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**Mid-year population estimates**

**2018**

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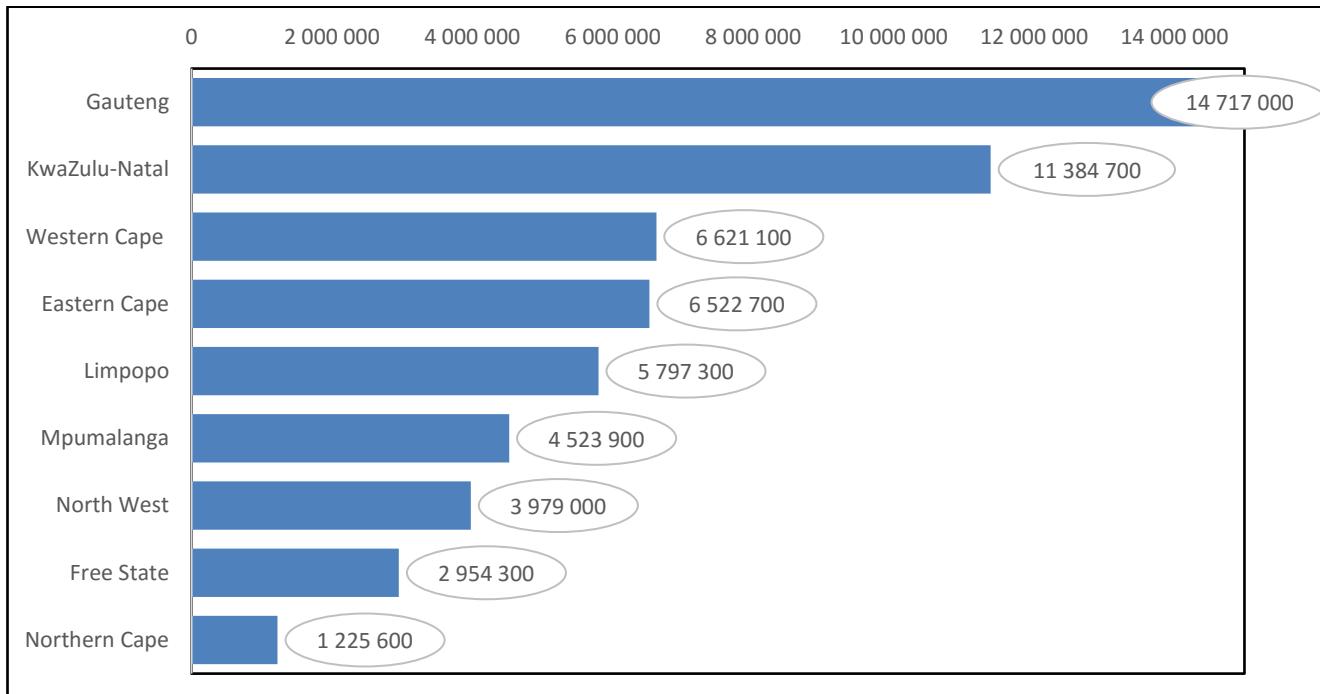
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## Summary

- This release uses the cohort-component methodology to estimate the 2018 mid-year population of South Africa.
- The estimates cover all the residents of South Africa at the 2018 mid-year, and are based on the latest available information. Estimates may change as new data become available. With the new estimate comes an entire series of revised estimates for the period 2002–2018.
- For 2018, Statistics South Africa (Stats SA) estimates the mid-year population at 57,73 million.
- Approximately 51% (approximately 29,5 million) of the population is female.
- Gauteng comprises the largest share of the South African population, with approximately 14,7 million people (25,4%) living in this province. KwaZulu-Natal is the province with the second largest population, with 11,4 million people (19,7%) living in this province. With a population of approximately 1,23 million people (2,1%), Northern Cape remains the province with the smallest share of the South African population.
- About 29,5% of the population is aged younger than 15 years and approximately 8,5% (4,89 million) is 60 years or older. Similar proportions of those younger than 15 years live in Gauteng (21,1%) and KwaZulu-Natal (21,0%). Of the elderly aged 60 years and older, the highest percentage 24,0% (1,18 million) reside in Gauteng. The proportion of elderly persons aged 60 and older is increasing over time.
- Migration is an important demographic process in as it shapes the age structure and distribution of the provincial population. For the period 2016–2021, Gauteng and Western Cape are estimated to experience the largest inflow of migrants of approximately, 1 048 440 and 311 004 respectively (see migration stream Tables 7, 8 and 9 for net migration).
- Life expectancy at birth for 2018 is estimated at 61,1 years for males and 67,3 years for females.
- The infant mortality rate for 2018 is estimated at 36,4 per 1 000 live births.
- The estimated overall HIV prevalence rate is approximately 13,1% among the South African population. The total number of people living with HIV is estimated at approximately 7,52 million in 2018. For adults aged 15–49 years, an estimated 19,0% of the population is HIV positive.

**Table 1: Mid-year population estimates for South Africa by population group and sex, 2018**

Population group	Male		Female		Total	
	Number	% distribution of males	Number	% distribution of females	Number	% distribution of total
<b>Black African</b>	22 786 200	80,9	23 896 700	80,9	46 682 900	80,9
<b>Coloured</b>	2 459 500	8,7	2 614 800	8,9	5 074 300	8,8
<b>Indian/Asian</b>	740 200	2,6	708 100	2,4	1 448 300	2,5
<b>White</b>	2 194 200	7,8	2 325 900	7,9	4 520 100	7,8
<b>Total</b>	<b>28 180 100</b>	<b>100,0</b>	<b>29 545 500</b>	<b>100,0</b>	<b>57 725 600</b>	<b>100,0</b>

**Figure 1: Mid-year population estimates for South Africa by province, 2018**

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## 1. Introduction

In a projection, the size and composition of the future population of an entity such as South Africa is estimated. The mid-year population estimates produced by Statistics South Africa (Stats SA) uses the cohort-component method for population estimation. In the cohort-component method, a base population is estimated that is consistent with known demographic characteristics of the country. The cohort base population is projected into the future according to the projected components of change. Selected levels of fertility, mortality and migration are used as input to the cohort-component method. For the 2018 mid-year estimates, the cohort-component method is utilised within the Spectrum Policy Modelling system. Spectrum is a Windows-based system of integrated policy models (version 5.63). The DemProj module within Spectrum is used to develop the demographic projection, whilst the AIDS Impact Model (AIM) is used to incorporate the impacts of HIV and AIDS on fertility and mortality, and ultimately the population estimates.

Stats SA subscribes to the specifications of the Special Data Dissemination Standards (SDDS) of the International Monetary Fund (IMF). The mid-year estimates are an estimate of the population as at 01 July in a given year. The estimates of stock such as population size, number infected with HIV etc. pertain to the middle of the year i.e. 01 July, whilst the estimates of flow e.g. births, deaths, Total Fertility Rates (TFRs), Infant Mortality Rates (IMRs) etc. are for a 12-month period e.g. 01 July 2018 to 30<sup>th</sup> June 2019. A stock variable is measured at one specific time, and represents a quantity at each moment in time – e.g. the number of population at a certain moment whilst an estimate of flow is typically measured over a certain interval of time. The mid-year population estimates are published annually.

## 2. Demographic and other assumptions

A cohort-component projection requires a base population distributed by age and sex. Levels of mortality, fertility and migration are estimated for the base year and projected for future years. The cohort base population is projected into the future according to the projected components of population change. The DemProj module of Spectrum is used to produce a single-year projection, thus the TFR and the life expectancy at birth must be provided in the same format i.e. single years. The time series of TFR estimates for all population groups in South Africa are derived following a detailed review of TFR estimates (1985–2018), published and unpublished, from various authors, methods and data sources. The finalised TFR assumptions can be found in Table 2 (page 4). The estimates of fertility show a fluctuation over the period 2002–2018, giving rise to a population structure indicative of that of Census 2011 population structure. Between the period 2009 and 2018, fertility has declined from an average of 2,66 children per woman to 2,4 children in 2018. Other inputs required in DemProj include the age-specific fertility rate (ASFR) trend, sex ratios at birth and net international migration.

In estimating South Africa's population, international migration is provided as an input into the model (see Table 3, page 4). Net international migration estimates are derived using not only Census 2011 migration data, but also migration numbers and proportions from various other authors, methods and data sources such as the International Organisation for Migration (IOM), Organisation for Economic Co-operation and Development (OECD) which form part of the UN network as well as census data from National statistics offices (NSO) of various countries. Assumptions regarding future migration patterns are based on past and current trends.

The life expectancy assumption entered into DemProj by sex is the life expectancy in the absence of AIDS (see Table 2). Each population group is also subjected to non-AIDS mortality according to the input non-AIDS life expectancy and the selected model life table. AIM will calculate the number of AIDS deaths and determine a new set of life expectancies that incorporates the impact of AIDS, (see Figure 3, page 6). Stats SA applies the country-specific UN Model Life table for South Africa in Spectrum. The age pattern of mortality is based on various sources, data and methods, these include death date from the RAPID surveillance, Mortality and causes of death report, Demographic and Health Survey among others. Survival rates from the selected life tables were then used to project the population forward.

**Table 2: Assumptions of expectation of life at birth without HIV/AIDS and total fertility rate, 2002–2018**

Year	TFR	Life expectancy at birth without HIV/AIDS	
		Male	Female
2002	2,51	61,4	68,3
2003	2,50	61,4	68,4
2004	2,53	61,5	68,5
2005	2,57	61,5	68,6
2006	2,62	61,7	68,7
2007	2,66	62,1	68,7
2008	2,68	62,1	68,8
2009	2,66	62,2	68,9
2010	2,62	62,3	69,0
2011	2,60	62,4	69,1
2012	2,57	63,0	69,8
2013	2,53	63,4	70,1
2014	2,50	63,5	70,2
2015	2,47	63,6	70,2
2016	2,45	64,0	70,6
2017	2,42	64,5	71,3
2018	2,40	64,5	71,5

**Table 3: International net-migration assumptions for the period 1985–2021**

	Black African	Indian/Asian	White	Net international Migration
1985–2000	516 886	33 166	-184 430	365 622
2001–2006	481 842	22 719	-97 113	407 448
2006–2011	773 946	39 406	-105 964	707 388
2011–2016	940 352	53 444	-110 434	883 362
2016–2021	1 072 557	59 432	-114 995	1 016 994

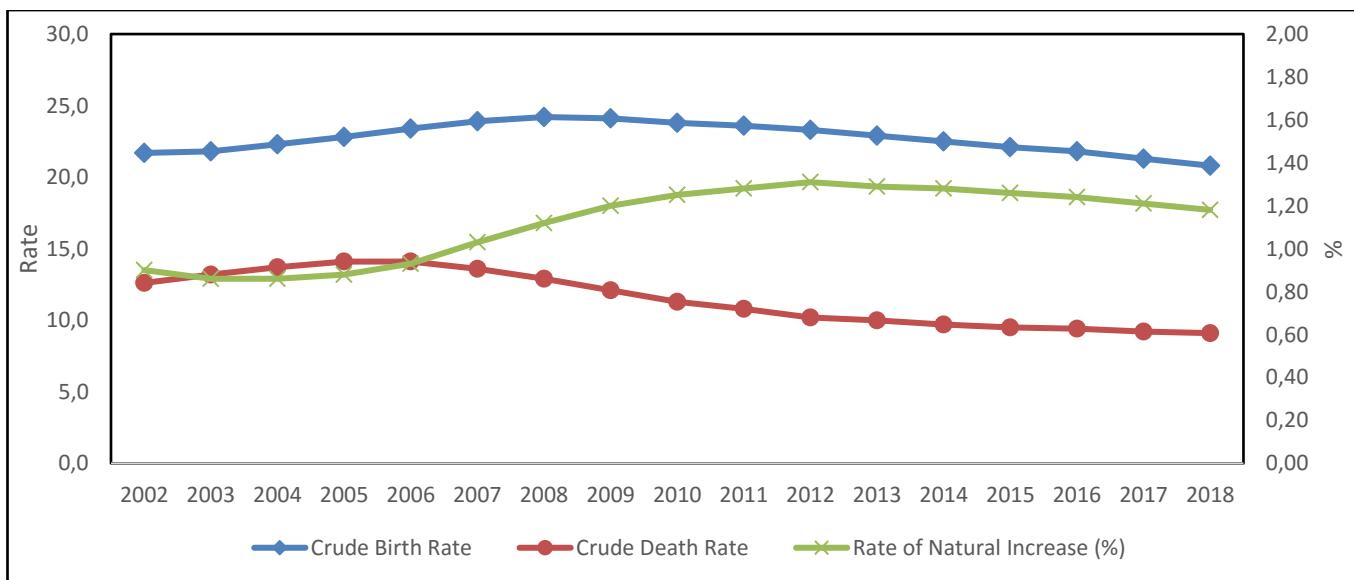
The Spectrum Policy Modelling System (Futures Group) consists of 7 components, but Stats SA used only two of them in this projection, namely (a) **Demproj** for population projections and (b) **AIM** in which the consequences of the AIDS epidemic were projected. In the AIM projection, several programmatic and epidemiological data inputs are required. These are related to programme coverage of adults and children on antiretroviral treatment (ART) and

Prevention of mother-to-child-transmission (PMTCT) treatment (NDoH, 2017). In addition to eligibility for treatment as per national guidelines, the epidemiological inputs include antenatal clinic data (NDoH, 2018). The assumptions regarding the HIV epidemic in South Africa are based primarily on the prevalence data collected annually from pregnant women attending public antenatal clinics (ANC) since 1990 to the most recent estimates of 2015. However, antenatal surveillance data produce biased prevalence estimates for the general population because only a select group of people (i.e. pregnant women attending public health services) are included in the sample. The HSRC survey prevalence data that produces national estimates for the country is used in the model to correct for this bias (Shisana et al, 2014). Other inputs in the AIM model include the following: Median time from HIV infection to death, and Ratio of new infections. Indicators of HIV prevalence, incidence and HIV population numbers over time show the impact of HIV on the population. HIV indicators shown in Figures 5 and 6 are based on the aforementioned assumptions.

### 3. Demographic and other indicators

Figure 2 indicates that the crude birth rate (CBR) has increased between 2002 and 2008, thereafter it declines in the period 2009 to 2018. The CBR is directly related to the fluctuating TFR assumptions (Table 2, page 4). Figure 2 and Table 4 offer a glimpse into the mortality experience of South Africa, which incorporates the impact of HIV and AIDS (using the AIM model). The crude death rate (CDR) has declined from 12,6 deaths per 1 000 people in 2002 to 9,1 deaths per 1 000 people in 2018. The rate of natural increase (RNI) is the rate of population growth in South Africa over time, without including the impact of migration i.e. deaths subtracted from births. The RNI fluctuates over time, mirroring the CBR, indicating the great influence of births in South Africa.

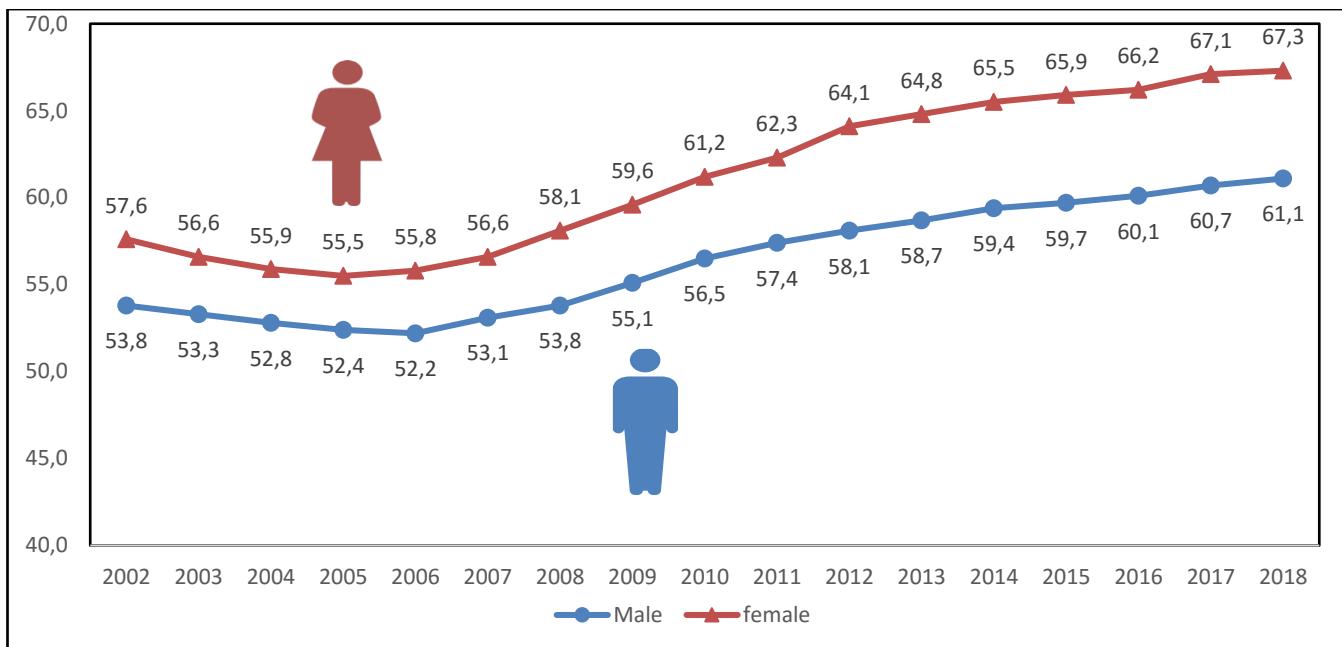
**Figure 2: Crude birth rate, crude death rate, and rate of natural increase over time, 2002–2018**



Life expectancy at birth declined between 2002 and 2006, in largely due to the impact of the HIV and AIDS epidemic experienced, but expansion of health programmes to prevent mother to child transmission as well as access to antiretroviral treatment has partly led to the increase in life expectancy since 2007. By 2018 life expectancy at birth is estimated at 61,1 years for males and 67,3 years for females. Figure 3 indicates that life expectancy is increasing, and this may be related to marginal gains in survival rates among infants and children under-5 post HIV interventions in 2005. Infant mortality rate (IMR) has declined from an estimated 53,2 infant deaths per 1 000 live births in 2002 to

36,4 infant deaths per 1 000 live births in 2018. Similarly the under-five mortality rate (U5MR) declined from 80,1 child deaths per 1 000 live births to 45,0 child deaths per 1 000 live births between 2002 and 2018. IMR and U5MR shown in Figure 4 (page 8) are based on the selected model life table and may differ to similar indices published elsewhere.

**Figure 3: Life expectancy by sex over time, 2002–2018**



**Figure 4: IMR, U5MR and CDR over time, 2002–2018**

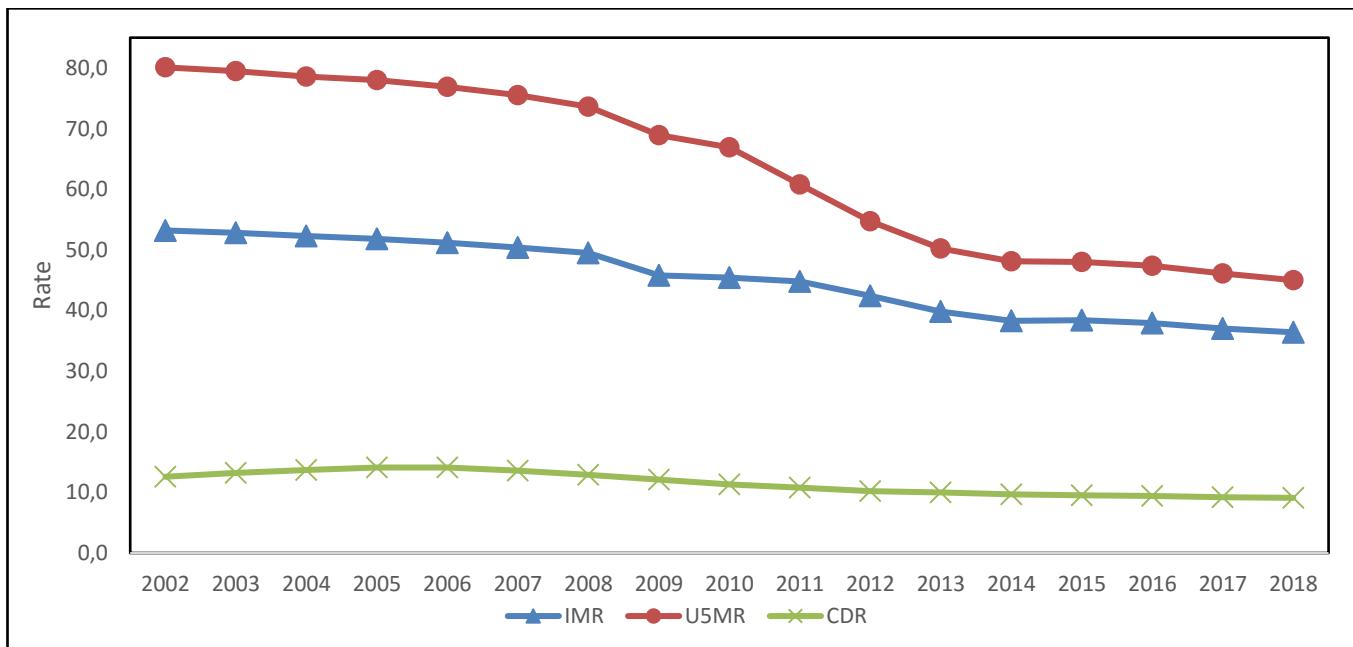


Table 4 below shows estimates for selected indicators. The highest number of deaths were estimated in 2006. The decline in the percentage of AIDS-related deaths since 2007 can be attributed to the increase in the roll-out of ART over time. National roll-out of ART began in 2005 with a target of one (1) service point in each of the 53 districts of

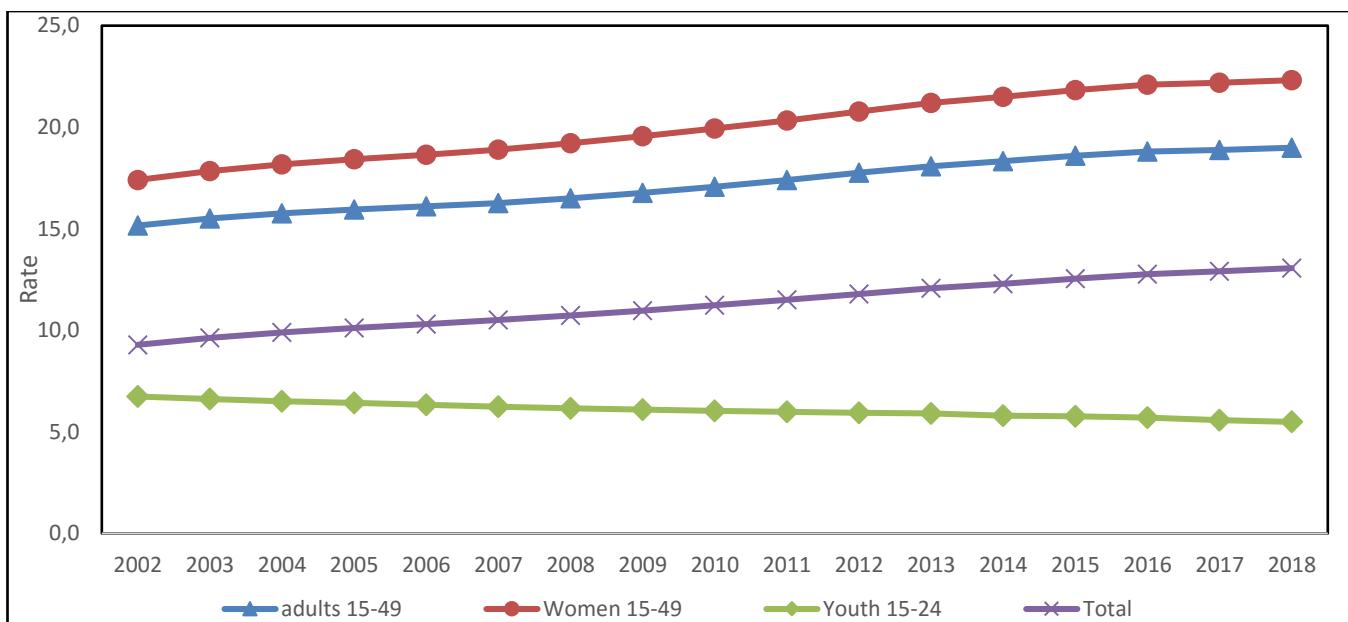
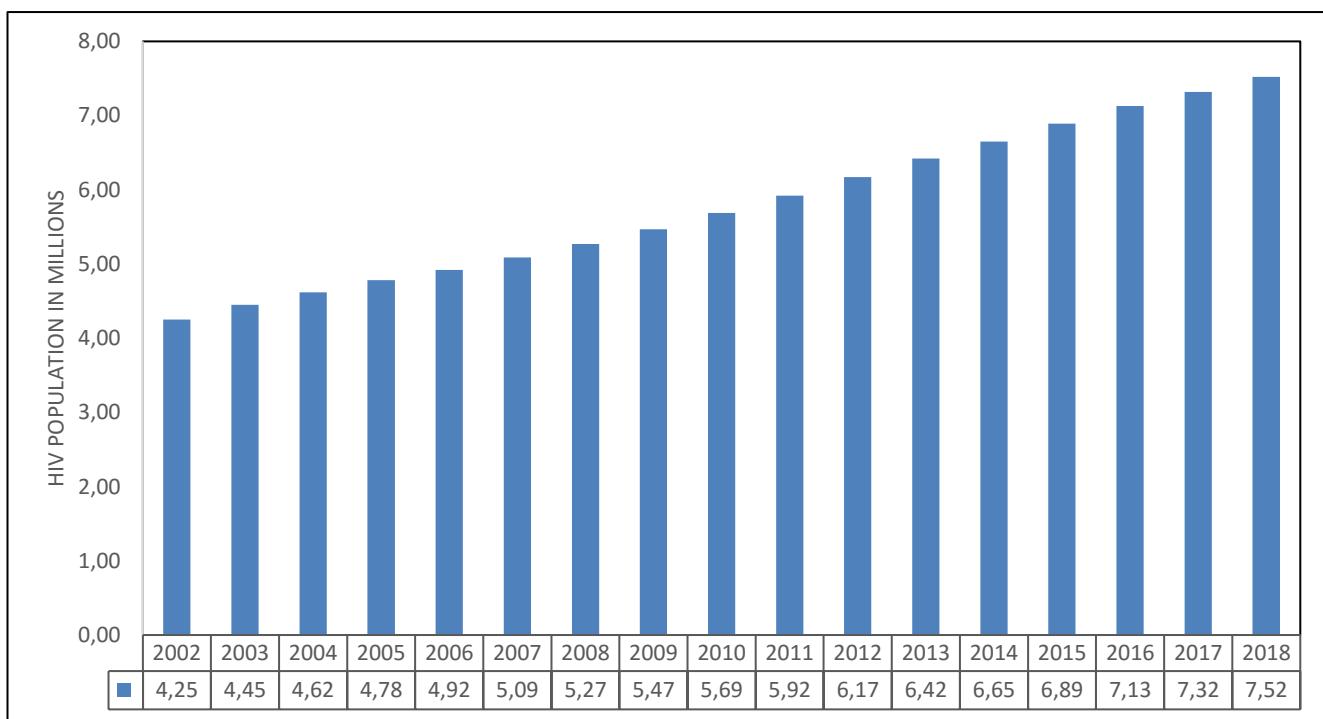
South Africa (later reduced to 52 districts). The number of AIDS-related deaths declined consistently since 2007 from 276 921 to 115 167 AIDS related deaths in 2018. Access to antiretroviral treatment has changed historical patterns of mortality. Access to ART has thus extended the lifespan of many in South Africa, who would have otherwise died at an earlier age, – as evidenced in the decline of AIDS deaths post-2006.

**Table 4: Births and deaths for the period 2002–2018**

Year	Number of births	Number of deaths	Number of AIDS related deaths	Percentage of AIDS deaths
2002	991 675	578 135	215 568	37,29
2003	1 006 853	610 695	243 951	39,95
2004	1 040 614	640 959	270 280	42,17
2005	1 077 788	664 588	289 833	43,61
2006	1 117 906	672 371	293 166	43,60
2007	1 157 434	658 467	276 921	42,06
2008	1 186 739	635 136	248 208	39,08
2009	1 201 889	605 014	214 365	35,43
2010	1 207 338	572 177	175 375	30,65
2011	1 216 711	556 684	154 752	27,80
2012	1 218 517	534 034	138 919	26,01
2013	1 218 105	529 288	135 331	25,57
2014	1 215 890	522 779	122 139	23,36
2015	1 216 408	523 588	115 598	22,08
2016	1 214 592	523 997	117 296	22,38
2017	1 208 934	523 560	116 110	22,18
2018	1 200 436	522 157	115 167	22,06

## HIV prevalence

Figures 5 and 6 show the HIV prevalence estimated for the period 2002–2018. The total number of persons living with HIV in South Africa increased from an estimated 4,25 million in 2002 to 7,52 million by 2018. For 2018, an estimated 13,1% of the total population is HIV positive. Approximately one-fifth of South African women in their reproductive ages (15–49 years) are HIV positive. HIV prevalence among the youth aged 15–24 has declined over time from 6,7% in 2002 to 5,5% in 2018.

**Figure 5: HIV prevalence by selected age groups, 2002–2018****Figure 6: HIV Population over time, 2002–2018**

#### 4. National population estimates

Table 5 shows the mid-year population estimates by population group and sex. The mid-year population is estimated at 57,7 million. The black African population is in the majority (46,7 million) and constitutes approximately 81% of the total South African population. The white population is estimated at 4,5 million, the coloured population at 5,1 million and the Indian/Asian population at 1,4 million. Just over fifty-one per cent (29,5 million) of the population is female.

**Table 5: Mid-year population estimates by population group and sex, 2018**

Population group	Male		Female		Total	
	Number	% of total male population	Number	% of total female population	Number	% of total population
<b>Black African</b>	22 786 200	80,9	23 896 700	80,9	46 682 900	80,9
<b>Coloured</b>	2 459 500	8,7	2 614 800	8,9	5 074 300	8,8
<b>Indian/Asian</b>	740 200	2,6	708 100	2,4	1 448 300	2,5
<b>White</b>	2 194 200	7,8	2 325 900	7,9	4 520 100	7,8
<b>Total</b>	<b>28 180 100</b>	<b>100,0</b>	<b>29 545 500</b>	<b>100,0</b>	<b>57 725 600</b>	<b>100,0</b>

Figure 7 below shows that the rate of growth for the South African population has increased between 2002 and 2018. The estimated overall growth rate increased from approximately 1,04% for the period 2002–2003 to 1,55% for the period 2017–2018. The proportion of the elderly in South Africa is on the increase and this is indicative in the estimated growth rate over time rising from 1,21% for the period 2002–2003 to 3,21% for the period 2017–2018. Given the fluctuation in fertility over time, the growth rate among children aged 0–14 increased between 2002 and 2012, with a stall in the period 2013–2018.

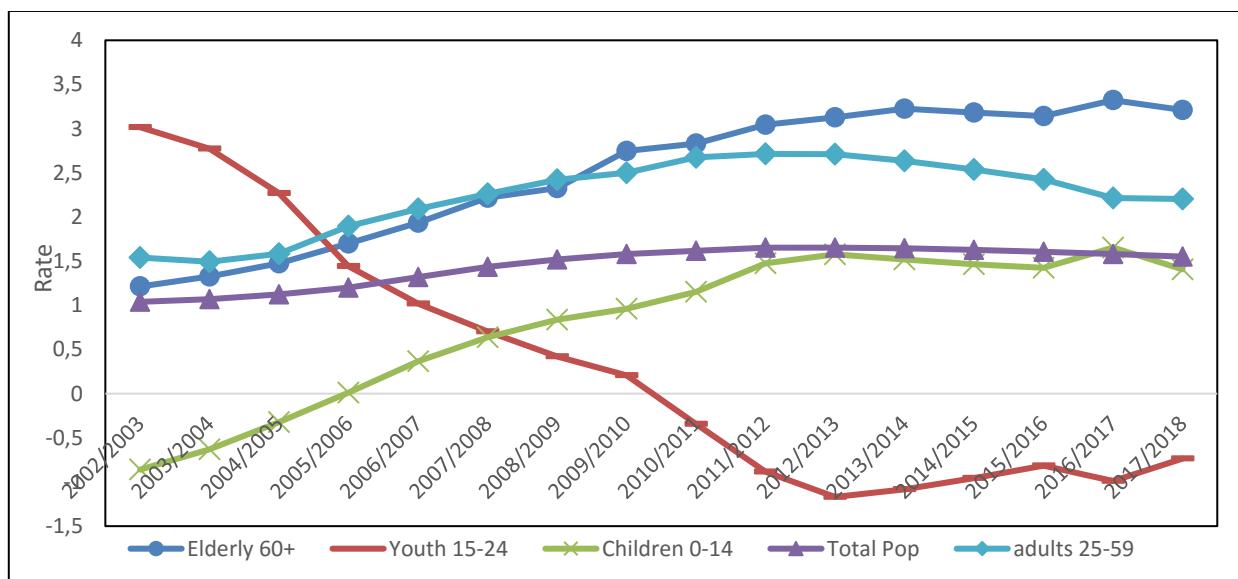
**Figure 7: Population growth rates by selected age groups over time, 2002–2018**

Table 6 (page 10) shows the 2018 mid-year population estimates by age, sex and population group. About 29,5% of the population is aged 0–14 years and approximately 8,5% is 60 years and older.

**Table 6: Mid-year population estimates by population group, age and sex, 2018**

Age	Black African			Coloured			Indian/Asian			White			RSA		
	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
<b>0-4</b>	2 563 829	2 565 832	5 129 661	241 769	233 941	475 710	49 001	47 120	96 120	115 704	111 757	227 461	2 970 302	2 958 649	5 928 951
<b>5-9</b>	2 524 670	2 518 447	5 043 117	240 351	232 952	473 303	48 518	46 351	94 869	127 490	123 302	250 792	2 941 029	2 921 052	5 862 081
<b>10-14</b>	2 229 354	2 247 086	4 476 440	221 550	215 429	436 979	45 396	43 020	88 416	127 310	123 340	250 650	2 623 611	2 628 874	5 252 485
<b>15-19</b>	1 987 756	2 009 256	3 997 012	206 457	202 313	408 770	44 494	42 033	86 527	122 241	119 241	241 482	2 360 947	2 372 843	4 733 790
<b>20-24</b>	2 093 724	2 140 452	4 234 176	214 450	211 450	425 900	54 296	49 366	103 662	128 124	127 299	255 423	2 490 594	2 528 566	5 019 161
<b>25-29</b>	2 336 908	2 323 406	4 660 314	217 409	215 406	432 815	67 101	57 621	124 722	135 226	133 874	269 100	2 756 645	2 730 307	5 486 952
<b>30-34</b>	2 281 671	2 221 521	4 503 192	203 275	203 568	406 842	74 569	61 954	136 523	149 594	149 091	298 685	2 709 109	2 636 133	5 345 242
<b>35-39</b>	1 836 672	1 770 140	3 606 812	171 585	177 693	349 277	71 738	58 462	130 200	146 634	148 212	294 846	2 226 629	2 154 507	4 381 136
<b>40-44</b>	1 372 353	1 340 514	2 712 867	152 677	156 540	309 217	62 150	52 044	114 193	152 664	160 245	312 909	1 739 843	1 709 343	3 449 186
<b>45-49</b>	1 032 933	1 106 085	2 139 018	146 367	162 443	308 809	54 474	48 316	102 790	168 392	173 360	341 753	1 402 166	1 490 204	2 892 370
<b>50-54</b>	753 749	972 012	1 725 761	131 972	157 947	289 919	45 736	45 284	91 020	153 242	162 639	315 881	1 084 700	1 337 881	2 422 581
<b>55-59</b>	621 476	807 003	1 428 479	112 864	134 642	247 506	38 289	40 731	79 020	147 081	160 280	307 361	919 710	1 142 656	2 062 367
<b>60-64</b>	473 809	647 435	1 121 244	81 300	107 443	188 743	30 967	35 143	66 110	138 340	150 653	288 993	724 416	940 674	1 665 090
<b>65-69</b>	322 088	473 362	795 450	55 781	81 433	137 214	23 517	29 522	53 039	125 225	142 698	267 923	526 610	727 015	1 253 626
<b>70-74</b>	184 722	318 378	503 100	33 186	53 443	86 629	15 389	22 105	37 494	105 238	121 502	226 740	338 535	515 429	853 963
<b>70-79</b>	100 835	206 357	307 192	17 159	35 182	52 341	8 743	14 882	23 625	75 210	94 655	169 865	201 946	351 076	553 023
<b>80+</b>	69 691	229 370	299 061	11 324	33 016	44 340	5 842	14 151	19 993	76 452	123 757	200 209	163 309	400 295	563 604
<b>Total</b>	<b>22 786 240</b>	<b>23 896 656</b>	<b>46 682 896</b>	<b>2 459 473</b>	<b>2 614 840</b>	<b>5 074 313</b>	<b>740 222</b>	<b>708 103</b>	<b>1 448 324</b>	<b>2 194 167</b>	<b>2 325 906</b>	<b>4 520 072</b>	<b>28 180 101</b>	<b>29 545 505</b>	<b>57 725 606</b>

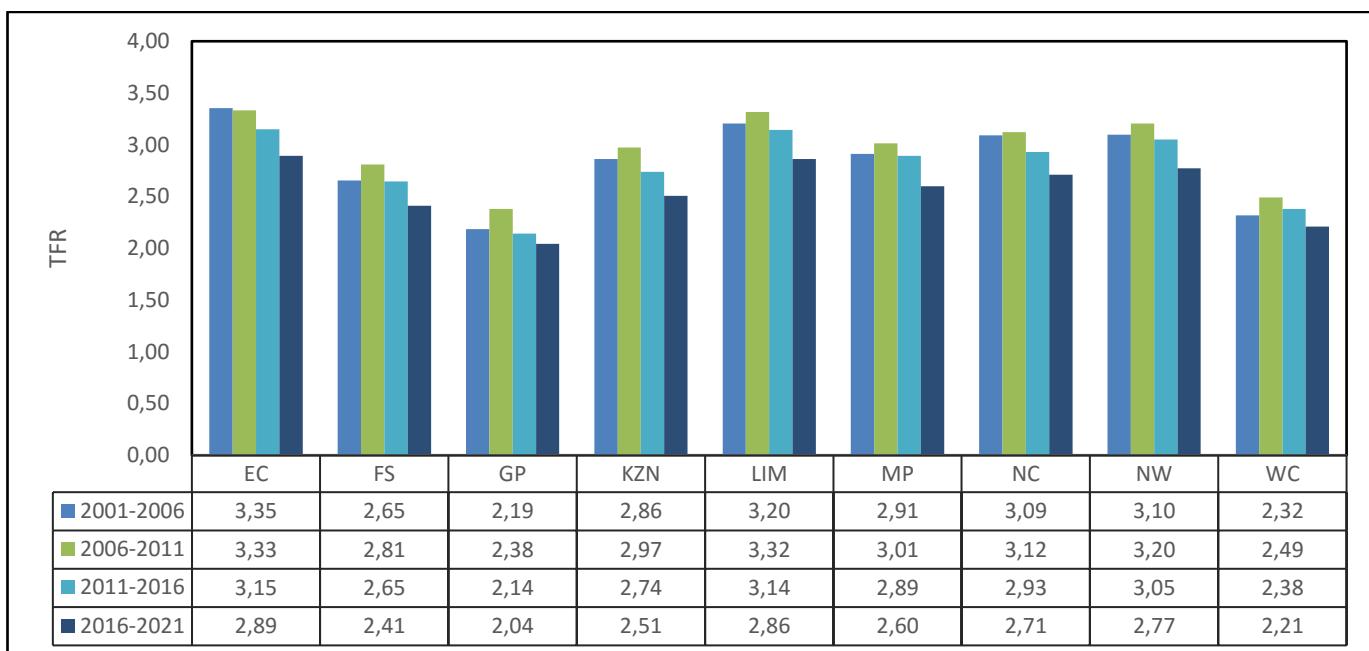
## 5. Provincial population estimates

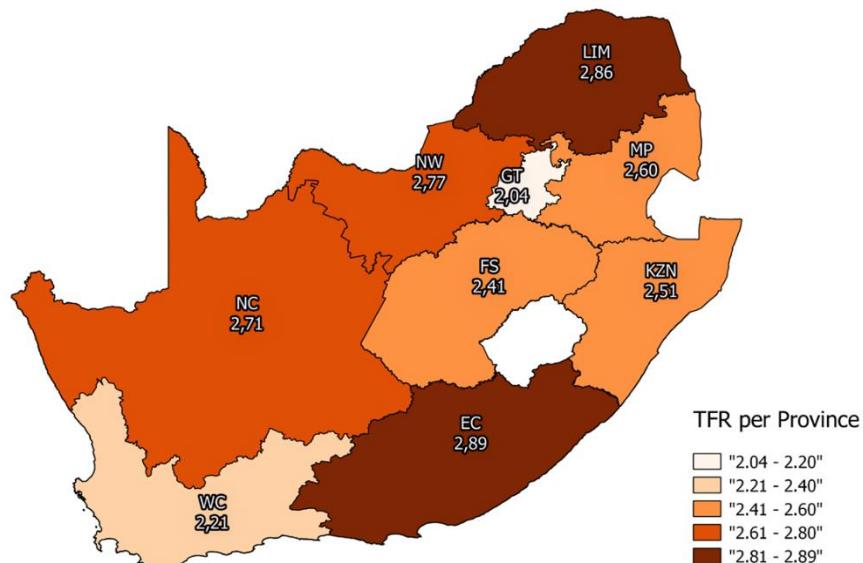
Provincial estimates are derived using a cohort-component method as suggested by the United Nations (United Nations, 1992), incorporating changes in births, deaths as well as migration over time. When provincial population estimates are desired and the appropriate data are available, a multi-regional approach should be considered as this is the only way to guarantee that the total migration flows between regions will sum to zero (United Nations, 1992). Multi-regional methods require the estimation of separate age-specific migration rates between every region of the country and every other region and such detailed data are rarely available. Although it is possible to estimate some of the missing data (see Willekens et al., 1978) the task of preparing data can become overwhelming if there are many regions. If there are only a few streams however the multi-regional method is the best method to use. In South Africa 2 448 (9x8x17x2) migration streams are derived if the multi-regional model is applied in calculating migration streams by age group (17 in total) and sex for each of the nine provinces.

### 5.1 Demographic assumptions

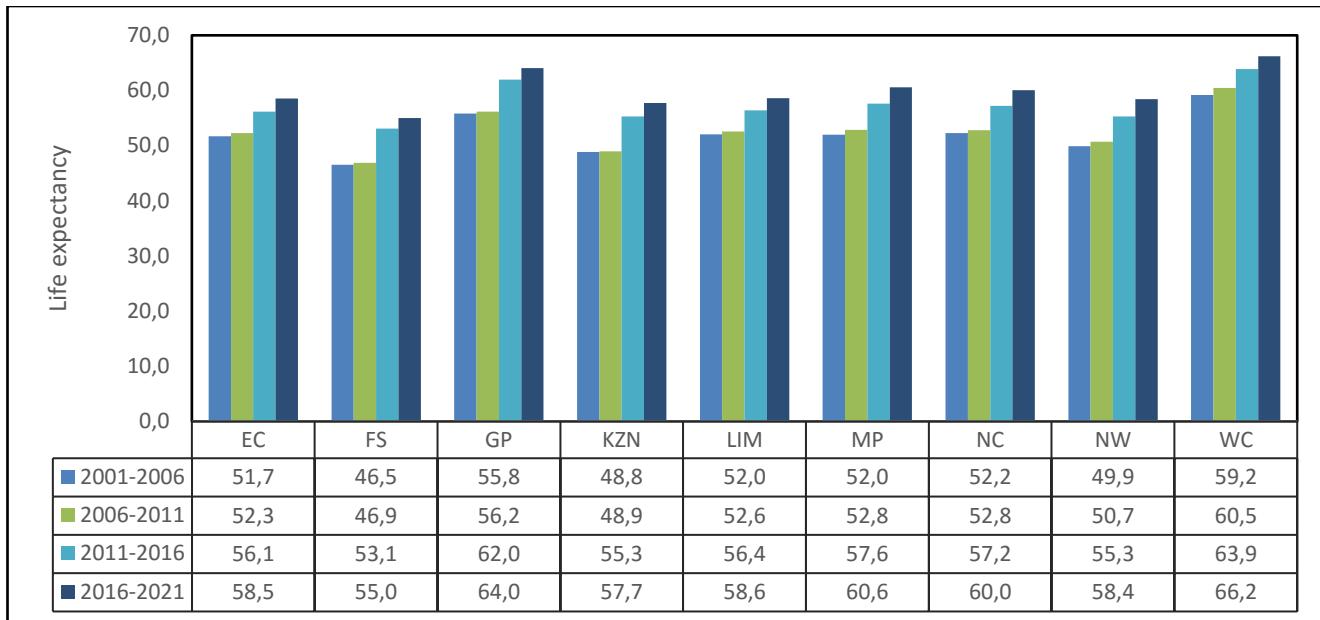
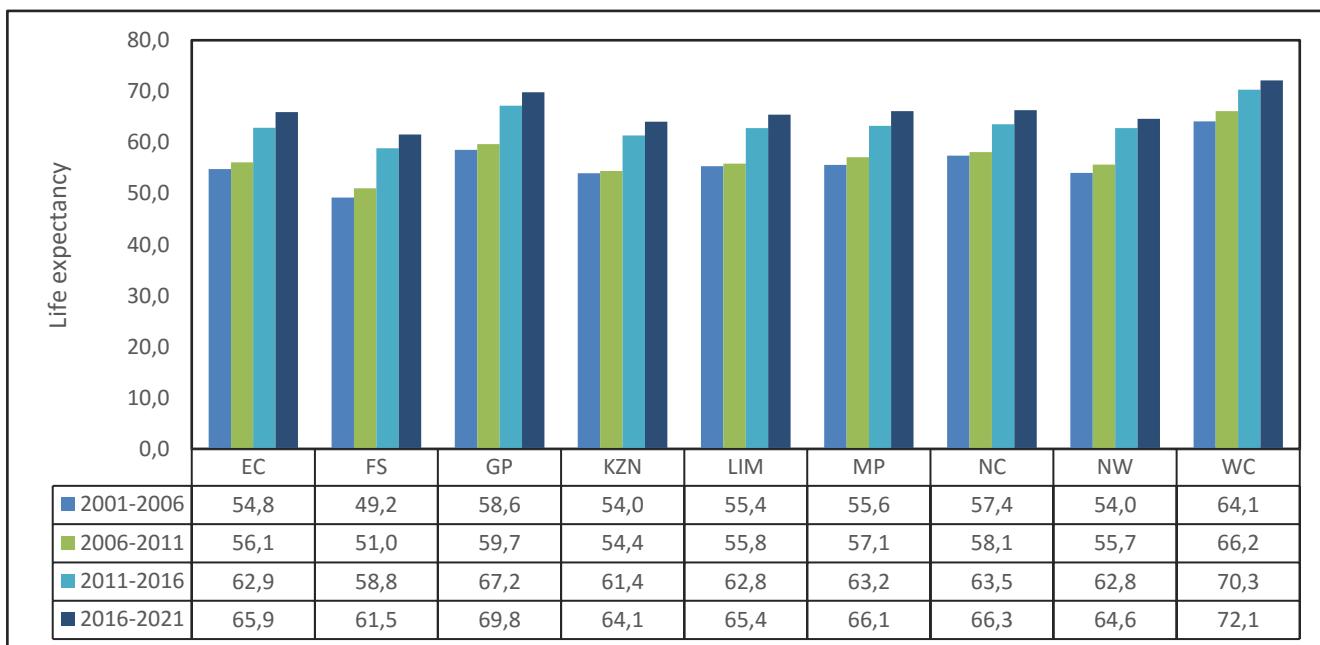
The demographic data from the 2011 Census i.e. fertility, mortality and migration rates are incorporated in the assumptions. The population structure as per Census 2011 as well as the distribution of births and deaths from vital registrations (adjusted for late registration and completeness) are used to determine provincial estimates (Stats SA, 2017). Figure 8 shows the provincial fertility estimates for the periods 2001–2006; 2006–2011; 2011–2016 and 2016–2021. In the period 2006–2011, there is a general rise in TFR, giving shape to the Census 2011 provincial population structure. However for the period 2011–2021 there is an overall decline in TFR over time. Fertility varies from province to province as is depicted in Figure 8. The more rural provinces of the Eastern Cape and Limpopo indicate higher fertility rates whilst more urbanised provinces such as Gauteng and the Western Cape indicate lower levels of fertility.

**Figure 8: Provincial average total fertility rate over time, 2001–2021**



**Figure 9: Provincial average total fertility rate, 2016–2021**

Figures 10 and 11 (page 13) show the average provincial life expectancies at birth for males and females for the periods 2001–2006; 2006–2011; 2011–2016 and 2016–2021. Life expectancy at birth reflects the overall mortality level of a population. The life expectancy increased incrementally for each period across all provinces but more significantly in the period 2011–2016 due to the uptake of antiretroviral therapy over time in South Africa. Though the life expectancy in the periods 2001–2006 and 2006–2011, depicts marginal improvement, this masks the interaction between the highest number of deaths in 2006 in combination with declining numbers of deaths between 2007 and 2010. Western Cape consistently has the highest life expectancy at birth for both males and females over time whilst the Free State has the lowest life expectancy at birth.

**Figure 10: Provincial average life expectancy at birth (males)****Figure 11: Provincial average life expectancy at birth (females)**

## 5.2 Migration patterns

From Census 2011 it was possible to determine out-migration rates for each province. Applying these rates to the age structures of the province it was possible to establish migration streams between the provinces. The result of these analyses is shown in Tables 7, 8 and 9. The assumptions imply that Gauteng and Western Cape received the highest number of in-migrants for all periods. The Eastern Cape and Gauteng experienced the largest number of outflow of migrants. Due to its relatively larger population size, Gauteng achieved the highest number of in- and out-flows. Gauteng, Mpumalanga, Northern Cape, North West and Western Cape provinces received positive net migration over all 3 periods. For all periods, the number of international migrants entering the provinces was highest in Gauteng, with Western Cape ranking second.

**Table 7: Estimated provincial migration streams 2006–2011**

Province in 2006	Province in 2011									Out- migrants	In-migrants	Net migration
	EC	FS	GP	KZN	LIM	MP	NC	NW	WC			
EC	0	17 694	145 169	97 148	13 404	16 028	7 669	35 956	167 309	500 377	147 759	-352 618
FS	7 577	0	78 472	7 633	6 360	9 857	8 592	22 097	11 830	152 418	119 042	-33 377
GP	38 233	33 216	0	57 500	65 456	62 762	9 604	75 357	74 441	416 569	1 330 136	913 568
KZN	20 743	10 797	212 194	0	7 367	29 420	2 496	9 859	30 979	323 856	254 650	-69 206
LIM	4 120	5 355	287 313	6 870	0	41 087	2 143	27 226	10 409	384 523	214 913	-169 610
MP	4 061	4 615	111 004	11 178	20 769	0	2 047	13 687	8 665	176 028	230 424	54 396
NC	3 953	7 942	14 973	5 118	2 374	3 906	0	11 439	16 251	65 956	68 987	3 031
NW	4 529	10 313	94 675	5 341	17 442	10 417	20 605	0	7 951	171 274	257 038	85 763
WC	37 738	6 623	51 259	10 801	4 622	5 992	10 562	6 885	0	134 482	409 922	275 440
Outside SA	26 804	22 486	335 077	53 060	77 119	50 955	5 270	54 531	82 086			

**Table 8: Estimated provincial migration streams 2011–2016**

Province in 2011	Province in 2016										Out-migrants	In-migrants	Net migration
	EC	FS	GP	KZN	LIM	MP	NC	NW	WC				
EC	0	17 239	142 037	92 194	12 981	15 531	7 457	36 373	169 171	492 983	172 917	-320 066	
FS	7 844	0	81 138	7 905	6 591	10 208	8 895	22 878	12 255	157 714	132 917	-24 797	
GP	43 894	38 197	0	66 237	75 134	72 265	11 049	86 779	85 905	479 461	1 459 549	980 088	
KZN	22 055	11 473	225 488	0	7 855	31 299	2 659	10 497	32 977	344 302	275 920	-68 382	
LIM	4 336	5 628	287 096	7 229	0	43 192	2 258	28 605	10 947	389 290	248 413	-140 878	
MP	4 468	5 073	121 999	12 281	22 829	0	2 253	15 050	9 526	193 479	258 374	64 895	
NC	4 217	8 480	17 232	5 459	2 537	4 169	0	12 215	17 368	71 678	75 606	3 929	
NW	4 977	11 314	107 643	5 867	19 149	11 433	22 610	0	8 737	191 729	288 204	96 475	
WC	47 741	7 459	57 748	12 648	5 207	6 755	11 890	7 762	0	157 210	449 308	292 099	
Outside SA	33 386	28 054	419 169	66 100	96 130	63 523	6 535	68 044	102 423				

**Table 9: Estimated provincial migration streams 2016–2021**

Province in 2016	Province in 2021										Out-migrants	In-migrants	Net migration
	EC	FS	GP	KZN	LIM	MP	NC	NW	WC				
EC	0	18 261	149 867	100 226	13 840	16 522	7 930	37 014	172 603	516 264	192 412	-323 851	
FS	8 108	0	84 158	8 177	6 817	10 565	9 217	23 676	12 690	163 408	147 666	-15 742	
GP	50 121	43 685	0	75 771	85 884	82 704	12 638	99 311	98 341	548 456	1 596 896	1 048 440	
KZN	23 396	12 185	239 905	0	8 346	33 228	2 825	11 159	35 105	366 150	307 547	-58 602	
LIM	4 589	5 950	304 317	7 650	0	45 628	2 387	30 197	11 550	412 269	279 755	-132 513	
MP	4 889	5 549	133 937	13 434	24 949	0	2 469	16 472	10 417	212 116	286 154	74 038	
NC	4 487	9 061	18 432	5 814	2 709	4 444	0	13 031	18 533	76 512	83 000	6 489	
NW	5 448	12 373	118 045	6 421	20 945	12 507	24 786	0	9 572	210 096	317 830	107 733	
WC	53 052	8 338	64 675	14 168	5 826	7 566	13 286	8 703	0	175 613	486 617	311 004	
Outside SA	38 322	32 263	483 561	75 886	110 440	72 988	7 461	78 267	117 805				

### 5.3 Provincial distributions

Table 10 below shows the estimated percentage of the total population residing in each of the provinces from 2002 to 2018. The provincial estimates show that Gauteng has the largest share of the population followed by KwaZulu-Natal, Western Cape and Eastern Cape. Inter-provincial as well as international migration patterns significantly influence the provincial population numbers and structures in South Africa. By 2018 approximately 11,5% of South Africa's population live in Western Cape and Northern Cape has the smallest share of the population (2,1%). Free State has the second smallest share of the South African population constituting 5,1% of the population. Figures 12 and 13 indicate that Limpopo (34,3%) and Eastern Cape (34,4%) have the highest proportions of persons younger than 15 years while a greater proportion of persons aged 60 years and above are found in Eastern Cape and Northern Cape.

**Table 10: Percentage distribution of the projected provincial share of the total population, 2002–2018**

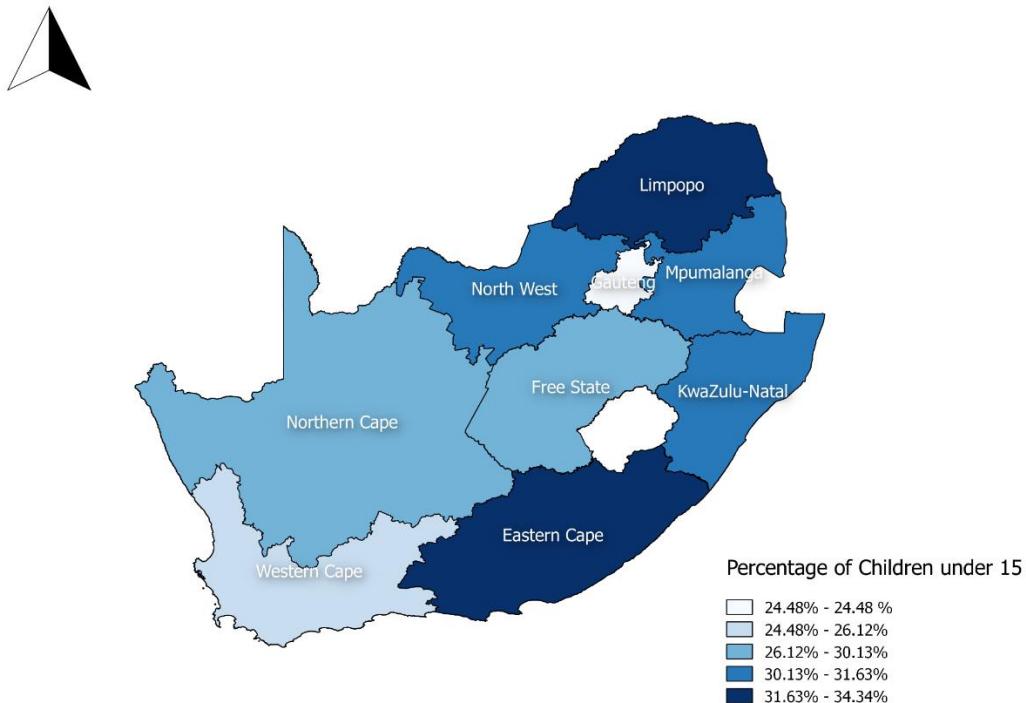
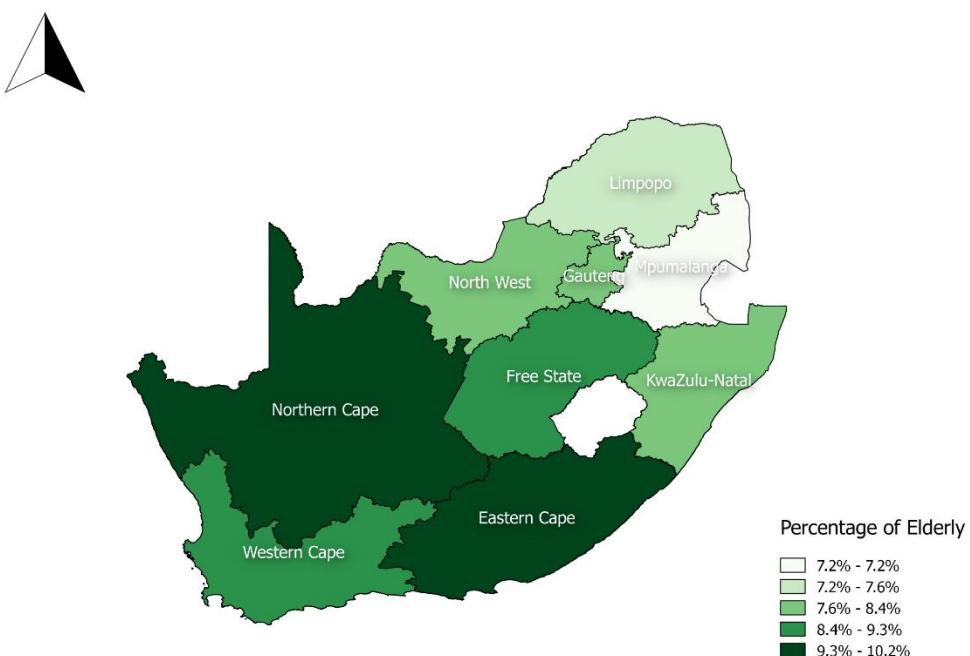
	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
<b>EC</b>	13,8	13,7	13,5	13,4	13,3	13,1	12,9	12,8	12,6	12,4	12,2	12,0	11,9	11,7	11,6	11,5	11,3
<b>FS</b>	6,0	5,9	5,9	5,8	5,7	5,7	5,6	5,6	5,5	5,5	5,4	5,4	5,3	5,3	5,2	5,2	5,1
<b>GP</b>	21,2	21,5	21,7	22,0	22,3	22,5	22,8	23,1	23,4	23,7	24,0	24,2	24,5	24,7	25,0	25,2	25,5
<b>KZN</b>	21,3	21,2	21,1	21,0	20,9	20,8	20,7	20,6	20,5	20,4	20,3	20,2	20,1	20,0	19,9	19,8	19,7
<b>LP</b>	11,1	11,0	10,9	10,8	10,8	10,7	10,6	10,6	10,5	10,4	10,4	10,3	10,2	10,2	10,2	10,1	10,0
<b>MP</b>	7,5	7,6	7,6	7,6	7,6	7,6	7,7	7,7	7,7	7,7	7,7	7,8	7,8	7,8	7,8	7,8	7,8
<b>NC</b>	2,2	2,2	2,2	2,2	2,2	2,2	2,2	2,2	2,2	2,2	2,2	2,2	2,1	2,1	2,1	2,1	2,1
<b>NW</b>	6,7	6,7	6,7	6,7	6,7	6,7	6,8	6,8	6,8	6,8	6,8	6,8	6,8	6,8	6,9	6,9	6,9
<b>WC</b>	10,2	10,3	10,4	10,4	10,5	10,6	10,7	10,8	10,9	11,0	11,1	11,1	11,2	11,3	11,3	11,4	11,5
<b>Total</b>	100,0	100,0	100,0	100,0	100,0	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 11 (a): Provincial mid-year population estimates by age and sex, 2018**

Age	Eastern Cape			Free State			Gauteng			KwaZulu-Natal			Limpopo		
	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
<b>0–4</b>	372 749	371 822	744 571	146 250	146 028	292 277	646 271	643 287	1 289 558	616 837	611 502	1 228 339	344 649	343 954	688 603
<b>5–9</b>	387 310	380 800	768 110	148 424	149 129	297 553	621 915	617 065	1 238 980	626 376	622 160	1 248 537	341 212	336 545	677 757
<b>10–14</b>	365 891	361 124	727 015	137 022	139 205	276 228	536 465	537 319	1 073 784	552 381	554 627	1 107 008	312 273	306 698	618 970
<b>15–19</b>	297 018	293 279	590 297	125 658	126 079	251 737	514 938	519 030	1 033 968	507 526	512 167	1 019 693	272 469	269 032	541 501
<b>20–24</b>	261 499	270 046	531 545	126 115	126 012	252 127	646 152	648 861	1 295 014	524 037	538 418	1 062 455	259 898	264 931	524 829
<b>25–29</b>	257 881	269 667	527 548	135 653	131 693	267 346	804 141	779 726	1 583 867	536 123	541 877	1 077 999	259 241	265 601	524 842
<b>30–34</b>	242 435	253 490	495 926	134 124	128 406	262 530	809 689	765 664	1 575 352	497 617	506 862	1 004 480	241 053	243 676	484 729
<b>35–39</b>	196 782	204 655	401 438	108 990	106 778	215 768	682 161	622 571	1 304 733	387 744	406 158	793 903	191 101	199 410	390 511
<b>40–44</b>	150 340	165 128	315 467	84 178	87 493	171 671	555 732	479 526	1 035 258	293 341	321 899	615 240	136 716	162 228	298 945
<b>45–49</b>	120 936	154 595	275 531	70 649	79 764	150 413	449 055	399 052	848 107	226 973	278 896	505 869	102 721	137 008	239 728
<b>50–54</b>	96 118	150 108	246 226	57 315	72 353	129 669	339 530	344 534	684 064	171 874	254 396	426 270	77 084	122 698	199 782
<b>55–59</b>	87 790	142 763	230 554	49 845	61 187	111 032	283 870	287 572	571 442	147 443	221 624	369 067	62 968	104 682	167 650
<b>60–64</b>	74 896	125 090	199 986	40 756	52 362	93 118	218 273	231 010	449 283	118 991	181 526	300 517	50 055	89 260	139 315
<b>65–69</b>	56 830	97 531	154 362	29 791	41 739	71 530	153 287	170 148	323 435	92 252	147 536	239 788	37 407	71 598	109 005
<b>70–74</b>	39 121	72 226	111 346	18 997	29 495	48 491	94 735	114 513	209 248	61 262	108 312	169 574	23 547	49 727	73 274
<b>75–79</b>	30 159	60 867	91 026	11 611	19 782	31 394	49 469	67 555	117 024	35 787	69 733	105 520	14 147	37 416	51 562
<b>80+</b>	33 225	78 561	111 786	8 825	22 638	31 463	28 701	55 223	83 924	30 672	79 792	110 464	13 843	52 428	66 271
<b>Total</b>	<b>3 070 981</b>	<b>3 451 753</b>	<b>6 522 734</b>	<b>1 434 203</b>	<b>1 520 145</b>	<b>2 954 348</b>	<b>7 434 382</b>	<b>7 282 657</b>	<b>14 717 040</b>	<b>5 427 236</b>	<b>5 957 486</b>	<b>11 384 722</b>	<b>2 740 385</b>	<b>3 056 890</b>	<b>5 797 275</b>

**Table 11 (b): Provincial mid-year population estimates by age and sex, 2018 (concluded)**

Age	Mpumalanga			Northern Cape			North West			Western Cape			All provinces		
	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
<b>0–4</b>	253 987	254 231	508 218	63 447	63 664	127 111	219 152	221 040	440 192	306 960	303 122	610 082	2 970 302	2 958 649	5 928 951
<b>5–9</b>	245 047	245 739	490 786	62 739	62 719	125 458	208 561	210 895	419 456	299 444	296 000	595 444	2 941 029	2 921 052	5 862 081
<b>10–14</b>	214 500	217 228	431 728	57 565	59 146	116 711	186 448	190 789	377 237	261 066	262 738	523 803	2 623 611	2 628 874	5 252 485
<b>15–19</b>	193 714	198 222	391 936	50 733	51 740	102 473	158 816	160 895	319 710	240 075	242 399	482 475	2 360 947	2 372 843	4 733 790
<b>20–24</b>	197 598	202 329	399 926	49 747	49 093	98 840	157 605	158 010	315 616	267 944	270 865	538 809	2 490 594	2 528 566	5 019 161
<b>25–29</b>	217 058	211 210	428 268	55 328	51 048	106 376	178 774	172 329	351 103	312 446	307 156	619 602	2 756 645	2 730 307	5 486 952
<b>30–34</b>	218 292	203 853	422 145	57 327	50 199	107 526	183 672	169 795	353 467	324 900	314 188	639 088	2 709 109	2 636 133	5 345 242
<b>35–39</b>	176 448	164 909	341 357	47 784	41 528	89 312	158 696	141 281	299 977	276 923	267 216	544 139	2 226 629	2 154 507	4 381 136
<b>40–44</b>	129 407	129 892	259 300	36 730	33 872	70 601	126 795	114 610	241 405	226 605	214 695	441 300	1 739 843	1 709 343	3 449 186
<b>45–49</b>	99 316	111 607	210 924	30 739	31 399	62 138	104 718	99 943	204 661	197 058	197 941	394 999	1 402 166	1 490 204	2 892 370
<b>50–54</b>	76 181	97 369	173 550	24 224	28 571	52 795	85 365	87 146	172 511	157 008	180 706	337 714	1 084 700	1 337 881	2 422 581
<b>55–59</b>	62 890	76 798	139 688	20 883	24 493	45 376	75 339	72 526	147 865	128 682	151 010	279 693	919 710	1 142 656	2 062 367
<b>60–64</b>	49 238	61 460	110 697	17 463	21 317	38 780	56 872	59 679	116 551	97 872	118 970	216 842	724 416	940 674	1 665 090
<b>65–69</b>	35 317	46 776	82 093	12 963	17 042	30 006	37 605	45 032	82 637	71 159	89 612	160 771	526 610	727 015	1 253 626
<b>70–74</b>	21 547	31 223	52 770	8 564	12 668	21 232	23 733	33 157	56 890	47 029	64 108	111 137	338 535	515 429	853 963
<b>75–79</b>	13 027	22 613	35 640	5 490	8 968	14 457	14 190	24 597	38 787	28 067	39 545	67 612	201 946	351 076	553 023
<b>80+</b>	13 038	31 809	44 847	4 778	11 586	16 364	9 856	31 035	40 891	20 370	37 223	57 594	163 309	400 295	563 604
<b>Total</b>	<b>2 216 604</b>	<b>2 307 270</b>	<b>4 523 874</b>	<b>606 504</b>	<b>619 052</b>	<b>1 225 555</b>	<b>1 986 197</b>	<b>1 992 758</b>	<b>3 978 955</b>	<b>3 263 609</b>	<b>3 357 494</b>	<b>6 621 103</b>	<b>28 180 101</b>	<b>29 545 505</b>	<b>57 725 606</b>

**Figure 12: Population under 15 years of age****Figure 13: Proportion of elderly aged 60+**

## References

- Avenir Health (2016) Spectrum Version 5.47., [www.avenirhealth.org](http://www.avenirhealth.org).
- Dorrington R.E., Bradshaw D., Laubscher R., & Nannan, N, (2018) *Rapid mortality surveillance report 2016*, Cape Town: South African Medical Research Council. ISBN: 978-1-928340-30-0.
- National Department of Health, (2018). *The 2015 National Antenatal Sentinel HIV and Herpes Simplex Type-2 Prevalence Survey*, South Africa, National Department of Health.
- National Department of Health, (2017). *National Department of Health 2016/2017 Annual report, South Africa*, ISBN: 978-0-621-45639-4.
- Shisana O. Rehle T., Simbayi L., C, Zuma K., Jooste S., Jungi N., Labadarios D., Onoya D., et al (2014). *South African National HIV Prevalence Incidence and Behaviour Survey 2012*, Cape Town, HSRC Press,
- Simelela N. P., & Venter, W.D. F. (2014). *A brief history of South Africa's response to AIDS*. South African Medical Journal, March 2014, Vol 104, No. 3, Supplement 1, 249-251.
- Stats SA (2017). *Mortality and causes of death in South Africa, 2016: Findings from death notification*. PO309. 3, Pretoria.
- United Nations (1992). *Preparing Migration Data for Sub-national Population Projections*. Department of International and Economic and Social Affairs, United Nations, New York.
- USAID Health Policy Initiative (2009) *AIM: A Computer Program for Making HIV/AIDS Projections and Examining the Demographic and Social Impacts of AIDS*, New York.
- USAID (2009) *DemProj Version 4. A computer program for making population projections (The Spectrum system of policy models)*. New York.
- Willekens F., & Rogers A., (1978) *Spatial Population Analysis: Methods and Computer Programs*. International Institute for Applied System Analysis, Research Report, RR 78-18. Luxenberg, Austria.
- Willekens F., Por A., & Raquillet, R. (1978) *Entropy multi-proportional and quadratic techniques for inferring detailed migration patterns from aggregate data*. International Institute for Applied System Analysis, Working Paper WP-79-88. Luxenberg, Austria.

## Appendices

### Appendix 1: Mid-year population estimates by province, 2018

	<b>Population estimate</b>	<b>% of total population</b>
<b>Eastern Cape</b>	6 522 700	11,3
<b>Free State</b>	2 954 300	5,1
<b>Gauteng</b>	14 717 000	25,5
<b>KwaZulu-Natal</b>	11 384 700	19,7
<b>Limpopo</b>	5 797 300	10,0
<b>Mpumalanga</b>	4 523 900	7,8
<b>Northern Cape</b>	1 225 600	2,1
<b>North West</b>	3 979 000	6,9
<b>Western Cape</b>	6 621 100	11,5
<b>Total</b>	<b>57 725 600</b>	<b>100,0</b>

### Appendix 2: Demographic indicators, 2002–2018

Year	Crude birth rate	Life expectancy			Infant mortality rate	Under 5 mortality rate	Crude death rate	Rate of natural increase (%)
		Male	Female	Total				
2002	21,7	53,8	57,6	55,8	53,2	80,1	12,6	0,90
2003	21,8	53,3	56,6	55,0	52,8	79,5	13,2	0,86
2004	22,3	52,8	55,9	54,4	52,3	78,6	13,7	0,86
2005	22,8	52,4	55,5	54,0	51,8	78,0	14,1	0,88
2006	23,4	52,2	55,8	54,1	51,2	76,9	14,1	0,93
2007	23,9	53,1	56,6	54,9	50,4	75,5	13,6	1,03
2008	24,2	53,8	58,1	56,0	49,5	73,6	12,9	1,12
2009	24,1	55,1	59,6	57,4	45,8	68,9	12,1	1,20
2010	23,8	56,5	61,2	58,9	45,4	66,9	11,3	1,25
2011	23,6	57,4	62,3	59,9	44,8	60,8	10,8	1,28
2012	23,3	58,1	64,1	61,2	42,4	54,7	10,2	1,31
2013	22,9	58,7	64,8	61,8	39,8	50,2	10,0	1,29
2014	22,5	59,4	65,5	62,5	38,3	48,1	9,7	1,28
2015	22,1	59,7	65,9	62,8	38,4	48,0	9,5	1,26
2016	21,8	60,1	66,2	63,2	37,9	47,4	9,4	1,24
2017	21,3	60,7	67,1	63,9	37,0	46,1	9,2	1,21
2018	20,8	61,1	67,3	64,2	36,4	45	9,1	1,18

### Appendix 3: HIV prevalence estimates and number of people living with HIV, 2002–2018

Year	Prevalence (%)				Incidence (%)	HIV population
	Women 15–49	Adults 15–49	Youth 15–24	Total population	15–49	(in millions)
2002	17,40	15,16	6,74	9,29	1,88	4,25
2003	17,84	15,51	6,61	9,62	1,84	4,45
2004	18,17	15,76	6,50	9,90	1,80	4,62
2005	18,42	15,94	6,43	10,11	1,76	4,78
2006	18,64	16,10	6,33	10,31	1,72	4,92
2007	18,90	16,27	6,24	10,51	1,67	5,09
2008	19,21	16,50	6,16	10,74	1,63	5,27
2009	19,56	16,77	6,10	10,97	1,58	5,47
2010	19,93	17,07	6,03	11,23	1,52	5,69
2011	20,33	17,40	5,98	11,51	1,50	5,92
2012	20,77	17,76	5,94	11,79	1,48	6,17
2013	21,19	18,08	5,91	12,07	1,46	6,42
2014	21,50	18,32	5,80	12,29	1,34	6,65
2015	21,82	18,59	5,76	12,54	1,37	6,89
2016	22,09	18,80	5,71	12,77	1,33	7,13
2017	22,19	18,88	5,57	12,90	1,18	7,32
2018	22,32	18,99	5,49	13,06	1,21	7,52

### Appendix 4: Estimates of annual growth rates, 2002–2018

Period	Children 0–14	Youth 15–24	Elderly 60+	adults 25–59	Total
2002–2003	-0,86	3,02	1,21	1,54	1,04
2003–2004	-0,63	2,77	1,33	1,49	1,07
2004–2005	-0,32	2,27	1,48	1,58	1,12
2005–2006	0,01	1,44	1,70	1,90	1,20
2006–2007	0,36	1,02	1,93	2,09	1,32
2007–2008	0,64	0,70	2,22	2,26	1,43
2008–2009	0,84	0,42	2,33	2,42	1,52
2009–2010	0,96	0,21	2,75	2,50	1,58
2010–2011	1,15	-0,35	2,83	2,68	1,62
2011–2012	1,48	-0,88	3,04	2,71	1,65
2012–2013	1,58	-1,17	3,13	2,71	1,65
2013–2014	1,52	-1,08	3,22	2,63	1,65
2014–2015	1,47	-0,96	3,18	2,54	1,63
2015–2016	1,42	-0,82	3,14	2,43	1,61
2016–2017	1,65	-0,99	3,32	2,22	1,58
2017–2018	1,41	-0,74	3,21	2,20	1,55

## General information

Stats SA publishes approximately 300 different statistical releases each year. It is not economically viable to produce them in more than one of South Africa's 11 official languages; since the releases are used extensively not only locally but also by international economic and social-scientific communities. Stats SA releases are therefore published in English only.

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### Advance release calendar

An advance release calendar is disseminated on [www.statssa.gov.za](http://www.statssa.gov.za)

### Stats SA products

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

National Library of South Africa	Pretoria Division
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Central Reference Library	Nelspruit
Central Reference Collection	Kimberley
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Stats SA also provides a subscription service.

### Electronic services

A large range of data is available via online services and CD. For more details about our electronic data services contact 012 310 8600/8390/8351/4892/8496/8095.

Forthcoming issue	Issue	Expected release date
Mid-year population estimates	N/A	July 2019

You can visit us on the internet at: [www.statssa.gov.za](http://www.statssa.gov.za)

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