

COVID-19 WEEKLY EPIDEMIOLOGY BRIEF

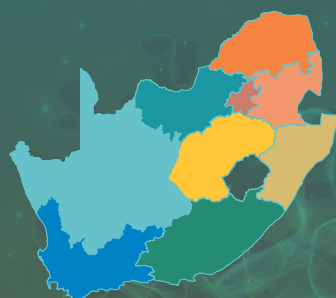


NATIONAL INSTITUTE FOR
COMMUNICABLE DISEASES

Division of the National Health Laboratory Service

SOUTH AFRICA WEEK 24 2020

CUMULATIVE DATA FROM



CASES

70 038
IN TOTAL

21 753
THIS WEEK

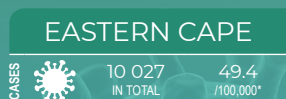


PERSONS

119.2
INCIDENCE RISK*

38
MEDIAN AGE

PROVINCES AT A GLANCE



* Incidence risk - cases per 100 000 persons

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 data from a national laboratory-based surveillance system that is used to monitor the coronavirus disease 2019 (COVID-19) pandemic in South Africa. This report is based on data collected up to 13 June 2020 (week 24 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 13 June 2020, a total of 70 038 laboratory-confirmed COVID-19 cases had been detected in South Africa. Of these, 21 753 were reported during epidemiological week 24 of 2020. The number of new cases continue to increase week on week, an increase of 6 151 cases reported in week 24 compared to week 23.
- A total of 1 480 (482 new deaths reported in past week) cases died with a case fatality ratio of 2%. The number of additional deaths was more than double the number reported in the previous week (227).
- Three provinces, Western Cape, Eastern Cape and Gauteng continue to report the majority of cases. In the past week, the Western Cape Province reported the highest proportion of cases (10 715/21 753, 49.3 %), followed by, Gauteng Province (5 218/ 21 753, 24.0%) and the Eastern Cape Province (4 053/ 21 753, 18.6%).
- In the past week, the Western Cape Province (156.5 cases per 100 000 cases), followed by the Eastern Cape Province (60.4 cases per 100 000 persons) and Gauteng Province (34.4 cases per 100 000 persons) reported the highest incidence risks.
- The median age of laboratory-confirmed cases for the past week, was the same as that of the total cases to date, 38 years (interquartile range [IQR], 29-49 years).
- In week 24, the incidence risk was highest among females in the 40-44-year age group (55.3 cases per 100 000 person).

56%

MAJORITY OF
CASES REPORTED
IN WEEK 24 WERE
FEMALE

119.2
/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. Community symptom screening and referral for PCR testing was implemented in April 2020 but the strategy was changed to a more targeted approach in May 2020. Community screening was discontinued and testing efforts focussed on areas identified as hot spots and on investigating clusters. Contacts of cases were traced and tested if symptomatic. In some provinces and in certain circumstances (e.g. closed settings, workplaces), 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. 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). Aggregate data on the number of deaths by province was obtained from the Department of Health.

National and provincial trends

As of 13 June 2020, a total of 70 038 laboratory confirmed COVID-19 cases were reported in South Africa. The number of new cases, 21 753, reported in the past week was higher than the number of cases reported the previous week, 21 753 vs. 15 602 in week 23. Of the new cases reported in week 24, the Western Cape Province reported the highest proportion of cases (10 715/21 753, 49.3 %), followed by the Gauteng Province (5 218/ 21 753, 24.0%) and the Eastern Cape Province (4 053/ 21 753, 18.6%) (Table 1). These three provinces continued to contribute the majority (63 739/70038; 91%) of cases overall, with Western Cape contributing 61% (4 2539) of total cases. To date, the Western Cape Province had the highest incidence risk (621.5 cases per 100 000 persons) followed by the Eastern Cape (149.4 per 100 000 persons) and Gauteng provinces (73.6 per 100 000 persons). The Limpopo Province had the lowest incidence risk (5.4 cases per 100 000 persons). In the past week, the Western Cape Province (156.5 cases per 100 000 cases), followed by the Eastern Cape (60.4 cases per 100 000 persons) and Gauteng (34.4 cases per 100 000 persons) provinces reported the highest incidence risk. Compared to the previous week, the Gauteng Province reported a lower incidence risk (34.4 vs. 59.8 cases per 100 000 persons), whereas the Eastern Cape



6.5%

OVERALL
PROPORTION
POSITIVE

40-44

YEAR AGE
GROUP
HAD THE HIGHEST
INCIDENCE RISK

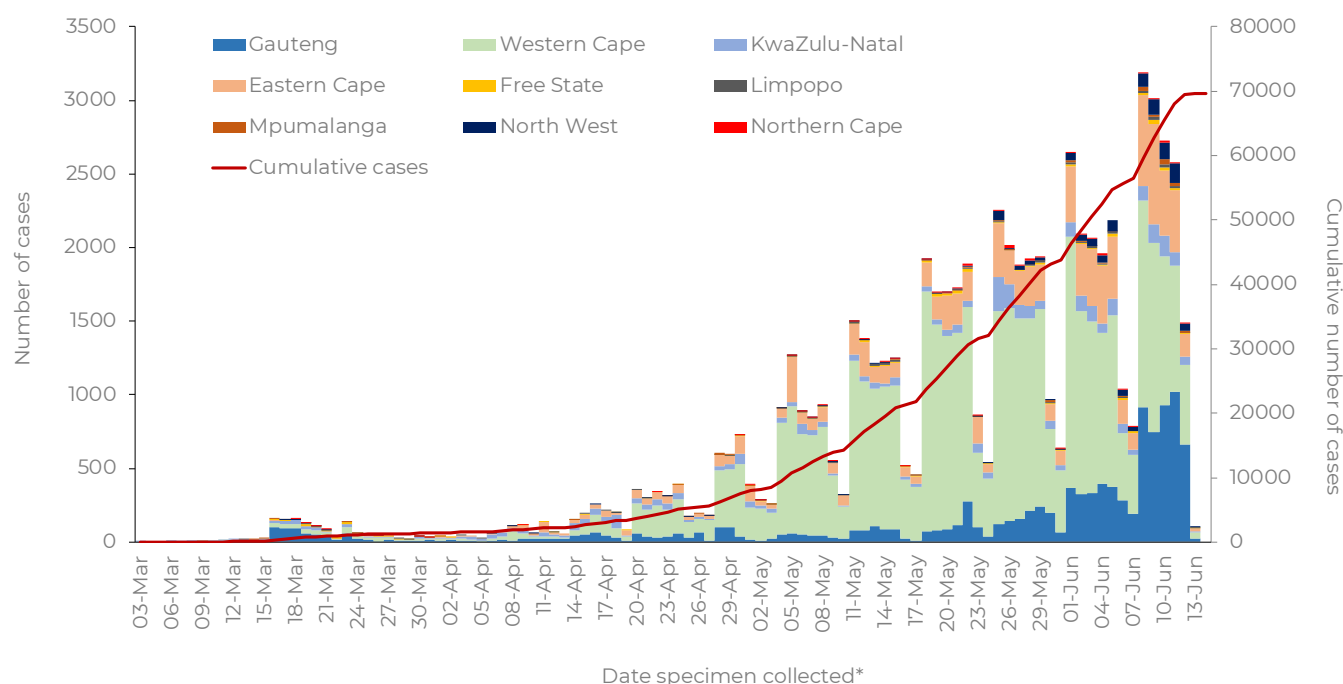
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Province reported an increase of 20.5 cases/100 000 persons. (Table 1 and Figure 4).

The cumulative incidence risk for the country was 119.2 cases per 100 000 persons. However, the cumulative incidence risk varied by province over time (Figure 3). This is partly explained by testing differences by province (Table 1). In the past week the number of tests performed per 100 000 persons ranged from 31.8 in Limpopo Province to 281.8 in the Gauteng Province.

To date, a total of 1 480 (482 additional cases in the last week) of 70 038 (2.1%) cases were reported to have died. This was more than double the number of new deaths reported in week 23 (227). A crude case-fatality ratio calculated in this way (number of deaths/ number of diagnosed cases) is subject to numerous limitations. The CFR may be an underestimate because deaths are more likely to be reported if a patient with COVID-19 died in hospital and deaths out of hospital may be missed, in addition, deaths may be delayed.

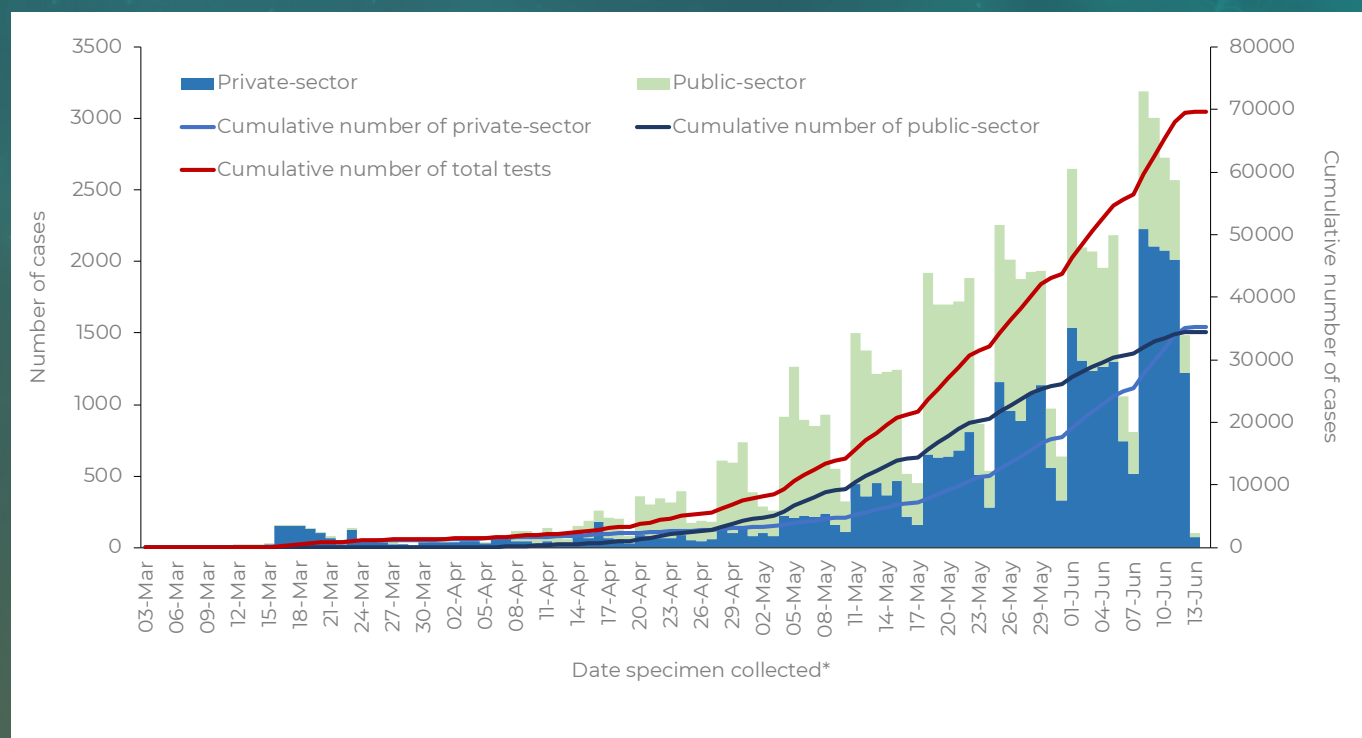


*Date of specimen receipt used where date of collection was missing

Figure 1. Number and cumulative number of laboratory-confirmed cases of COVID-19 by province and date of specimen collection, South Africa, 3 March-13 June 2020 (n=69 622, 416 missing dates of specimen collection and/or province allocation)

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

Figure 2. Number and cumulative number of laboratory-confirmed cases of COVID-19, by testing laboratory sector and date of specimen collection, South Africa, 3 March-13 June 2020 (n=69 622, 415 missing dates of specimen collection and/or province allocation)

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-13 June 2020 (n=70 038, province not allocated for 63 cases)

Province	Total cases (n)	New cases, 07-13 June 2020, n (Proportion, n/total)	Proportion (n/total) (95% confidence interval)	Population in mid-2019* (n)	Cumulative incidence risk (cases per 100 000 persons)	Change in incidence risk (cases per 100 000 persons), week 24 vs. week 23	Tests per 100 000 07-13 June 2020
Eastern Cape	10 027	4 053 (18.6)	14.3 (14.1-14.6)	6 712 276	149.4 (146.5-152.3)	20.5	210.5
Free State	495	134 (0.6)	0.7 (0.6-0.8)	2 887 465	17.2 (15.7-18.8)	1.8	228.4
Gauteng	11 164	52 18 (24.0)	15.9 (15.7-16.2)	15 176 115	73.6 (72.2-74.9)	-25.4	281.8

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KwaZulu-Natal	3 874	766 (3.5)	5.5 (5.4-5.7)	11 289 086	34.3 (33.2-35.4)	1.8	123.4
Limpopo	326	99 (0.4)	0.5 (0.4-0.5)	5 982 584	5.5 (4.9-6.1)	0.8	31.8
Mpumalanga	297	108 (0.5)	0.4 (0.4-0.5)	4 592 187	6.5 (5.7-7.3)	0.9	89.5
North West	1 097	574 (2.6)	1.6 (1.5-1.7)	4 027 160	27.2 (25.7-28.8)	5.6	91.1
Northern Cape	156	42 (0.2)	0.2 (0.2-0.3)	1 263 875	12.3 (10.5-14.4)	-0.2	85.8
Western Cape	42 539	10 715 (49.3)	60.7 (60.4-61.2)	6 844 272	621.5 (615.6-627.4)	4.0	206.5
Not allocated	63	44 (0.2)					
South Africa	70 038	21 753	100	58 775 020	119.2 (118.3-120.1)	10.5	194.7

*Statistics South Africa 2019 mid-year population estimates

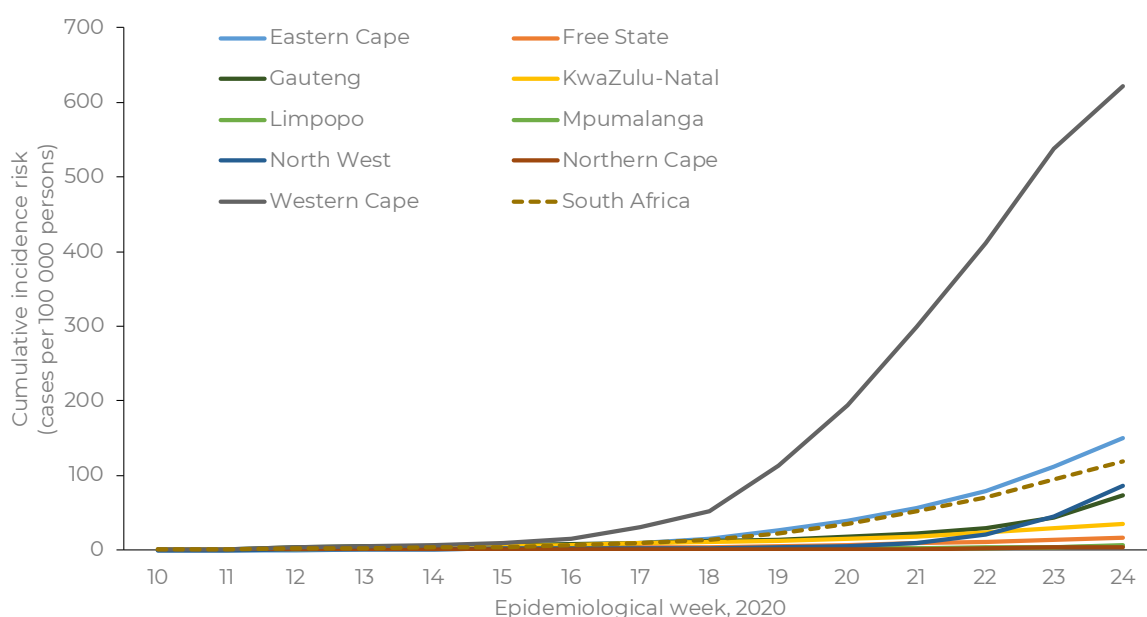


Figure 3: Cumulative incidence risk of PCR-confirmed COVID-19 by province and epidemiological week, South Africa, 3 March -13 June 2020 (n=69 622, 415 missing dates of specimen collection and/or province allocation)

CHARACTERISTICS OF CASES BY AGE AND SEX

The largest proportion of all cases to date was in the 30-34-year age group (9 694/69 703, 13.9 %) followed by the 35-39-year age group (9 547/69 703, 13.7 %) (Figure 4). Similarly, in the past week the highest proportion of cases was in the 30-34-year age group (2 907/21 753, 13%) and 35-39-year age group (2 908/21 753, 13%).

Cases reported in the last week had the same median age as that reported for all cases to date, 38 years (interquartile range [IQR], 29-49 years). The overall incidence risk was highest among those in the 45-49-year age group (228.3 cases per 100 000 persons), followed by those in the 50-54-year age group (227.4 cases per 100 000 persons). The lowest incidence risk was in the 5-9-year age group (15.0 cases per 100 000 persons). (Figure 5 and Table 2). Similar to week 23, the incidence risk in week 24 was highest among individuals in the 50-54-year age group (76.3 cases per 100 000 persons) followed by the 45-49-year age group (72.8 cases per 100 000). The lowest incidence risk was in the 0-4-year age group (4.8 cases per 100 000 persons). In the past week the highest increase in incidence risk was in the 55-59-year age group, 26.0 cases per 100 000 cases per person.

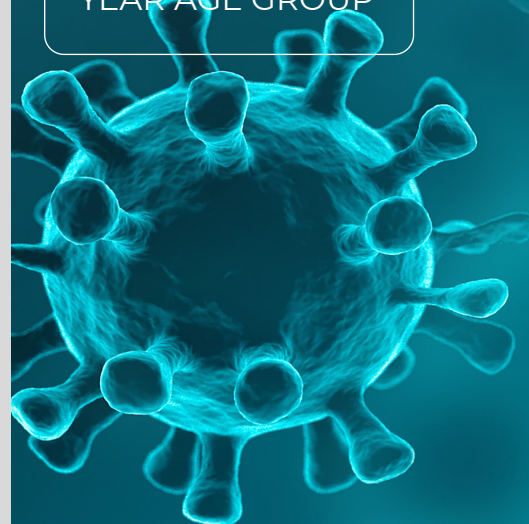
The majority of cases reported in week 24, (56.0%, 12 097/21 619; 95% CI 55.3-56.6) were female. This was similar to the proportion reported for total cases to date (56.9 %, 39 632/69 538) (95% CI, 56.6- 57.4). The overall incidence risk remained higher among females than in males (131.6 cases per 100 000 persons [95%CI 130.4-133.0] vs. 104.3 cases per 100 000 persons [95% CI 103.1-105.5]) (Figure 5). However, this varied by age group with the peak incidence risk among females aged 40-44 years and males aged 50-54 years (Figure 5 and Figure 6). Similarly, in week 24, the overall incidence risk was higher among females than males (40.2 cases per 100 000 cases [95% CI 39.4-40.9] vs. 33.2 cases [95% CI 32.5-33.9]). This may also be partially explained by varying testing practices by age and sex (data not shown). The increase in incidence risk from week 23 to week 24 was similar among females and males, 10.8 case per 100 000 persons and 10.0 cases per 100 000 persons, respectively.

38

THE MEDIAN AGE OF CASES IN THE PAST WEEK

13%

HIGHEST PROPORTION OF CASES IN WEEK 24 WAS IN THE 30-34-YEAR AGE GROUP



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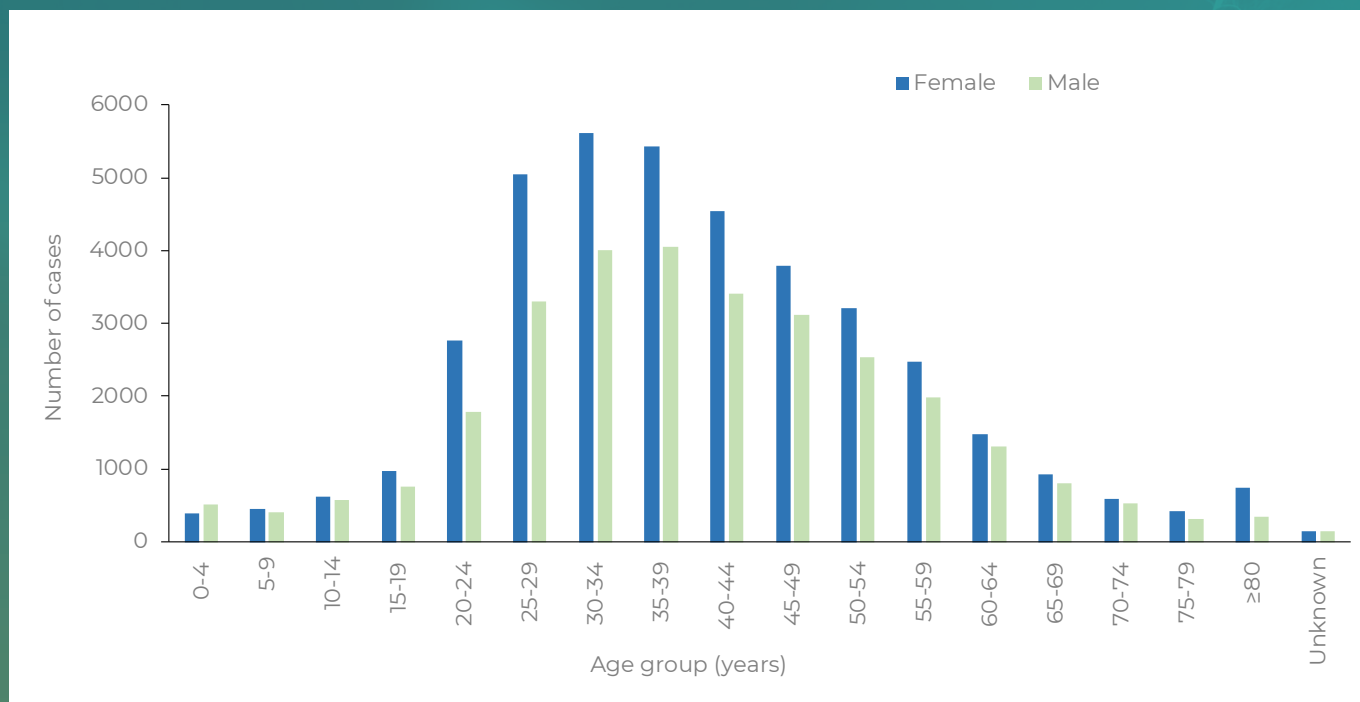


Figure 4. Number of laboratory-confirmed cases of COVID-19 by age group and sex, South Africa, 3 March-13 June 2020 (n=70 038)

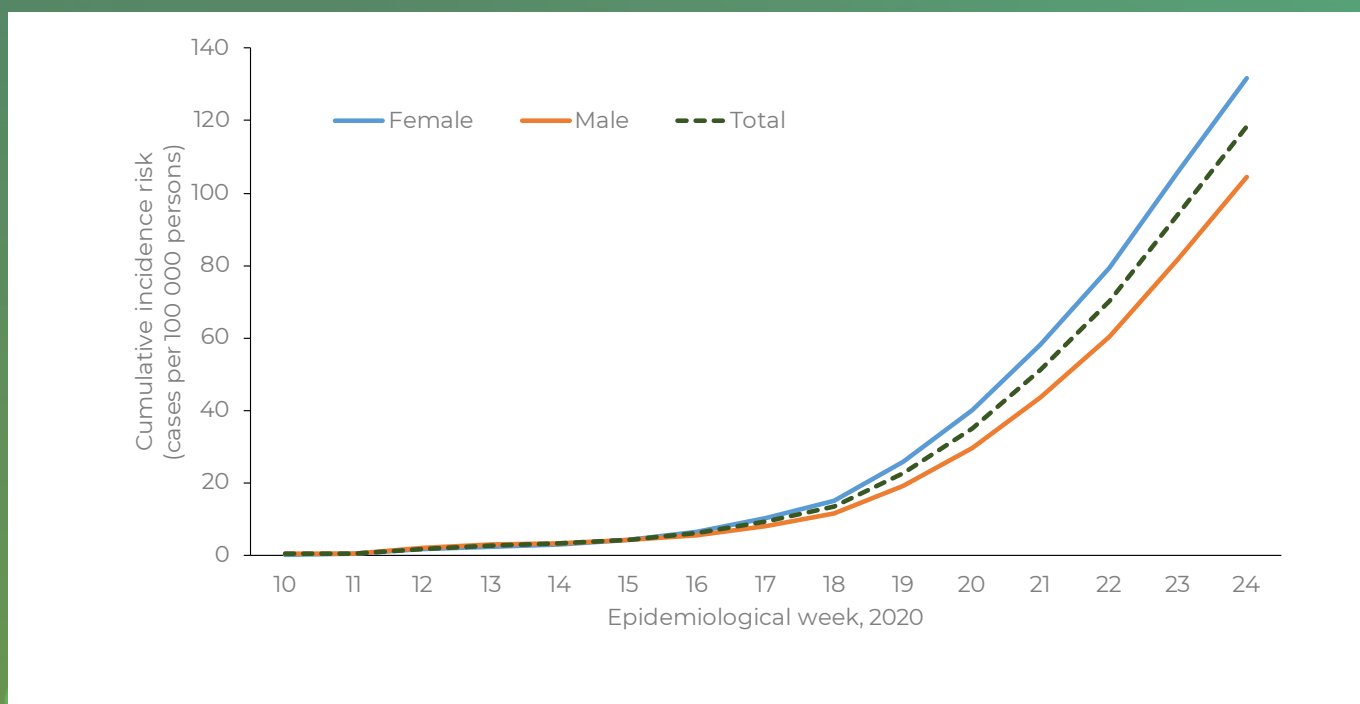


Figure 5. Incidence risk by sex and epidemiological week, South Africa, 3 March 2020-13 June 2020 (n=69 538, 500 missing dates of specimen collection/sex)

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WEEK 24 2020 | CHARACTERISTICS OF CASES BY AGE AND SEX

Table 2. Number of cases and incidence risk by age group, South Africa, 3 March 2020- 6 June 2020, n=48 285

Age group (years)	Cases (n)	New cases 07-13 June ,n (Proportion, n/ total)	Population in mid-2019*, n	Incidence risk (cases per 100 000 persons)	Change in incidence risk (cases /100 1000 persons),week 24 vs. week 23
0-4	928	273 (1.3)	5 733 946	16.2	1.4
5-9	876	285 (1.3)	5 737 439	15.3	1.8
10-14	1 220	419 (1.9)	5 427 902	22.5	3.2
15-19	1 749	581(2.7)	4 660 002	37.5	4.3
20-24	4 601	1 302 (6.0)	4 914 186	93.6	4.9
25-29	8 404	2 394 (11.0)	5 528 571	152.0	8.8
30-34	9 694	2 907 (13.4)	5 537 963	175.0	14.2
35-39	9 547	2 908 (13.4)	4 571 175	208.9	18.8
40-44	7 985	2 457 (11.3)	3 585 408	222.7	18.2
45-49	6 953	2 218 (10.2)	3 045 617	228.3	21.7
50-54	5 765	1 934 (8.9)	2 535 048	227.4	24.0
55-59	4 479	1 537 (7.1)	2 192 512	204.3	26.0
60-64	2 814	974 (4.5)	1 784 476	157.7	19.8
65-69	1 743	541 (2.5)	1 370 121	127.2	8.8
70-74	1 123	361 (1.7)	949 812	118.2	11.1
75-79	739	219 (1.0)	597 874	123.6	7.9
≥80	1083	342 (1.6)	602 969	179.6	8.1
Unknown	335	101			
Total	70 083	21 753	58 775 022	119.2	10.5

*Statistics South Africa

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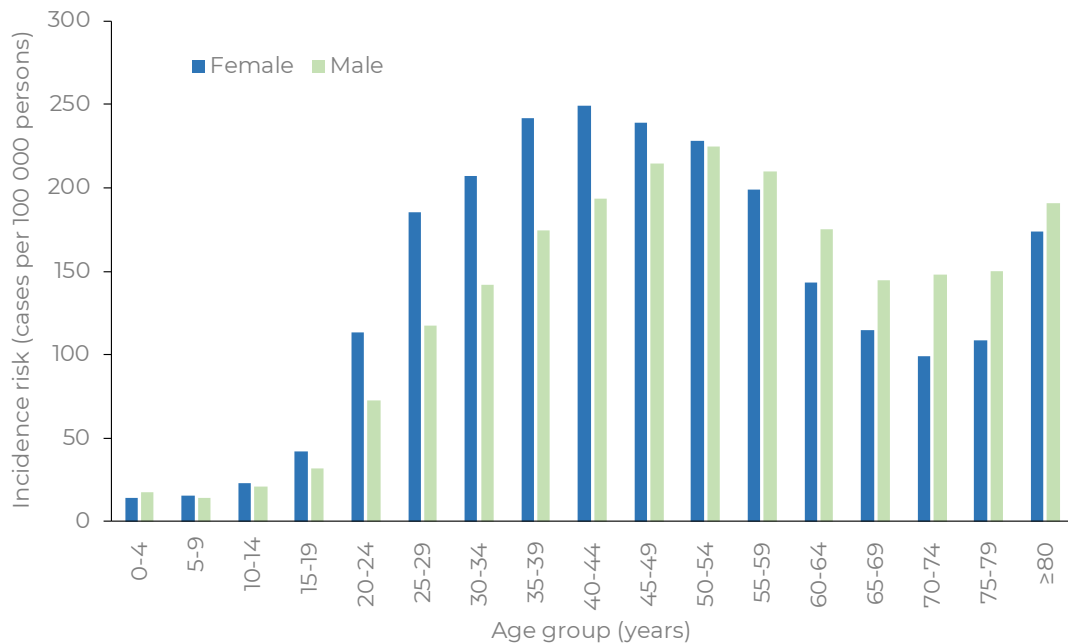


Figure 6. Incidence risk by age group and sex, South Africa, 3 March 2020-13 June 2020 (n=69 703, age and/or gender missing for 335 cases)

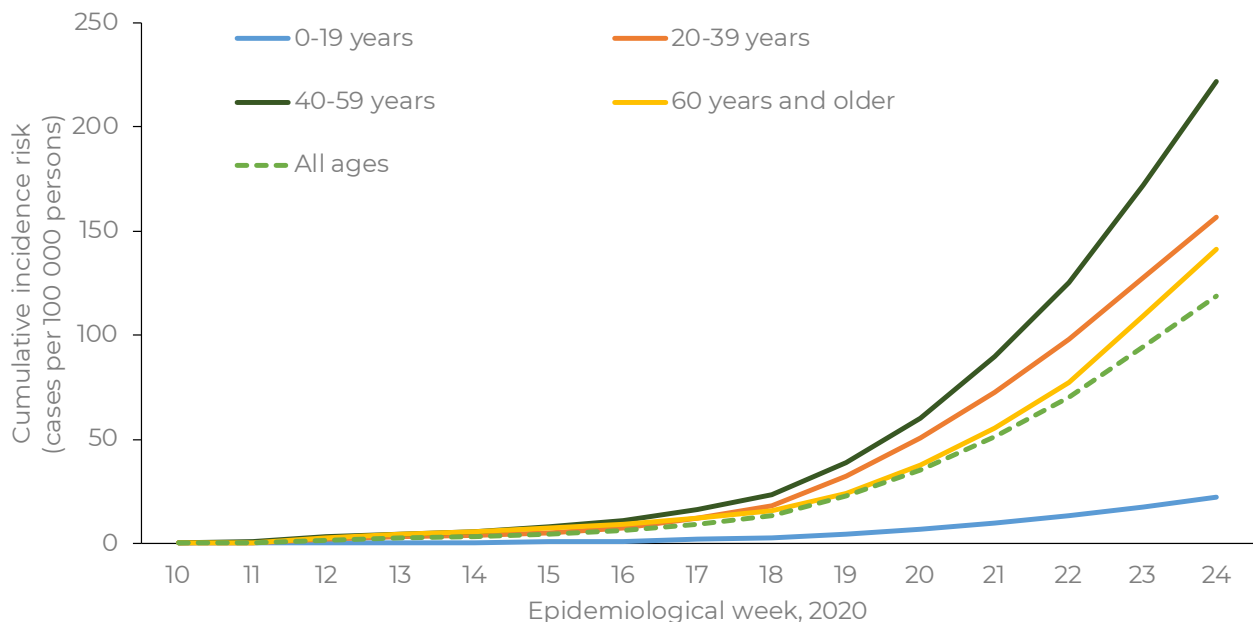


Figure 7. Cumulative incidence risk of PCR-confirmed COVID-19 cases by age group and epidemiological week, South Africa, 3 March-13 June 2020 (n=6 9691, 347 missing date of specimen collection/ age)

LIMITATIONS

This report is based on laboratory surveillance. The number of reported cases is heavily dependent on testing practices. Although trends over time and comparisons by geographic area are presented in this report, changes in testing practices over time or differences by region may partially explain the results. The crude case-fatality ratio reported here is subject to numerous limitations, it is likely to be an underestimation as deaths may be delayed and deaths which occurred outside health facilities may be missed.

CONCLUSIONS

The number of COVID-19 cases reported continue to increase week on week in all nine provinces of South Africa. Although all the provinces reported an increase in number of cases in the last week, Western Cape Province, continued to report the majority of cases and the highest incidence risk. The Eastern Cape Province reported the highest increase in incidence risk from previous week, 20.5 cases per 100 000 persons. Similar to the overall cases reported to date, the majority of cases in week 24 and the highest incidence risk was reported among females.