

# COVID-19 WEEKLY EPIDEMIOLOGY BRIEF



NATIONAL INSTITUTE FOR COMMUNICABLE DISEASES

Division of the National Health Laboratory Service

SOUTH AFRICA WEEK 20 2020

## CUMULATIVE DATA FROM



## PROVINCES AT A GLANCE

### NORTH WEST



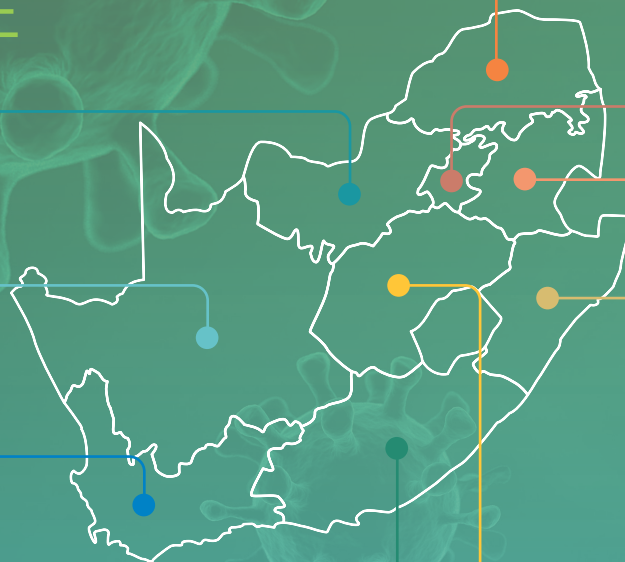
### NORTHERN CAPE



### WESTERN CAPE



### EASTERN CAPE



### LIMPOPO



### GAUTENG



### MPUMALANGA



### KWAZULU-NATAL



### FREE STATE



\* Incidence risk - cases per 100,000 persons

\*\* Tests per 100,000 persons

Note: 24 377 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 16 May 2020 (week 20 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 16 May 2020, a total of 15 514 laboratory-confirmed COVID-19 cases had been detected in South Africa. Of these 5 499, almost double the number of new cases reported last week, were reported in this reporting period. On the 1st May, South Africa moved from stage 5 to 4 of lock-down, this may be associated with increased transmission and the number of cases reported.
- The public-sector continues to report more cases than the private-sector. This may reflect the ongoing increasing access to testing in the public sector as well as spread of COVID-19 cases.
- Laboratory PCR testing for SARS-CoV-2 continues to increase steadily week-on-week with continued intensive contact tracing/ testing and targeted community symptom screening/ referral for testing. In the last week, an additional 119 537 tests were performed, this was 35 742 more tests than the number of tests conducted in the previous week.
- Western Cape Province continues to report the highest total number of cases, 60% (9 293/15 514) of total cases, an increase of 9% since the last report. The incidence risk (cumulative incidence) was highest in the Western Cape Province (135.8 cases per 100 000 persons; 95% confidence interval [CI] 133.0-138.6) followed by Eastern Cape (28.8 per 100 000 persons; 95% CI 27.6-30.2) and Gauteng (15.4 per 100 000 persons; 95%CI 14.7-16.0). In the last week incidence increased by 60.3, 10.6 and 2.5 persons per 100 000 persons in Western Cape, Eastern Cape and Gauteng, respectively.
- The median age of laboratory-confirmed cases was 37 years (interquartile range [IQR], 28-49 years). Children aged <10 years accounted for 3.0% (463/15450). The incidence risk was highest among females in the 35-44 years age group (57.3 cases per 100 000 person).

119 537  
TESTS  
PERFORMED  
THIS WEEK

57%  
OVERALL CASES  
WERE FEMALE

26.4  
/100 000  
OVERALL  
INCIDENCE RISK



## 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 16 May 2020, 460 873 tests were performed (119 537 additional test since last report). In total, 15 514 cases were detected in South Africa (5 499 new cases since last report) (Figure 1). The overall proportion positive remains at 3%. Western Cape Province continues to report the highest proportion of cases (9 293/15 514, 60%), followed by Gauteng 2 329/15 514, 15 %) and Eastern Cape (1 936/15 514, 12%) (Table 1). Western Cape had the highest incidence risk (135.8 cases per 100 000 persons) followed by Eastern Cape (28.8 per 100 000 persons) and Gauteng (15.4 per 100 000 persons). Northern Cape still had the lowest incidence risk (0.9 cases per 100 000 persons). The cumulative incidence risk for the country was 26.4 per 100 000 persons. However, the cumulative incidence risk varied by province over time (Figure 4). This is partly explained by testing differences by province (Table 1). The number of tests performed per 100 000 persons ranged from 110 in the Northern Cape Province to 1 479 in the Western Cape Province.

3%

OVERALL  
PROPORTION  
POSITIVE

30-34  
YEAR AGE  
GROUP

HAD THE LARGEST  
PROPORTION OF  
CASES

# COVID-19 WEEKLY EPIDEMIOLOGY BRIEF

WEEK 20 2020 | LABORATORY-CONFIRMED CASES OF COVID-19 IN SOUTH AFRICA

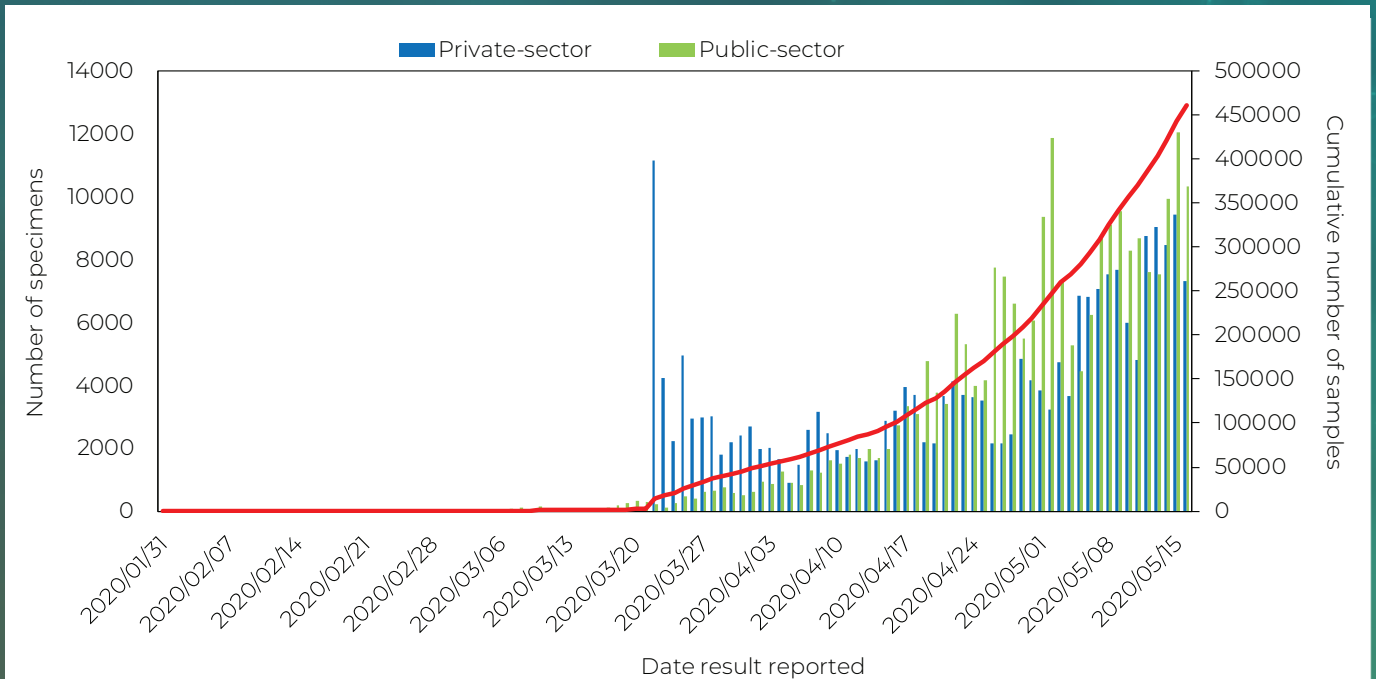
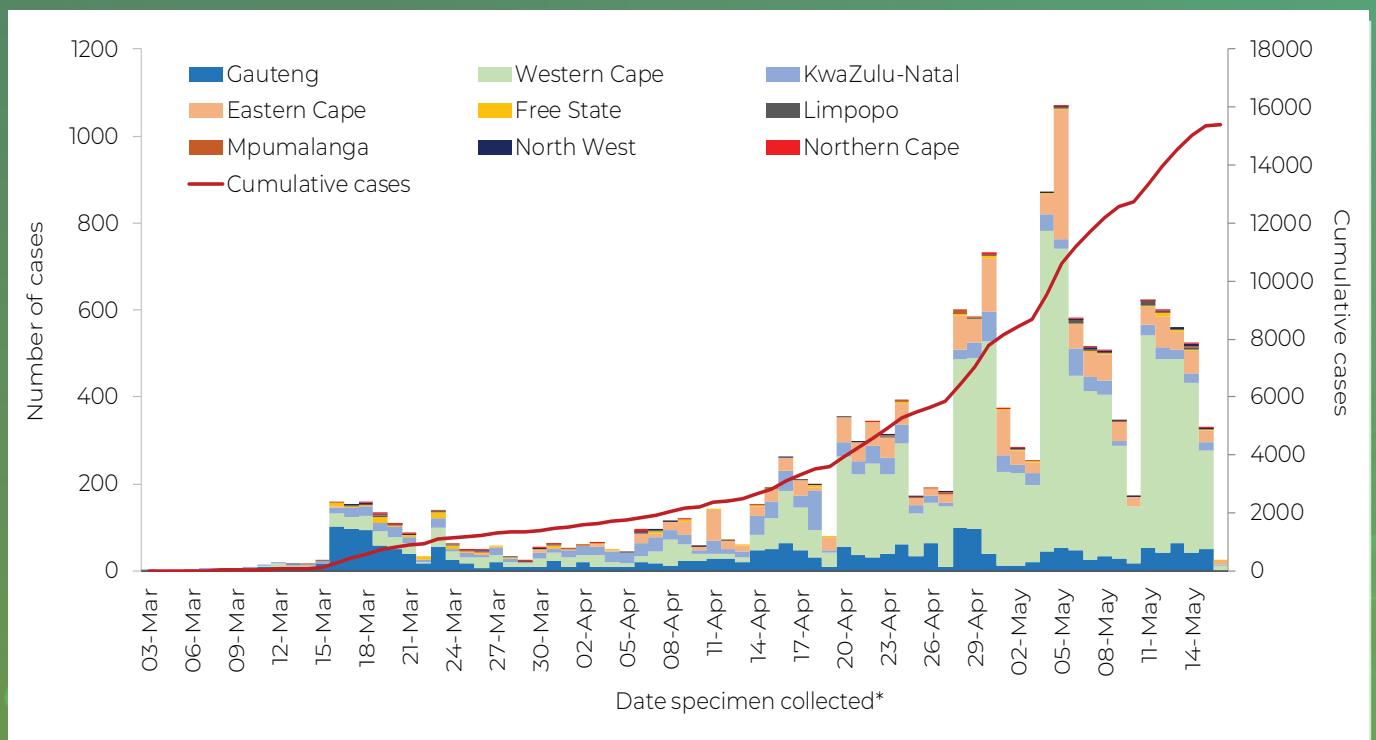


Figure 1. Number and cumulative number of specimens tested for SARS-CoV-2, by testing laboratory sector and date of specimen collection, South Africa, 31 January 2020-16 May 2020 (n=460 873)

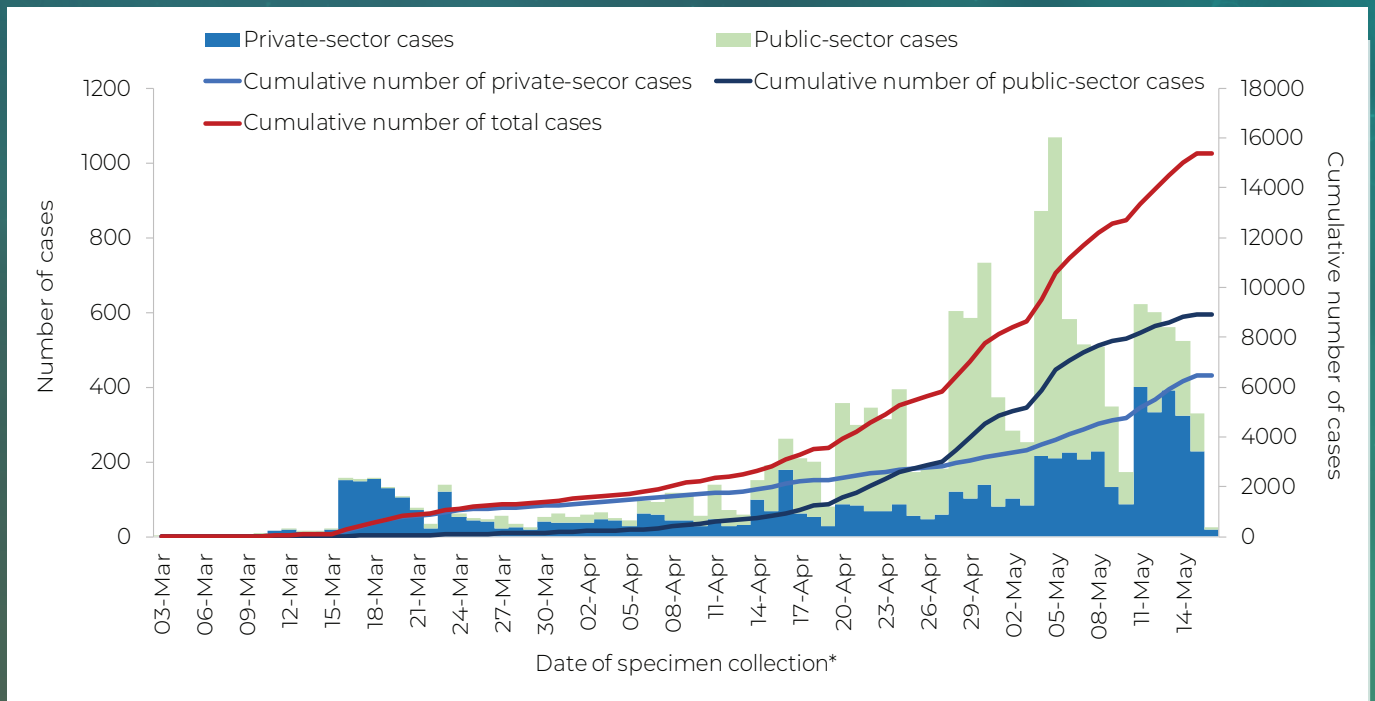


\*Date of specimen receipt where date of specimen collection was missing

Figure 2. Number and cumulative number of laboratory-confirmed cases of COVID-19 by date of specimen collection, South Africa, 3 March-16 May 2020 (n=15 396, 118 missing date of specimen collection)

# COVID-19 WEEKLY EPIDEMIOLOGY BRIEF

WEEK 20 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, 3 March-16 May 2020 (n 15 396, 118 missing date of specimen collection)

Table 1. Number and incidence risk of laboratory-confirmed cases of COVID-19 and testing per 100 000 persons by province, South Africa, 3 March-16 May 2020 (n=15514)

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	1936	12.5 (11.9-13.0)	6 712 276	28.8 (27.6-30.2)	690
Free State	158	1.0 (0.9-1.2)	2 887 465	5.5 (4.7-6.4)	768
Gauteng	2329	15.0 (14.5-15.6)	15 176 115	15.4 (14.7-16.0)	996
KwaZulu-Natal	1542	9.9 (9.5-10.4)	11 289 086	13.7 (12.0-14.4)	705
Limpopo	78	0.5 (0.4-0.6)	5 982 584	0.7 (0.5-0.9)	166
Mpumalanga	71	0.6 (0.4-0.6)	4 592 187	1.2 (0.9-1.5)	294
North West	70	0.4 (0.4-0.6)	4 027 160	5.5 (4.3-7.0)	644
Northern Cape	37	0.2 (0.2-0.3)	1 263 875	0.9 (0.6-1.3)	110
Western Cape	9293	60.0 (59.1-60.7)	6 844 272	135.8 (133.0-138.6)	1479
South Africa	15514	100	58 775 020	26.4 (26.0-26.8)	784

\*Statistics South Africa 2019 mid-year population estimates



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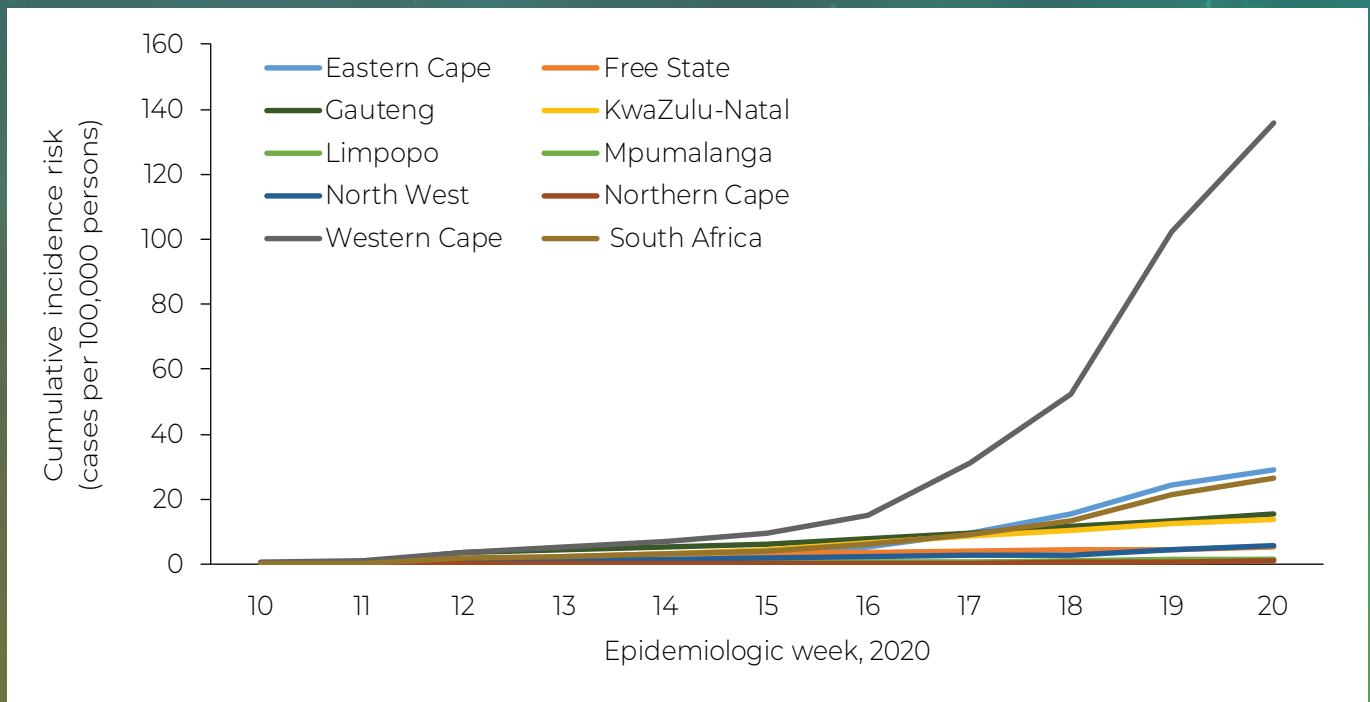


Figure 4. Cumulative incidence risk of PCR-confirmed COVID-19 by province and epidemiologic week, South Africa, 3 March -16 May 2020 (n=15 514)

## CHARACTERISTICS OF CASES BY AGE AND SEX

The median age of cases was 37 years (interquartile range [IQR], 29-49 years). The largest proportion of cases was in the 30-34-year age group (2199/15450, 15%) followed by the 35-39-year age group (2164/15450, 14%) (Figure 5). The incidence risk was highest among those in the 40-44 year age group (48.0 cases per 100 000 persons), followed by those in the 35-39-year age group (47.3 cases per 100 000 persons), with the lowest incidence risk in the 5-9-year age group (3.5 cases per 100 000 persons). (Figure 6 and Table 2). Fifty-seven per cent (8 878/15 514) (95% CI, 56- 58 %) of the cases were female. The overall incidence risk was higher among females than males (29.5 cases per 100 000 persons [95%CI 28.9-30.1] versus 22.5 cases per 100 000 persons [95% CI 21.9-23.1]). However, this varied by age group with the peak incidence risk among females aged 35-44 years and males aged 50-54 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 20 2020 | CHARACTERISTICS OF CASES BY AGE AND SEX

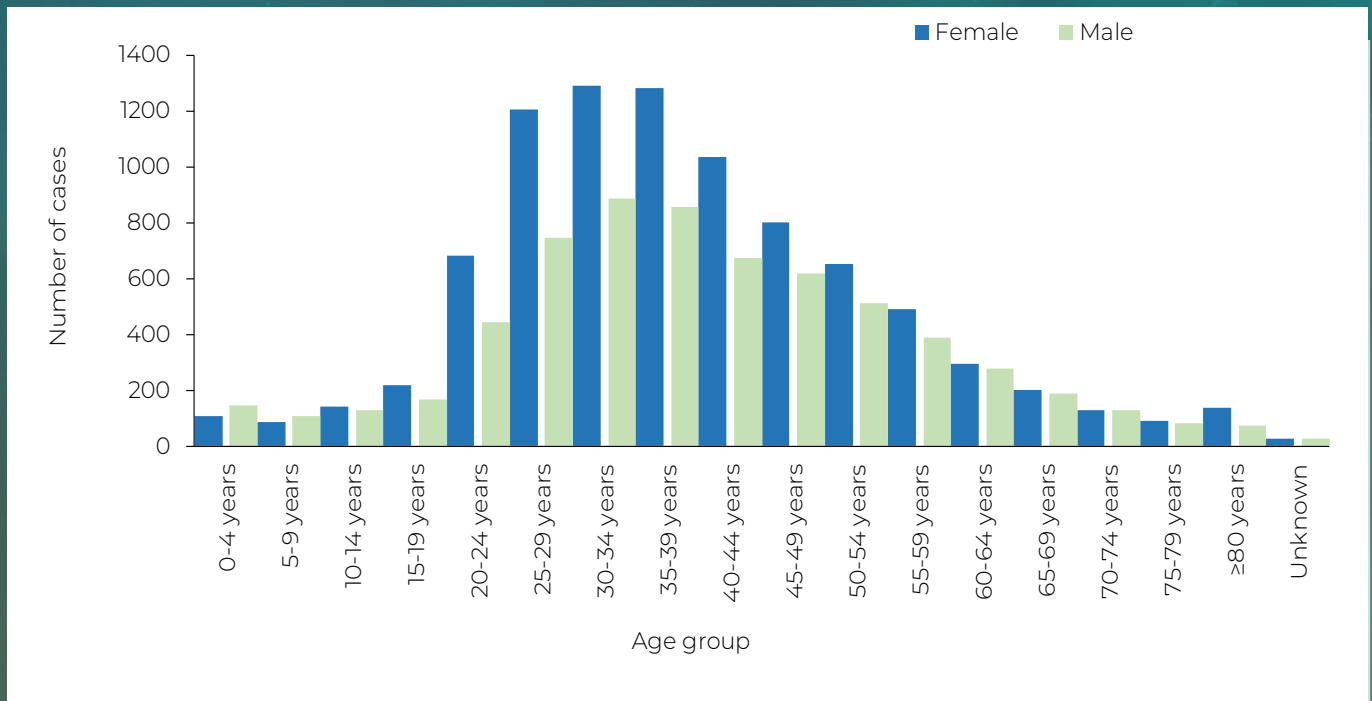


Figure 5. Number of laboratory-confirmed cases of COVID-19 by age group and sex, South Africa, 3 March-16 May 2020 (n=15 514)

Table 2. Number of cases and incidence risk by age group, South Africa, 3 March 2020-16 May 2020

Age group (years)	Cases (n)	Population in mid-2019*, n	Incidence risk (cases per 100 000 persons)
0-4	260	5 733 946	4.5
5-9	203	5 737 439	3.5
10-14	280	5 427 902	5.2
15-19	395	4 660 002	8.5
20-24	1143	4 914 186	23.3
25-29	1972	5 528 571	35.7
30-34	2199	5 537 963	39.7
35-39	2164	4 571 175	47.3
40-44	1721	3 585 408	48.0

# COVID-19 WEEKLY EPIDEMIOLOGY BRIEF

WEEK 20 2020 | CHARACTERISTICS OF CASES BY AGE AND SEX

45-49	1431	3 045 617	47.0
50-54	1174	2 535 048	46.3
55-59	886	2 192 512	40.4
60-64	578	1 784 476	32.4
65-69	391	1 370 121	28.5
70-74	263	949 812	27.7
75-79	175	597 874	29.3
≥80	215	602 969	35.7
Unknown	64		
Total	15514	58 775 022	26.4

\*Statistics South Africa

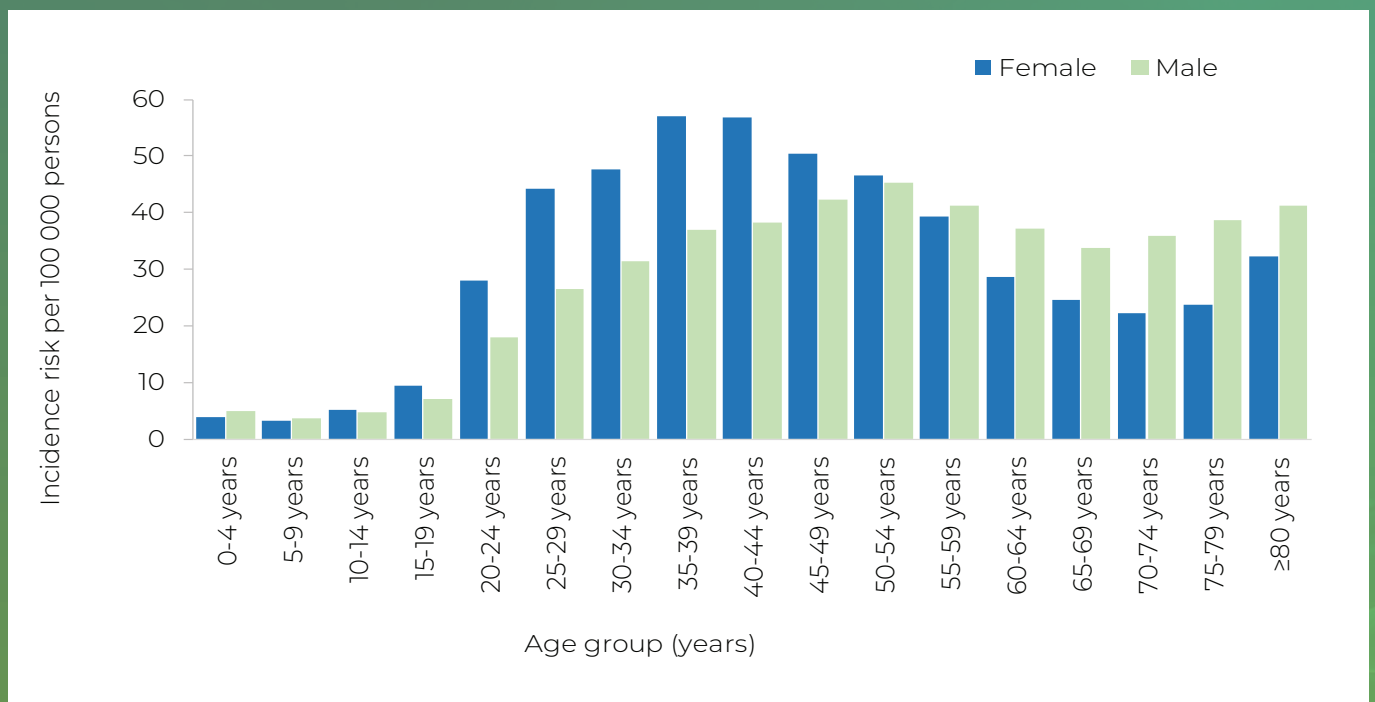


Figure 6. Incidence risk by age group and sex, South Africa, 4 March 2020-16 May 2020 (n=15 450, age missing for 64 cases)