sex structure, 1996-2022

### 3.1 Introduction

This chapter assists in unpacking the indicators of population compositions. Specifically, it dwelled on the percentage change, distribution patterns of the population, sex ratio, dependency ratio and median age. These indicators summarised how the population has been evolving over time.

### 3.2 Population distribution and percentage change

Table 5 shows the population distribution and percentage change by population group and province, South Africa, 1996-2022. These are changes in the population size that occurred between the censuses in the study period. Results show a 19,8% percentage change between 2011 and 2022 in South Africa. With the exception of Northern Cape (-2,0%) which recorded a negative population change between 1996 and 2001, all other provinces recorded positive population change over the years. Western Cape (27,7%), Mpumalanga (27,3%) and Gauteng (23,0%) provinces reported the highest percentage changes, while Free State (8,0%) and North West (8,4%) reported the least change between 2011 and 2022. The increase in percentage change in Western Cape and Gauteng may be associated to people migrating from other provinces to these provinces due to social-economic reasons.

Also, with the exception of the white population group, between 1996 and 2001 (-3,2%) and between 2011 and 2022 (-1,8%), all other population groups reported a positive population change in the country. Indian/Asian (31,9%) and black Africans (23,1%) reported the highest percentage change between 2011 and 2022. The high proportion of change recorded by Indian/Asian population (2011-2022) may be associated to the high inflow of Indian/Asian migrants' stream in South Africa, while the negative percentage change reported among the whites especially in 2022 may also be associated to international migration and fertility decline. According to Stats SA (2024), migration is an important demographic process. This is so as it shapes the age-sex structure narratives, including distribution patterns at both national and by disaggregation (Stats SA, 2024).

**Table 5 - Population distribution and percentage change by population group and province, South Africa, 1996-2022**

	Census 1996	Census 2001	Census 2011	Census 2022	% change 1996-2001	% change 2001-2011	% change 2011-2022
Black Africans	31 127 631	35 416 166	41 000 937	50 486 856	13,8	15,8	23,1
Coloured	3 600 446	3 994 505	4 615 401	5 052 349	10,9	15,5	9,5
Indian/Asian	1 045 596	1 115 467	1 286 930	1 697 506	6,7	15,4	31,9
White	4 434 697	4 293 640	4 586 838	4 504 252	-3,2	6,8	-1,8
Western Cape	3 956 875	4 524 335	5 822 734	7 433 020	14,3	28,7	27,7
Eastern Cape	6 147 244	6 278 651	6 562 053	7 230 204	2,1	4,5	10,2
Northern Cape	1 011 864	991 919	1 145 861	1 355 945	-2,0	15,5	18,3
Free State	2 633 504	2 706 775	2 745 590	2 964 412	2,8	1,4	8,0
KwaZulu-Natal	8 572 302	9 584 129	10 267 300	12 423 907	11,8	7,1	21,0
North West	2 727 223	2 984 098	3 509 953	3 804 547	9,4	17,7	8,4
Gauteng	7 834 125	9 388 854	12 272 263	15 099 423	19,9	30,7	23,0
Mpumalanga	3 123 869	3 365 554	4 039 939	5 143 324	7,7	20,0	27,3
Limpopo	4 576 566	4 995 462	5 404 868	6 572 721	9,2	8,2	21,6
South Africa	40 583 572	44 819 777	51 770 561	62 027 503	10,4	15,5	19,8

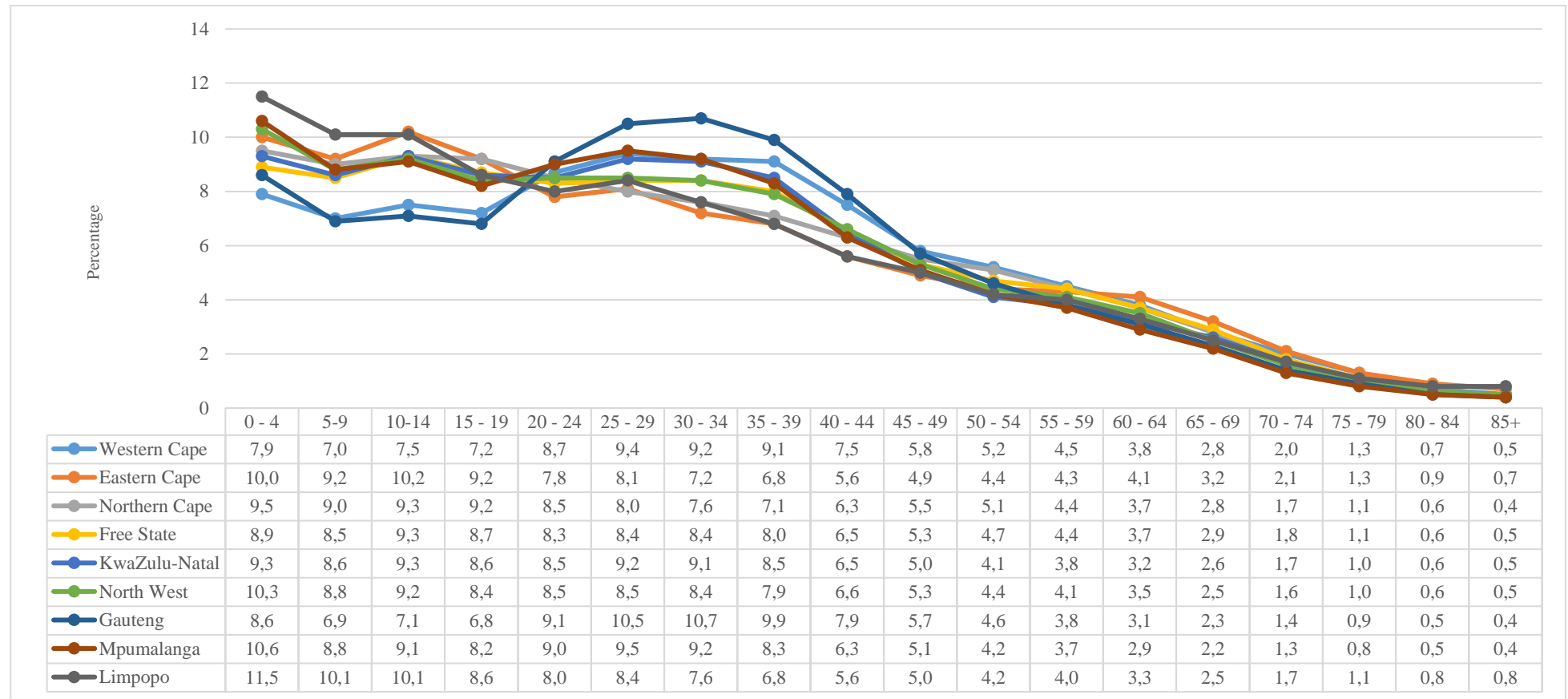


### **3.3 Distribution patterns of the population, 1996-2022**

#### **3.3.1 Distribution patterns by province, 1996-2022**

South Africa's population reflects the entire structure of the population by age and sex. It reveals the proportions and dynamics imbedded in distribution patterns of the population. Figure 5 shows the proportional distribution patterns of the population by 5-year age groups and province, South Africa 2022. Results show a declining proportional pattern distribution, with age increasing in all provinces, specifically from the population aged 45–49. These are so, with a bulge in population, specifically between 15 and 49 years, in Gauteng, Western Cape, KwaZulu-Natal and Mpumalanga. These proportional distributions suggest a dominant population of the youth in 2022, supporting the notion that South African population is youthful. However, closer observations by age group reveal that the population aged 10–14 (10,2%) and 0–4 (10,0%) reported the highest distribution in Eastern Cape, while at a proportion of 9,3% and 9,5%, the same group reported the highest distribution in Northern Cape. The current youth and middle aged population is a reflection of fertility transition; also a high number of the youthful population in the face of declining mortality in South Africa will result to a bulge in the elderly population in the future (Stats SA, 2014).

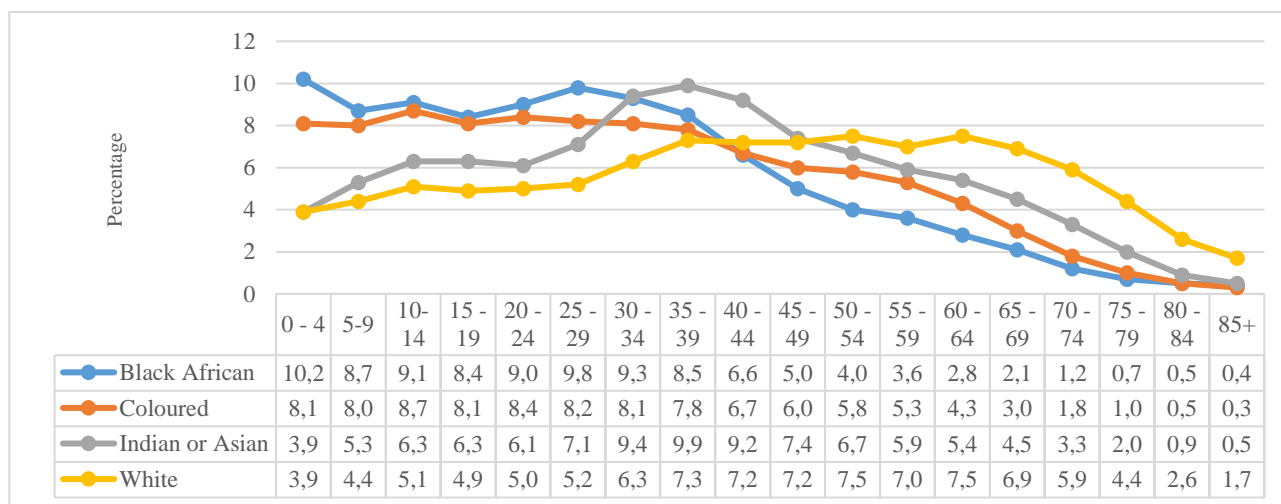
**Figure 5: Proportional distribution patterns of the population by 5-year age group and province, South Africa 2022**



### 3.3.2 Distribution patterns by 5-year age group and population group, 1996-2022

The distribution patterns of the population by 5-year age group and population group, South Africa, 2022 is shown in Figure 6. Although declining, results show that the white followed by the Indian/Asian population has the highest proportion above the youthful age (35 plus) compared to other population groups. The white population reported proportions between 7,3% and 1,7%, while the Indian/Asian reported proportions between 9,9% and 0,5%. Black Africans have the highest proportion of the population among those aged 0–34 years, while the white population group has the lowest in the same ages. The Indian/Asian population group had the highest proportion of persons aged between 30 and 49 years. These proportions indicate that the black Africans have the highest number of the youthful population, while the whites, followed by the Indian/Asian population has the highest number of the elderly population. Also, the patterns suggest the black Africans and coloured population groups have not experienced demographic transition while the white have experienced it.

**Figure 6: Distribution patterns of the population by 5-year age group and population group, South Africa, 2022**



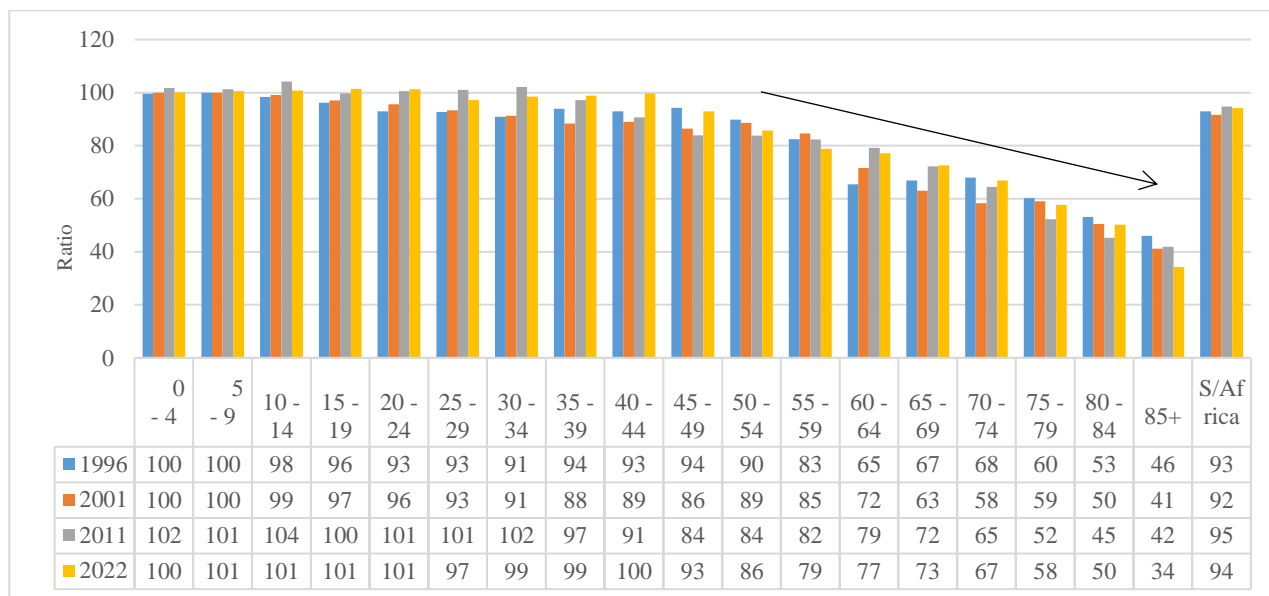
### 3.4 Sex ratio

#### 3.4.1 Sex ratio by 5-years age group

The sex ratio is a measure of the number of males for every 100 females in the population (Stats SA, 2014; Udjo, 2024). A sex ratio above 100 indicates more males than females in the population, while a sex ratio below 100 indicates more females than males in the population. Figure 7 shows the sex ratio by 5-year age group for South Africa, 1996-2022. Results show that the sex ratio was 93 in 1996 and 94 in 2022. These ratios are below 100, indicating that there are more females than males in the South Africa population in the study period.

Results also show consistent decreasing sex ratio patterns as age increases across all years. Sex ratio for ages 0–4 and 5–9 and up to 20–24 in 2022 were 100 and above, across the four censuses. These patterns suggest that there are more males than females at birth and up to these groups. With the exception of age group 40-44, the results show that there are more females than males from the age group 25-29 and above in 2022. These results indicate that South African population is more feminine, especially at the middle and older ages.

**Figure 7: Sex ratio by 5-years age group in South Africa, 1996-2022**

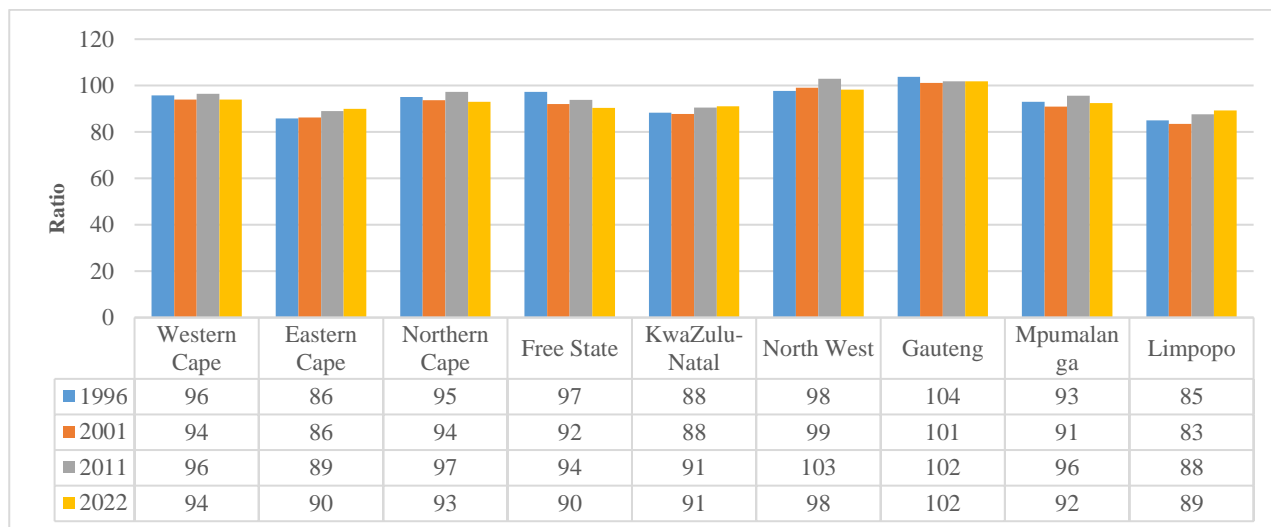


Source: Stats SA, 2023

**3.4.2 Sex ratio by province**

Results by province in Figure 8 show that Eastern Cape, KwaZulu-Natal and Limpopo reported increases in sex ratio. Gauteng recorded sex ratios above 100 across the study period. Sex ratio was 104 in 1996 and 102 in 2022. Results show that Limpopo recorded the lowest sex ratio, followed by Eastern Cape. Sex ratio was 85 (1996) and 89 (2022) in Limpopo, while it was 86 (1996) and 90 (2022) in Eastern Cape. Thus, suggesting that there are more women in these provinces compared to other provinces. These provincial differential patterns may be associated to variations in migration patterns across these provinces (Udjo, 2024). For example, Gauteng and Western Cape are known to be receiving provinces, attracting high number of males from provinces such as Limpopo, due to economic reasons. Overall, these results show that with the exception of Gauteng and North West (in 2011), there are more females than males in all provinces.

**Figure 8: Sex ratio by province, South Africa, 1996-2022**

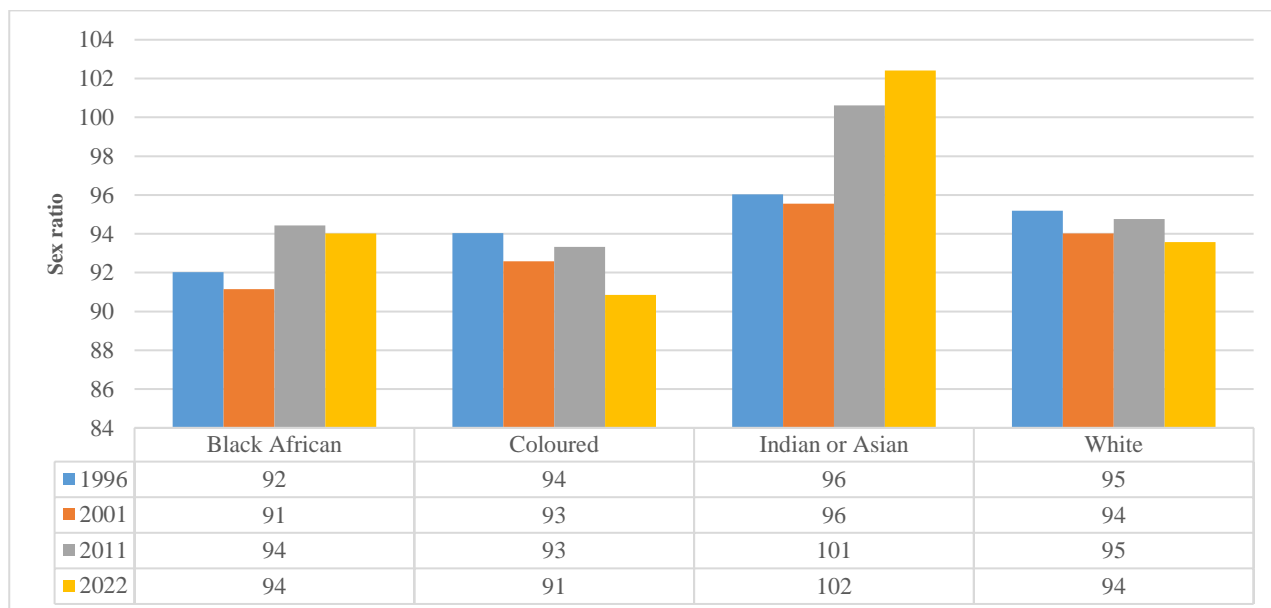


Source: Stats SA, 2023

**3.4.3 Sex ratio by population group**

Sex ratio by population group in South Africa, 1996-2022 is presented in Figure 9. With the exception of the Indian/Asian population (2011 and 2022), there are more females than male among all population groups. Sex ratio was 101 (2011) and 102 (2022) among the Indian/Asian population. The sex ratio decreased slightly among the coloured and white population group. The ratio decreased from 94 (1996) to 91 (2022) among the coloured and from 95 to 94 among the white in the same period. The black African sex ratio remained consistent at 94 between 2011 and 2022. The Indian/Asian sex ratio increase from 96 in 1996 to 101 in 2011 and was 102 in 2022. These sex ratio patterns suggesting a higher number of males among this population group may be associated to the issue of sex selective migration.

**Figure 9: Sex ratio by population group, South Africa, 1996-2022**



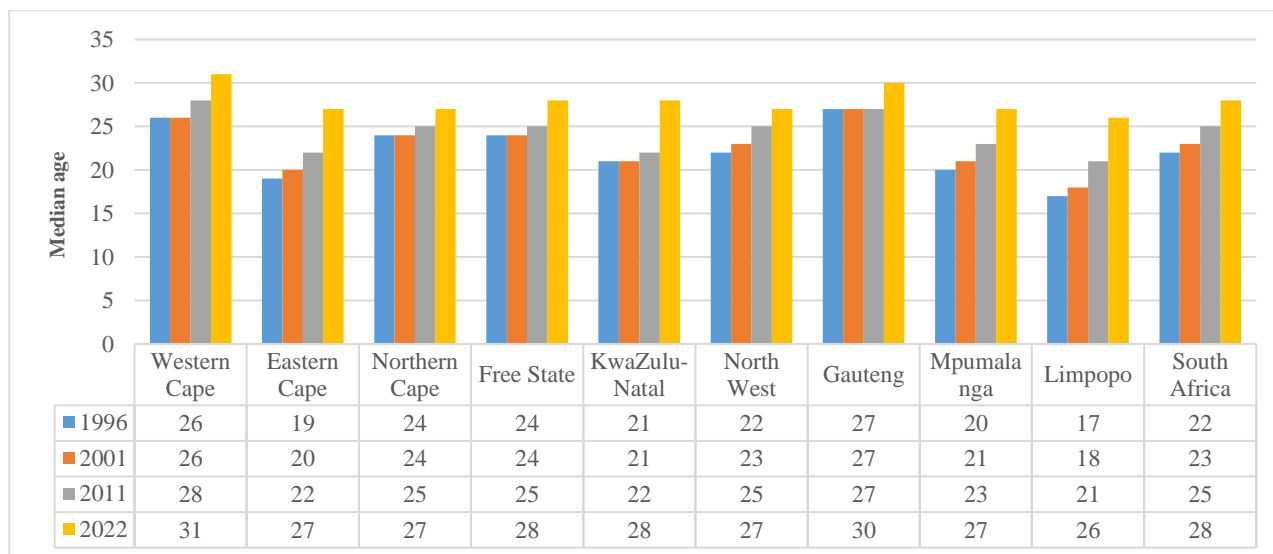
Source: Stats SA, 2023

### 3.5 Median Age

#### 3.5.1 Median age by province

The median age is the age which divides the population of a country into two parts of equal size, in which one half is young and the other half is old (Stats SA, 2014). As a major indicator used to measure the age composition of a population, the median age provides an indication of whether the population is young, intermediate or old. Median age under 20 is described as young, 20–29 as intermediate, and 30 and older as old (Shryock et al., 1976; Siegel and Swanson, 2004; Stats SA, 2014). A continuous rise in median age over time suggest that the population is ageing. The median age by province and South Africa, 1996-2022 is presented in Figure 10 and Table 10 in the Appendix. Results show that the median age in South Africa has been increasing in all provinces and nationally. The median age increased from 22 years in 1996 to 28 years in 2022. Provincially, median age also increased from 26 years in 1996 to 31 years in 2022 in Western Cape, while it increased from 22 years in 1996 to 27 years in 2022 in North West. Although at 27 years, the median age has remained stable between 1996 and 2011 in Gauteng. Western Cape and Gauteng recorded the highest median age compared to other provinces especially in 2022. These years suggest that while the national population remains youthful (i.e. at intermediate level), it is old in Western Cape (31) and Gauteng (30) in 2022.

**Figure 10: Median Age by Province and South Africa, 1996-2022**

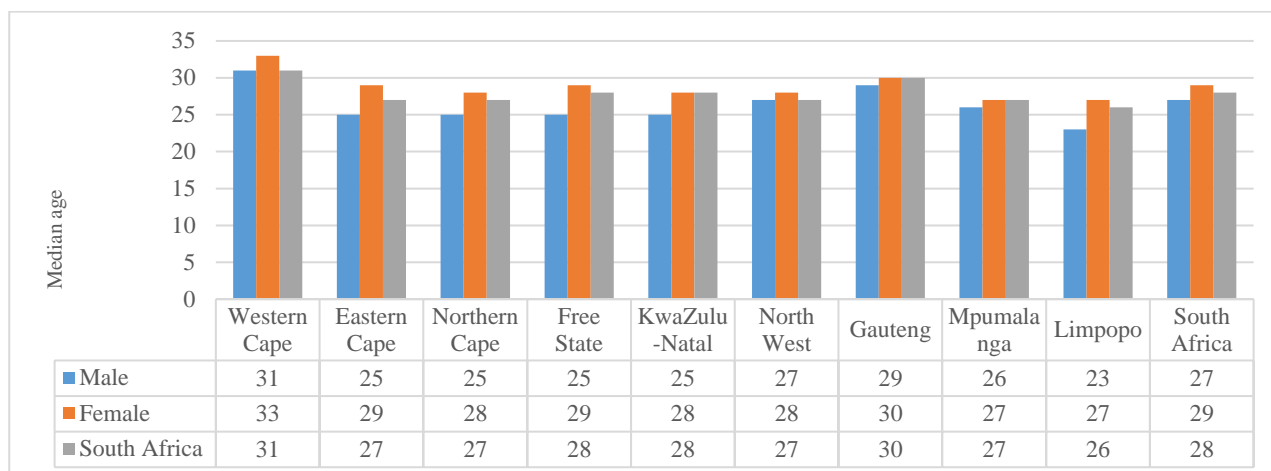


Source: Stats SA, 2023

#### 3.5.2 Median age by province and sex

Results by province and sex in Figure 11 show that the median age for females is higher than that of males in all provinces and South Africa. The higher median age among females may be linked to higher life expectancy associated with women (Stats SA, 2014). The median age for females and males were 33 and 31 years in Western Cape, 30 and 29 years in Gauteng and was 29 and 27 in South Africa respectively. Western Cape (31 years) and Gauteng (30 years) reported the highest median age by sex.

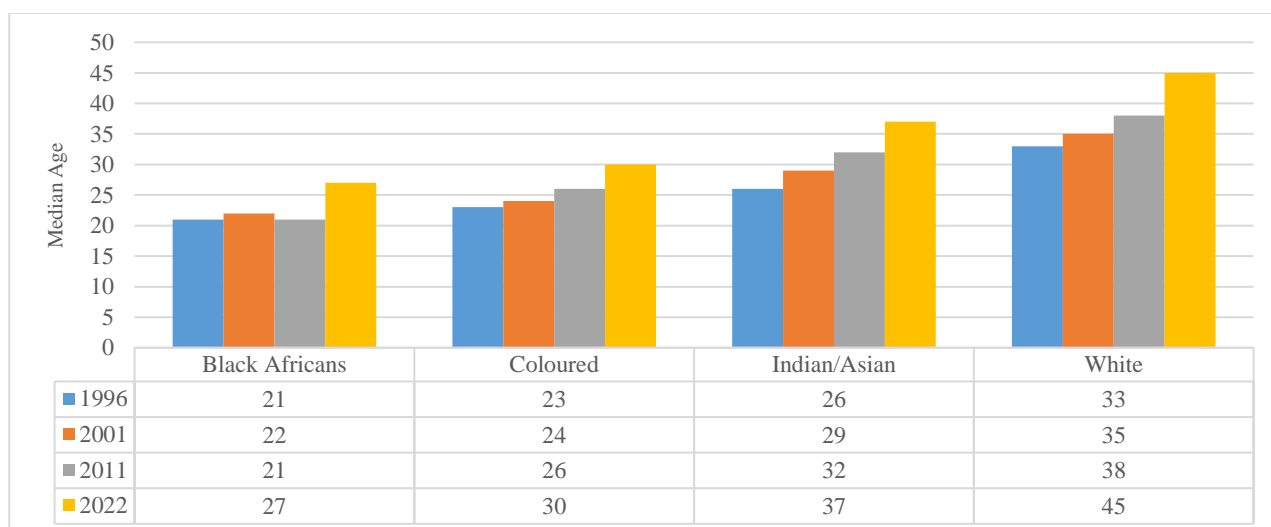
**Figure 11: Median age by province and sex, South Africa, 2022**



**3.5.3 Median age by population group**

Figure 12 presents the median age by population group in South Africa, 1996-2022. Results show that median age has been increasing among all population groups. Median age among the white population increased from 33 years in 1996 to 45 years in 2022, while it increased from 21 years (1996) to 27 years (2022) among the black Africans. Whites, followed by the Indian/Asians recorded the highest median age, while black Africans recorded the lowest median age over the years. These median ages imply that white (from 1996) and Indian/Asian (from 2011) population groups are older compared to other population groups in the country. This development may be associated with the issue of international migration, which has seen most of the white and Indian/Asian youthful population leaving the country for better economic opportunities.

**Figure 12: Median age by population group in South Africa, 1996-2022**



Source: Stats SA, 2023

### 3.6 Dependency Ratio

Dependency ratio is the ratio of the economically inactive to the economically active population (Knodel and Chayovan, 2008). It is used to measure the pressure on the economically active population by economically inactive population in the country. Nonetheless, this indicator does not take in to account whether the target population is employed or not. It further highlights changes in the age composition of the population and provides comparability across regions (Stats SA 2014; World Bank, 2012).

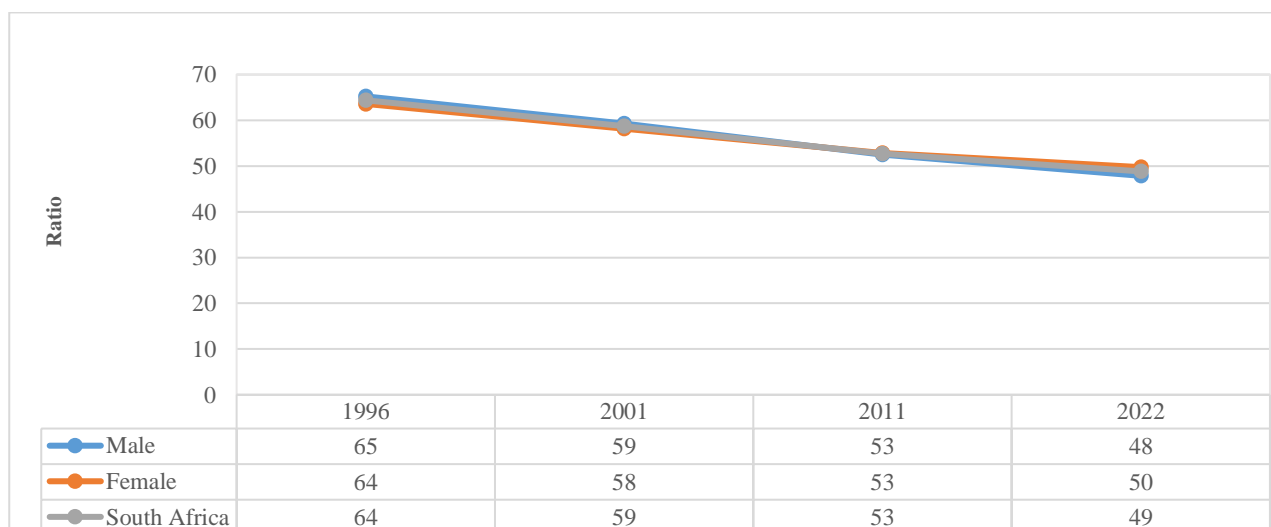
#### 3.6.1 Age dependency ratio

##### 3.6.1.1 Age dependency ratio by sex

Age dependency is a single measure of the ratio of dependents population aged 0–14 plus those older than 64 to the working population aged 15–64. Also known as total dependency ratio, it provides a “summary measures of supposed 'dependents' to 'supporters' or 'unproductive' to 'productive' groups” (Stats SA, 2014:15). The indicators are shown as the share of dependents per 100 working-age population (UN 2024; World Bank, 2012). Figure 13 shows the age dependency ratio by sex, South Africa, 1996-2022. Results show decreasing dependency ratio in South Africa and for both sexes. The ratio decreased from 65 in 1996 to 48 in 2022 among males, and from 64 in 1996 to 50 in 2022 among females.

The indicator decreased from 64 in 1996 to 49 in 2022 in South Africa. The proportional pattern for males is consistent with that of females and South Africa. These results indicate that for every 100 working-age adults in 1996, there were 64 persons requiring support, while there were 49 persons requiring support in 2022 in South Africa.

**Figure 13: Age dependency ratio by sex, South Africa, 1996-2022**

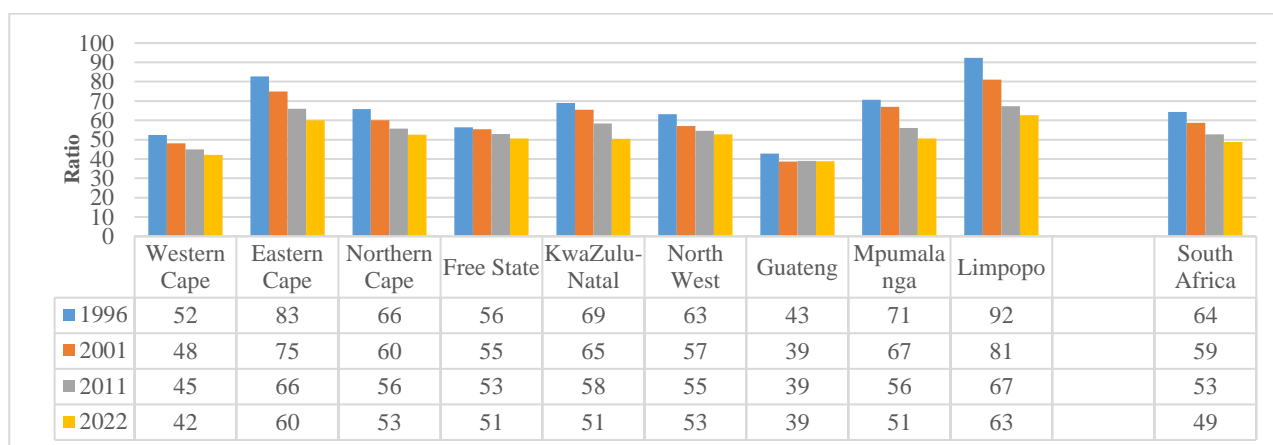




### 3.6.1.2 Age dependency ratio by province

Dependency ratio by province in Figure 14 shows that age dependency ratio has been declining in all provinces and South Africa. The ratio remained stable at 39 between 2001 and 2022 in Gauteng. This indicates that for every 100 working-age adults in 1996, there were 39 persons requiring support (dependents) from 2001 to 2022 in Gauteng. The ratio declined from 52 to 42 in Western Cape and from 92 to 63 in Limpopo. Limpopo and Eastern Cape reported the highest dependency ratio, while Gauteng and Western Cape reported the least across the years.

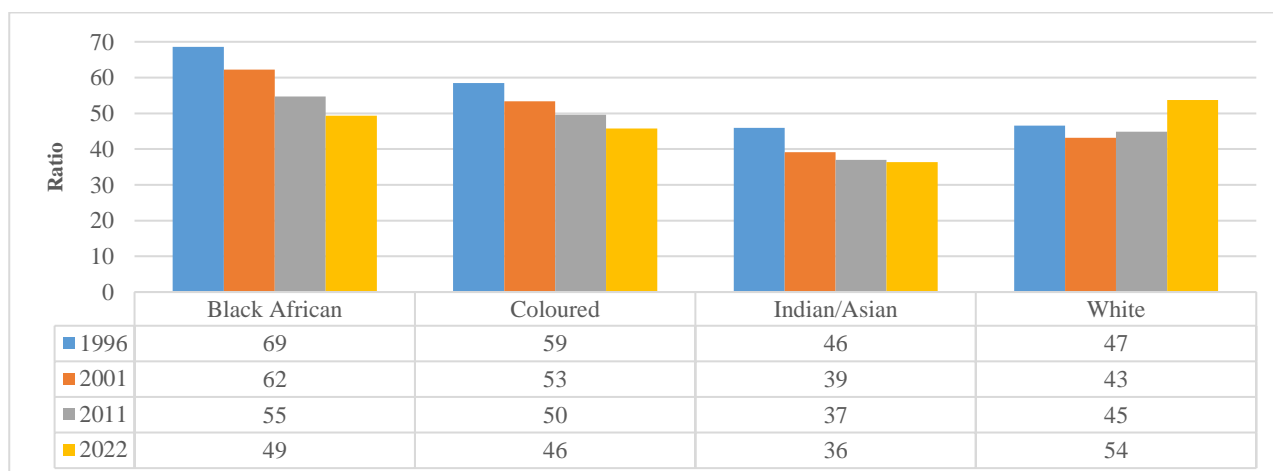
**Figure 14: Age dependency ratio by province, South Africa, 1996-2022**



### 3.6.1.3 Age dependency ratio by population group

Results of age dependency ratio by population group in Figure 15 shows that the black Africans, followed by the coloured recorded the highest dependency ratio between 1996 and 2011. The white (54) followed by the black Africans (49) recorded the highest in 2022 with an exception where the whites increased significantly from 45 (2011) to 54 (2022). The ratios have declined steadily among all population groups. The ratio decreased from 69 to 49 among the black Africans, while it decreased from 46 to 36 among the Indian/Asian population group. Results indicate that that for every 100 working-age adults in 2022, there were 36 persons requiring support among the Indian/Asian population group in 2022.

**Figure 15: Age dependency ratio by population group, South Africa, 1996-2022**

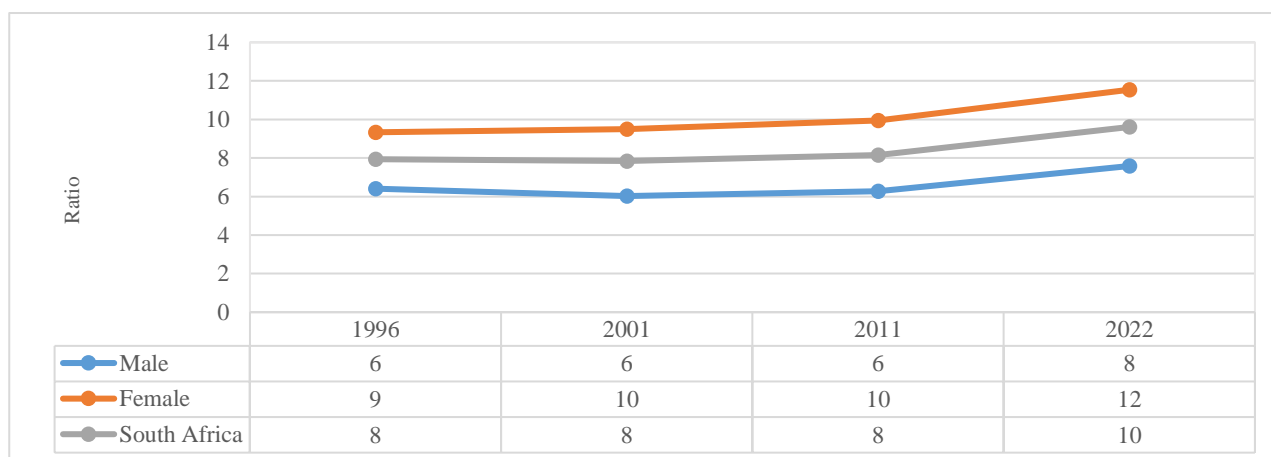


### 3.6.2 Old-age dependency ratio

#### 3.6.2.1 Old-age dependency ratios by sex

Old-age dependency ratio is a measure of the proportion of the elderly population aged 65 and older to the economic/working population aged 15–64 years (World Bank, 2012; Stats SA, 2014). Studies suggest that in measuring the ratio, it is assumed that the working population aged 15-64 are economically productive and those aged 65 and older are no longer economically productive (ibid). Figure 16 shows the old-age dependency ratios by sex, 1996-2022. Old-age dependency remained stable at 8 between 1996-2011 and increased to 10 in 2022 in South Africa. These results suggest that for every 100 working-age adults in 2022, there were 10 elderly persons requiring support in South Africa. Results also showed that the ratio is higher among women relative to men in the study period. The ratio has been increasing over the years by sex and it remained stable between 1996 and 2011 among males and in South Africa.

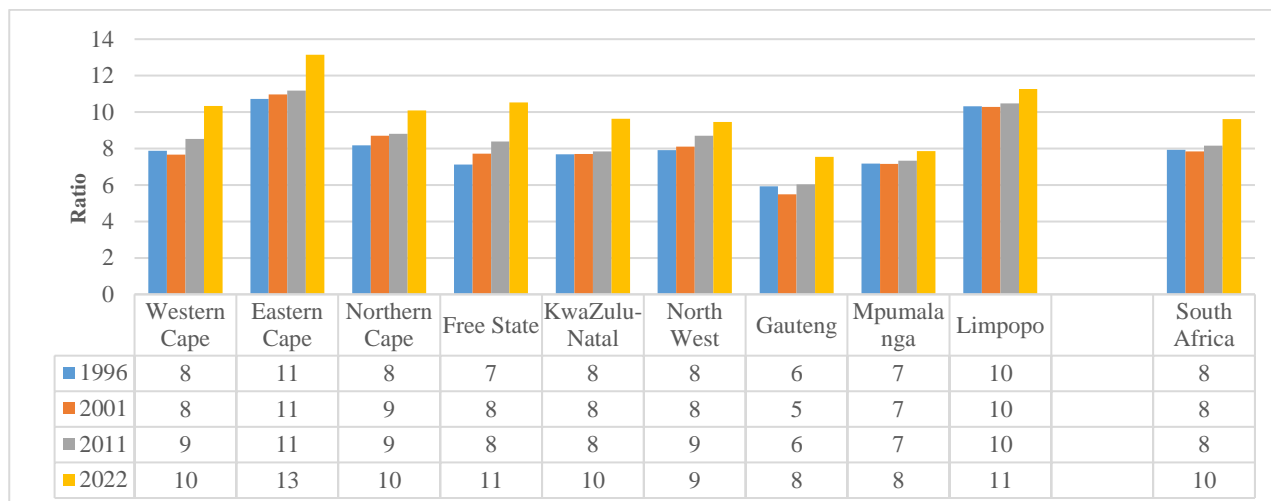
**Figure 16: Old-age dependency ratios by sex, 1996-2022**



#### 3.6.2.2 Old-age dependency ratios by province

Results of old-age dependency ratio by province in Figure 17 shows that although stable (between 1996 and 2011) in some provinces, the ratio has been generally increasing in the study period especially between 2011 and 2022. The ratio remained steady at 11 between 1996 and 2011 and increased to 13 in 2022 in Eastern Cape. It also remained constant at 10 and increased to 11 in the same period in Limpopo. These provinces also reported the highest old-age dependency ratio in the country, suggesting that there are more old-age dependent people in the two provinces. Marginal increases can be observed in Western Cape, North West and Gauteng in the study period. These results suggest that for every 100 working-age adults in Limpopo, there were 11 elderly persons requiring support in 2022, while there are 10 elderly persons requiring support in Western Cape. The increase in ratio observed in Eastern Cape and Limpopo especially in 2022, may be as a result of return migration.

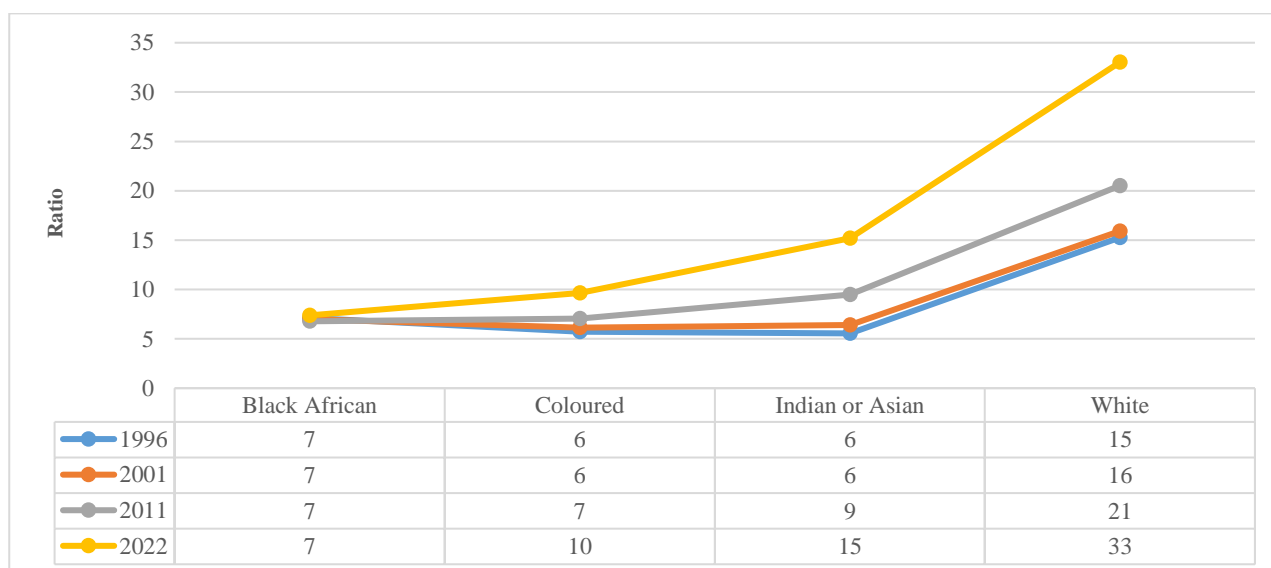
**Figure 17: Old-age dependency ratio by province, 1996-2022**



**3.6.2.3 Old-age dependency ratios by population group**

Results by population group in Figure 18 shows that the ratio has remained almost stable among the black Africans, while it has been increasing steadily among other population groups. These are so, especially after 2001 for the coloured and Indian/Asians. The ratio stood at seven for every 100 working-age black African adults, while it increased from 15 to 33 for every 100 working-age white adults. These results suggest that for every 100 working-age white adults in 2022, there were 33 elderly persons requiring support, while there were only seven black African elderly persons requiring support in the same year. It also suggests that the white followed by the Indian/Asian are becoming increasingly dependent as the number of the elderly population are increasing, compared to other population groups.

**Figure 18: Old-age dependency ratio by population group, censuses of 1996-2022**

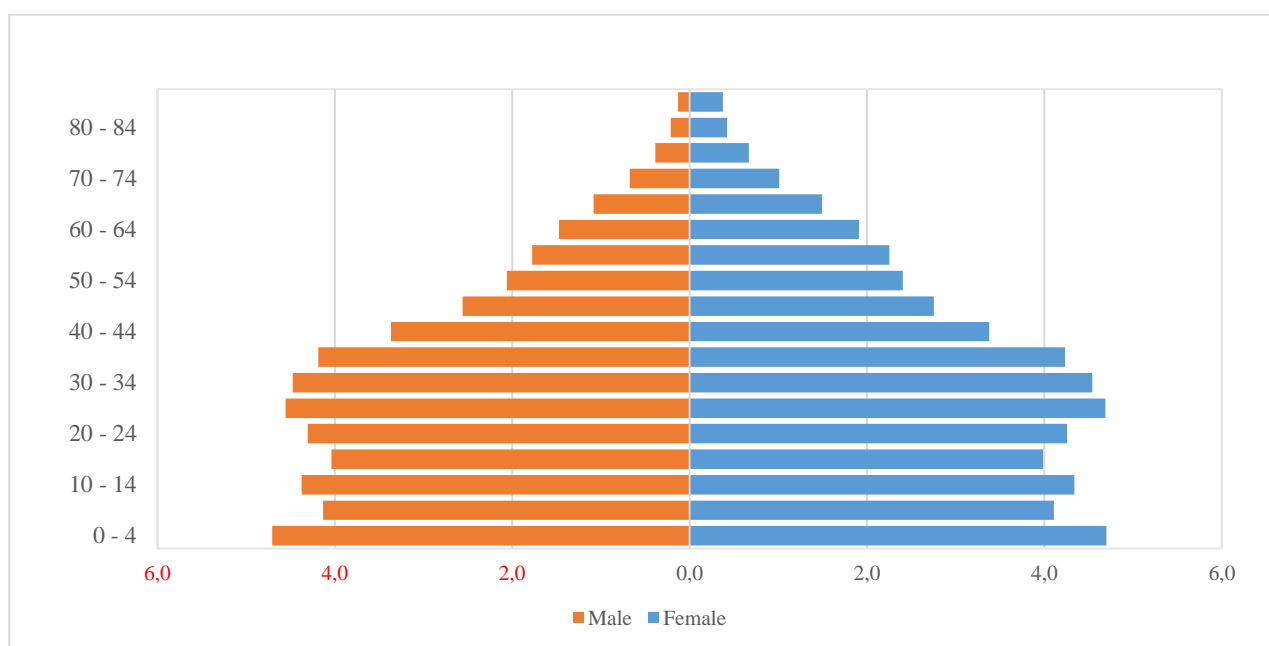


### 3.7 Population Pyramid

#### 3.7.1 Population Pyramid: South Africa 2022

A population pyramid provides a consolidated picture of the age-sex structure of the population. Broadly, it tells the historical patterns of fertility, mortality and migration dynamics playing out, leading to changes in the structure of the population over time (Stats SA, 2024b). Figure 19 shows the population pyramid, South Africa, 2022. Results show patterns indicating a larger proportion of children aged 0–4 and a decreasing population among the age groups 5–9 and 15–19, while a bulge is observed between the age group 20–24 and 30–39, with a consistent declining pattern as age increases. Patterns observed for the male population were consistent with the female population. The bulge observed between the ages 20–39 confirm the notion that the South African population is a youthful population, and these attested to the intermediary median age observed in the study. The bulge may also be associated to the issue of fertility and migration unfolding in the country. Literature suggests that migration is sex and age-selective and this has resulted to dominantly people of the youthful age (and above) migrating to South Africa, especially from the Southern and sub-Saharan countries (Palamuleni, 2013; Stats SA, 2014).

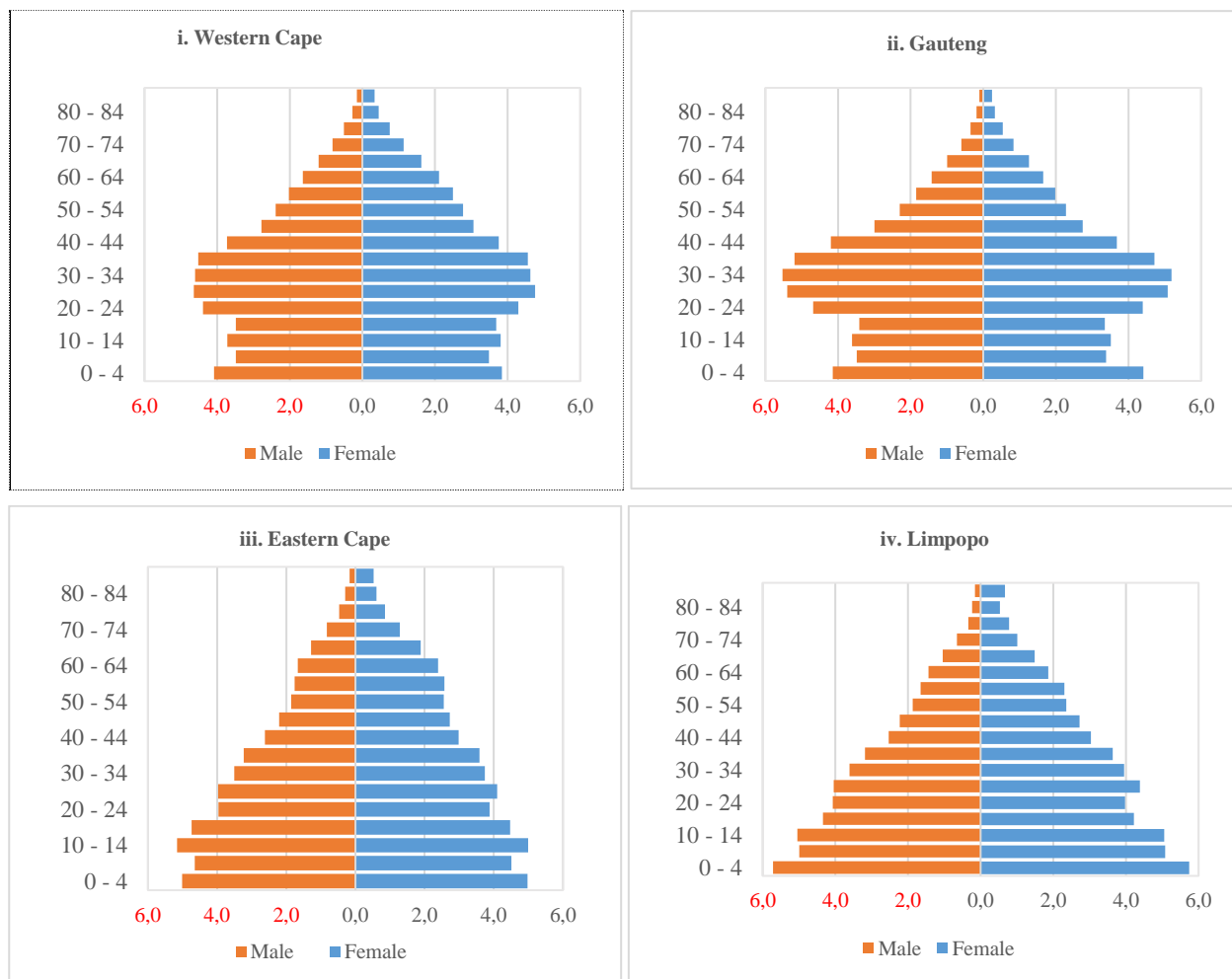
**Figure 19: Population pyramid, South Africa, 2022**



#### 3.7.2 Population pyramid by province, 2022

Figure 20i-iv and in the appendix (Figure 38 v-ix) indicate the population pyramid by province in South Africa, 2022. Result show that Western Cape and Gauteng presented population pyramids with almost similar shapes, compared to other provinces. These provinces reported pyramids with a bulge at the youthful ages of between 20–44 years, indicating a high level of population among the economically active age. A closer examination also revealed that there are slightly more males than females especially in Gauteng. Results also presented a dip in the age cohort 5–9 years across all provinces, consistent with the national patterns. Similar patterns are observed in Eastern Cape and Limpopo with a broader base and narrow apex. These patterns can be attributed to high fertility patterns, high out migration and adult mortality.

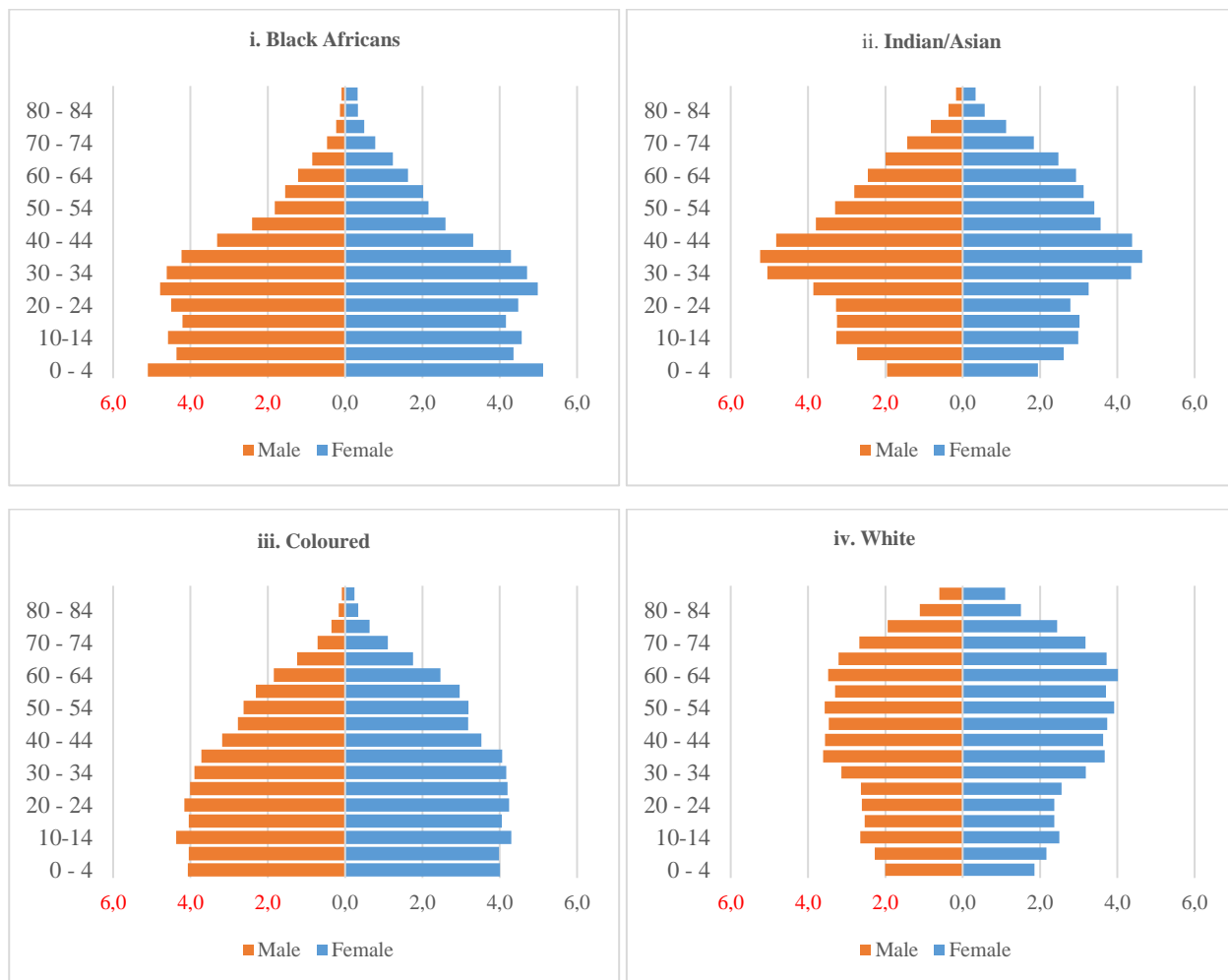
**Figure 20i-iv: Population Pyramid by selected provinces in South Africa, 2022**



**3.7.3 Population pyramid by population group, 2022**

Population pyramid by population groups in Figure 21i-iv shows that each population group presents unique population patterns. The population pyramid of the whites and Indian/Asians suggest that there are more people at the elderly age indicating an aged population, compared to the black Africans and coloured population groups. Black Africans population reflected a pyramid close to that of South Africa, while the Indian/Asian population pyramid reflected a narrow base compared to any other population group. These structural differences are reflections of the changing fertility and mortality patterns associated with these population groups. It can also be associated to the issue of international migration, especially with the white and Indian/Asian population groups.

**Figure 21i-iv: Population Pyramid by population group in South Africa, 2022**



## Chapter 4: Ageing (Elderly) population in South Africa, 1996-2022

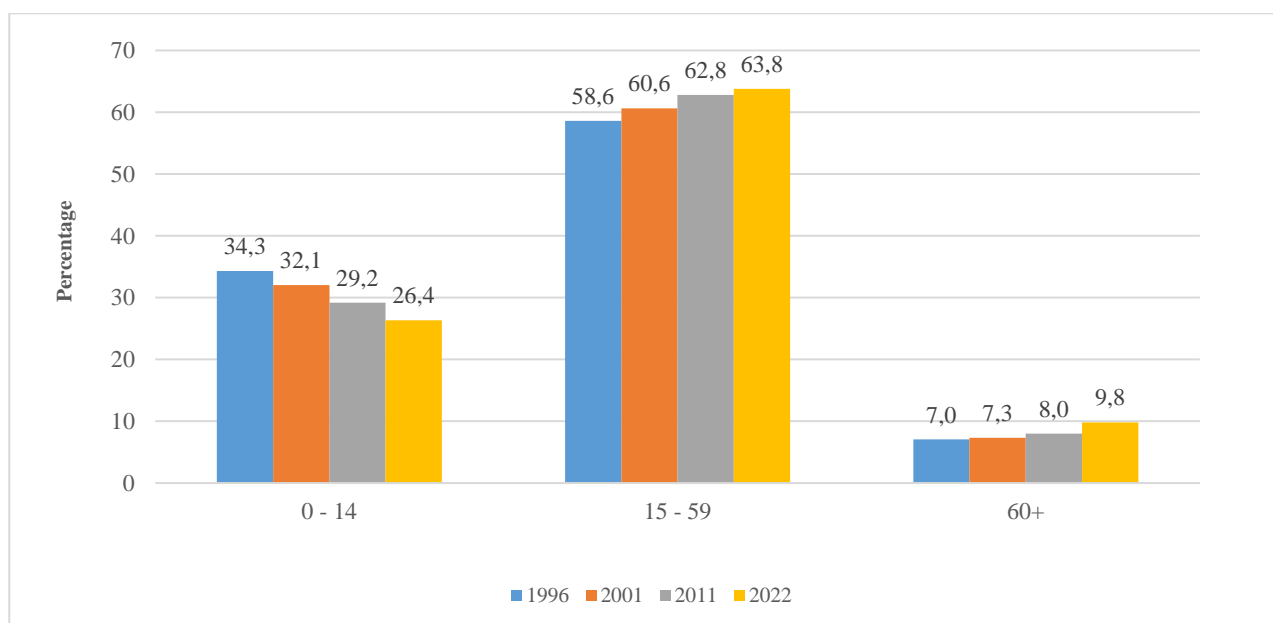
### 4.1 Introduction

This section presents statistics and summary indicators that help us determine whether the South African population is ageing or not. These include a background on the percentage distribution of the population by functional age groups (0–14, 15–59, 60+), pattern and percentage distribution of the population aged 60+ and by 5-year age groups, level and pattern of ageing index and the potential support ratio.

#### 4.1.1 Distribution of the population by functional age groups

Figure 22 shows the percentage distribution of the population by functional age groups, 1996-2022. Results show that population aged 0–14 is higher than 60+ and those in the age group 15–59 are more than half of the population at each census. The population in the age group 15–59 and 60+ has been increasing, while those in the age group 0–14 has been decreasing. The population aged 15–59 increased from 58,6% in 1996 to 63,8% in 2022, while the population aged 0–14 decreased from 34,3% in 1996 to 26,4% in 2022. The increase in the age group 60+ was marginal at 7,0% in 1996 to 7,3% in 2001. The same population increased by 1,8 percentage points between 2011 (8,0%) and 2022 (9,8%). The population in the age group 60+ are the lowest in terms of percentage distribution to the total population over the period. These distributions confirm an increase of the economically active and elderly population over time. A high number of the youthful population in the face of declining fertility and mortality will result to a high number of elderly population in the future. Functional age group patterns observed by sex, population group and province were consistent with those observed at national level (see Figure 39, 40 i-iv and 41 i-ix in the appendix).

**Figure 22: Percentage distribution of the population by functional age groups, 1996-2022**



## 4.2 Distribution of the elderly population (60+)

### 4.2.1 Distribution of the elderly population (60+) by 5-year age groups and sex (numbers), 1996-2022

Table 6 below, presents distribution of the elderly population aged 60+ by 5-year age groups and sex (numbers), 1996-2022. Results show that a total of 6 099 725 populations are elderly (60+) in South Africa in 2022, indicating 9,8% of the total population. The population of the elderly (60+) has been growing in South Africa for both male and female. The population in South Africa increased from 2 825200 in 1996 to 6 099725 in 2022. Disaggregation by sex revealed patterns indicating that there are more females than males in the elderly ages of 60+. These patterns support the notion of feminisation of the elderly population in South Africa. Disaggregation by population group and province are shown in the Appendix (Table 11 and 12).

**Table 6 - Distribution of the population aged 60+ by 5-year age groups and sex, (numbers), 1996-2022**

	1996			2001			2011			2022		
	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total (60+)
60–64	352 053	538 483	890 536	444 510	620 784	1 065 294	612 364	773 404	1 385 768	912 280	1 183 387	2 095 667
65–69	304 013	454 874	758 887	304 763	483 164	787 927	401 548	556 256	957 805	672 433	927 238	1 599 671
70–74	195 119	287 044	482 163	232 547	398 922	631 469	293 498	454 832	748 331	419 393	626 614	1 046 006
75–79	141 844	235 583	377 428	136 436	231 101	367 537	165 283	315 984	481 267	238 713	413 321	652 033
80+	105 302	210 884	316 186	136 742	291 536	428 278	176 237	402 352	578 589	211 739	494 608	706 347
Total	1 098 332	1 726 869	2 825 200	1 254 999	2 025 506	3 280 505	1 648 930	2 502 829	4 151 759	2 454 558	3 645 168	6 099 725



#### 4.2.2 Population distribution and percentage change of the elderly by population group and province

Table 7 shows the population distribution and percentage change of the elderly (60+) by population group and province, 1996-2022. These are changes in the population size of the elderly that occurred between censuses. Results showed that all provinces recorded positive percentage change in the number of elderly population over the years. However, the highest percentage change was reported between 2011 and 2022 (46,9%) in South Africa. Western Cape, Gauteng and Mpumalanga reported high percentage changes, especially between 2001-2011 and 2011-2022. The proportion increased from 16,9% (1996-2001) to 47,5% (2001-2011) and was 57,1% between 2011-2022 in Western Cape, while it increased from 19,7% (1996-2001) to 45,8% (2001-2011) and was 52,6% between 2011-2022 in Gauteng.

Western Cape (57,1%), KwaZulu-Natal (53,3%) and Gauteng (52,6%) reported the highest percentage changes, while North West (26,2%) reported the lowest change between 2011 and 2022. Also, distribution by population group shows that all reported an increase and positive population change of the elderly population in the country. The change among the Indian/Asian elderly population increased from 32,2% (1996-2001) to 64,9% (2001-2011) and was 94,6% between 2011-2022. However, the Indian/Asian (94,6%) followed by the coloured (55,5%) recorded the highest percentage change among the elderly, while the whites with a percentage change of 41,4%, reported the least. The high percentage change reported among the Indian/Asian population group (94,6%) may also be associated to international migration. According to a study, migration is an important demographic process as it shapes the age-sex structure of the population at all levels (Stats SA, 2019).

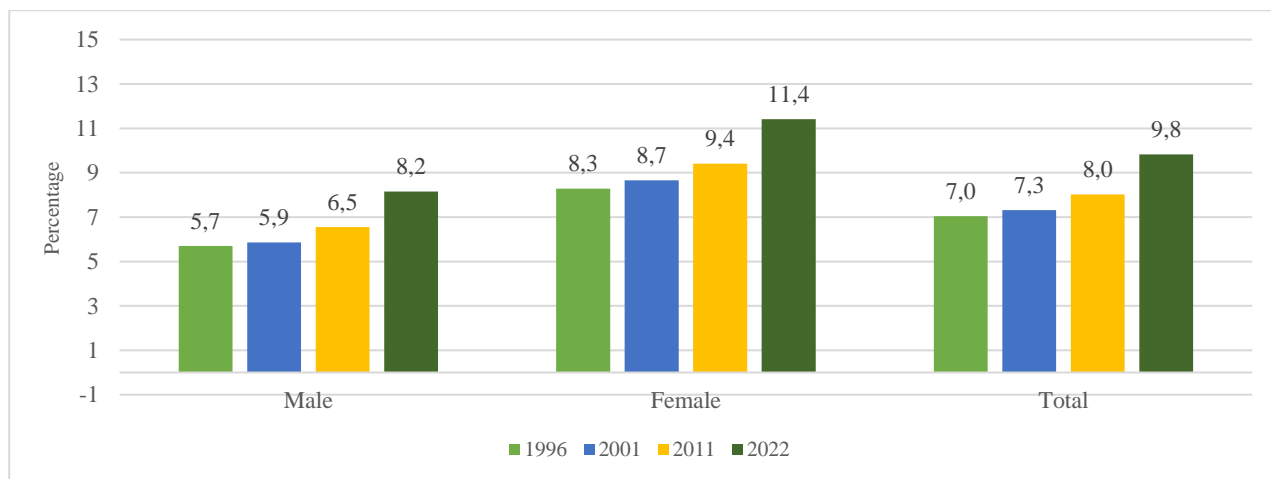
**Table 7 - Population distribution and percentage change of the elderly (60+) by population group and province, 1996-2022**

	Census 1996	Census 2001	Census 2011	Census 2022	1996-2001 % change	2001-2011 % change	2011-2022 % change
Black Africans	1 898 156	2 257 383	2 709 727	3 932 816	18,9	20,0	45,1
Coloured	208 846	253 716	354 956	552 046	21,5	39,9	55,5
Indian/Asian	66 103	87 400	144 144	280 491	32,2	64,9	94,6
White	630 328	682 005	923 344	1 305 398	8,2	35,4	41,4
Western Cape	30 1942	352 984	520 784	818 398	16,9	47,5	57,1
Eastern Cape	519 158	578 553	638 224	886 965	11,4	10,3	39,0
Northern Cape	73 824	80 182	98 391	139 234	8,6	22,7	41,5
Free State	178 432	197 785	228 789	315 573	10,8	15,7	37,9
KwaZulu-Natal	567 162	664 998	779 377	1 195 130	17,3	17,2	53,3
North West	187 944	225 269	292 393	368 909	19,9	29,8	26,2
Gauteng	4 82 491	577 506	842 281	1 284 987	19,7	45,8	52,6
Mpumalanga	182 742	212 101	284 156	418 859	16,1	34,0	47,4
Limpopo	331 506	391 128	467 363	671 671	18,0	19,5	43,7
South Africa	2 825 200	3 280 505	4 151 759	6 099 726	16,1	26,6	46,9

### 4.2.3 Distribution of the elderly population by sex

The percentage of the elderly population (60+) by census year and sex (Figure 23) indicates that the proportion of the elderly population has been increasing and that about one in every ten South Africans are elderly in 2022. Although both sexes revealed an increase in percentage across the censuses, a closer observation revealed that the proportion of female is slightly higher than the male over the period. Thus, further supporting the notion of more females than males among the elderly.

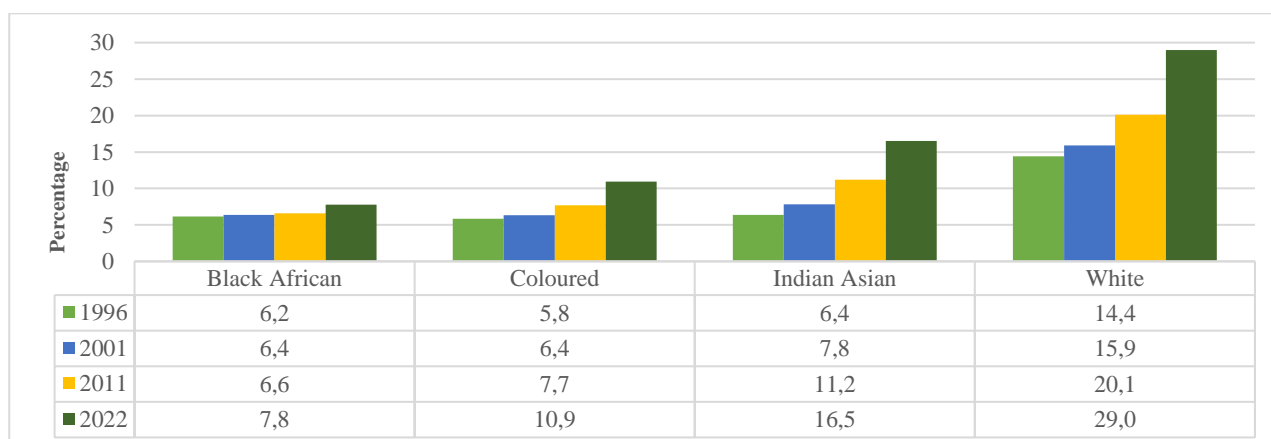
**Figure 23: Percentage of elderly population (60+) in South Africa by census year and sex, 1996-2022**



### 4.2.4 Distribution of the elderly population by population groups

Percentage distributions by population groups in Figure 24 revealed an increase of the elderly population (60+) among all population groups. The whites followed by the Indian/Asian population group has the highest percentage of population aged 60+ in the study period. Black Africans reported the least. The proportion increased from 14,4% to 29,0% among the whites and 6,2% to 7,8% among the black Africans in the study period. At 29,0% the percentage of the white population 60+ was nearly two times that of Indian/Asians (16,5%), three times that of coloured (10,9%) and more than 3,5 times that of black African population group (7,8%) in 2022.

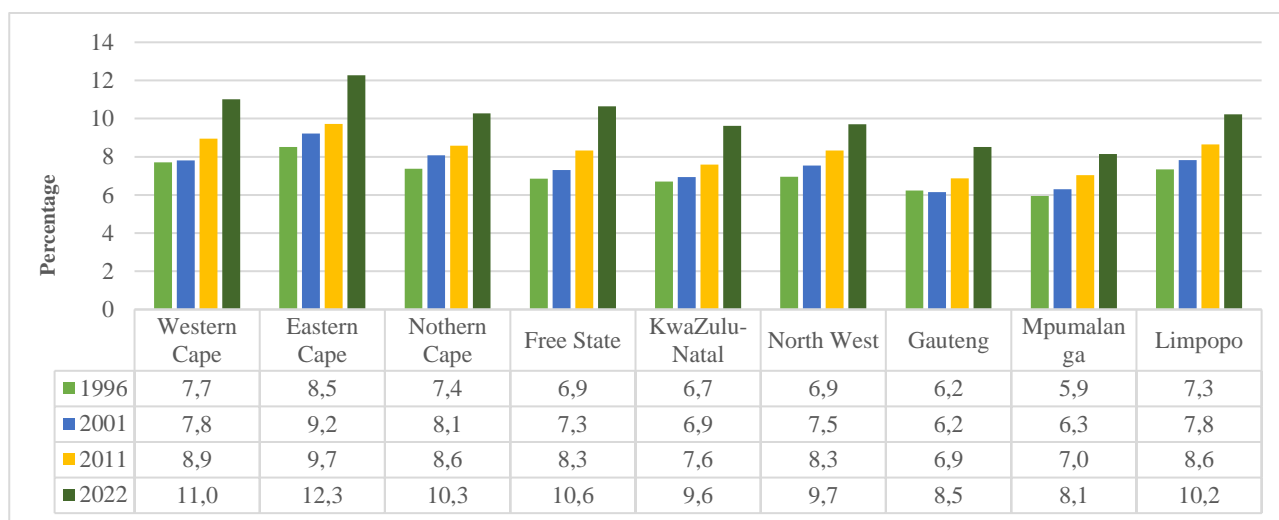
**Figure 24: Percentage of elderly population (60+) in South Africa by census year and population group, 1996-2022**



### 4.2.5 Distribution of the elderly population by province

Proportional distribution by province in Figure 25 also revealed an increase in all provinces. Eastern Cape, Western Cape, Northern Cape and Limpopo recorded high proportions in the study period, although, Eastern Cape (12,3%) has the highest percentage of the population in the ages 60+ in 2022. This is followed by Western Cape (11,0%) and Free State (10,6%). Gauteng and Mpumalanga had the lowest percentage of the population aged 60+. The highest proportion was reported in 2022 in all provinces. The increasing patterns observed in all provinces were consistent with that of the national levels.

**Figure 25: Percentage of elderly population (60+) in South Africa by census year and province, 1996-2022**



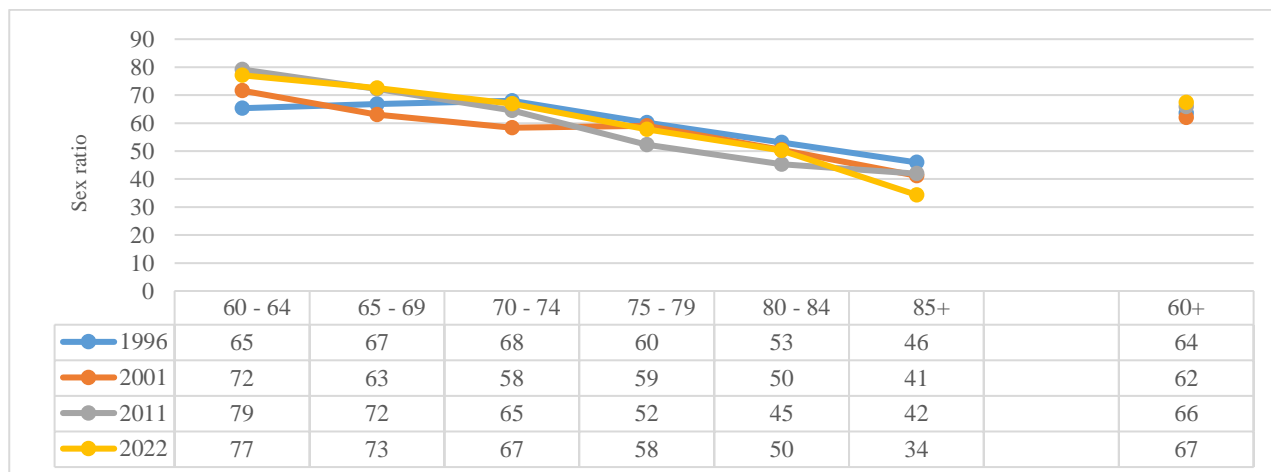
### 4.3 Sex ratio patterns of the elderly population

#### 4.3.1 Sex ratio patterns of the elderly by Age group

A sex ratio is the number of males to females in the population. The Fisher's principle suggests that a value below 100 indicates more females than males and a value above 100 indicates more males than females in the population. Also, the sex ratio is expected to decrease with age increase. Figure 26 shows the sex ratio patterns of the elderly by age group, 1996-2022. Although the sex ratio has been decreasing with increasing age cohort, results show that the ratio increased slightly over the years among population 60+. The ratio increased from 64 in 1996 to 67 in 2022. Sex ratio was less than 100 in all years and across all age groups. The ratio was 65 in 1996 and 77 in 2022 among age group 60-64 and was 46 and 34 among age group 85+ in the same years.

These patterns suggest that there are more females than males among the elderly population in South Africa, also, that the number of female to male increases with the increase in age group. The findings support the notion which suggest that the female population lives longer than the male population (Feraldi and Zarulli, 2022). Further, the 2024 Mid-Year Population Estimates (MYPE) has shown that life expectancy of males is lower than that of females. The same report estimated life expectancy of 63,6 for males and 69,2 for females (Stats SA, 2024a). Differences in mortality indicators is mainly a result of risky and health behaviours of men compared to women (Crimmins et al., 2019).

**Figure 26: Sex ratio patterns of the elderly by Age group, 1996-2022**

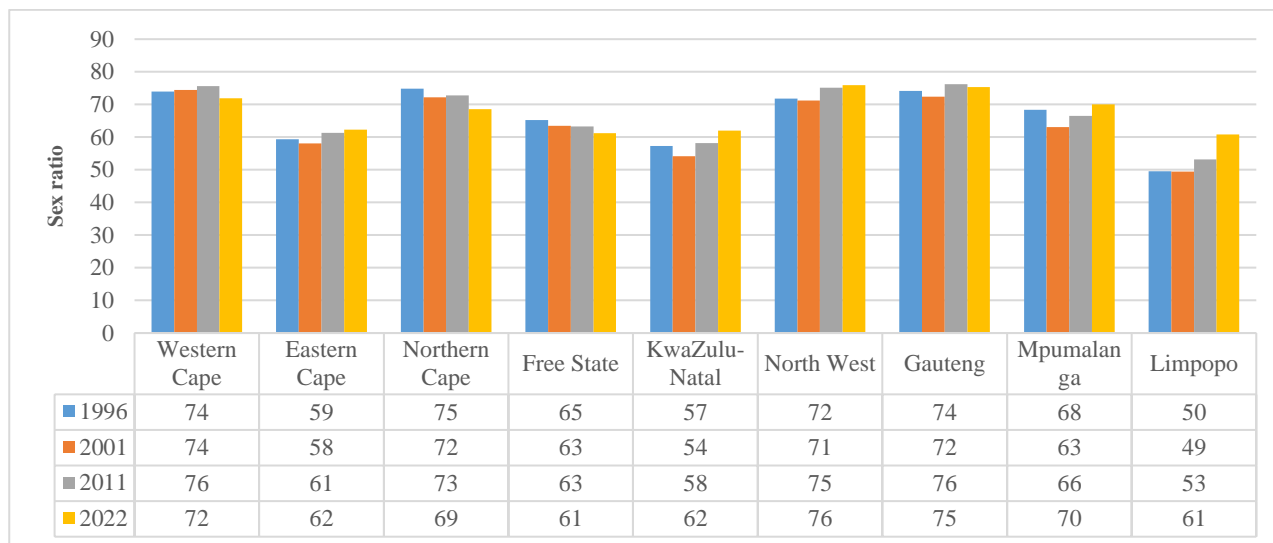


**4.3.2 Sex ratio patterns of the elderly by province**

Sex ratios patterns of the elderly by province (Figure 27) show that sex ratio is below 100 in all the provinces. However, the ratio has been increasing steadily in Limpopo and North West. In Free State it has been slightly declining.

The ratio increased from 50 to 61 in Limpopo and decreased from 65 to 61 in Free State in the study period. The ratio remained steady at 74 between 1996 and 2001 in Western Cape. These rates further suggest that there are more women than men among the elderly population in all provinces, the trajectory has been inconsistent in most of the provinces. The higher sex ratios in some provinces, including Western Cape and Gauteng, and generally the low sex ratios in Limpopo and Eastern Cape over the period mirrors the variations in the general survival and mortality indicators of the provinces. Where mortality is higher, sex ratio is consequently lower and the opposite is true. This is so because mortality is more pronounced among males than females (Wu et al., 2021; Feraldi and Zarulli, 2022). The projected life expectancy for the period 2021-2026 was estimated to be 59,1 for KwaZulu-Natal males and 65,3 for KwaZulu-Natal females. Estimated life expectancy was higher for Western Cape indicating 67,4 and 71,6 for males and females respectively, in the same period (Stats SA 2024a).

**Figure 27: Sex ratios patterns of the elderly by province, 1996-2022**

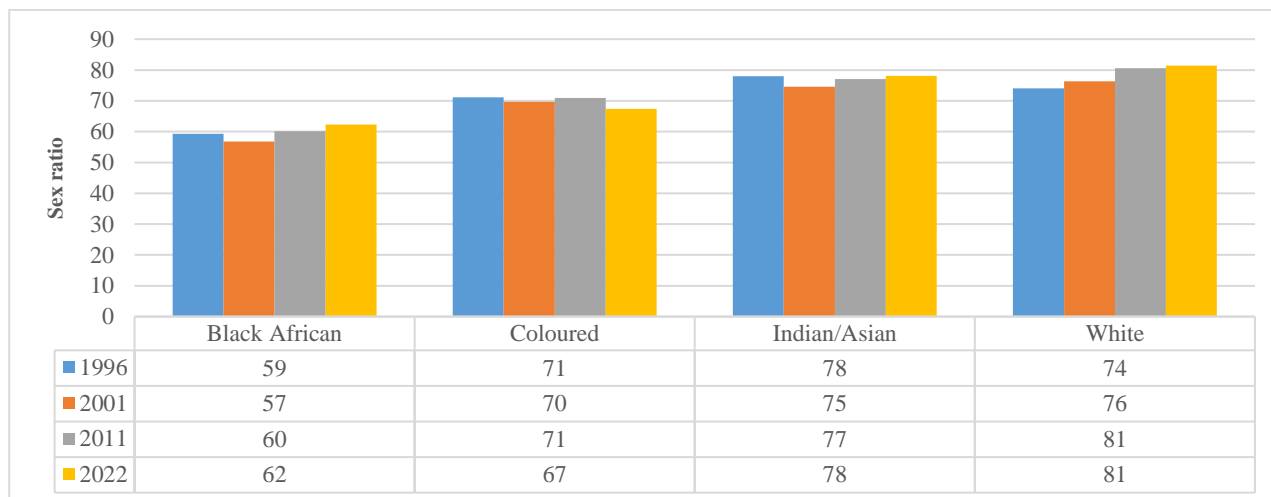


**4.3.3 Sex ratio patterns of the elderly by population group**

Also, sex ratio patterns of the elderly by population group in Figure 28 shows that the ratio has been increasing steadily among the white population. The ratio decreased in 2001 and maintained an increasing pattern among the black Africans and Indian/Asian population. The ratio among the white population increased from 74 in 1996 to 76 in 2001 and was 81 in 2022, while the ratio decreased from 59 in 1996 to 57 in 2001 and increased to 62 in 2022 among the black Africans. The white population group (81) has the highest sex ratio, while the black Africans has the least (62) in 2022. With the exception of 1996 (74), the white followed by the Indian/Asian population group had the highest sex ratio across the years. These patterns suggest that there are more elderly females than males across the population groups. The white followed by the Indian/Asians has the highest elderly population, while the black Africans has the least in the country.

These findings are consistent with that of previous research by Stats SA (2023) which concluded that, though the sex ratio was below 100 across population groups, the elderly white and Indian population observed higher sex ratios in the study period. This pattern can possibly be attributed to the general lower mortality among white and Indian/Asian population which promotes longevity, especially of white and Indian/Asian females. Overall, white followed by Indian/Asian population have access to better health services than other population groups which promotes longevity. The General Household Survey (GHS) (2023) has highlighted that a higher percentage of the white population (71,7%) followed by Indian/Asian population (41,3%) were members of a medical aid scheme (Stats SA, 2024c).

**Figure 28: Sex ratios patterns of the elderly by population group, 1996-2011**



### 4.4 Ageing index

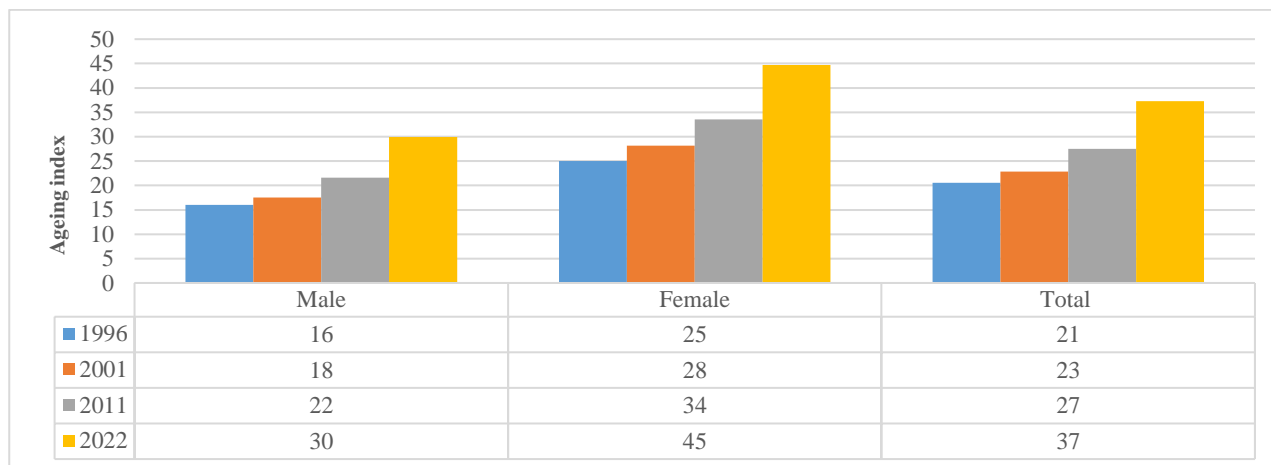
The ageing index reflects the shifting balance of children versus elderly in a population. In the context of this study, it refers to the number of people aged 60 and above per 100 persons under the age of 15 years (Knodel and Chayovan, 2008). Ageing index of under 100 signifies the number of older persons is less than the number of young persons, while values above 100 suggest that the number of older persons is more than the number of young persons below 15 years. Ageing index equals 100 indicates that the number of individuals aged 60 and above in the population equals the number of persons below age 15 years (ibid).

#### 4.4.1 Ageing index by census year and sex

Figure 29 shows the ageing index by census year and sex, 1996-2022. Results show that the value of ageing index is less than 50 across the census years and by sex. However, the index has been increasing nationally and by sex in the study period, with a marked increase observed between 2011 and 2022. The ageing index increased from 21 in 1996 to 37 in 2022 in South Africa. Females have higher ageing indexes compared to males. In 2022 ageing index was 45 for females, while that of males was 30 in the same year.

These patterns suggest that the number of older persons is less than the number of young persons in the country, which is consistent with a number of indicators presented earlier in this study. An ageing index of 37 at the national level in 2022 corroborates with the median age of 28 which suggest that the South African age structure is youthful (intermediate) and not old. As expected, both indicators reflected an increase overtime, a higher median age, ageing index for females and the population pyramid confirm the larger population size of females than males in South Africa, especially at the elderly ages.

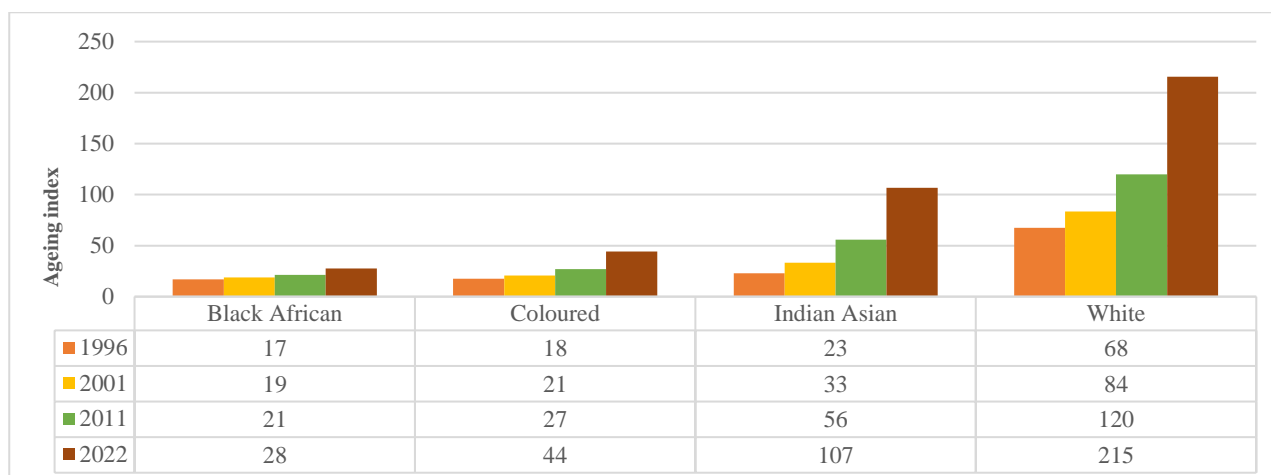
**Figure 29: Ageing index by census year and sex, 1996-2022**



**4.4.2 Ageing index by census year and population group**

Results of aging index by population group in Figure 30 also shows an increase among all population groups. Although it was remarkably highest amongst the white population in 2011 (120) and 2022 (215), the Indian/Asian also reported a remarkable value in 2022 (107). Ageing index was lowest amongst black Africans followed by coloured population. The index ranged from 17 to 28 between 1996 and 2022 among the black African population, while it was 18 in 1996 and increased to 44 in 2022 amongst the coloured population. The index increased from 68 (1996) to 215 (2022) among the white population group, while the index of 107 in 2022 among the Indian/Asians was nearly two times that of the same population in 2011 (56). These patterns suggest that there are more elderly persons compared to the younger person in 2011 and 2022 among the whites. The findings among others corresponds with the higher percentage of the white elderly population, which stood at 29% of its total population in 2022. Also, the old-age dependency ratio was highest amongst the white population group across all censuses. Using the Mid-year population estimates, research by Stats SA (2023b) also highlighted an index of more than 100 in the two years of observation (2017 and 2022). The ageing index of 107 amongst Indian/Asian corresponds with the high and increasing median age of this population group which reached 37 in 2022. Overall, these suggest the potential of the population to progressively mature further into an older population structure.

**Figure 30: Ageing index by census year and population group, 1996-2022**

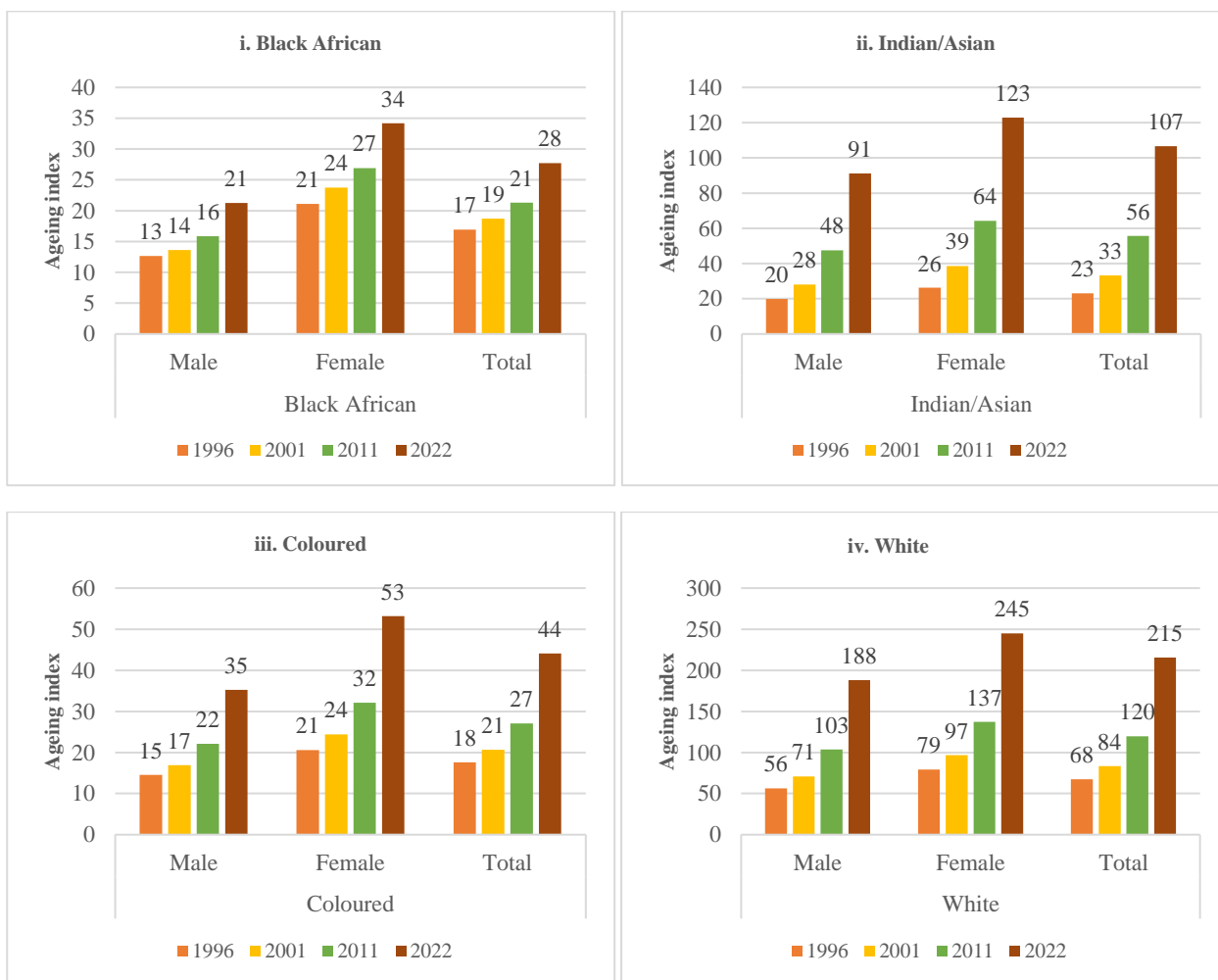




**4.4.3 Ageing index by census year, population group and sex**

Results by population group and sex 1996-2022 are shown in Figure 31i-iv. Results by population group reflects the national pattern of ageing index, where the index has been increasing and is higher for females compared to males. Also, with more elderly persons than young persons among the whites in 2011 and 2022 and among the Indian/Asians in 2022. At 97, the index of female white population was already close to 100 in 2001. The aging index increased from 17 to 28 among the black Africans, the highest index values were recorded among the white female (245) and Indian/Asian female (123) in 2022. The higher ageing index for females mirrors the higher longevity of females than males in all the population groups. Findings on the percentage distributions of deaths by sex for the period 1999–2020 from the mortality and causes of death report reveal male deaths of more than 50% and less than 50% of female deaths (Stats SA, 2024d), thus encouraging higher ageing index for females across population group and provinces.

**Figure 31i-iv: Ageing index by census years, population group and sex, 1996-2022**

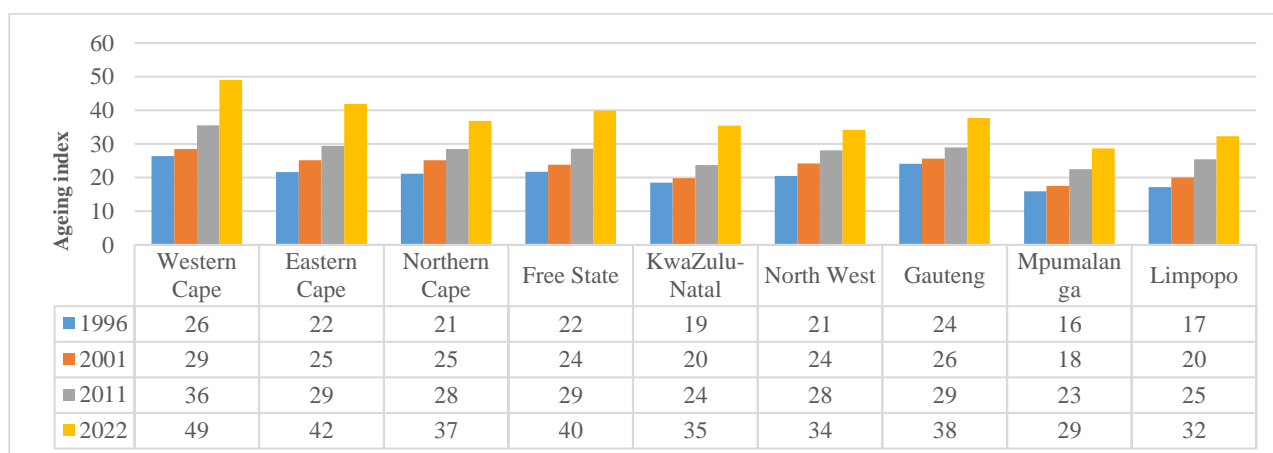


#### 4.4.4 Ageing index by census year and province

Provincial patterns in Figure 32 shows that ageing index has been increasing in all provinces. The index was highest in Western Cape (49) and lowest in Mpumalanga (29) in 2022. Also, Western Cape recorded the highest values, while Mpumalanga consistently had the lowest ageing index across the study period. Western Cape and Eastern Cape had the largest change in ageing index, the index changed positively by 13 respectively from 2011 to 2022 in these two provinces. Gauteng had an ageing index of 38 in 2022, which is an increase from 29 recorded in 2011. These patterns suggest that the number of older persons is less than the number of young persons in all provinces. The sharp increase in ageing index in 2022, especially in Western Cape, Eastern Cape and Free State may possibly be attributed to the high increase in the percentage change of the elderly population presented earlier in the report.

Differential fertility transition in these provinces probably encouraged increasing ageing indexes. These findings are consistent with ageing index derived using Mid-Year Population Estimates 2017 and 2021 (Stats SA, 2023c). This study similarly found the ageing index to be higher in Western Cape, Eastern Cape and Free State.

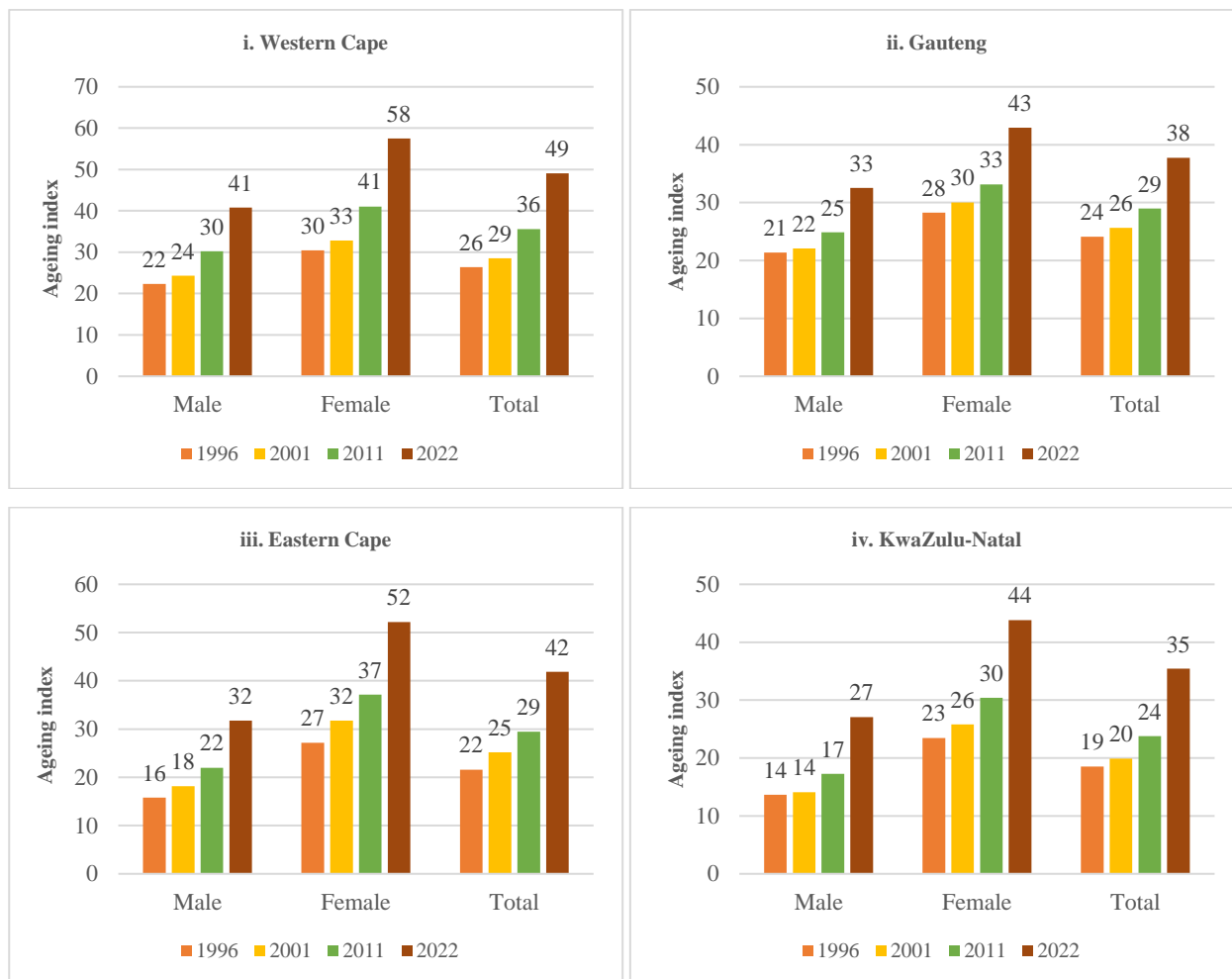
**Figure 32: Ageing index by census year and province, 1996-2022**



#### 4.4.5 Ageing index by census year, province and sex

Disaggregation by selected province and sex in Figure 33i-iv and in the appendix (Figure 42 v-ix) shows that the patterns observed at the provincial levels were consistent with the national patterns. The index increased from 19 to 35 in KwaZulu-Natal from 1996-2002. The difference between male and female ageing index is highest at 20 in Eastern Cape, where female ageing index for 2022 was 52, whilst that of males was 32. Free State reported the second highest difference between male and female ageing index (20). Index for females was estimated to be 50, whilst that for males was estimated to be 30 for the same province. Mpumalanga had the least difference (10) between male and female ageing index. These patterns suggest that the number of older persons is less than the number of young persons by sex in all provinces.

**Figure 33i-iv: Ageing index by census year and province and sex, 1996-2022**



### 4.5 Potential support ratio

Potential support ratio is a crude measure that describes the burden placed on the population aged 15-64 by the elderly population 65 years and older. Therefore, it does not consider the employment status of the population. In this study, the ratio is calculated by the number of persons aged 15 to 64 divided by the number aged 65 and older (UNDESA, 2019). Contrary to old age dependency ratio, this ratio focuses on population aged 15-64 and is expressed per one elderly person aged 65 and older. A decreasing “potential support ratio reflects a shrinking support base of adults on whom the old age population can depend” (Knodel and Chayovan, 2008:11). In other words, as the population ages, the potential support ratio tends to fall, indicating that there are fewer adult population to support the elderly.

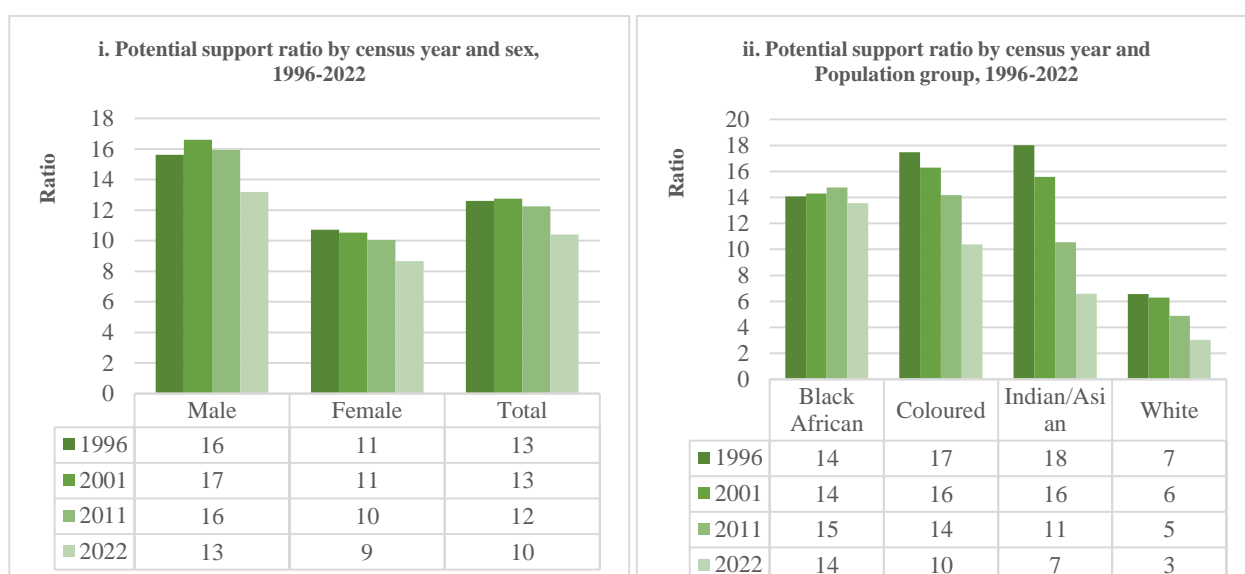
#### 4.5.1 Potential support ratio by census year and sex/census year and population group

The potential support ratio by census year and sex and by census years and population group in South Africa, 1996-2022 are presented in Figure 34i-ii. Results by sex showed that potential support ratio is decreasing, especially from 2001. At national level, potential support ratio decreased from 13 in 2001 to 10 in 2022. As expected, potential support ratio is higher for males than for females. In 2022, potential support ratio was estimated at 13 for males and 9 for females, in 1996 the ratio was 16 for males and 11 for females. Also, with the exception of the black Africans, where it has remained relatively stable, the result showed that potential support ratio has been declining for all other population groups. The ratio declined from 17 in 1996 to 10 in

2022 among the coloured and from 7 in 1996 to 3 in 2022 among the white population group. The white population group reported the least potential ratio compared to other population group.

Overall, the patterns nationally and by sex suggest a decline, reflecting a shrinking support base on whom the old age population can depend in the country. The findings further confirm the gradual progression of the population aged 15-64 in to elderly ages overtime, especially amongst white and Indian/Asian population. Results on potential support ratio additionally correspond with the observed ageing index. Where ageing is higher, potential support ratio is expected to be lower since the population 15-64 becomes smaller (Knodel and Chayovan, 2008).

**Figure 34i-ii: Potential support ratio by census year and sex and census year and population group, 1996-2022**

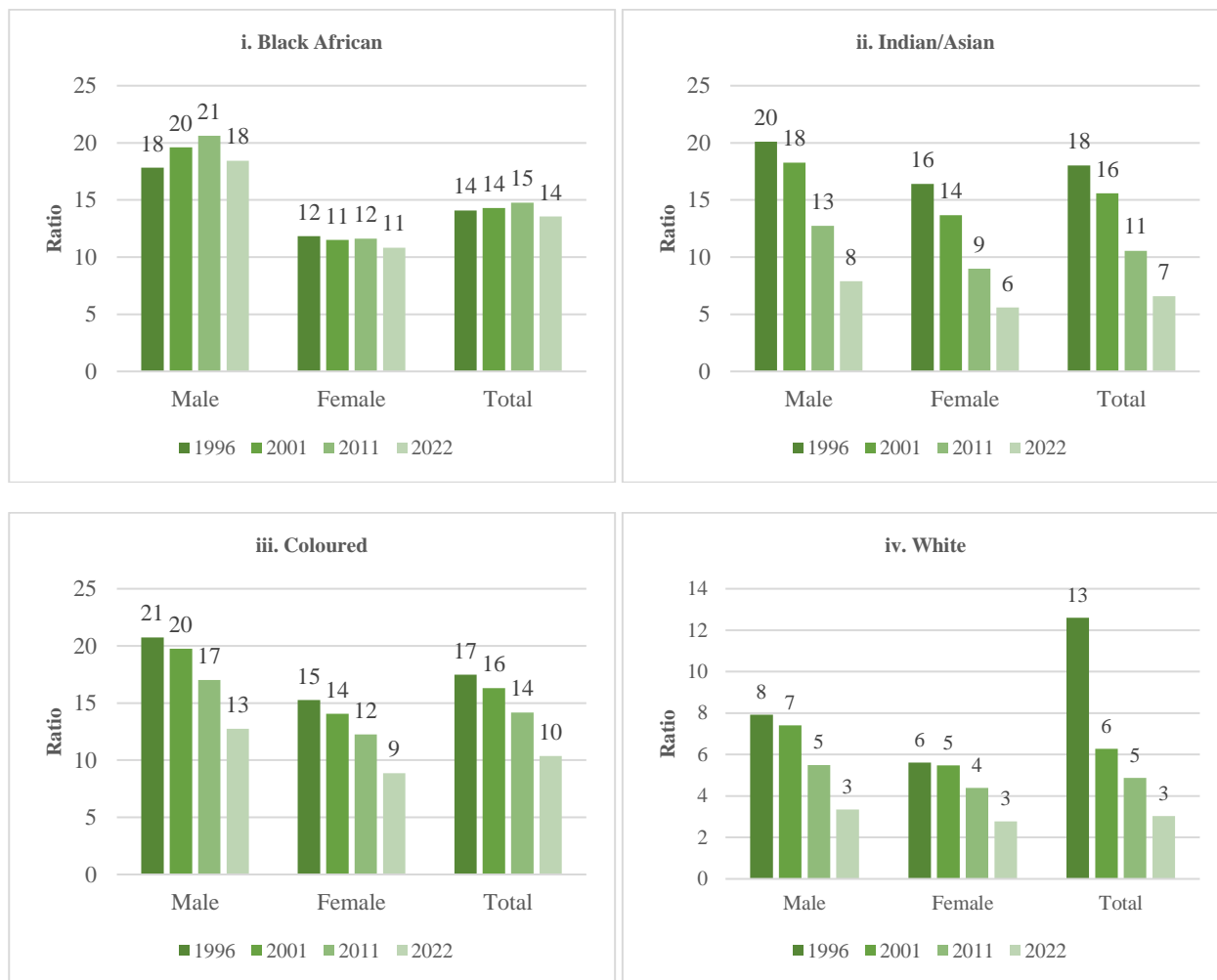


**4.5.2 Potential support ratio by census year, population group and sex**

Figure 35i-iv shows the potential support ratio by census year, population group and sex, 1996-2022. Potential support ratio differed noticeably by sex, especially amongst black Africans, followed by the coloured population. Black Africans observed a potential support ratio of 18 for males and 11 for females in 2022. Potential support ratio was consistent at three for both males and females in the white population group in 2022. The difference in potential support ratio by sex was generally marginal amongst Indian/Asian and white population group.

The pattern of potential support ratios by sex in each population group and province are consistent with sex composition of the elderly population. Since the elderly population is increasingly becoming feminine, the size of the female population 15-64 is becoming smaller across the years, hence the observed pattern. The marginal changes in potential support ratio amongst black African population can possibly be explained by the small increase in the percentage of the black African elderly population in the same period (showed earlier in the study).

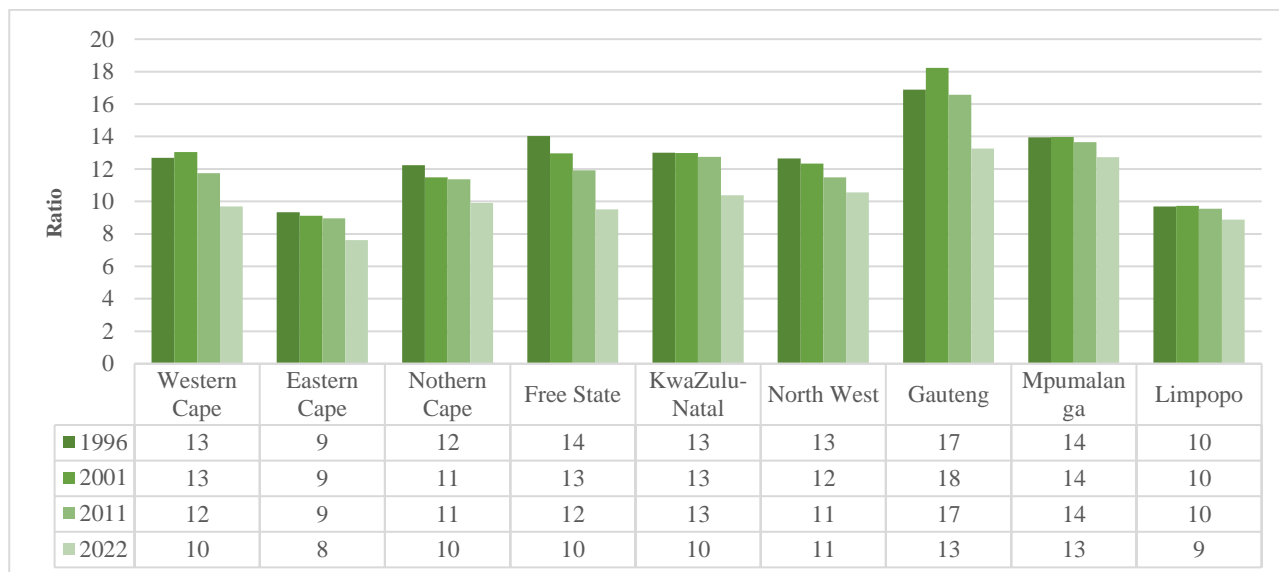
**Figure 35i-iv: Potential support ratio by census year, population group and sex, 1996-2022**



**4.5.3 Potential support ratio by census year and province**

Results on potential support ratio by census year and province, (1996-2022) in Figure 36 shows that at 13 Gauteng and Mpumalanga reflected the highest potential support ratios across the years. In contrast Eastern Cape (8) and Limpopo (9) reported the least. The potential support ratios have been declining steadily in some provinces, especially after 2001. The ratio also remained stable between 1996 to 2011 in Eastern Cape (9), KwaZulu-Natal (13), Mpumalanga (14) and Limpopo (10). The high potential support ratios highlighted in Gauteng and Mpumalanga may be linked to the unique age structure of the population which reflected higher percentages of the population in the functional age groups. The low ratio in Limpopo and Eastern Cape is relative to other provinces suggesting a smaller population on which the elderly can depend on.

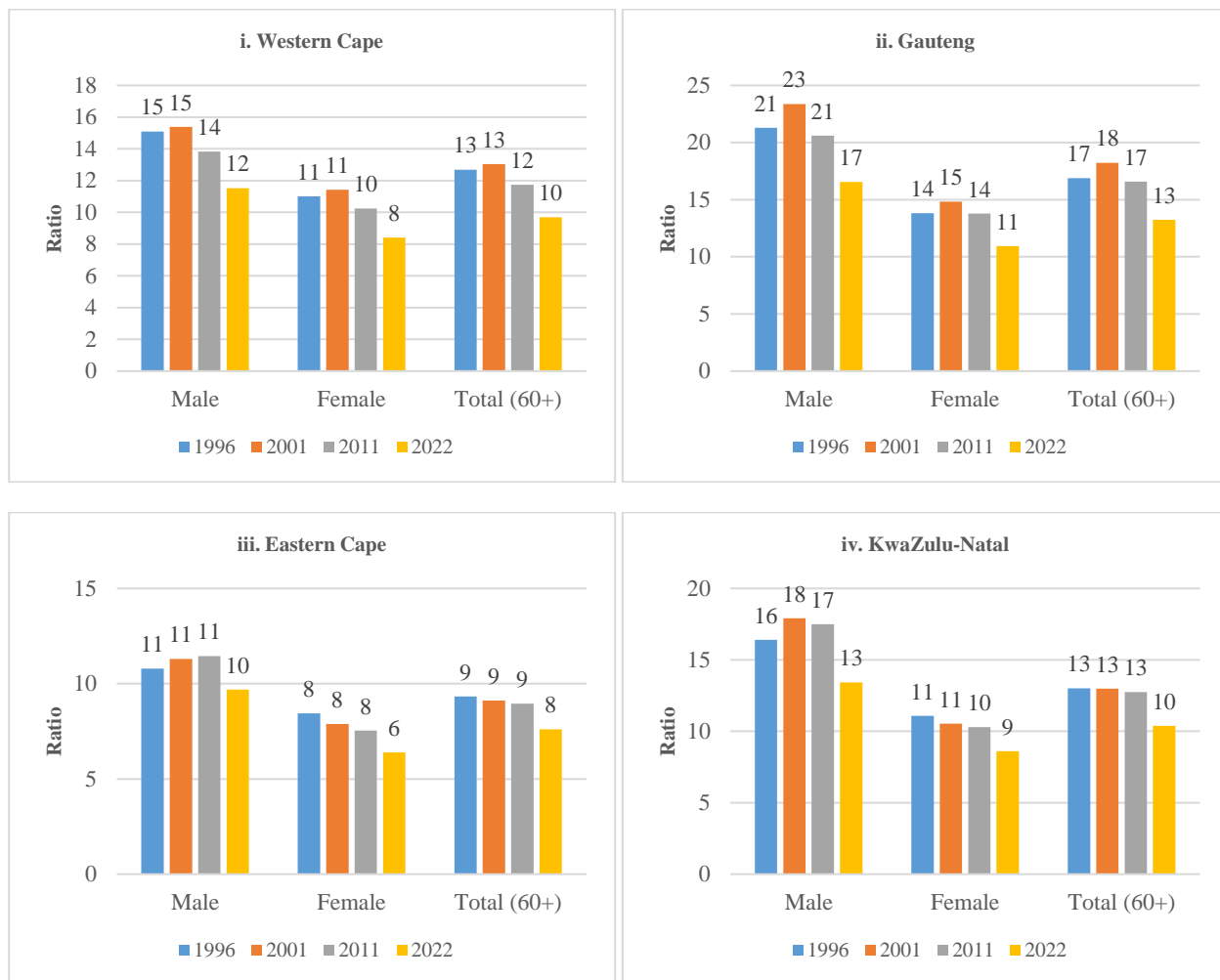
**Figure 36: Potential support ratio by census year and province, 1996-2022**



**4.5.4 Potential support ratio by census year, province and sex**

Potential support ratio by census year, province and sex, 1996-2022 are shown in Figure 37i-iv and in the appendix (Figure 43 v-ix). Potential support ratios are higher among males compared to the females. The differentials by sex are more pronounced in Gauteng and Mpumalanga. For instance, potential support ratio for males in Gauteng was 17 whilst that of females stood at 11. The least average differences of three ratios in 2022 were observed in Western and Eastern Cape, respectively. In most of the provinces, females observed a decline across the years, while the pattern for males was inconsistent, mainly because of the observed increase in 2001. The inconsistent patterns are noticeable in Gauteng and KwaZulu-Natal. Gauteng males had a potential support ratio of 21 in 1996 which increased to 23 in 2001 while KwaZulu-Natal males observed a potential support ratio of 16 in 1996 before increasing to 18 in 2001. Both provinces experienced a decline thereafter.

**Figure 37i-iv: Potential support ratio by census year, selected province and sex, 1996-2022**



## Chapter 5: Summary and Conclusion

### 5.1 Summary

This study examined South Africa's population age-sex structure, 1996-2022, with the view of understanding if the population is ageing. Current demographic processes (dynamics) taking place in the country and the availability of new data from Census 2022 offered an opportunity to re-examine and carry out the study in a broader perspective. Although with few concerns, quality assessments of the age-sex structure revealed patterns suggesting that the data on age and sex can be used for the study. Specifically, patterns revealed population distributions which decrease with increasing age, and this is consistent with South African population age-sex structure. However, dips were observed between the ages 5–9 and 15–19. The dip observed between ages 5–9 may be partly explained by low birth registrations observed in 2016 and 2017 as evidence in the Stats SA Recorded Live Birth report (Stats SA, 2022). According to the report, a total of 1 084 511 number of births were registered in 2015. This decreased to 969 415 in 2016 and was 989 318 in 2017, these represents 10,6% and 8,8% birth declines respectively, suggesting a substantial number. However, Moultrie and Dorrington (2024) have insisted that it "is due to an unexplained undercount of children aged 5 last birthdays" (Moultrie and Dorrington, 2024:3). Overall, the patterns observed were also reasonably smooth, with the test of indexes (Whipple's and UN joint index) suggesting that the data on age and sex is plausible. In assessing the quality of Census 2022 data, Udjo (2024) also found the data to be of less erratic and less pronounced digit preference and hence of better quality. This is so, especially when compared with data from some other African countries (Udjo, 2024). Palamuleni (2013) in his study also found that earlier censuses data collected in South Africa to be accurate with plausible patterns.

Compositional distribution patterns revealed a bulge in the middle ages, indicating a dominance of the youths in the population structure, and confirming the notion that the South African population remained youthful. Black Africans have the highest number of the youthful population, while the whites, followed by the Indian/Asians have the highest number of the elderly population in South Africa. The study revealed a bulge, specifically between 15 and 49 years, especially in Gauteng, Western Cape, KwaZulu-Natal and Mpumalanga, thus, indicating a high number of people in the youthful age categories in these provinces. These observed patterns may be associated to both internal and external migration as currently taking place in South Africa. Youth migrating from other countries and provinces to these provinces is due to employment opportunities and other socio-economic reasons associated with these provinces. A high number of the youthful population in the face of declining fertility and mortality in South Africa, will have a positive effect on population ageing, resulting to an increase in the number of the elderly population in the country (Stats SA, 2014).

The sex ratio indicator establishes if there are more males or female in the country (Stats SA 2014; Palamuleni, 2013). The study revealed a sex ratio of 95 in 2011 and 94 in 2022, indicating that there are slightly more females than males in the South Africa population composition, consistent with expectations. A higher number of women ensures a higher number of elderly in the future as women live longer than men.

Consistent with Udjo (2024), the study observed an insignificant change in sex ratio over the years, with consistent decreasing patterns as age cohort increases across all years. Thus, supporting the notion that sex



ratio values change very little over time (ibid). However, disaggregation by age shows that there are more males than female at birth and up to age 0–9 (1996 and 2001), 30–34 (2011) and 20–24 (2022). More so, these patterns support the notion that sex ratio is high at early ages and declines as age increases, which suggest more males than females especially at birth and early ages and more females than males at later ages. Broadly, it reveals that South African population is more feminine, especially after the middle ages. These developments can also be associated to natural development, resulting to women living longer. Also, women living less risky life and taking better care of themselves, resulting to higher life expectancies and lower mortality, compared to men (Palamuleni, 2013).

Gauteng and North West reported the highest sex ratio in the study period. Udjo (2024) also found these two provinces reporting the highest sex ratio compared to other provinces in South Africa. With the exception of Gauteng (which has been reporting more males than females since 1996), the result shows that there are more females than males in all provinces and more males than females in 2011 and 2022 among the Indian/Asians, compared to other population groups. The higher number of male in 2011 and 2022 among the Indian/Asian population may be associated to sex selectivity of migration, resulting to more men from Asian countries into the country. According to Stats SA (2024a), migration is an important demographic process. This is so as it shapes the age-sex structure narratives, including distribution patterns at both national and by disaggregation (Stats SA, 2024a). Udjo (2024) has associated this to the probability of under-enumeration of males relative to females in other provinces during census 2022 data collection (Udjo, 2024).

According to studies, the median age provides an indication of whether the population is young, intermediate or old (Shryock et al., 1976; Siegel and Swanson, 2004; Stats SA, 2014; Haupt & Kane, 2004; WHO, 2012). A continuous rise in median age over time suggests that the population is ageing. The study revealed that median age in South Africa is high and on the increase. Also, these are so by disaggregation. The median age increased from 22 years in 1996 to 28 years in 2022 in South Africa. Although described as youthful, these years indicate that the South African population is at the intermediate level i.e. not too young. An intermediate (youthful) population at 28 years, suggests an increase in the elderly population in very near future.

Gauteng and Western Cape recorded the highest median age compared to other provinces. These median ages suggest that while the South African population remains youthful (i.e. at intermediate level), it is old in Western Cape (31) and Gauteng (30) in 2022. Also, the whites followed by the Indian/Asians reported the highest median age. Specifically, the median age of the whites as revealed in the study increased from 33 years in 1996 to 45 years in 2022. The trend suggests that the white population is not only ageing but already old. This development may also be associated to the issue of international migration, which is higher among white and the Indian/Asians compared to other population groups in the country. It may also be associated to the issue of declining fertility and mortality processes playing out. However, the results in 2022 further suggests that South Africa still has enough working-age population to grow incomes and look after its dependants i.e. children and elderly people. Cilliers (2024) has observed that “A country where the median age is above 25,5 years but below 41 years typically has a large enough working-age population to grow incomes and look after its dependants, children and elderly people” (Cilliers, 2024: 6).

Age dependency ratio has been decreasing in South Africa and by disaggregation, thus, indicating lesser pressure on the economically active population relative to those not economically active in the country.

Limpopo and Eastern Cape presented the highest dependency ratio, while Gauteng and Western Cape presented the least across the years. However, the study revealed that the old-age dependency ratio has been increasing in the country. According to the result, for every 100 working-age adults in 2022, there were 10 elderly persons requiring support in South Africa. The increasing patterns observed at national levels were consistent by province and population group. These are so, with those of female being higher than male and with Western Cape, Eastern Cape and Limpopo reporting higher old-age dependency ratio in the study period. Empirical reasoning suggests that the increase observed in these provinces may be as a result of outmigration of economically active population especially in Eastern Cape and Limpopo. In terms of variation by sex, an earlier study has argued that the higher ratio observed among women may be associated to the higher survival rate of women relative to men (Stats SA, 2014). Overall, an increase in old-age dependency ratio suggest an increase of the number of elderly population in the country.

Results show a 19,8% percentage change in the population between 2011 and 2022, with provinces reporting high percentage changes. An analysis of population pyramids presented pattern consistent with expectation. A dip is also observed in the age groups 5–9 and 15–19, while a bulge being observed between the age group 20–24 and 30–39, with a consistent declining pattern as age increases over time. The bulge observed between the ages 20–39 years further confirms the notion that the South African population is a youthful population that is gradually aging. It also indicates a shrinking base, resulting to an increasing size of the middle and elderly population. This is an outcome of demographic processes of fertility, mortality and migration playing out in the country.

Western Cape and Gauteng reported population pyramids structures almost similar to that of South Africa. These are so, with a bulge reported at the youthful ages between 20-44 years, indicating that a high number of the economically active population resides in these provinces. Specifically, the study revealed that there are slightly more male than females especially in the Gauteng province. These patterns may be associated to the high level of male migrants (inter-provincial and international) to the province for socio-economic reasons. Population pyramid by population groups revealed pattern unique to each group. Specifically, the population pyramid of the whites and Indian/Asians suggest that there are more people at the elderly age indicating an aged population, compared to the black Africans and coloured population groups. Black Africans population reported pyramid close to that of South Africa. These structural differences are reflections of the changing fertility, mortality and migration patterns associated with each population groups.

Distribution patterns from the study revealed an increase in proportion of the elderly population. The proportions increased from 7,0 in 1996 to 8,0 in 2011 and was 9,8 in 2022. Further distribution by functional age group revealed that the population in the age group 15–59 and 60+ has been increasing, while those in the age group 0–14 has been decreasing. Patterns by province and population group were consistent with that of South Africa. These distribution patterns further indicate that majority of the South African population are more in the economically active age (active population), and that the population is gradually ageing over time. According to literature, the population is ageing if there are increases in the size of the population aged 60 years and above; accompanied by a drop in the size of the population aged 15 and younger (Stats SA, 2014; Goodrick, 2013).

The ageing index reflects the shifting balance of children versus elderly in a population (Knodel and Chayovan, 2008). The study revealed that the value of ageing index is less than 50 across the study period and by sex. Females have higher aging index compared to the male population and the highest aging index was reported in 2022. These patterns further suggest that the number of older persons is less than the number of children in the country, which is consistent with earlier findings in this study. Although the ageing index value has been increasing nationally, differentials exist by population group. Whites followed by the Indians/Asian reported remarkably high ageing index. The index of 107 in 2022 among the Indian/Asians was nearly two times that of same population in 2011 (56). These patterns suggest that there are more elderly population relative to younger population in 2011 and 2022 among white and Indian/Asian population.

Potential support ratio describes the burden placed on the working population by the non-working elderly population (Knodel and Chayovan, 2008). As a population ages, the potential support ratio tends to fall, indicating that there are fewer potential (economically active) workers to support the elderly (ibid). Results revealed that potential support ratio is decreasing, especially from 2011 to 2022 in South Africa, and as expected, the ratio is higher among males compared to females. Patterns observed at the national levels were consistent at the province and by population group. These patterns suggest that the potential support ratio has not only been decreasing, but also differs by gender in South Africa. The decline further indicates that the population is ageing, as there are fewer potential (economically active) workers to support the elderly population in the country as people are getting older. Overall, these patterns suggest a decline, reflecting a shrinking support base on whom the old age population can depend on, as people are increasingly moving from the working population to non-working population (elderly) in the country.

## **5.2 Conclusion**

Literature suggests that changes in births, deaths and migration impacts the population's age-sex structure over time (Weeks, 2008; Beard et al., 2011). The age and sex structure observed in this study reflects the country's experience of fertility, mortality and migration. The selected ageing populations presented may be associated to the low fertility and mortality patterns (levels) currently prevailing among these groups. Given the above narrative, the study concludes that the South African population remains youthful except for Indian/Asian, white population groups and in the Western Cape and Gauteng.

## Reference

Alho, J, M, (2008), "Migration, fertility, and aging in stable populations" *Demography*, Volume 45-Number 3, August 2008: 641–650.

Arriaga, E, E, (1994), "Population Analysis with Microcomputers", Vol, 1, presentation of techniques, Washington, D,C,: U,S, Bureau of the Census

Beard, J,R, et al, (eds,) (2011), "Global Population Ageing: peril or promise?" (Geneva: World Economic Forum).

Boruah, L, (2022), "Importance of Study of Age-Sex Structure", Sourced from: <https://www.scribd.com/document/593441089/Lonkham-Boruah-Geography-UG-II-Sem-HC-Age-sex-Structure>.

Cilliers, J, (2024) "Demographics Thematic Futures", Published online at [futures.issafrica.org](https://futures.issafrica.org), Retrieved from: <https://futures.issafrica.org/thematic/03-demographic-dividend/> [Online Resource] Updated 18 July 2024, <https://www.who.int/data/gho/indicator-metadata-registry/imr-details/116>.

Crimmins EM, Shim H, Zhang YS, Kim JK. (2019) "Differences between Men and Women in Mortality and the Health Dimensions of the Morbidity Process". *Clin Chem*. Jan;65(1):135-145.

De Beer, P, (2024), "Labour migration as a solution to an ageing population?" *European View* 23(1) 47–54.

Dorrington, R,E, et al, (1999), "Current fertility rates in South Africa: 1996 Census revisited", Workshop on Phase 2 of Census 1996 Review (Johannesburg, South Africa).

Feraldi, A., Zarulli, V. (2022) "Patterns in age and cause of death contribution to the sex gap in life expectancy: a comparison among ten countries". *Genus* 78, 23. <https://doi.org/10.1186/s41118-022-00171-9>.

Fernandes, F,; Turra, C,, M and Rios-Neto, E,L,G (2023), "World population aging as a function of period demographic conditions", *Demographic Research*: Volume 48, Article 13.

Goodrick W,F, (2013), "Policy implications and challenges of population ageing in South Africa", A dissertation submitted in accordance with the requirements for the degree of MAGISTER ARTIUM in the Faculty of the Humanities (Department of Sociology) at the University of the Free State Bloemfontein January 2013.

Haupt, A, and Kane, T,T, (2004), "Population Reference Bureau Population Handbook", Fifth edition, (5th Edition,; USA: *Eleventh Printing*).

Hunter, N, and May, J,, (2023), "Ageing in Post-Apartheid South Africa: An Analysis of the nearly old" in Maharaj, P, (2013), *Aging and Health in Africa*, Springer New York Heidelberg Dordrecht London.

Ismail Z, Ahmad WIW, Hamjah SH, Astina IK. (2021). "The Impact of Population Ageing: A Review". *Iran J Public Health*. Dec;50(12):2451-2460. doi: 10.18502/ijph.v50i12.7927. PMID: 36317043; PMCID: PMC9577145

John R. Beard, Simon Biggs, David E. Bloom, Linda P. Fried, Paul Hogan, Alexandre Kalache, and S. Jay Olshansky, eds., (2011). "Global Population Ageing: Peril or Promise", *Geneva: World Economic Forum*.

Kaufman, M. R., Eschliman, E. L., & Karver, T. S. (2023). "Differentiating sex and gender in health research to achieve gender equity". *Bulletin of the World Health Organization*, 101(10).

Knodel, J, and Chayovan, N, (2008), "Population Ageing and the Well-being of Older Persons in Thailand", *Population Studies Center*, Research report 08-659, October 2008.

Lee R, Zhou Y, (2017), "Does fertility or mortality drive contemporary population aging? The revisionist view revisited", *Population and Development Review* [Internet], 2017;43(2):285-301, Copy at <http://www.tinyurl.com/2253vkya>.

Maharaj, P. (Ed.). (2013). *Aging and Health in Africa*. Springer US. <https://doi.org/10.1007/978-1-4419-8357-2>.

Miladinov, G, (2021), "The mechanism between mortality, population growth and ageing of the population in the European lower and upper middle income countries", *PLoS ONE* 16(10):e0259169, <https://doi.org/10.1371/journal.pone.0259169>.

Moultrie T,A, Dorrington R,E, (2024), "Problems and concerns with the 2022 South African census", *South Africa Journal of Science*, 2024;120 (7/8), Art, #18585, <https://doi.org/10.17159/sajs,2024/18585>.

Munthrie, C and Maharaj, P, (2023), "Growing Old in the Era of AIDS: Perspectives and Experiences of Older Men and Women in South Africa" in Maharaj, P, 2013, *Aging and Health in Africa*, Springer New York Heidelberg Dordrecht London.

National Academies of Sciences, Engineering, and Medicine; Division of Behavioral and Social Sciences and Education; Committee on Population (2018). "Future Directions for the Demography of Aging: Proceedings of a Workshop". Majmundar MK, Hayward MD, editors. Washington (DC): National Academies Press (US); Jun 26. PMID: 29989766.

Newell C, (1997), "Methods and models in demography", John Wiley & Sons Ltd: Chichester.

Palamuleni M, E, (1995), "Age misreporting in Malawian censuses and sample surveys: An application of the United Nations' joint age and sex score", *S,Afr,J, Demography* 19955(1).

Palamuleni M,E, (2013), "Age reporting in the North West Province, South Africa, 1996-2007", Conference: poster presented at Population Association of America (PAA) Annual Meeting, New Orleans, Louisiana, USA, April 11-13, 2013.

Palamuleni M,E, (2015), "Age reporting in the North West Province, South Africa, 1996-2011", *Transylvanian Review* xxiv (4):1-15, 2015.

Phaswana-Mafuya, N, et al, (2013), "Self-rated health and associated factors among older South Africans: evidence from the study on global ageing and adult health", *Global Health Action* 6.

Scherbov, Sergei & Sanderson, Warren. (2019). "*Expert group meeting on measuring population ageing: Bridging research and policy*". *Population Division*.

Shipanga and Shinyemba (2022), "Evaluation of Age-Sex Data Collected in the 1991, 2001 and 2011 Population and Housing Censuses of Namibia", *Asian Journal of Population Sciences* [Volume 2, 15 January 2023, pp, 1-16]

Shryock H., Siegel J,S, and Associates (1976), "The methods and materials in demography", San Diego: *Academic Press, INC*.

Sibanda, A, and Zuberi, T, (1999)," Contemporary Fertility Levels and Trends in South Africa: Evidence from Reconstructed Census Birth Histories", Third African Population Conference (Durban, South Africa), 79-108.

Siegel, J,S, and Swanson, D,A, (2004) "The Methods and Materials of Demography", 2nd Edition, Elsevier Science & Technology, San Francisco, USA.

Statistics South Africa (2015), "Fertility in South Africa: Census 2011", Report no: 03-01-63, *Pretoria: Statistics South Africa*.

Statistics South Africa (Stats SA) (2010), "Estimation of fertility from the 2007 Community Survey of South Africa", Report No, 03-00-04, *Pretoria: Statistics South Africa*, 2010.

Statistics South Africa (Stats SA) (2014), "Census 2011: Profile of older persons in South Africa" / Statistics South Africa, Report 03-01-60, Pretoria: Statistics South Africa, 2014.

Statistics South Africa (Stats SA) (2015), "Census 2011: Estimation of Mortality in South Africa", Report No, 03-01-62, *Pretoria: Statistics South Africa*.

Statistics South Africa (Stats SA) (2017), "Demographic Indicators-Community Survey, 2016,"/Statistics South Africa (Report No, 03-01-17), Pretoria: Statistics South Africa (Unpublished report).

Statistics South Africa (Stats SA) (2019). "*Mid-year population estimates 2019*". Statistical Report No, PO302, *Pretoria: South Africa*.

Statistics South Africa (Stats SA) (2022), "Recorded live births 2021", Statistical Report No, P0305, *Pretoria: Statistics South Africa*.

Statistics South Africa (Stats SA) (2023a), "Census 2022 statistical release", Report no, P0301,4, *Pretoria: Statistics South Africa*.

Statistics South Africa (Stats SA) (2023b), "Marginalised groups series Volume VI: The social profile of older persons, 2017–2021" Report no, 03-19-08 *Pretoria: Statistics South Africa*.

Statistics South Africa (Stats SA) (2024a), "Mid-year population estimates 2024", Report No, P0302, *Pretoria: Statistics South Africa*.

Statistics South Africa (Stats SA) (2024b), "World population day in the context of 30 years of Demography from a statistical perspective", Report No, 03-00-22 (2024), *Pretoria: Statistics South Africa*, October 2024.

Statistics South Africa (Stats SA) (2024c). "General Household Survey 2023". Statistical Report No, PO318, *Pretoria: South Africa*.

Statistics South Africa (Stats SA) (2024d). "Mortality and causes of death in South Africa: Findings from death notification 2020". Statistical Report No, PO3o9.3, Pretoria: South Africa.

Sudharsanan, N, and Bloom, D,E, (2018), "The Demography of Aging in Low- and Middle-Income Countries: Chronological versus Functional Perspectives in National Academies of Sciences, Engineering, and Medicine, (2018)", Future Directions for the Demography of Aging: Proceedings of a Workshop, Washington, DC: *The National Academies Press*, doi: <https://doi.org/10.17226/25064>.

Teerawichitchainan, B, Low, T, (2021), "Causes of Population Aging", In: Gu, D., Dupre, M,E, (eds) *Encyclopedia of Gerontology and Population Aging*, Springer, Cham, [https://doi.org/10.1007/978-3-030-22009-9\\_654](https://doi.org/10.1007/978-3-030-22009-9_654).

Udjo E, O, (2005), "An evaluation of age-sex distributions of South Africa's population within the context of HIV/AIDS", *Development Southern Africa*, vol, 22, no, 3, pp 319-345.

Udjo E, O, (2014), "Estimating demographic parameters from the 2011 South Africa population census", *African Population Studies: Supplement on Population Issues in South Africa*, 28(1): 564-578.

Udjo, E,O, (2024), "Evaluating the age-sex distributions from South Africa's 2022 census based on the ten percent sample", Independent consultant.

Udjo, E,O, (1997), "Fertility and mortality trends in South Africa: the evidence from the 1995 October household survey, and implications on population projections," (Pretoria: Central Statistical Service).

Udjo, E,O, (1998), "Additional Evidence Regarding Fertility and Mortality Trends in South Africa and Implications for Populations", (Pretoria: Statistics South Africa).

Udjo, E,O, (2005), "Fertility levels, differentials and trends", In Zuberi, Sibanda and Udjo (eds), *The Demography of South Africa*, New York: *Sharpe, Inc*,

United Nation (UN) (2012), *United Nations Workshop on Census Data Evaluation for English speaking African countries Kampala, Uganda, 12-16 November 2012*.

United Nation (UN) World Population Prospects (2024), “Data Page: Total dependency ratio, age total”, Our World in Data (2024), Data adapted from United Nations, Retrieved from <https://ourworldindata.org/grapher/age-dependency-ratio-of-working-age-population> [online resource].

United Nations Population Division, (2013), “World Population Prospects, The 2012 revision”, *Economic and Social Affairs* New York, United Nations,

United Nations, Department of Economic and Social Affairs, Population Division (2019), “World Population 2019: Wall Chart” (ST/ESA/SER, A/434).

United Nation (UN) (2011), Department of Economic and Social Affairs, Population Division, World Population Prospects, the 2010 Revision, Standard variants (Updated: 28 June 2011).

Vostrikova, A, (1970), “The Importance of Data on the Age and Sex Structure of the Population”, *Problems in Economics*, 12(11), 27–39, <https://doi.org/10.2753/PET1061-1991121127>.

Weeks, J, (2008), “POPULATION: An Introduction to population Concepts and Issues”, (Canada: Wadsworth, Cengage Learning).

World Bank, (2012), ‘The dependency ratio Dilemma’, *Population Matters*.

World Economic Forum, (2012), “Global Population Ageing: Peril or Promise”, *Global Agenda Council on Society*.

World Health Organisation, (2012), “World Health Statistics 2012: Indicator Compendium” [online text].

Wu, Y.-T., Niubo, A. S., Daskalopoulou, C., Moreno-Agostino, D., Stefler, D., Bobak, M., Oram, S., Prince, M., & Prina, M. (2021). Sex differences in mortality: Results from a population-based study of 12 longitudinal cohorts. *CMAJ: Canadian Medical Association Journal*, 193(11), E361–E370.

Zuberi, T, and Sibanda, A, (2005), *The Demography of South Africa*, ed, E Udjo (New York: M,E, Sharp Publishers).



## Appendix

This section is an extension of findings presented in chapter 3 and 4. Attached to this report is the distribution of municipal population by 5 year age group, sex, population group and province; also accessible at [www.statssa.gov.za](http://www.statssa.gov.za)

**Table 8 - Distributions of elderly population by Province and Sex, 1996-2022**

	1996			2001			2011			2022		
	Male	Female	Total	Male	Female	SA	Male	Female	SA	Male	Female	SA
Western Cape	128 318	173 624	301 942	150 599	202 384	352 984	224 251	296 533	520 784	342 424	475 974	818 398
Eastern Cape	193 340	325 818	519 158	212 632	365 921	578 553	242 450	395 774	638 224	340 526	546 439	886 965
Northern Cape	31 607	42 217	73 824	33 604	46 577	80 182	41 458	56 933	98 391	56 645	82 590	139 234
Free State	70 418	108 015	178 432	76 806	120 979	197 785	88 672	140 117	228 789	119 870	195 703	315 573
KwaZulu-Natal	206 548	360 614	567 162	233 644	431 354	664 998	286 669	492 709	779 377	457 249	737 881	1 195 130
North West	78 570	109 374	187 944	93 730	131 539	225 269	125 399	166 993	292 393	159 220	209 689	368 909
Gauteng	205 456	277 035	482 491	242 572	334 934	577 506	364 237	478 045	842 281	552 077	732 910	1 284 987
Mpumalanga	74 180	108 562	182 742	82 063	130 038	212 101	113 470	170 686	284 156	172 512	246 347	418 859
Limpopo	109 895	221 610	331 506	129 349	261 779	391 128	162 324	305 039	467 363	254 035	417 636	671 671
Total (60+)	1 098 332	1 726 869	2 825 201	1 254 999	2 025 505	3 280 506	1 648 930	2 502 829	4 151 758	2 454 558	3 645 169	6 099 726

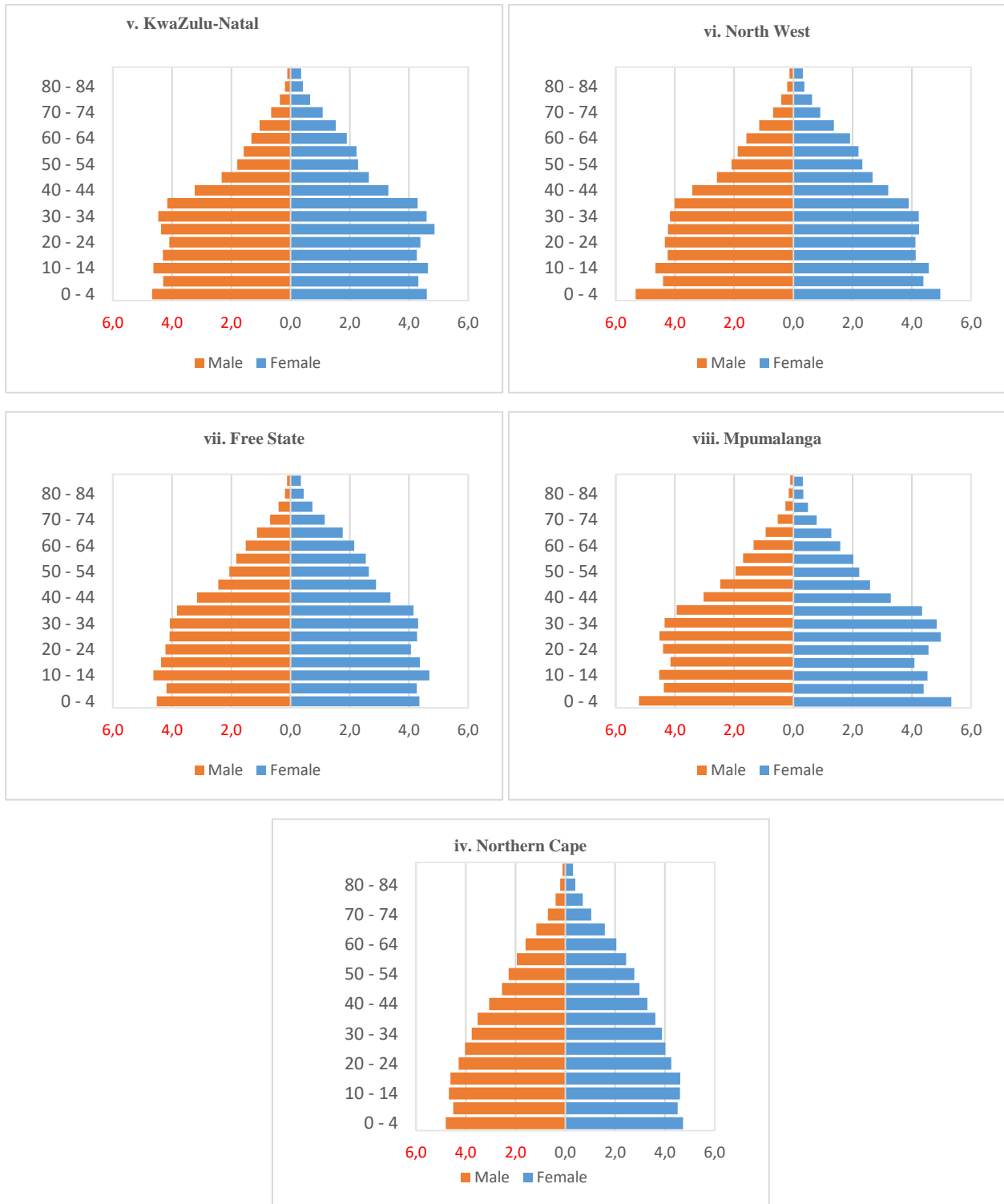
**Table 9 - Distributions of elderly population by Population group and Sex, 1996-2022**

	1996			2001			2011			2022		
	Male	Female	Total	Male	Female	SA	Male	Female	SA	Male	Female	SA
Black Africans	706 518	1 191 638	1 898 156	818 204	1 439 180	2 257 383	1 017 306	1 692 421	2 709 727	2 423 668	1 509 149	3 932 816
Coloured	86 780	122 067	208 846	104 209	149 508	253 716	147 230	207 726	354 956	329 846	222 200	552 046
Indian/Asian	28 954	37 148	66 103	37 339	50 061	87 400	62 737	81 407	144 144	157 495	122 997	280 492
White	268 061	362 267	630 328	295 247	386 758	682 005	412 133	511 211	923 345	719 467	585 930	1 305 398
Total (60+)	1 090 313	1 713 120	2 803 433	1 254 999	2 025 506	3 280 505	1 639 407	2 492 764	4 132 171	3 630 476	2 440 276	6 070 751

**Table 10 - Median age by Sex, Province and Population group in South Africa, 1996-2022**

	1996	2001	2011	2022
Sex				
Male	21	22	24	27
Female	23	24	26	29
South Africa	22	23	25	28
Province				
Western Cape	26	26	28	31
Eastern Cape	19	20	22	27
Northern Cape	24	24	25	27
Free State	24	24	25	28
KwaZulu-Natal	21	21	22	28
North West	22	23	25	27
Gauteng	27	27	27	30
Mpumalanga	20	21	23	27
Limpopo	17	18	21	26
Population group				
Black Africans	21	22	21	27
Coloured	23	24	26	30
Indian/Asian	26	29	32	37
White	33	35	38	45

**Figure 38v-ix: Population Pyramid by provinces in South Africa, 2022**



**Table 11 - Distribution of the elderly population by 5-year age group, population group and sex (numbers and percentages), 1996-2022**

		1996			2001			2011			2022		
		Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
Black African	60 - 64	219889	381796	601684	289707	441128	730835	393074	520367	913441	614936	822542	1437479
Black African	65 - 69	199018	326038	525056	193570	346522	540092	237856	363204	601060	427866	625227	1053093
Black African	70 - 74	123461	188744	312205	152237	290314	442551	177401	308451	485852	236340	394201	630541
Black African	75 - 79	96684	164642	261326	87194	154094	241287	95293	215415	310708	118100	250777	368876
Black African	80+	67466	130418	197884	95497	207122	302618	113683	284983	398666	111907	330921	442828
Black African	Total	706518	1191638	1898156	818203	1439180	2257383	1017306	1692421	2709727	1509149	2423668	3932816
Coloured	60 - 64	34629	45230	79859	41460	52493	93952	60552	76499	137050	93280	124404	217684
Coloured	65 - 69	24202	30814	55016	29104	39428	68532	37411	48875	86285	62716	88565	151281
Coloured	70 - 74	13807	20112	33919	17563	26387	43950	24668	35643	60311	35858	55641	91499
Coloured	75 - 79	7915	12693	20607	9187	15788	24974	13698	23743	37441	17681	31797	49478
Coloured	80+	6226	13218	19444	6896	15412	22308	10902	22967	33869	12666	29438	42103
Coloured	Total	86780	122067	208846	104209	149508	253716	147230	207726	354956	222200	329846	552046
Indian or Asian	60 - 64	11781	14889	26669	15954	20005	35959	25353	29841	55194	41608	49774	91382
Indian or Asian	65 - 69	8076	10017	18094	9939	13152	23091	17160	21117	38277	33863	42060	75923
Indian or Asian	70 - 74	4821	6154	10975	6122	8499	14621	10629	14455	25084	24364	31277	55641
Indian or Asian	75 - 79	2606	3497	6103	3194	4767	7961	5390	8564	13954	14037	19074	33112
Indian or Asian	80+	1671	2591	4262	2130	3638	5768	4204	7429	11634	9124	15309	24433
Indian or Asian	Total	28954	37148	66103	37339	50061	87400	62737	81407	144144	122997	157495	280491
White	60 - 64	82894	92438	175332	97389	107158	204547	130050	143607	273657	156563	181046	337609
White	65 - 69	70632	84604	155236	72151	84061	156212	106772	120536	227308	144468	167869	312336
White	70 - 74	51698	69659	121357	56626	73722	130348	78970	94464	173434	120529	143065	263594
White	75 - 79	33700	52924	86625	36862	56452	93314	49839	67083	116922	87480	110144	197625
White	80+	29137	62642	91778	32220	65364	97584	46502	85521	132023	76890	117344	194234
White	Total	268061	362267	630328	295247	386757	682005	412133	511211	923344	585930	719467	1305398

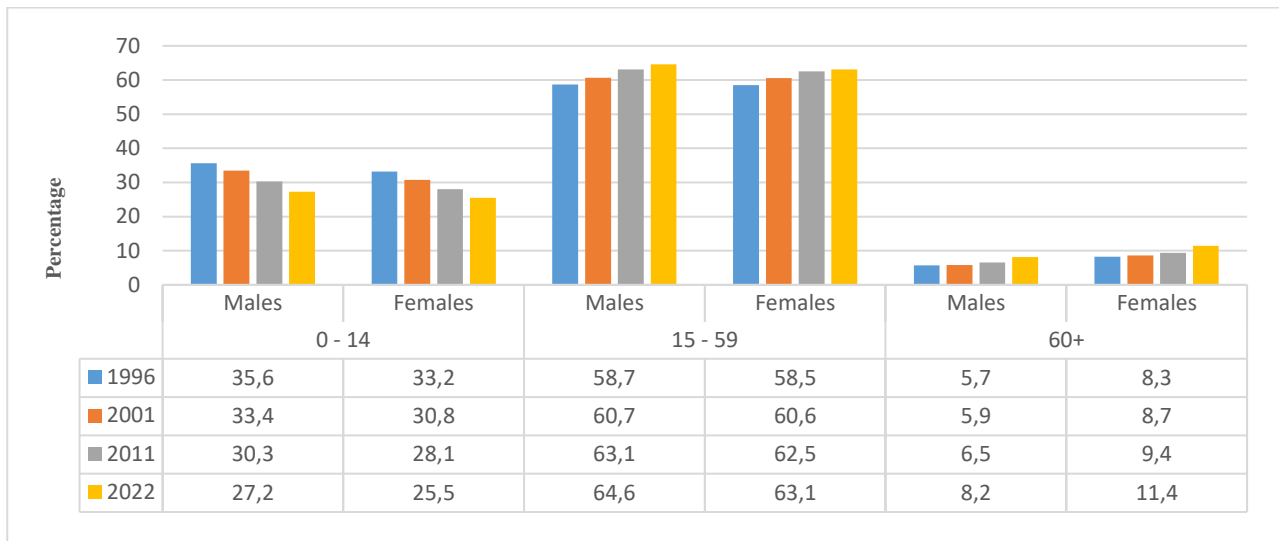
		1996			2001			2011			2022		
		Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
Black African	60 - 64	31,1	32,0	31,7	35,4	30,7	32,4	38,6	30,7	33,7	40,7	33,9	36,6
Black African	65 - 69	28,2	27,4	27,7	23,7	24,1	23,9	23,4	21,5	22,2	28,4	25,8	26,8
Black African	70 - 74	17,5	15,8	16,4	18,6	20,2	19,6	17,4	18,2	17,9	15,7	16,3	16,0
Black African	75 - 79	13,7	13,8	13,8	10,7	10,7	10,7	9,4	12,7	11,5	7,8	10,3	9,4
Black African	80+	9,5	10,9	10,4	11,7	14,4	13,4	11,2	16,8	14,7	7,4	13,7	11,3
Black African	Total	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0
Coloured	60 - 64	39,9	37,1	38,2	39,8	35,1	37,0	41,1	36,8	38,6	42,0	37,7	39,4
Coloured	65 - 69	27,9	25,2	26,3	27,9	26,4	27,0	25,4	23,5	24,3	28,2	26,9	27,4
Coloured	70 - 74	15,9	16,5	16,2	16,9	17,6	17,3	16,8	17,2	17,0	16,1	16,9	16,6
Coloured	75 - 79	9,1	10,4	9,9	8,8	10,6	9,8	9,3	11,4	10,5	8,0	9,6	9,0
Coloured	80+	7,2	10,8	9,3	6,6	10,3	8,8	7,4	11,1	9,5	5,7	8,9	7,6
Coloured	Total	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0
Indian or Asian	60 - 64	40,7	40,1	40,3	42,7	40,0	41,1	40,4	36,7	38,3	33,8	31,6	32,6
Indian or Asian	65 - 69	27,9	27,0	27,4	26,6	26,3	26,4	27,4	25,9	26,6	27,5	26,7	27,1
Indian or Asian	70 - 74	16,7	16,6	16,6	16,4	17,0	16,7	16,9	17,8	17,4	19,8	19,9	19,8
Indian or Asian	75 - 79	9,0	9,4	9,2	8,6	9,5	9,1	8,6	10,5	9,7	11,4	12,1	11,8
Indian or Asian	80+	5,8	7,0	6,4	5,7	7,3	6,6	6,7	9,1	8,1	7,4	9,7	8,7
Indian or Asian	Total	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0
White	60 - 64	30,9	25,5	27,8	33,0	27,7	30,0	31,6	28,1	29,6	26,7	25,2	25,9
White	65 - 69	26,3	23,4	24,6	24,4	21,7	22,9	25,9	23,6	24,6	24,7	23,3	23,9
White	70 - 74	19,3	19,2	19,3	19,2	19,1	19,1	19,2	18,5	18,8	20,6	19,9	20,2
White	75 - 79	12,6	14,6	13,7	12,5	14,6	13,7	12,1	13,1	12,7	14,9	15,3	15,1
White	80+	10,9	17,3	14,6	10,9	16,9	14,3	11,3	16,7	14,3	13,1	16,3	14,9
White	Total	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0

**Table 12 - Distribution of the elderly population by 5-year age group, province and sex (numbers and percentages), 1996-2022**

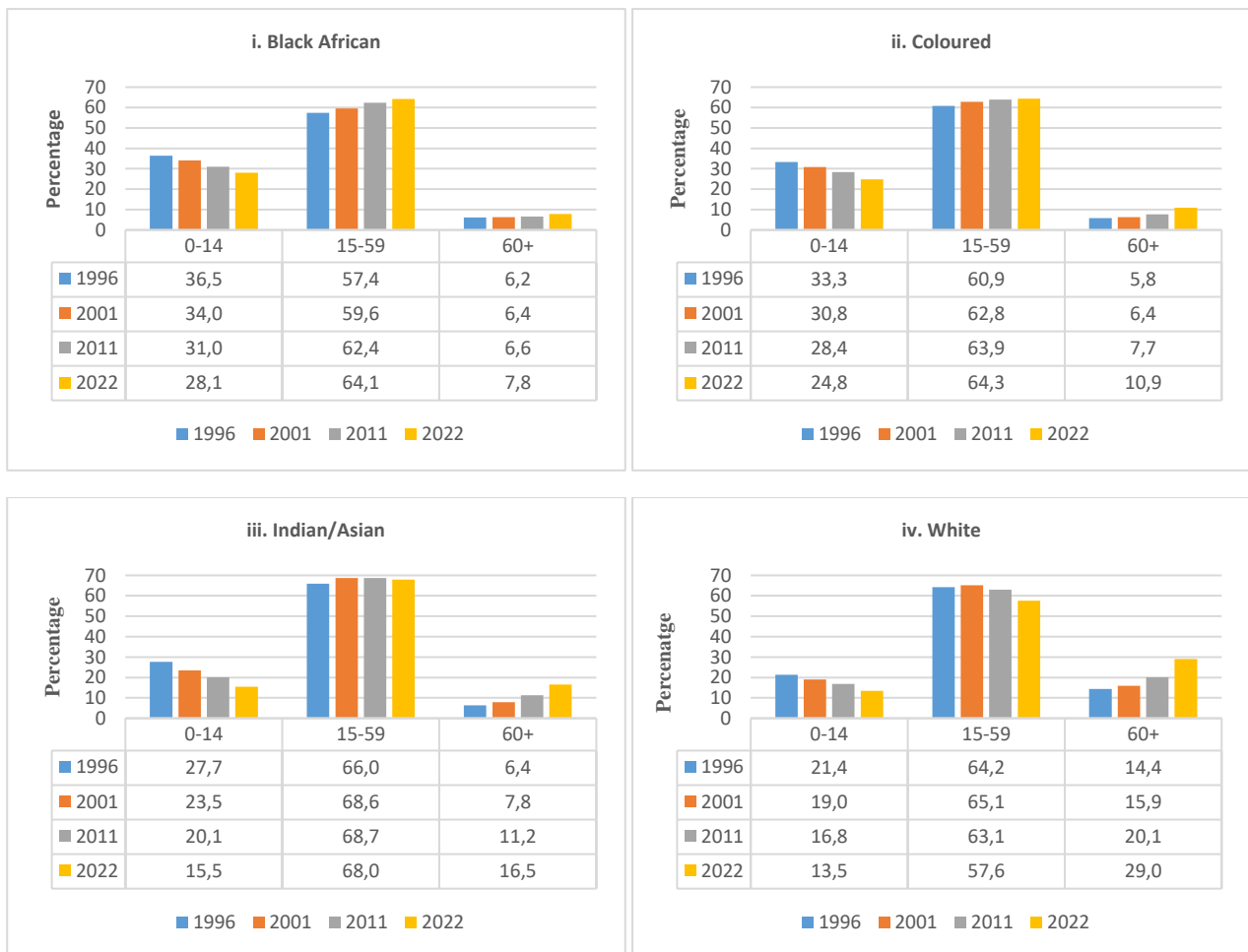
		1996			2001			2011			2022		
		Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
Western Cape	60 - 64	45228	54408	99636	54581	64310	118892	81580	96978	178558	121968	156758	278726
Western Cape	65 - 69	35144	42490	77634	38985	48766	87751	56107	69103	125210	89617	120664	210280
Western Cape	70 - 74	22769	30995	53764	27328	37051	64379	40357	52837	93193	61279	84309	145588
Western Cape	75 - 79	13901	21530	35431	16275	25036	41311	24135	35806	59940	37764	55825	93589
Western Cape	80 - 120	11277	24200	35477	13429	27221	40650	22073	41810	63883	31796	58419	90215
Western Cape	Total	128318	173624	301942	150599	202384	352984	224251	296533	520784	342424	475974	818398
Eastern Cape	60 - 64	56968	104779	161747	70067	114970	185037	82810	113820	196630	120319	172924	293243
Eastern Cape	65 - 69	55906	86070	141976	53462	89469	142931	56894	83576	140470	92965	136616	229581
Eastern Cape	70 - 74	35157	52627	87784	41805	71742	113548	47471	78479	125950	59520	92932	152452
Eastern Cape	75 - 79	27046	46221	73267	23627	40095	63722	26770	54466	81236	34254	61827	96081
Eastern Cape	80 - 120	18263	36121	54383	23670	49645	73315	28505	65433	93938	33469	82139	115608
Eastern Cape	Total	193340	325818	519158	212632	365921	578553	242450	395774	638224	340526	546439	886965
Northern Cape	60 - 64	11000	13515	24516	11854	14408	26262	15397	18224	33622	21683	27845	49527
Northern Cape	65 - 69	8179	9881	18060	8778	11655	20432	10404	13388	23792	15846	21512	37359
Northern Cape	70 - 74	5553	7375	12928	5889	8184	14072	7136	10107	17243	9491	14166	23657
Northern Cape	75 - 79	3767	5597	9364	3650	5606	9256	4377	7097	11474	5368	9451	14819
Northern Cape	80 - 120	3108	5848	8956	3434	6725	10159	4145	8116	12261	4256	9616	13872
Northern Cape	Total	31607	42217	73824	33604	46577	80182	41458	56933	98391	56645	82590	139234
Free State	60 - 64	24446	35343	59789	27251	36115	63367	33403	44631	78033	44804	63787	108590
Free State	65 - 69	18340	25465	43804	19920	31059	50979	22383	31718	54101	33499	52211	85710
Free State	70 - 74	11835	17169	29004	13634	21754	35388	15040	25044	40084	20520	34303	54823
Free State	75 - 79	8973	15415	24388	7886	13276	21162	9062	18396	27459	11989	21910	33899
Free State	80 - 120	6823	14623	21447	8115	18775	26889	8784	20328	29112	9059	23492	32551
Free State	Total	70418	108015	178432	76806	120979	197785	88672	140117	228789	119870	195703	315573
KwaZulu-Natal	60 - 64	66749	115830	182579	85116	133934	219049	112496	158830	271326	164292	236011	400303
KwaZulu-Natal	65 - 69	59728	101941	161670	55806	102476	158282	68567	107106	175673	129833	189963	319796
KwaZulu-Natal	70 - 74	37183	60214	97397	43849	90634	134483	49057	88763	137821	81043	134374	215417
KwaZulu-Natal	75 - 79	25008	44924	69932	25164	48811	73975	26319	60059	86378	44989	81744	126732
KwaZulu-Natal	80 - 120	17880	37705	55585	23709	55500	79209	30230	77950	108180	37092	95790	132882
KwaZulu-Natal	Total	206548	360614	567162	233644	431354	664998	286669	492709	779377	457249	737881	1195130
North West	60 - 64	24974	31966	56940	32545	38648	71194	44834	49704	94537	60293	72800	133093
North West	65 - 69	20710	26077	46787	22895	30958	53854	32125	39567	71692	44083	52106	96189
North West	70 - 74	14531	20262	34793	17196	24045	41241	21752	29958	51710	26202	34521	60723
North West	75 - 79	9938	15108	25046	10793	17333	28126	13057	21160	34216	15478	23866	39343
North West	80 - 120	8417	15960	24377	10300	20554	30854	13631	26606	40237	13164	26396	39560
North West	Total	78570	109374	187944	93730	131539	225269	125399	166993	292393	159220	209689	368909
Gauteng	60 - 64	73514	88682	162196	94751	111651	206402	145613	164061	309674	215068	249340	464408
Gauteng	65 - 69	54546	68840	123386	58384	79244	137628	90748	110880	201628	149815	190701	340516
Gauteng	70 - 74	35205	48116	83321	40974	60001	100975	60255	82654	142909	91045	125426	216471
Gauteng	75 - 79	24053	36066	60119	24854	39135	63989	34074	55282	89355	52471	81789	134260
Gauteng	80 - 120	18138	35331	53469	23610	44902	68512	33547	65167	98715	43678	85654	129332
Gauteng	Total	205456	277035	482491	242572	334934	577506	364237	478045	842281	552077	732910	1284987
Mpumalanga	60 - 64	20913	32789	53702	28345	39541	67886	42761	51681	94442	69379	81362	150742
Mpumalanga	65 - 69	20976	30992	51968	17747	29679	47426	27053	37163	64216	48297	65797	114094
Mpumalanga	70 - 74	13136	16557	29693	15819	27349	43168	19907	31856	51763	27367	40219	67586
Mpumalanga	75 - 79	11407	16045	27452	8993	13338	22331	10463	20752	31215	13968	25374	39343
Mpumalanga	80 - 120	7749	12178	19927	11159	20131	31290	13287	29234	42520	13500	33595	47095
Mpumalanga	Total	74180	108562	182742	82063	130038	212101	113470	170686	284156	172512	246347	418859
Limpopo	60 - 64	28262	61169	89431	39999	67206	107205	53471	75476	128946	94474	122562	217036
Limpopo	65 - 69	30485	63117	93602	28786	59858	88644	37267	63755	101022	68478	97667	166145
Limpopo	70 - 74	19750	33729	53479	26054	58161	84215	32523	55135	87658	42925	66364	109289
Limpopo	75 - 79	17752	34677	52429	15194	28471	43665	17028	42965	59993	22432	51536	73968
Limpopo	80 - 120	13647	28918	42565	19316	48084	67400	22035	67708	89743	25725	79508	105233
Limpopo	Total	109895	221610	331506	129349	261779	391128	162324	305039	467363	254035	417636	671671

		1996			2001			2011			2022		
		Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
Western Cape	60 - 64	35,2	31,3	33,0	36,2	31,8	33,7	36,4	32,7	34,3	35,6	32,9	34,1
Western Cape	65 - 69	27,4	24,5	25,7	25,9	24,1	24,9	25,0	23,3	24,0	26,2	25,4	25,7
Western Cape	70 - 74	17,7	17,9	17,8	18,1	18,3	18,2	18,0	17,8	17,9	17,9	17,7	17,8
Western Cape	75 - 79	10,8	12,4	11,7	10,8	12,4	11,7	10,8	12,1	11,5	11,0	11,7	11,4
Western Cape	80 - 120	8,8	13,9	11,7	8,9	13,5	11,5	9,8	14,1	12,3	9,3	12,3	11,0
Western Cape	Total	100	100	100	100	100	100	100	100	100	100	100	100
Eastern Cape	60 - 64	29,5	32,2	31,2	33,0	31,4	32,0	34,2	28,8	30,8	35,3	31,6	33,1
Eastern Cape	65 - 69	28,9	26,4	27,3	25,1	24,5	24,7	23,5	21,1	22,0	27,3	25,0	25,9
Eastern Cape	70 - 74	18,2	16,2	16,9	19,7	19,6	19,6	19,6	19,8	19,7	17,5	17,0	17,2
Eastern Cape	75 - 79	14,0	14,2	14,1	11,1	11,0	11,0	11,0	13,8	12,7	10,1	11,3	10,8
Eastern Cape	80 - 120	9,4	11,1	10,5	11,1	13,6	12,7	11,8	16,5	14,7	9,8	15,0	13,0
Eastern Cape	Total	100	100	100	100	100	100	100	100	100	100	100	100
Northern Cape	60 - 64	34,8	32,0	33,2	35,3	30,9	32,8	37,1	32,0	34,2	38,3	33,7	35,6
Northern Cape	65 - 69	25,9	23,4	24,5	26,1	25,0	25,5	25,1	23,5	24,2	28,0	26,0	26,8
Northern Cape	70 - 74	17,6	17,5	17,5	17,5	17,6	17,6	17,2	17,8	17,5	16,8	17,2	17,0
Northern Cape	75 - 79	11,9	13,3	12,7	10,9	12,0	11,5	10,6	12,5	11,7	9,5	11,4	10,6
Northern Cape	80 - 120	9,8	13,9	12,1	10,2	14,4	12,7	10,0	14,3	12,5	7,5	11,6	10,0
Northern Cape	Total	100	100	100	100	100	100	100	100	100	100	100	100
Free State	60 - 64	34,7	32,7	33,5	35,5	29,9	32,0	37,7	31,9	34,1	37,4	32,6	34,4
Free State	65 - 69	26,0	23,6	24,5	25,9	25,7	25,8	25,2	22,6	23,6	27,9	26,7	27,2
Free State	70 - 74	16,8	15,9	16,3	17,8	18,0	17,9	17,0	17,9	17,5	17,1	17,5	17,4
Free State	75 - 79	12,7	14,3	13,7	10,3	11,0	10,7	10,2	13,1	12,0	10,0	11,2	10,7
Free State	80 - 120	9,7	13,5	12,0	10,6	15,5	13,6	9,9	14,5	12,7	7,6	12,0	10,3
Free State	Total	100	100	100	100	100	100	100	100	100	100	100	100
KwaZulu-Natal	60 - 64	32,3	32,1	32,2	36,4	31,0	32,9	39,2	32,2	34,8	35,9	32,0	33,5
KwaZulu-Natal	65 - 69	28,9	28,3	28,5	23,9	23,8	23,8	23,9	21,7	22,5	28,4	25,7	26,8
KwaZulu-Natal	70 - 74	18,0	16,7	17,2	18,8	21,0	20,2	17,1	18,0	17,7	17,7	18,2	18,0
KwaZulu-Natal	75 - 79	12,1	12,5	12,3	10,8	11,3	11,1	9,2	12,2	11,1	9,8	11,1	10,6
KwaZulu-Natal	80 - 120	8,7	10,5	9,8	10,1	12,9	11,9	10,5	15,8	13,9	8,1	13,0	11,1
KwaZulu-Natal	Total	100	100	100	100	100	100	100	100	100	100	100	100
North West	60 - 64	31,8	29,2	30,3	34,7	29,4	31,6	35,8	29,8	32,3	37,9	34,7	36,1
North West	65 - 69	26,4	23,8	24,9	24,4	23,5	23,9	25,6	23,7	24,5	27,7	24,8	26,1
North West	70 - 74	18,5	18,5	18,5	18,3	18,3	18,3	17,3	17,9	17,7	16,5	16,5	16,5
North West	75 - 79	12,6	13,8	13,3	11,5	13,2	12,5	10,4	12,7	11,7	9,7	11,4	10,7
North West	80 - 120	10,7	14,6	13,0	11,0	15,6	13,7	10,9	15,9	13,8	8,3	12,6	10,7
North West	Total	100	100	100	100	100	100	100	100	100	100	100	100
Gauteng	60 - 64	35,8	32,0	33,6	39,1	33,3	35,7	40,0	34,3	36,8	39,0	34,0	36,1
Gauteng	65 - 69	26,5	24,8	25,6	24,1	23,7	23,8	24,9	23,2	23,9	27,1	26,0	26,5
Gauteng	70 - 74	17,1	17,4	17,3	16,9	17,9	17,5	16,5	17,3	17,0	16,5	17,1	16,8
Gauteng	75 - 79	11,7	13,0	12,5	10,2	11,7	11,1	9,4	11,6	10,6	9,5	11,2	10,4
Gauteng	80 - 120	8,8	12,8	11,1	9,7	13,4	11,9	9,2	13,6	11,7	7,9	11,7	10,1
Gauteng	Total	100	100	100	100	100	100	100	100	100	100	100	100
Mpumalanga	60 - 64	28,2	30,2	29,4	34,5	30,4	32,0	37,7	30,3	33,2	40,2	33,0	36,0
Mpumalanga	65 - 69	28,3	28,5	28,4	21,6	22,8	22,4	23,8	21,8	22,6	28,0	26,7	27,2
Mpumalanga	70 - 74	17,7	15,3	16,2	19,3	21,0	20,4	17,5	18,7	18,2	15,9	16,3	16,1
Mpumalanga	75 - 79	15,4	14,8	15,0	11,0	10,3	10,5	9,2	12,2	11,0	8,1	10,3	9,4
Mpumalanga	80 - 120	10,4	11,2	10,9	13,6	15,5	14,8	11,7	17,1	15,0	7,8	13,6	11,2
Mpumalanga	Total	100	100	100	100	100	100	100	100	100	100	100	100
Limpopo	60 - 64	25,7	27,6	27,0	30,9	25,7	27,4	32,9	24,7	27,6	37,2	29,3	32,3
Limpopo	65 - 69	27,7	28,5	28,2	22,3	22,9	22,7	23,0	20,9	21,6	27,0	23,4	24,7
Limpopo	70 - 74	18,0	15,2	16,1	20,1	22,2	21,5	20,0	18,1	18,8	16,9	15,9	16,3
Limpopo	75 - 79	16,2	15,6	15,8	11,7	10,9	11,2	10,5	14,1	12,8	8,8	12,3	11,0
Limpopo	80 - 120	12,4	13,0	12,8	14,9	18,4	17,2	13,6	22,2	19,2	10,1	19,0	15,7
Limpopo	Total	100	100	100	100	100	100	100	100	100	100	100	100

**Figure 39: Percentage distribution of the population by major (functional) age groups and sex, 1996-2022**



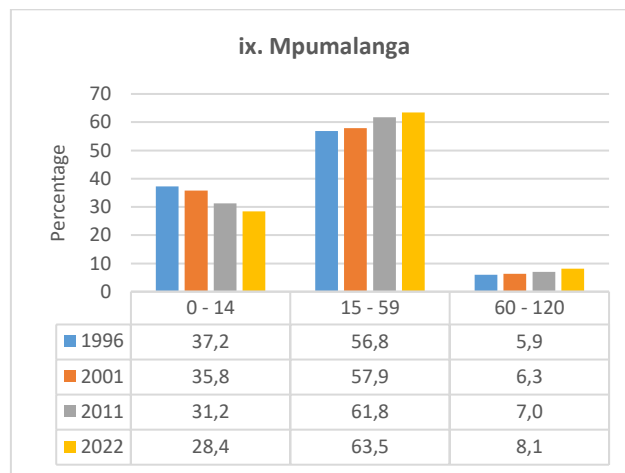
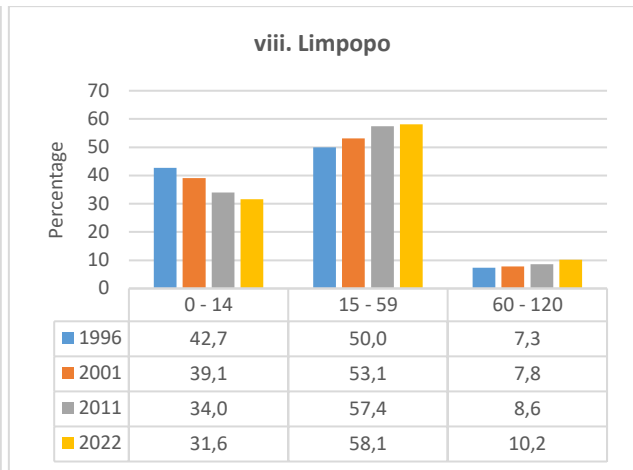
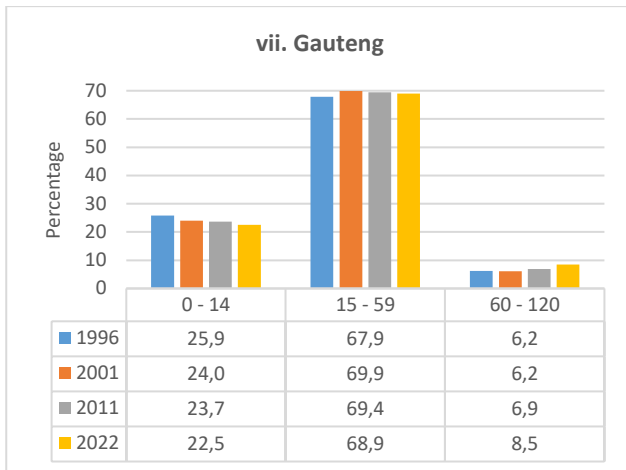
**Figure 40i-iv: Percentage distribution of the population by major (functional) age groups, population groups and census years, 1996-2022**



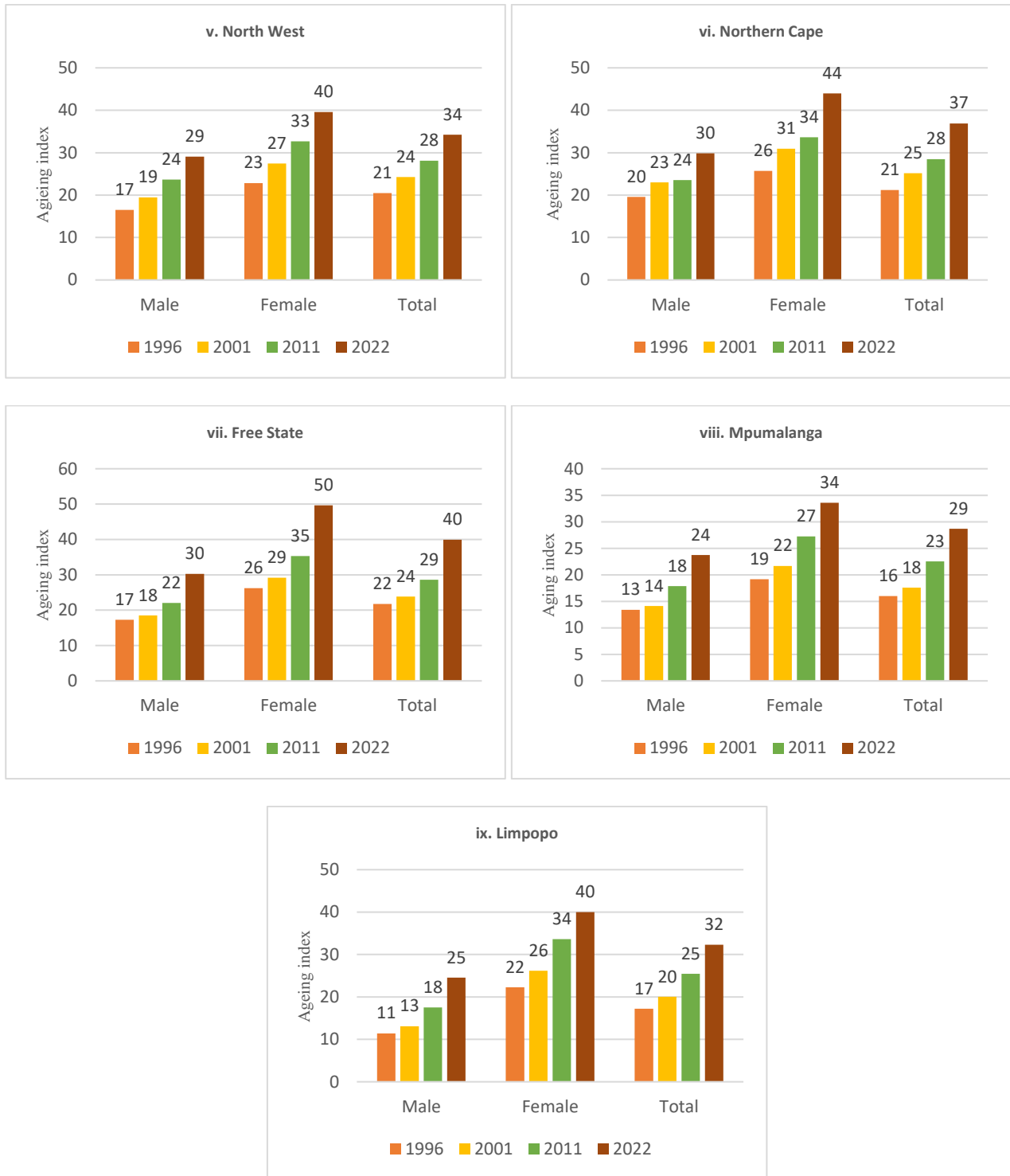
**Figure 41i-ix Percentage distribution of the population by census year, major (functional) age groups and province, 1966-2022**



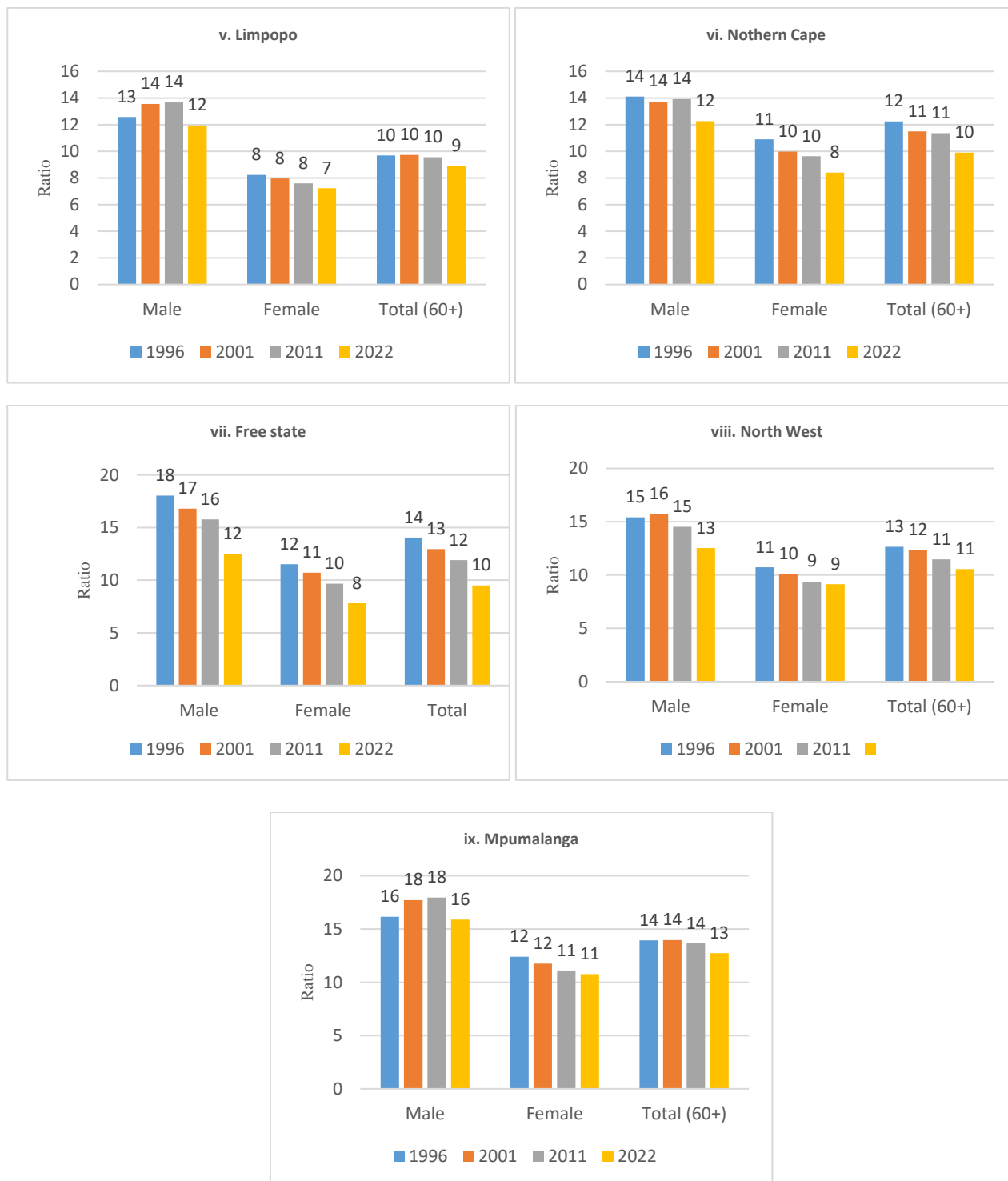




**Figure 42v-ix: Ageing index by census year, province and sex, 1996-2022**



**Figure 43v-ix: Potential support ratio by census year, province and sex**



**Table 13i-ix - Age-Sex cohort analysis and percentage change, provinces, 2011-2022****Table i: Western Cape province, 2011-2022**

Birth Cohort	Age Group	Total Population	Male	Female		Total Population	Male	Female	% change Total Population	% change Male	% change Female
		Census 2011				Census 2022					
2011-2007	0-4	564 800	288 052	276 748							
2006-2011	5-9'	460 161	231 828	228 333							
2001-2006	10-14'	438 843	221 782	217 061		559 698	276 621	283 077	-0,90	-3,97	2,29
1996-2001	15-19	480 122	235 421	244 701		532 982	258 833	274 149	15,83	11,65	20,07
1991-1996	20-24	583 550	292 007	10 291 543		645 901	326 495	319 406	47,18	47,21	47,15
1986-1991	25-29	592 548	299 476	293 072		698 158	344 665	353 493	45,41	46,40	44,46
1981-1986	30-34	481 601	245 789	235 812		685 665	342 164	343 501	17,50	17,18	17,82
1976-1981	35-39	436 638	219 196	217 442		674 639	336 004	338 635	13,85	12,20	15,55
1971-1976	40-44	395 037	193 282	201 755		556 344	277 284	279 060	15,52	12,81	18,34
1966-1971	45-49	347 866	164 540	183 326		434 341	206 710	227 631	-0,53	-5,70	4,69
1961-1966	50-54	292 685	137 624	155 061		383 478	177 632	205 846	-2,93	-8,10	2,03
1956-1961	55-59	228 098	105 257	122 841		335 592	150 314	185 278	-3,53	-8,65	1,06
1951-1956	60-64	178 558	81 580	96 978		278 726	121 968	156 758	-4,77	-11,38	1,09
1946-1951	65-69	125 210	56 107	69 103		210 281	89 617	120 664	-7,81	-14,86	-1,77
1941-1946	70-74	93 194	40 357	52 837		145 588	61 279	84 309	-18,46	-24,88	-13,06
1936-1941	75-79	59 941	24 135	35 806		93 589	37 764	55 825	-25,25	-32,69	-19,21
1931-1936	80-84	36 435	13 253	23 182		53 568	20 207	33 361	-42,52	-49,93	-36,86
1931-1927	85+	27 448	8 821	18 627		36 647	11 588	25 059	-38,86	-51,99	-30,01

**Table ii: Eastern Cape province, 2011-2022**

Birth cohort	Age group	Total Population	Male	Female		Total Population	Male	Female	% change Total Population	% change Male	% change Female
		Census 2011				Census 2022					
2011-2007	0-4	767 217	387 956	379 261							
2006-2011	5-9'	715 993	361 487	354 506							
2001-2006	10-14'	684 283	352 824	331 459		733 851	373 027	360 824	-4,35	-3,85	-4,86
1996-2001	15-19	740 514	374 534	365 980		665 744	342 676	323 068	-7,02	-5,20	-8,87
1991-1996	20-24	608 373	300 394	307 979		566 307	286 054	280 253	-17,24	-18,92	-15,45
1986-1991	25-29	490 306	236 394	253 912		583 080	286 840	296 240	-21,26	-23,41	-19,06
1981-1986	30-34	388 587	182 662	205 925		524 041	253 487	270 554	-13,86	-15,62	-12,15
1976-1981	35-39	359 404	161 535	197 869		492 747	233 483	259 264	0,50	-1,23	2,11
1971-1976	40-44	327 336	139 451	187 885		405 076	189 165	215 911	4,24	3,56	4,85
1966-1971	45-49	308 608	127 867	180 741		356 540	159 387	197 153	-0,80	-1,33	-0,36
1961-1966	50-54	290 805	120 201	170 604		318 754	134 160	184 594	-2,62	-3,79	-1,75
1956-1961	55-59	242 405	101 945	140 460		312 951	126 887	186 064	1,41	-0,77	2,95
1951-1956	60-64	196 630	82 810	113 820		293 243	120 319	172 924	0,84	0,10	1,36
1946-1951	65-69	140 470	56 894	83 576		229 581	92 965	136 616	-5,29	-8,81	-2,74
1941-1946	70-74	125 950	47 471	78 479		152 452	59 520	92 932	-22,47	-28,12	-18,35
1936-1941	75-79	81 236	26 770	54 466		96 081	34 254	61 827	-31,60	-39,79	-26,02
1931-1936	80-84	53 727	16 788	36 939		65 321	21 196	44 125	-48,14	-55,35	-43,77
1931-1927	85+	40 211	11 717	28 494		50 287	12 273	38 014	-38,10	-54,15	-30,21

**Table iii: Northern Cape province, 2011-2022**

Birth Cohort	Age group	Total Population			Total Population			% change Total Population	% change Male	% change Female
		Census 2011	Male	Female	Census 2022	Male	Female			
2011-2007	0-4	121 918	62 248	59 670						
2006-2011	5-9'	114 007	57 799	56 208						
2001-2006	10-14'	109 448	56 010	53 438	125 844	63 446	62 398	3,22	1,92	4,57
1996-2001	15-19	107 677	54 599	53 078	125 190	62 546	62 644	9,81	8,21	11,45
1991-1996	20-24	104 631	52 979	51 652	115 770	58 072	57 698	5,78	3,68	7,97
1986-1991	25-29	100 373	50 891	49 482	109 106	54 592	54 514	1,33	-0,01	2,71
1981-1986	30-34	85 996	43 542	42 454	103 615	50 968	52 647	-0,97	-3,80	1,93
1976-1981	35-39	75 223	37 177	38 046	96 756	47 768	48 988	-3,60	-6,14	-1,00
1971-1976	40-44	68 424	33 268	35 156	86 085	41 419	44 666	0,10	-4,88	5,21
1966-1971	45-49	61 819	29 042	32 777	74 878	34 437	40 441	-0,46	-7,37	6,30
1961-1966	50-54	53 979	25 505	28 474	68 509	30 921	37 588	0,12	-7,05	6,92
1956-1961	55-59	43 976	20 453	23 523	59 386	26 332	33 054	-3,94	-9,33	0,85
1951-1956	60-64	33 621	15 397	18 224	49 528	21 683	27 845	-8,25	-14,99	-2,21
1946-1951	65-69	23 792	10 404	13 388	37 358	15 846	21 512	-15,05	-22,52	-8,55
1941-1946	70-74	17 243	7 136	10 107	23 657	9 491	14 166	-29,64	-38,36	-22,27
1936-1941	75-79	11 474	4 377	7 097	14 819	5 368	9 451	-37,71	-48,40	-29,41
1931-1936	80-84	6 486	2 293	4 193	8 216	2 749	5 467	-52,35	-61,48	-45,91
1931-1927	85+	5 775	1 852	3 923	5 656	1 508	4 148	-50,71	-65,55	-41,55

**Table iv: Free State province, 2011-2022**

Birth Cohort	Age group	Total Population	Male	Female		Total Population	Male	Female	% change Total Population	% change Male	% change Female
		Census 2011				Census 2022					
2011-2007	0-4	121 918	62 248	59 670							
2006-2011	5-9'	114 007	57 799	56 208							
2001-2006	10-14'	109 448	56 010	53 438		125 844	63 446	62 398	3,22	1,92	4,57
1996-2001	15-19	107 677	54 599	53 078		125 190	62 546	62 644	9,81	8,21	11,45
1991-1996	20-24	104 631	52 979	51 652		115 770	58 072	57 698	5,78	3,68	7,97
1986-1991	25-29	100 373	50 891	49 482		109 106	54 592	54 514	1,33	-0,01	2,71
1981-1986	30-34	85 996	43 542	42 454		103 615	50 968	52 647	-0,97	-3,80	1,93
1976-1981	35-39	75 223	37 177	38 046		96 756	47 768	48 988	-3,60	-6,14	-1,00
1971-1976	40-44	68 424	33 268	35 156		86 085	41 419	44 666	0,10	-4,88	5,21
1966-1971	45-49	61 819	29 042	32 777		74 878	34 437	40 441	-0,46	-7,37	6,30
1961-1966	50-54	53 979	25 505	28 474		68 509	30 921	37 588	0,12	-7,05	6,92
1956-1961	55-59	43 976	20 453	23 523		59 386	26 332	33 054	-3,94	-9,33	0,85
1951-1956	60-64	33 621	15 397	18 224		49 528	21 683	27 845	-8,25	-14,99	-2,21
1946-1951	65-69	23 792	10 404	13 388		37 358	15 846	21 512	-15,05	-22,52	-8,55
1941-1946	70-74	17 243	7 136	10 107		23 657	9 491	14 166	-29,64	-38,36	-22,27
1936-1941	75-79	11 474	4 377	7 097		14 819	5 368	9 451	-37,71	-48,40	-29,41
1931-1936	80-84	6 486	2 293	4 193		8 216	2 749	5 467	-52,35	-61,48	-45,91
1931-1927	85+	5 775	1 852	3 923		5 656	1 508	4 148	-50,71	-65,55	-41,55

**Table v: KwaZulu-Natal province, 2011-2022**

Birth Cohort	Age group	Total Population	Male	Female	Total Population	Male	Female	% change Total Population	% change Male	% change Female
		Census 2011			Census 2022					
2011-2007	0-4	1 198 134	602 780	595 354						
2006-2011	5-9'	1 042 528	525 055	517 473						
2001-2006	10-14'	1 038 857	530 211	508 646	1 151 663	575 552	576 111	-3,88	-4,52	-3,23
1996-2001	15-19	1 119 535	556 206	563 329	1 065 368	535 178	530 190	2,19	1,93	2,46
1991-1996	20-24	1 102 388	537 439	564 949	1 053 724	508 515	545 209	1,43	-4,09	7,19
1986-1991	25-29	980 928	475 491	505 437	1 146 690	542 998	603 692	2,43	-2,37	7,17
1981-1986	30-34	729 231	352 218	377 013	1 125 469	555 146	570 323	2,09	3,29	0,95
1976-1981	35-39	612 615	294 778	317 837	1 050 964	517 493	533 471	7,14	8,83	5,55
1971-1976	40-44	499 102	225 497	273 605	812 835	402 000	410 835	11,46	14,13	8,97
1966-1971	45-49	454 637	191 594	263 043	618 212	289 497	328 715	0,91	-1,79	3,42
1961-1966	50-54	384 397	162 454	221 943	507 016	223 789	283 227	1,59	-0,76	3,52
1956-1961	55-59	325 571	138 283	187 288	473 873	196 605	277 268	4,23	2,62	5,41
1951-1956	60-64	271 326	112 496	158 830	400 303	164 292	236 011	4,14	1,13	6,34
1946-1951	65-69	175 673	68 567	107 106	319 796	129 833	189 963	-1,77	-6,11	1,43
1941-1946	70-74	137 820	49 057	88 763	215 417	81 043	134 374	-20,61	-27,96	-15,40
1936-1941	75-79	86 378	26 319	60 059	126 733	44 989	81 744	-27,86	-34,39	-23,68
1931-1936	80-84	62 126	17 095	45 031	74 838	23 291	51 547	-45,70	-52,52	-41,93
1931-1927	85+	46 054	13 134	32 920	58 044	13 801	44 243	-32,80	-47,56	-26,33



**Table vi: North West province, 2011-2022**

Birth Cohort	Age group	Total Population	Male	Female		Total Population	Male	Female	% change Total Population	% change Male	% change Female
		Census 2011				Census 2022					
2011-2007	0-4	404 348	205 133	199 215							
2006-2011	5-9'	332 303	168 156	164 147							
2001-2006	10-14'	303 713	156 197	147 516		351 251	177 221	174 030	-13,13	-13,61	-12,64
1996-2001	15-19	316 532	161 776	154 756		318 660	161 510	157 150	-4,11	-3,95	-4,26
1991-1996	20-24	343 391	177 506	165 885		321 974	165 106	156 868	6,01	5,70	6,34
1986-1991	25-29	327 662	171 887	155 775		322 610	161 274	161 336	1,92	-0,31	4,25
1981-1986	30-34	271 683	145 356	126 327		319 553	158 639	160 914	-6,94	-10,63	-3,00
1976-1981	35-39	236 739	122 520	114 219		300 595	152 549	148 046	-8,26	-11,25	-4,96
1971-1976	40-44	204 926	104 298	100 628		251 555	129 797	121 758	-7,41	-10,70	-3,62
1966-1971	45-49	187 119	95 401	91 718		199 854	98 156	101 698	-15,58	-19,89	-10,96
1961-1966	50-54	160 566	82 551	78 015		168 158	79 673	88 485	-17,94	-23,61	-12,07
1956-1961	55-59	128 578	63 723	64 855		155 349	71 677	83 672	-16,98	-24,87	-8,77
1951-1956	60-64	94 538	44 834	49 704		133 093	60 293	72 800	-17,11	-26,96	-6,68
1946-1951	65-69	71 692	32 125	39 567		96 189	44 083	52 106	-25,19	-30,82	-19,66
1941-1946	70-74	51 710	21 752	29 958		60 723	26 202	34 521	-35,77	-41,56	-30,55
1936-1941	75-79	34 217	13 057	21 160		39 344	15 478	23 866	-45,12	-51,82	-39,68
1931-1936	80-84	21 482	7 685	13 797		22 189	7 989	14 200	-57,09	-63,27	-52,60
1931-1927	85+	18 754	5 946	12 808		17 371	5 175	12 196	-49,23	-60,37	-42,36

**Table vii: Gauteng province, 2011-2022**

Birth Cohort	Age group	Total Population	Male	Female	Total Population	Male	Female	% change Total Population	% change Male	% change Female
		Census 2011			Census 2022					
2011-2007	0-4	1 191 418	600 023	591 395						
2006-2011	5-9'	905 502	454 666	450 836						
2001-2006	10-14'	812 012	410 927	401 085	1 075 523	545 195	530 328	-9,73	-9,14	-10,33
1996-2001	15-19	924 588	455 071	469 517	1 021 258	515 294	505 964	12,78	13,33	12,23
1991-1996	20-24	1 374 623	698 191	676 432	1 370 045	707 488	662 557	68,72	72,17	65,19
1986-1991	25-29	1 480 847	774 154	706 693	1 582 443	814 954	767 489	71,15	79,08	63,46
1981-1986	30-34	1 224 771	656 232	568 539	1 616 029	833 911	782 118	17,56	19,44	15,62
1976-1981	35-39	1 012 021	535 571	476 450	1 495 504	784 040	711 464	0,99	1,28	0,68
1971-1976	40-44	819 853	421 125	398 728	1 188 883	633 393	555 490	-2,93	-3,48	-2,30
1966-1971	45-49	683 092	335 440	347 652	866 484	452 823	413 661	-14,38	-15,45	-13,18
1961-1966	50-54	562 851	273 421	289 430	691 155	347 406	343 749	-15,70	-17,51	-13,79
1956-1961	55-59	438 401	210 817	227 584	577 865	278 291	299 574	-15,40	-17,04	-13,83
1951-1956	60-64	309 674	145 613	164 061	464 408	215 068	249 340	-17,49	-21,34	-13,85
1946-1951	65-69	201 628	90 748	110 880	340 516	149 815	190 701	-22,33	-28,94	-16,21
1941-1946	70-74	142 909	60 255	82 654	216 471	91 045	125 426	-30,10	-37,47	-23,55
1936-1941	75-79	89 356	34 074	55 282	134 260	52 471	81 789	-33,41	-42,18	-26,24
1931-1936	80-84	55 460	19 443	36 017	76 203	27 658	48 545	-46,68	-54,10	-41,27
1931-1927	85+	43 255	14 104	29 151	53 128	16 020	37 108	-40,54	-52,98	-32,88

**Table viii: Mpumalanga province, 2011-2022**

Birth Cohort	Age group	Total Population	Male	Female		Total Population	Male	Female	% change Total Population	% change Male	% change Female
		Census 2011				Census 2022					
2011-2007	0-4	461 559	231 816	229 743							
2006-2011	5-9'	402 771	201 771	201 000							
2001-2006	10-14'	396 347	201 016	195 331		466 119	233 181	232 938	1,0	0,6	1,4
1996-2001	15-19	424 279	211 495	212 784		423 991	213 676	210 315	5,3	5,9	4,6
1991-1996	20-24	427 540	217 232	210 308		461 257	226 475	234 782	16,4	12,7	20,2
1986-1991	25-29	393 096	199 113	193 983		488 748	232 675	256 073	15,2	10,0	20,3
1981-1986	30-34	297 563	150 009	147 554		472 674	223 603	249 071	10,6	2,9	18,4
1976-1981	35-39	255 908	124 064	131 844		426 278	202 738	223 540	8,4	1,8	15,2
1971-1976	40-44	216 839	102 006	114 833		325 090	156 082	169 008	9,3	4,0	14,5
1966-1971	45-49	193 839	88 844	104 995		259 830	126 943	132 887	1,5	2,3	0,8
1961-1966	50-54	156 680	73 536	83 144		214 526	100 365	114 161	-1,1	-1,6	-0,6
1956-1961	55-59	129 361	59 683	69 678		191 551	87 606	103 945	-1,2	-1,4	-1,0
1951-1956	60-64	94 442	42 761	51 681		150 741	69 379	81 362	-3,8	-5,7	-2,1
1946-1951	65-69	64 216	27 053	37 163		114 094	48 297	65 797	-11,8	-19,1	-5,6
1941-1946	70-74	51 763	19 907	31 856		67 586	27 367	40 219	-28,4	-36,0	-22,2
1936-1941	75-79	31 215	10 463	20 752		39 342	13 968	25 374	-38,7	-48,4	-31,7
1931-1936	80-84	23 550	7 273	16 277		25 176	7 984	17 192	-51,4	-59,9	-46,0
1931-1927	85+	18 970	6 014	12 956		21 919	5 516	16 403	-29,8	-47,3	-21,0

**Table ix: Limpopo province, 2011-2022**

Birth Cohort	Age group	Total Population	Male	Female		Total Population	Male	Female	% change Total Population	% change Male	% change Female
		Census 2011				Census 2022					
2011-2007	0-4	680 163	341 358	338 805							
06-2011	5-9'	583 964	292 728	291 236							
2001-2006	10-14'	570 884	293 085	277 799		663 996	331 890	332 106	-2,38	-2,77	-1,98
1996-2001	15-19	627 334	318 392	308 942		563 051	285 396	277 655	-3,58	-2,50	-4,66
1991-1996	20-24	547 565	274 981	272 584		529 049	267 576	261 473	-7,33	-8,70	-5,88
1986-1991	25-29	441 888	207 713	234 175		554 617	266 098	288 519	-11,59	-16,42	-6,61
1981-1986	30-34	343 839	156 382	187 457		497 090	237 333	259 757	-9,22	-13,69	-4,71
1976-1981	35-39	300 240	128 559	171 681		448 486	209 188	239 298	1,49	0,71	2,19
1971-1976	40-44	255 723	107 979	147 744		365 852	166 350	199 502	6,40	6,37	6,43
1966-1971	45-49	236 314	95 571	140 743		325 474	146 372	179 102	8,40	13,86	4,32
1961-1966	50-54	190 993	78 302	112 691		277 872	122 644	155 228	8,66	13,58	5,07
1956-1961	55-59	158 595	66 759	91 836		260 016	108 635	151 381	10,03	13,67	7,56
1951-1956	60-64	128 947	53 471	75 476		217 036	94 474	122 562	13,64	20,65	8,76
1946-1951	65-69	101 022	37 267	63 755		166 145	68 478	97 667	4,76	2,57	6,35
1941-1946	70-74	87 658	32 523	55 135		109 289	42 925	66 364	-15,25	-19,72	-12,07
1936-1941	75-79	59 993	17 028	42 965		73 968	22 432	51 536	-26,78	-39,81	-19,17
1931-1936	80-84	47 894	11 935	35 959		50 572	15 363	35 209	-42,31	-52,76	-36,14
1931-1927	85+	41 848	10 100	31 748		54 661	10 362	44 299	-8,89	-39,15	3,10

ISBN: 978-1-77997-419-8