

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

10 015
IN TOTAL

2 795
THIS WEEK



TESTS

341 336
IN TOTAL

83 795
THIS WEEK



PERSONS

17.1
INCIDENCE RISK*

37
MEDIAN AGE

PROVINCES AT A GLANCE

NORTH WEST

CASES	45 IN TOTAL	3.6 /100,000*
TESTS	5 213 IN TOTAL	412 /100,000**

NORTHERN CAPE

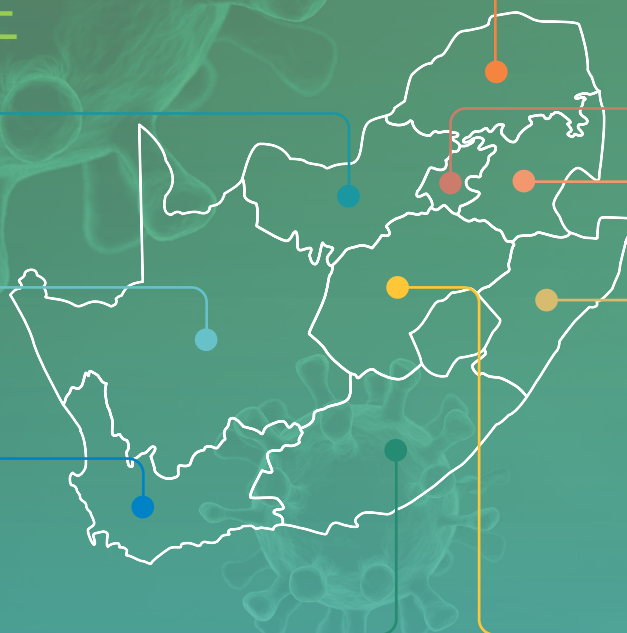
CASES	29 IN TOTAL	0.7 /100,000*
TESTS	3 092 IN TOTAL	77 /100,000**

WESTERN CAPE

CASES	5 168 IN TOTAL	75.5 /100,000*
TESTS	70 038 IN TOTAL	1 023 /100,000**

EASTERN CAPE

CASES	1 218 IN TOTAL	18.2 /100,000*
TESTS	34 032 IN TOTAL	507 /100,000**



LIMPOPO

CASES	54 IN TOTAL	0.9 /100,000*
TESTS	7 783 IN TOTAL	130 /100,000**

GAUTENG

CASES	1 952 IN TOTAL	12.9 /100,000*
TESTS	111 630 IN TOTAL	736 /100,000**

MPUMALANGA

CASES	61 IN TOTAL	1.3 /100,000*
TESTS	9 823 IN TOTAL	214 /100,000**

KWAZULU-NATAL

CASES	1 353 IN TOTAL	12.0 /100,000*
TESTS	61 801 IN TOTAL	547 /100,000**

FREE STATE

CASES	135 IN TOTAL	4.7 /100,000*
TESTS	17 231 IN TOTAL	597 /100,000**

* Incidence risk - cases per 100,000 persons

** Tests per 100,000 persons

Note: 20 693 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 09 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 09 May 2020, a total of 10015 laboratory-confirmed COVID-19 cases had been detected in South Africa. Of these 2795, 28% of total cases to date, were reported in this reporting period. On 1 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.
- Public-sector continues to report more cases than private-sector. This may reflect the increased 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 83 795 tests were performed, this was 11 541 more tests than the number of tests conducted in the previous week.
- Western Cape Province continues to report the highest total number of cases, 51.6% (5168/10015) of total cases, an increase of 5% since the last report. The incidence risk (cumulative incidence) was highest in the Western Cape Province (75.5 cases per 100 000 persons; 95% confidence interval [CI] 73.5-77.6) followed by Eastern Cape (18.2 per 100 000 persons 95% CI 17.1-19.2) and Gauteng (12.9 per 100 000 persons; 95%CI 12.3-13.5). In the last week incidence increased by 26.4, 6.1 and 3.8 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 3.1% (309/9953). The incidence risk was highest among males in the 75-79 age group (31.2 cases per 100 000 person).

83 795
TESTS
PERFORMED
THIS WEEK

58%
OVERALL CASES
WERE FEMALE

17.1
/100 000
OVERALL RISK
INCIDENCE

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

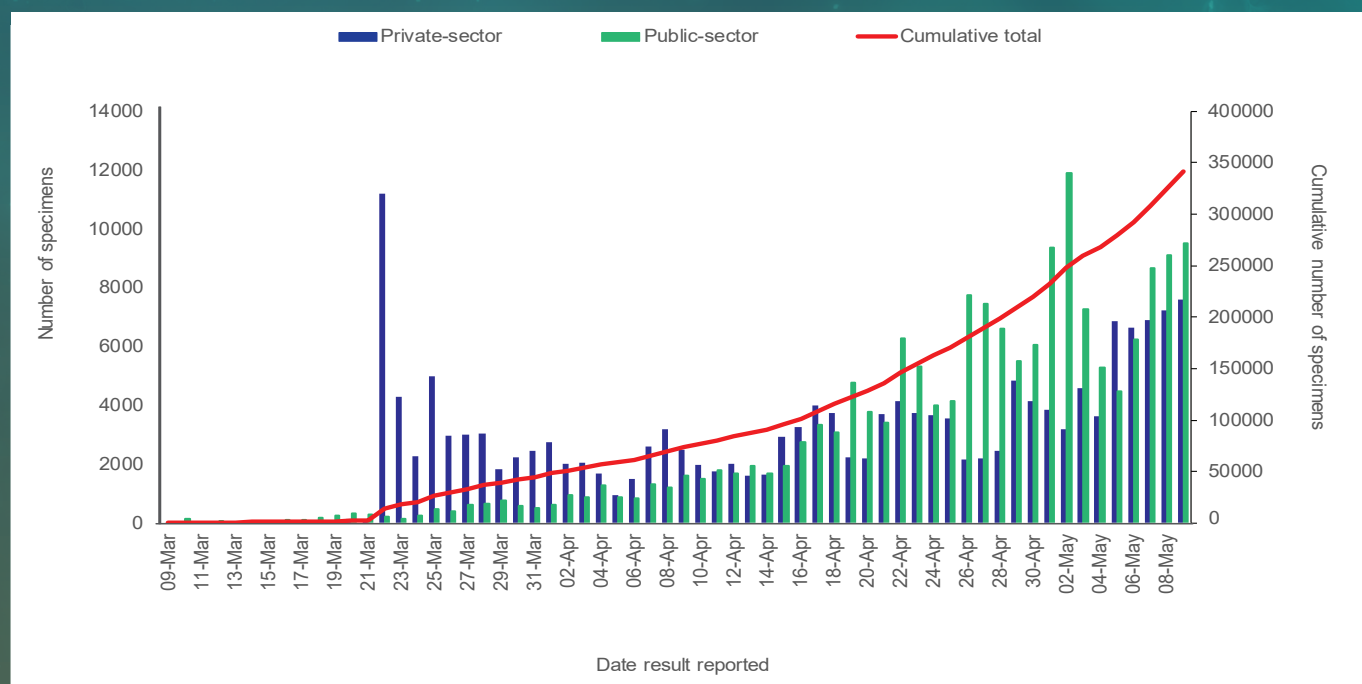
As of 09 May 2020, 341 336 tests were performed (83 795 additional test since last report). In total, 10015 cases were detected in South Africa (2 795 new cases since last report) (Figure 1). The overall proportion positive remains at 3%. Western Cape Province continues to report the highest proportion of cases (4809/10015, 52%), followed by Gauteng 1910/10015, 20%) and KwaZulu-Natal (1308/10015, 14%) (Table 1). Western Cape had the highest incidence risk (75.5 cases per 100 000 persons) followed by Eastern Cape (18.2 per 100 000 persons) and Gauteng (12.9. per 100 000 persons). Northern Cape had the lowest incidence risk (0.7 cases per 100 000 persons). The cumulative incidence risk for the country was 17.1 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 77 in the Northern Cape Province to 1023 in the Western Cape Province.

3%
OVERALL
POSITIVE
PROPORTION

75.5
/100 000
HIGHEST
INCIDENCE RISK
IN THE
WESTERN CAPE

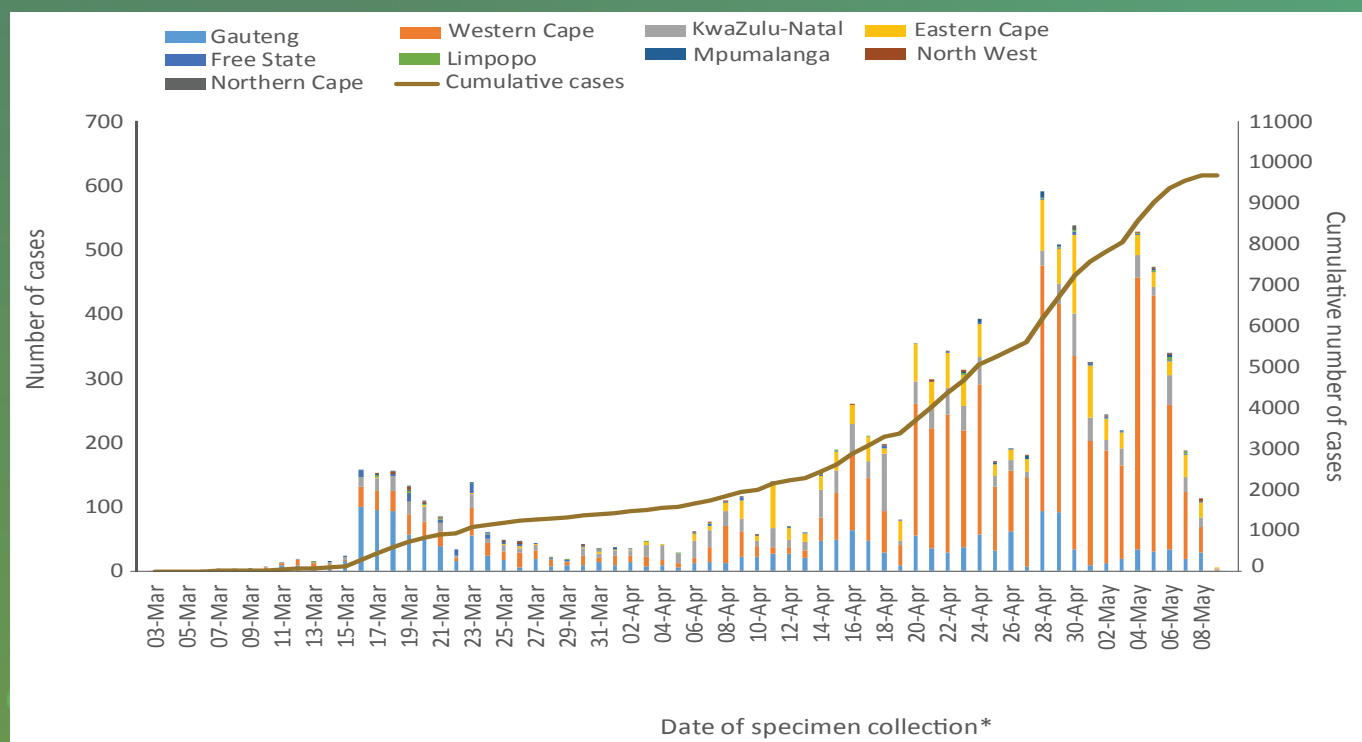
COVID-19 WEEKLY EPIDEMIOLOGY BRIEF

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*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 2020-09 May 2020 (n=341 336)

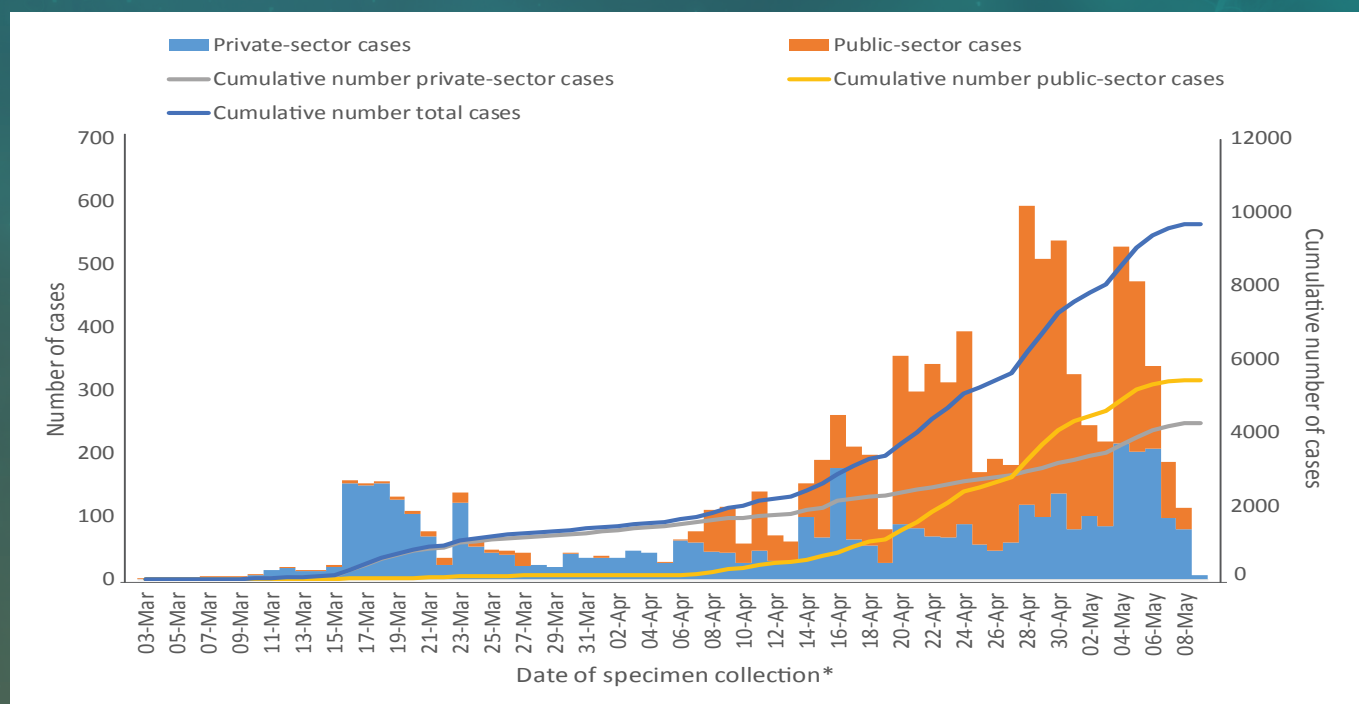


*Date of specimen receipt where date of specimen collection was missing

Figure 2. Number and cumulative number of laboratory-confirmed cases of COVID-19 by date of specimen collection, South Africa, 3 March-09 May 2020 (n=9889(126 missing date of specimen collection/receipt))

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*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-09 May 2020 (n=9889 (126 missing date of specimen collection/receipt)0

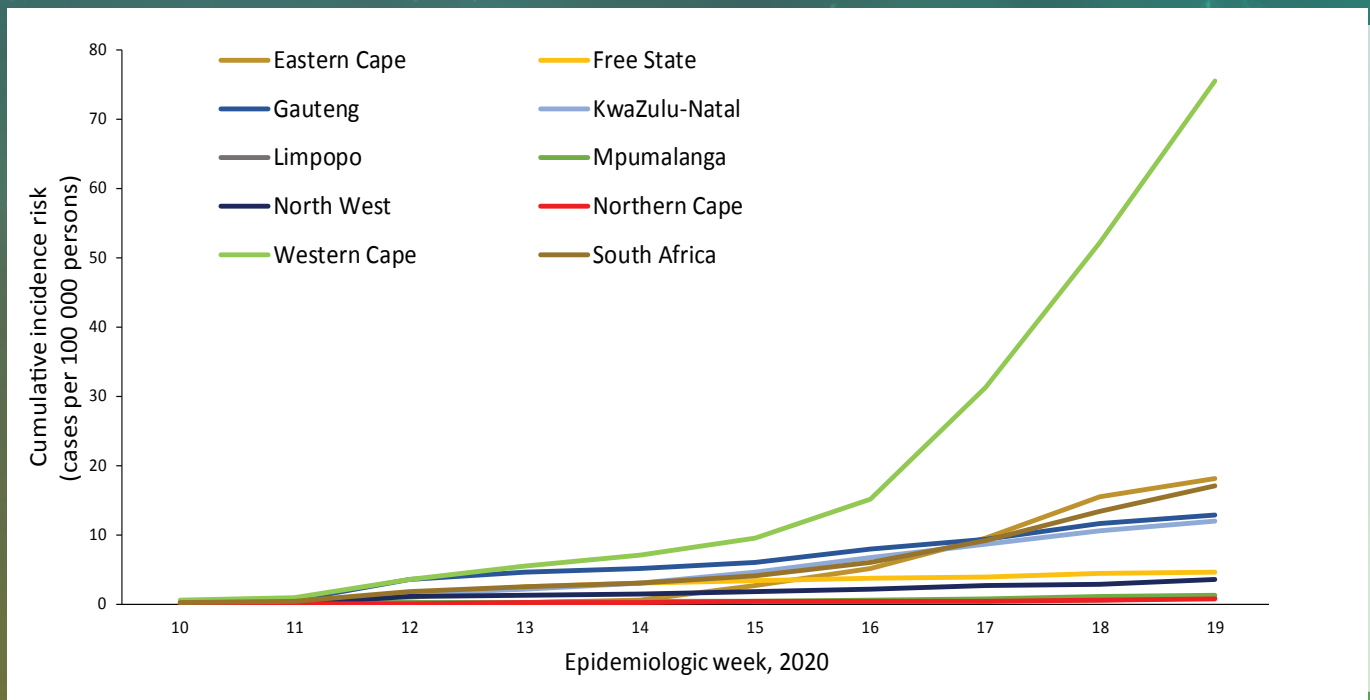
Table 1. Number and incidence risk of laboratory-confirmed cases of COVID-19 and testing per 100 000 persons by province, South Africa, 3 March-09 May 2020 (n=10015)

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	1218	12.2 (11.5-12.8)	6 712 276	18.2 (17.1-19.2)	507
Free State	135	1.3 (1.1-1.6)	2 887 465	4.7 (3.9-5.5)	597
Gauteng	1952	19.5 (18.7-20.3)	15 176 115	12.9 (12.3-13.5)	736
KwaZulu-Natal	1353	13.5 (12.8-14.2)	11 289 086	12.0 (11.4-12.6)	547
Limpopo	54	0.5 (0.4-0.7)	5 982 584	0.9 (0.7-1.2)	130
Mpumalanga	61	0.6 (0.5-0.8)	4 592 187	1.3 (1.0-1.7)	214
North West	45	0.4 (0.3-0.6)	4 027 160	3.6 (2.6-4.8)	412
Northern Cape	29	0.3 (0.2-0.4)	1 263 875	0.7 (0.5-1.0)	77
Western Cape	5168	51.6 (50.6-52.6)	6 844 272	75.5 (73.5-77.6)	1023
South Africa	10015	100	58 775 020	17.1 (16.7-17.4)	581

*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 - 9 May 2020 (n=10015)

CHARACTERISTICS OF CASES BY AGE AND SEX

The median age of cases was 37 years (interquartile range [IQR], 28-49 years). The largest proportion of cases was in the 30-34-year age group (1388/9953, 14%) followed by the 35-39-year age group (1346/9953, 13%) (Figure 5). The incidence risk was highest among those in the 40-44-year age group (30.7 cases per 100 000 persons), followed by those in the 50-54-year age group (cases per 100 000 persons), with the lowest incidence risk in the 5-9-year age group (2.5 cases per 100 000 persons). (Figure 6 and Table 2). Fifty-eight per cent (5758/9908) (95% CI, 57-59%) of the cases were female. The overall incidence risk was higher among females than males (19.1 cases per 100 000 persons [95%CI 18.6-19.6] versus 14.5 cases per 100 000 persons [95% CI 14.0-14.69]). However, this varied by age group with the peak incidence risk among females aged 35-44 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

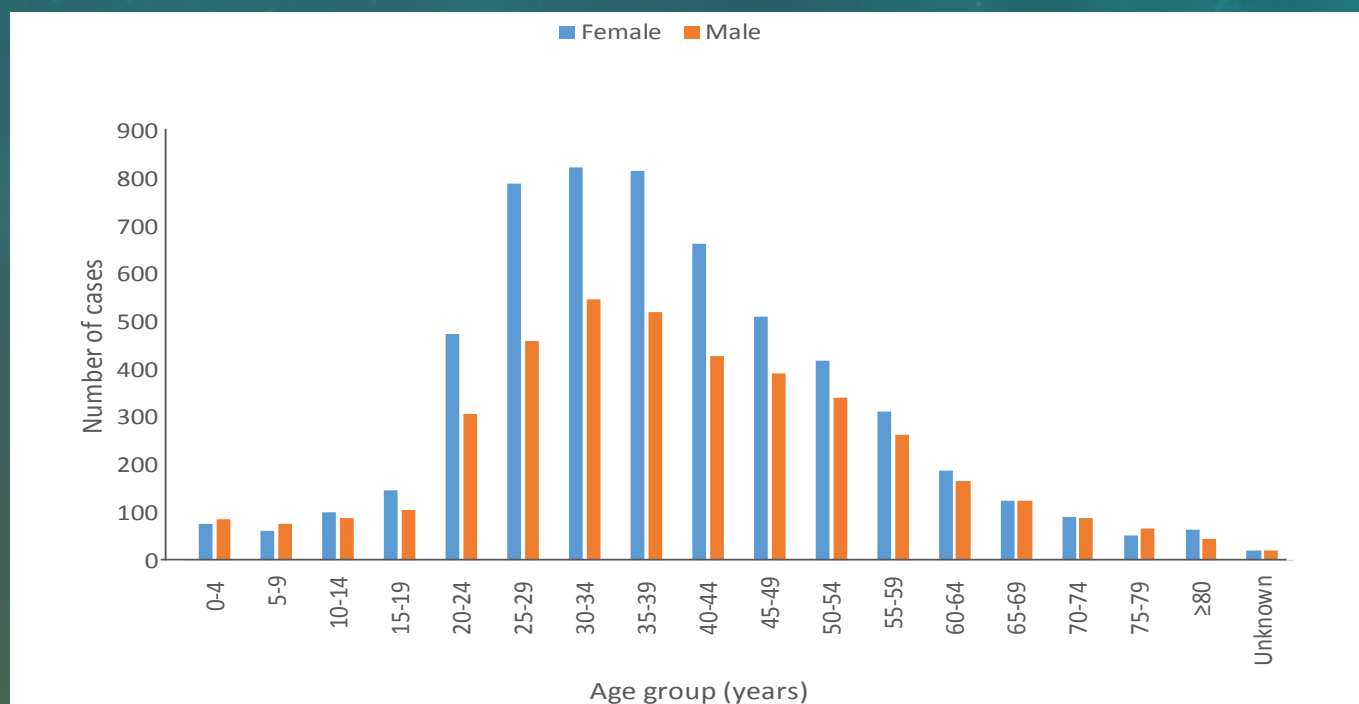


Figure 5. Number of laboratory-confirmed cases of COVID-19 by age group and sex, South Africa, 3 March-9 May 2020 (n=9908, 107 missing data on gender)

Table 2. Number of cases and incidence risk by age group, South Africa, 3 March 2020-9 May 2020

Age group (years)	Cases (n)	Population in mid-2019*, n	Incidence risk (cases per 100 000 persons)
0-4	168	5 733 946	2.9
5-9	144	5 737 439	2.5
10-14	199	5 427 902	3.7
15-19	264	4 660 002	5.7
20-24	794	4 914 186	16.2
25-29	1266	5 528 571	22.9
30-34	1389	5 537 963	25.8
35-39	1350	4 571 175	29.5
40-44	1100	3 585 408	30.7

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45-49	912	3 045 617	29.9
50-54	769	2 535 048	30.3
55-59	584	2 192 512	26.6
60-64	360	1 784 476	20.2
65-69	256	1 370 121	18.7
70-74	181	949 812	19.1
75-79	121	597 874	20.2
≥80	115	602 969	19.1
Unknown	47		
Total	10015	58 775 022	17.0

*Statistics South Africa

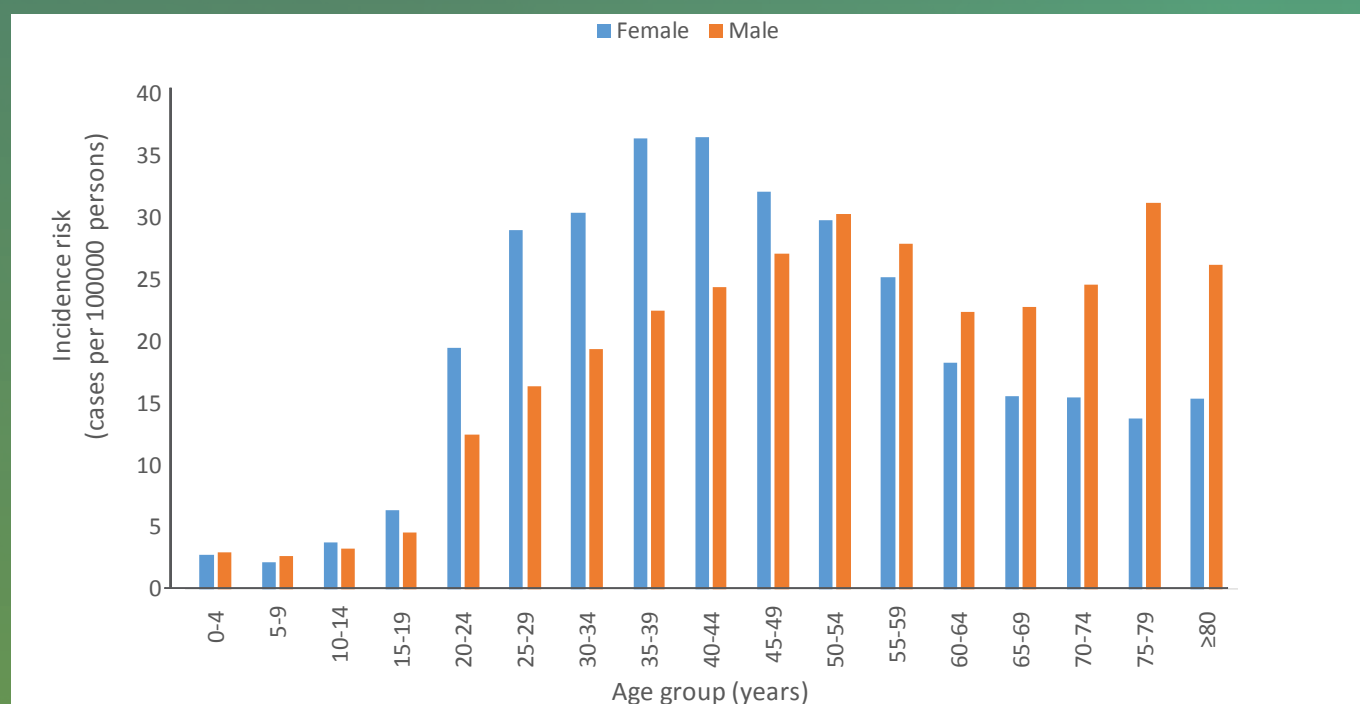


Figure 6. Incidence risk by age group and sex, South Africa, 4 March 2020-9 May 2020 (n=9968, age missing for 47cases)