

COVID-19 WEEKLY EPIDEMIOLOGY BRIEF



NATIONAL INSTITUTE FOR COMMUNICABLE DISEASES

Division of the National Health Laboratory Service

SOUTH AFRICA WEEK 19 2020

CUMULATIVE DATA FROM



CASES

7 220
IN TOTAL

2 224
THIS WEEK



TESTS

257 541
IN TOTAL

72 254
THIS WEEK



PERSONS

12.3
INCIDENCE RISK*

38
MEDIAN AGE

PROVINCES AT A GLANCE

NORTH WEST

CASES	35 IN TOTAL	2.8 /100,000*
TESTS	3 565 IN TOTAL	282 /100,000**

NORTHERN CAPE

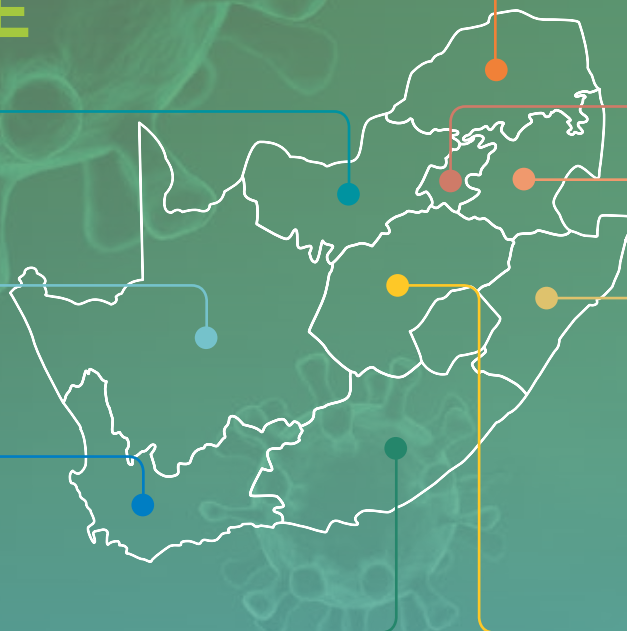
CASES	25 IN TOTAL	0.6 /100,000*
TESTS	1 951 IN TOTAL	48 /100,000**

WESTERN CAPE

CASES	3 362 IN TOTAL	49.1 /100,000*
TESTS	53 967 IN TOTAL	788 /100,000**

EASTERN CAPE

CASES	814 IN TOTAL	12.1 /100,000*
TESTS	24 835 IN TOTAL	369 /100,000**



LIMPOPO

CASES	39 IN TOTAL	0.7 /100,000*
TESTS	5 626 IN TOTAL	94 /100,000**

GAUTENG

CASES	1 661 IN TOTAL	10.9 /100,000*
TESTS	85 134 IN TOTAL	560 /100,000**

MPUMALANGA

CASES	53 IN TOTAL	1.2 /100,000*
TESTS	6 691 IN TOTAL	145 /100,000**

KWAZULU-NATAL

CASES	1 106 IN TOTAL	9.8 /100,000*
TESTS	45 955 IN TOTAL	407 /100,000**

FREE STATE

CASES	125 IN TOTAL	4.3 /100,000*
TESTS	12 634 IN TOTAL	438 /100,000**

* Incidence risk - cases per 100,000 persons

** Tests per 100,000 persons

Note: 17 183 tests have not been allocated to a province

SUMMARY

Overview of report

Disease surveillance is a core function of the National Institute for Communicable Diseases (NICD), a Division of the National Health Laboratory Service (NHLS). This report summarises information from several surveillance systems that are used to monitor the coronavirus disease 2019 (COVID-19) pandemic in South Africa. This report is based on data collected up to 03 May 2020 (week 19 of 2020). Note: COVID-19 is the name of the disease and SARS-CoV-2 is the name of the virus.

Highlights

- As of 23:59 on 03 May 2020, a total of 7220 laboratory-confirmed cases of COVID-19 cases had been detected in South Africa (2224 new cases over the last week).
- In the last week the number of cases reported from the public sector were more than those reported from private sector. This may reflect the increased access to testing in the public sector as well as spread of COVID-19 cases.
- Laboratory polymerase chain reaction (PCR) testing for SARS-CoV-2 has steadily increased week-on-week with intensive contact tracing/ testing and targeted community symptom screening/ referral for testing. In the last week, an additional 72 254 tests were performed.
- Western Cape Province has the highest total number of cases. The incidence risk (cumulative incidence) was highest in the Western Cape Province (49.1 cases per 100 000 persons; 95% confidence interval [CI] 47.5-50.8) followed by Eastern Cape Province (12.1 cases per 100 000 persons; 95% CI 11.3-13.0) and Gauteng Province (9.1 cases per 100 000 persons; 95% CI 8.6-9.6). In the past 2 weeks Eastern Cape Province reported higher cumulative incidence risk than Gauteng and KwaZulu-Natal.
- The median age of laboratory-confirmed cases was 38 years (interquartile range [IQR], 28-50 years). Children aged <10 years accounted for 3% (215/7152). The incidence risk was highest among males in the 75-79 age group (23.7 cases per 100 000 persons).

72 254
TESTS
PERFORMED
THIS WEEK

3%
OF CASES ARE
CHILDREN
UNDER 10

23.7
/100 000
HIGHEST
INCIDENCE RISK
AMONG MALES IN
75-79 AGE GROUP

LABORATORY-CONFIRMED CASES OF COVID-19 IN SOUTH AFRICA

Methods

Testing for SARS-CoV-2 began on 28 January 2020 at the NICD and after the first case was confirmed in early March 2020, testing was expanded to a larger network of private and NHLS laboratories. Respiratory specimens were submitted from persons under investigation (PUI). Initially, tested individuals were those who had travelled to countries with COVID-19 transmission but the PUI definition was changed over time. Targeted community symptom screening and referral for PCR testing was implemented in April 2020. Contacts of cases were traced and tested if symptomatic. However, in some provinces, asymptomatic contacts were tested. Laboratories used any one of several in-house and commercial PCR assays to test for the presence of SARS-CoV-2 RNA. Test results were automatically fed into a data warehouse. We excluded specimens collected outside South Africa. Date of specimen receipt in the laboratory was used when date of specimen collection was missing. A case of COVID-19 was defined as any person, resident in South Africa, with a first positive SARS-CoV-2 PCR test. We used 2019 mid-year population estimates from Statistics South Africa to calculate the incidence risk or cumulative incidence (expressed as cases per 100 000 persons). Outcomes of cases (i.e. deaths or recoveries) were not collected through this surveillance system.

National and provincial trends

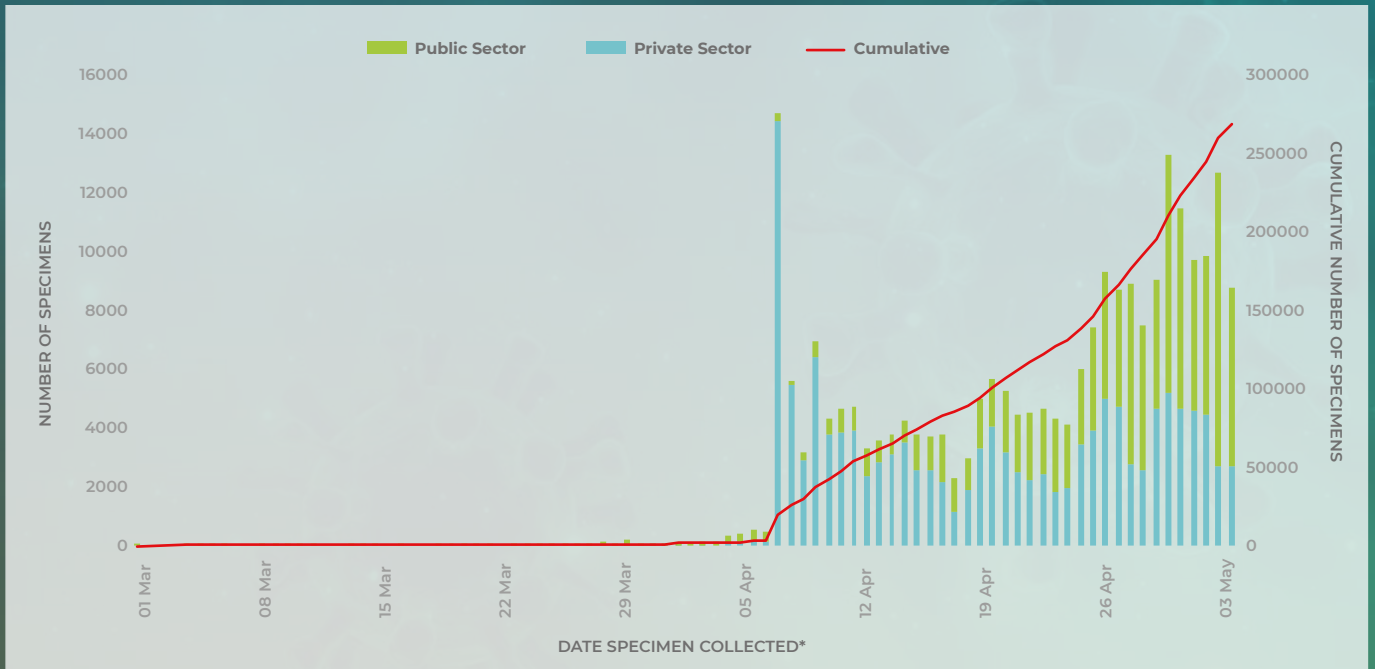
As of 03 May 2020, 257 541 tests were performed. In total, 7220 cases were detected in South Africa (2224 new cases since last report) (Figure 1). The overall proportion positive remains at 3%. Cases have been reported from all nine provinces, with a majority reported from Western Cape (363/7239, 46%), followed by Gauteng (1663/7239, 23%), KwaZulu-Natal (1111/7239, 15%) and Eastern Cape (822/7239, 12%) (Table 1). Western Cape had the highest incidence risk (49.1 cases per 100 000 persons) followed by Eastern Cape (12.1 per 100 000 persons) and Gauteng (10.9. per 100 000 persons). Northern Cape had the lowest incidence risk (0.6 cases per 100 000 persons). There was a variation in cumulative incidence risk by province over time, with Eastern Cape Province reporting higher incidence risk than Gauteng and KwaZulu-Natal Provinces in the past two weeks (Figure 4). This is partly explained by testing differences by province (Table 1). The number of tests performed per 100 000 persons ranged from 48 in the Northern Cape Province to 788 in the Western Cape Province.

3%
OVERALL
PROPORTION
POSITIVE

49.1
/100 000
HIGHEST
INCIDENCE RISK
IN THE
WESTERN CAPE

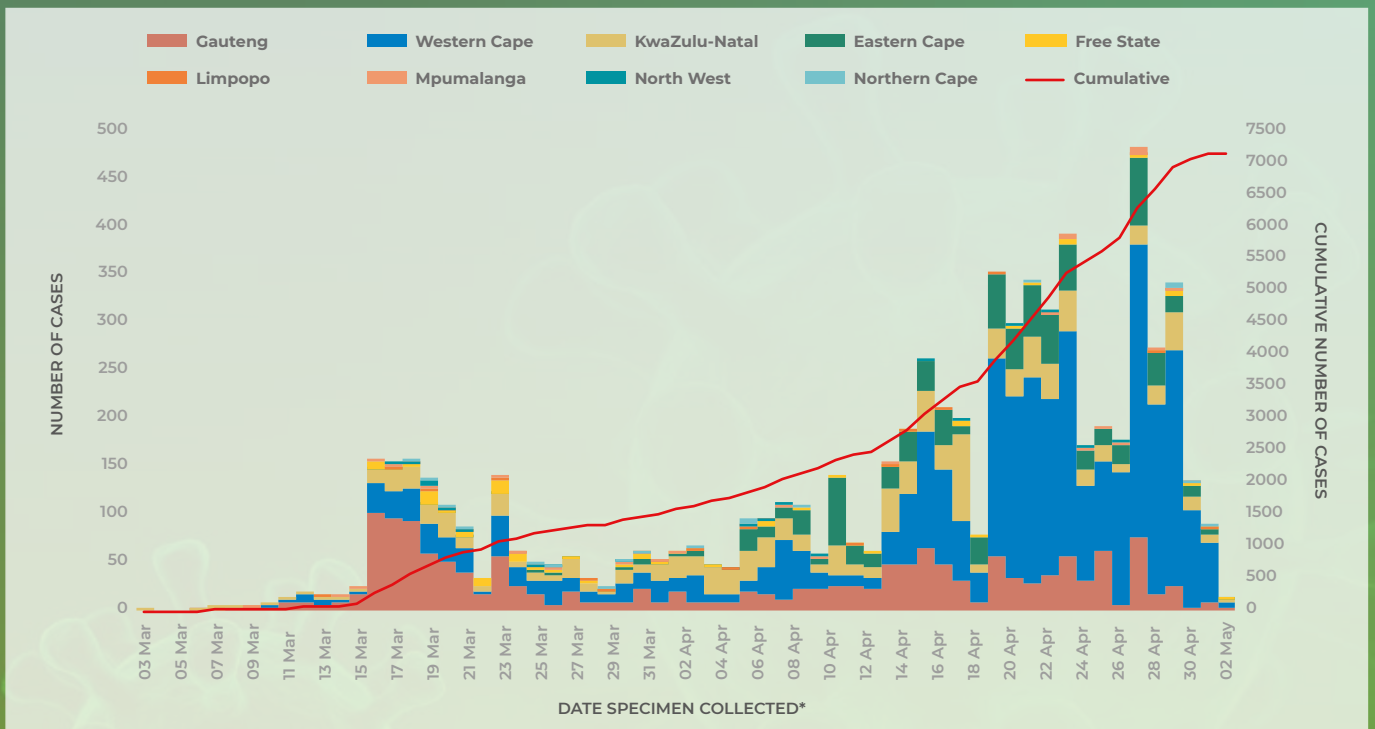
COVID-19 WEEKLY EPIDEMIOLOGY BRIEF

WEEK 19 2020 | LABORATORY-CONFIRMED CASES OF COVID-19 IN SOUTH AFRICA



*Date of specimen receipt where date of specimen collection was missing

Figure 1. Number and cumulative number of specimens tested for SARS-CoV-2, by testing laboratory sector and date of specimen collection, South Africa, 31 January 2020-03 May 2020 (n=257541)

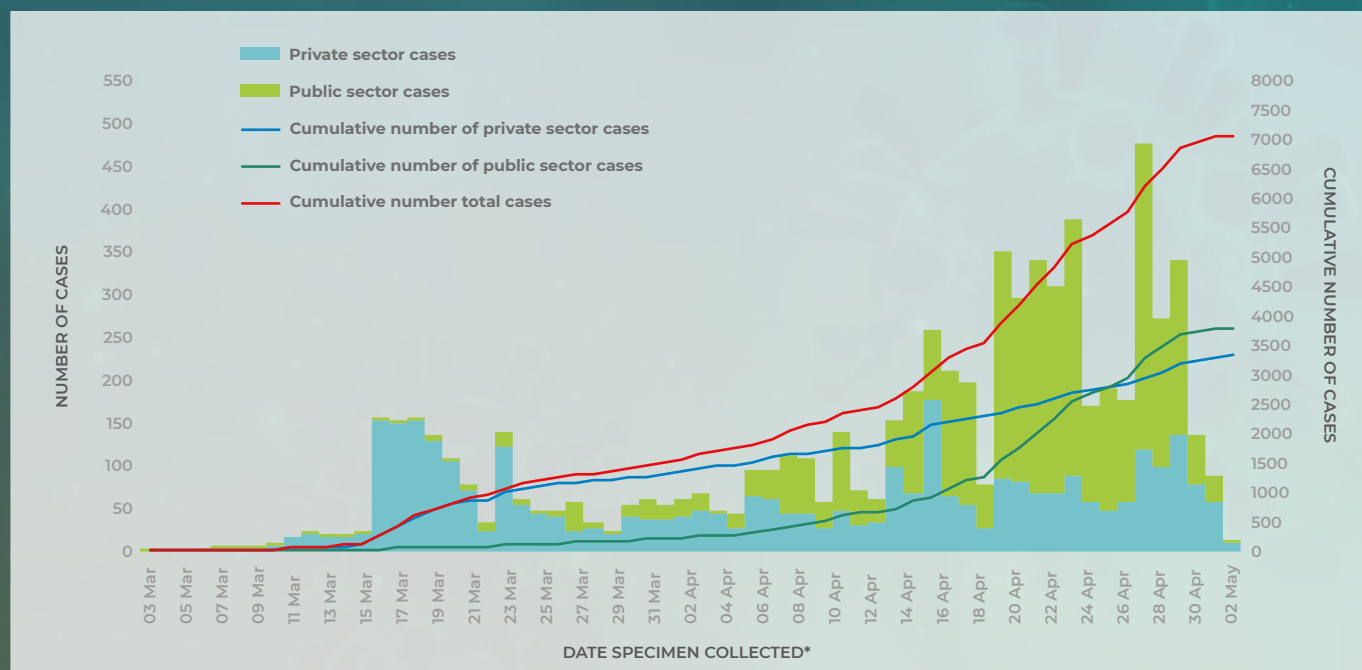


*Date of specimen receipt where date of specimen collection was missing

Figure 2. Number and cumulative number of laboratory-confirmed cases of COVID-19 by date of specimen collection, South Africa, 4 March-3 May 2020 (n=7220)

COVID-19 WEEKLY EPIDEMIOLOGY BRIEF

WEEK 19 2020 | LABORATORY-CONFIRMED CASES OF COVID-19 IN SOUTH AFRICA



*Date of specimen receipt where date of specimen collection was missing

Figure 3. Number and cumulative number of laboratory-confirmed cases of COVID-19, by testing laboratory sector and date of specimen collection, South Africa, 4 March -27 March 2020 (n=7220)

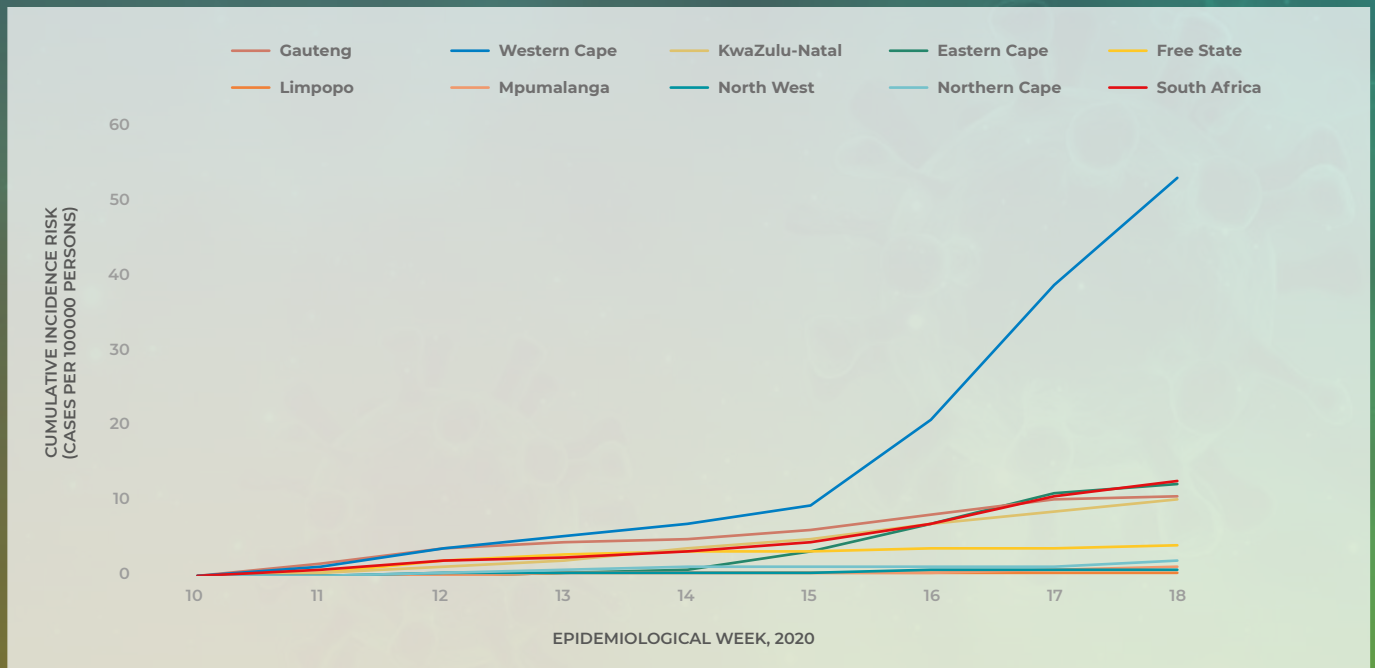
Table 1. Number and incidence risk of laboratory-confirmed cases of COVID-19 and testing per 100 000 persons by province, South Africa, 4 March-3 May 2020 (n=7220)

Province	Cases (n)	Proportion (n/total) (95% confidence interval)	Population in mid-2019* (n)	Incidence risk (cases per 100 000 persons)	Tests per 100 000 persons
Eastern Cape	814	11.3 (11.0-12.0)	6 712 276	12.1 (11.3-13.0)	369
Free State	125	1.7 (1.4-2.1)	2 887 465	4.3 (3.6-5.2)	438
Gauteng	1661	23.0 (22.0-24.0)	15 176 115	10.9 (10.4-11.5)	560
KwaZulu-Natal	1106	15.3 (14.5-16.2)	11 289 086	9.8 (9.2-10.4)	407
Limpopo	39	0.5 (0.4-0.7)	5 982 584	0.7 (0.5-0.9)	94
Mpumalanga	53	0.7 (0.5-1.0)	4 592 187	1.2 (0.9-1.5)	145
North West	35	0.5 (0.3-0.7)	4 027 160	2.8 (1.9-3.9)	282
Northern Cape	25	0.3 (0.2-0.5)	1 263 875	0.6 (0.4-0.9)	48
Western Cape	3362	46.6 (45.4-47.7)	6 844 272	49.1 (47.5-50.8)	788
South Africa	7220	100	58 775 020	12.3 (12.0-12.6)	438

*Statistics South Africa 2019 mid-year population estimates

COVID-19 WEEKLY EPIDEMIOLOGY BRIEF

WEEK 19 2020 | LABORATORY-CONFIRMED CASES OF COVID-19 IN SOUTH AFRICA



*Date of specimen receipt where date of specimen collection was missing

Figure 4. Cumulative incidence risk of PCR-confirmed COVID-19 by province and epidemiologic week, South Africa, 3 March - 3 May 2020 (n=7220)

CHARACTERISTICS OF CASES BY AGE AND SEX

The median age of cases was 38 years (interquartile range [IQR], 28-50 years). The largest proportion of cases was in the 30-34-year age group (991/7152, 14%) followed by the 35-39-year age group (942/7152, 13%) (Figure 5). The incidence risk was highest among those in the 50-54-year age group (22.5 cases per 100 000 persons), followed by those in the 45-49-year age group (cases per 100 000 persons), with the lowest incidence risk in the 5-9-year age group (1.7 cases per 100 000 persons). (Figure 6 and Table 2). Fifty-eight per cent (4136/7145) (95% CI, 57-59%) of the cases were female. The overall incidence risk was higher among females than males (13.7 cases per 100 000 persons [95%CI 13.3-14.2] versus 10.5 cases per 100 000 persons [95% CI 10.1-10.9]). However, this varied by age group with the peak incidence risk among females aged 35-39 years and males aged 75-79 years (Figure 6). This may also be partially explained by varying testing practices by age and sex (data not shown).

38

THE MEDIAN AGE OF CASES

14%

THE HIGHEST PROPORTION OF CASES IS AGE 35-39

COVID-19 WEEKLY EPIDEMIOLOGY BRIEF

WEEK 19 2020 | CHARACTERISTICS OF CASES BY AGE AND SEX



Figure 5. Number of laboratory-confirmed cases of COVID-19 by age group and sex, South Africa, 4 March-3 May 2020 (n=7220)



Figure 6. Incidence risk by age group and sex, South Africa, 4 March 2020-3 May 2020 (n=7152, age missing for 68 cases)

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Table 2. Number of cases and incidence risk by age group, South Africa, 4 March 2020-3 May 2020

Age group (years)	Cases (n)	Population in mid-2019*, n	Incidence risk (cases per 100 000 persons)
0-4	118	5 733 946	2.1
5-9	97	5 737 439	1.7
10-14	141	5 427 902	2.6
15-19	194	4 660 002	4.2
20-24	571	4 914 186	11.6
25-29	888	5 528 571	16.1
30-34	991	5 537 963	17.9
35-39	942	4 571 175	20.6
40-44	754	3 585 408	21.0
45-49	665	3 045 617	21.8
50-54	570	2 535 048	22.5
55-59	431	2 192 512	19.7
60-64	281	1 784 476	15.7
65-69	199	1 370 121	14.5
70-74	141	949 812	14.8
75-79	90	597 874	15.1
≥80	79	602 969	13.1
Unknown	68		
Total	7220	58 775 022	12.3

*Statistics South Africa 2019 mid-year population estimates