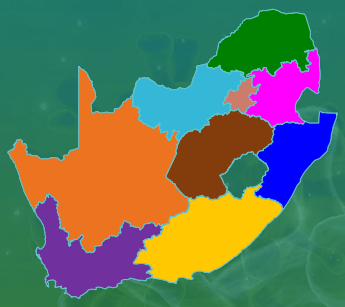
COVID-19 WEEKLY EPIDEMIOLOGY BRIEF

NATIONAL INSTITUTE FOR COMMUNICABLE DISEASES
Division of the National Health Laboratory Service

SOUTH AFRICA | WEEK 15 2022

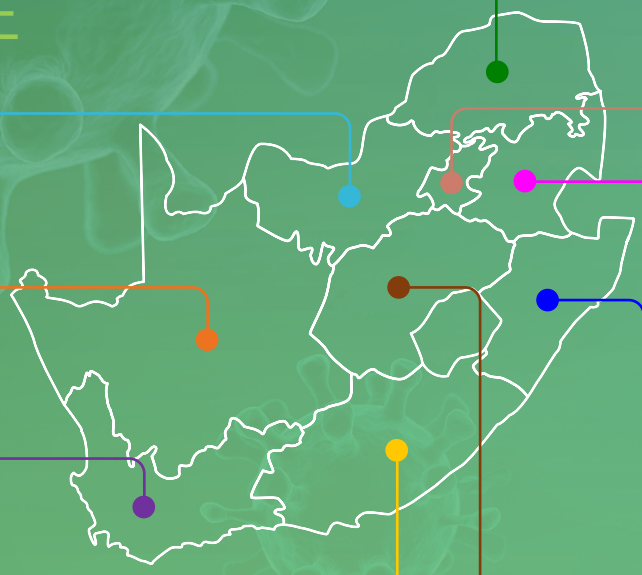
CUMULATIVE DATA FROM

03 MARCH 2020 ▶ 16 APRIL 2022



CASES	PERSONS
3 741 230 IN TOTAL	6 220,6 INCIDENCE RISK*
8 590 THIS WEEK**	38 MEDIAN AGE

PROVINCES AT A GLANCE



NORTH WEST
CASES: 193 452 IN TOTAL | 4 692,2 /100,000*

NORTHERN CAPE
CASES: 109 091 IN TOTAL | 8 372,0 /100,000*

WESTERN CAPE
CASES: 655 346 IN TOTAL | 9 212,4 /100,000*

EASTERN CAPE
CASES: 346 266 IN TOTAL | 5 186,3 /100,000*

LIMPOPO
CASES: 156 075 IN TOTAL | 2 633,4 /100,000*

GAUTENG
CASES: 1 219 318 IN TOTAL | 7 712,1 /100,000*

MPUMALANGA
CASES: 193 839 IN TOTAL | 4 086,3 /100,000*

KWAZULU-NATAL
CASES: 664 926 IN TOTAL | 5 775,1 /100,000*

FREE STATE
CASES: 202 917 IN TOTAL | 6 919,7 /100,000*

* **Incidence risk** - cases per 100 000 persons
** based on samples collected/received in current reporting week

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, caused by the SARS-CoV-2 virus, in South Africa. This report is based on data collected up to 16 April 2022 (week 15 of 2022). Note: Trends in numbers of new cases by province and age group may be affected by changes in testing practice and delays in testing of specimens and numbers are updated weekly as new data become available. The methods and data sources can be found at the end of the report.

Highlights

- As of 16 April, a total of 3 741 230 laboratory-confirmed COVID-19 cases had been detected in South Africa. Of these, 9 155 were cases reported since the last report (week 14 of 2022). There was a 0.5% decrease in the number of new cases detected in week 15 of 2022 (8 590) compared to the number of new cases detected in week 14 of 2022 (8 637).
- In the past week, the Gauteng Province reported the highest number of cases detected (4 339/8 590, 50.5%), followed by the Western Cape Province (1 662/8 590, 19.3%), and KwaZulu-Natal Province (1 540/8 590, 17.9%), with other provinces reporting ≤ 5% each.
- In the past week, all provinces reported a decrease in weekly incidence risk, except the Free State (0.3 cases per 100 000 persons, 4.3% increase) and Gauteng (3.6 cases per 100 000 persons, 14.9% increase) provinces which reported an increase, while Northern Cape showed no change in weekly incidence risk, compared to the previous week. The decrease in weekly incidence risk ranged from 0.7 cases per 100 000 persons (10.8% decrease) in the Eastern Cape Province to 3.3 cases per 100 000 persons (12.2% decrease) in the Western Cape Province.
- All the districts in Gauteng Province reported an increase in weekly incidence risk in the past week, the increase ranged from 1.6 cases per 100 000 persons (13.9% increase) in the Sedibeng District to 3.9 cases per 100 000 persons (19.4% increase) in the City of Tshwane Metro.
- In the past week, Gauteng Province reported the highest weekly incidence risk (27.4 cases per 100 000 persons), followed by the Western Cape Province (23.4 cases per 100 000 persons), and the KwaZulu-Natal Province (13.4 cases per 100 000 persons). The other provinces reported weekly incidence below 7 cases per 100 000 persons.
- The highest weekly incidence risk among cases detected in week 15 of 2022 was reported in the 55-59-year age group (26.7 cases per 100 000 persons), followed by the ≥80-year age group (26.2 cases per 100 000 persons), and the lowest weekly incidence risk was in the 0-4-year age group (4.0 cases per 100 000 persons).

INCIDENCE RISK FOR CURRENT WEEK

14,3

CASES PER 100 000 PERSONS

50,5%

OF CASES REPORTED IN GAUTENG IN CURRENT WEEK

IN CURRENT WEEK, THE HIGHEST WEEKLY INCIDENCE RISK WAS IN CASES AGED 55-59 YEARS (26,7 CASES PER 100 000 PERSONS)

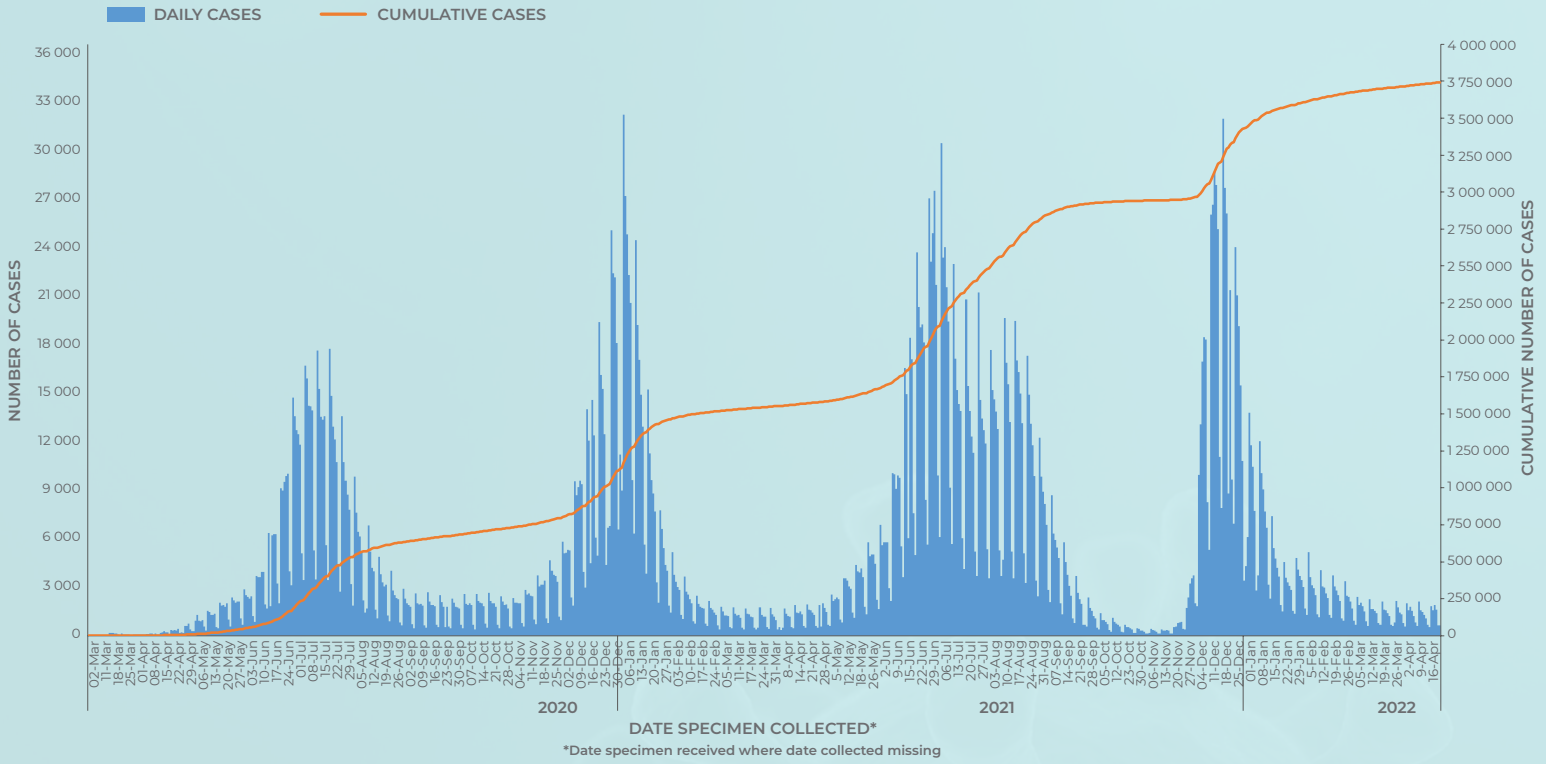


Figure 1. Number and cumulative number of laboratory-confirmed cases of COVID-19 by date of specimen collection, South Africa, 3 March 2020 – 16 April 2022 (n= 3 741 230)

Table 1. Number and cumulative/weekly incidence risk of laboratory-confirmed cases of COVID-19 and testing per 100 000 persons by province, South Africa, 3 March 2020 – 16 April 2022 (n = 3 741 230)

Province	Cumulative cases (n) (percentage, n/ total cases in South Africa)	New cases[1] detected in week 15 of 2022 (10-16 Apr), n (percentage[2], n/total)	Population in mid-2021[3], n	Cumulative incidence risk (cases per 100 000 persons)	Incidence risk of new cases detected in week 15 of 2022 (cases/100 000 persons)	Tests[4] per 100 000 persons, , 10-16 Apr 2022
Eastern Cape	346 266 (9.3)	412 (4.8)	6 676 590	5 186.3	6.2	98.6
Free State	202 917 (5.4)	196 (2.3)	2 932 441	6 919.7	6.7	206.3
Gauteng	1 219 318 (32.6)	4 339 (50.5)	15 810 388	7 712.1	27.4	310.7
KwaZulu-Natal	664 926 (17.8)	1 540 (17.9)	11 513 575	5 775.1	13.4	168.7
Limpopo	156 075 (4.2)	62 (0.7)	5 926 724	2 633.4	1.0	30.1
Mpumalanga	193 839 (5.2)	178 (2.1)	4 743 584	4 086.3	3.8	100.3
North West	193 452 (5.2)	137 (1.6)	4 122 854	4 692.2	3.3	109.1
Northern Cape	109 091 (2.9)	64 (0.7)	1 303 047	8 372.0	4.9	146.7
Western Cape	655 346 (17.5)	1 662 (19.3)	7 113 776	9 212.4	23.4	216.6
Unknown						
Total	**3 741 230**	**8 590**	**60 142 978**	**6 220.6**	**14.3**	**184.0**

[1]New cases refer to cases whose samples were collected or received in the current reporting week; [2]Percentage=n/total number of new cases (specimen collected or received in current reporting week); [3]2021 Mid-year population Statistics South Africa [4]Data on number of tests conducted sourced from COVID-19 weekly testing report of the same reporting week

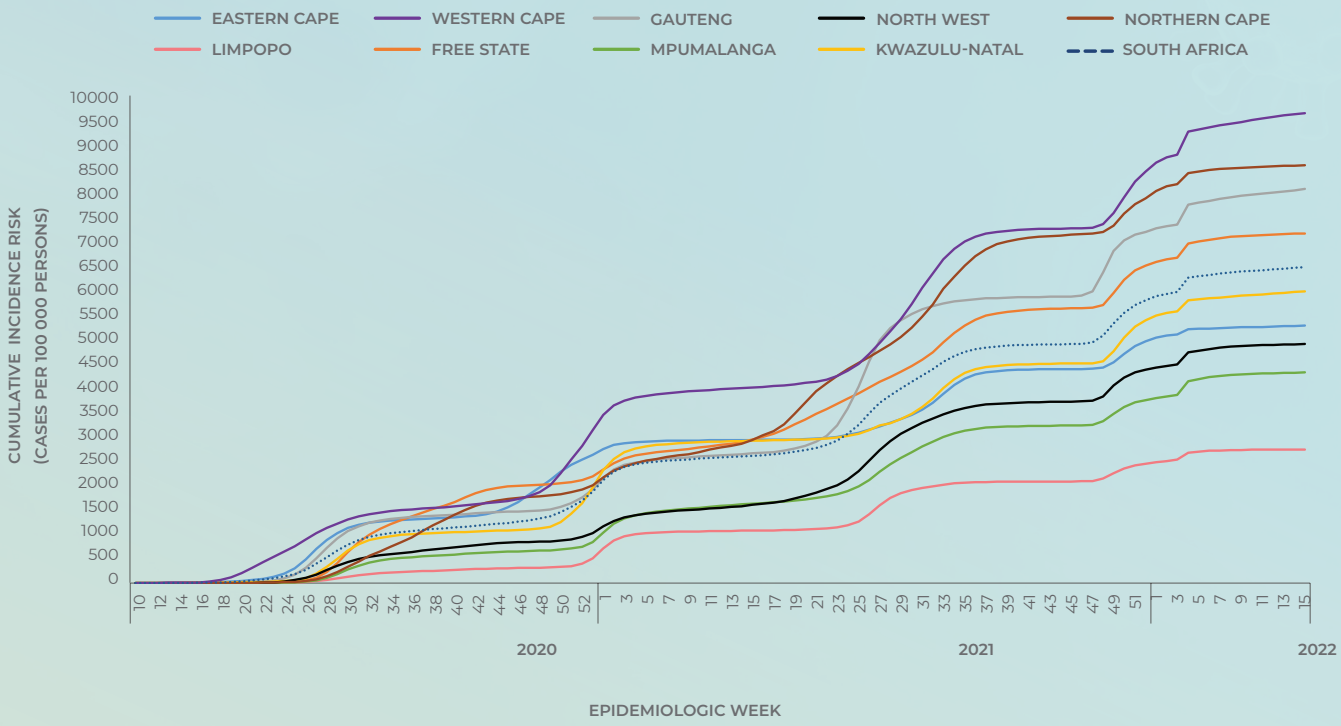


Figure 2. Cumulative incidence risk of laboratory-confirmed cases of COVID-19 by province and epidemiologic week South Africa 3 March 2020 – 16 April 2022 (n = 3 741 230)

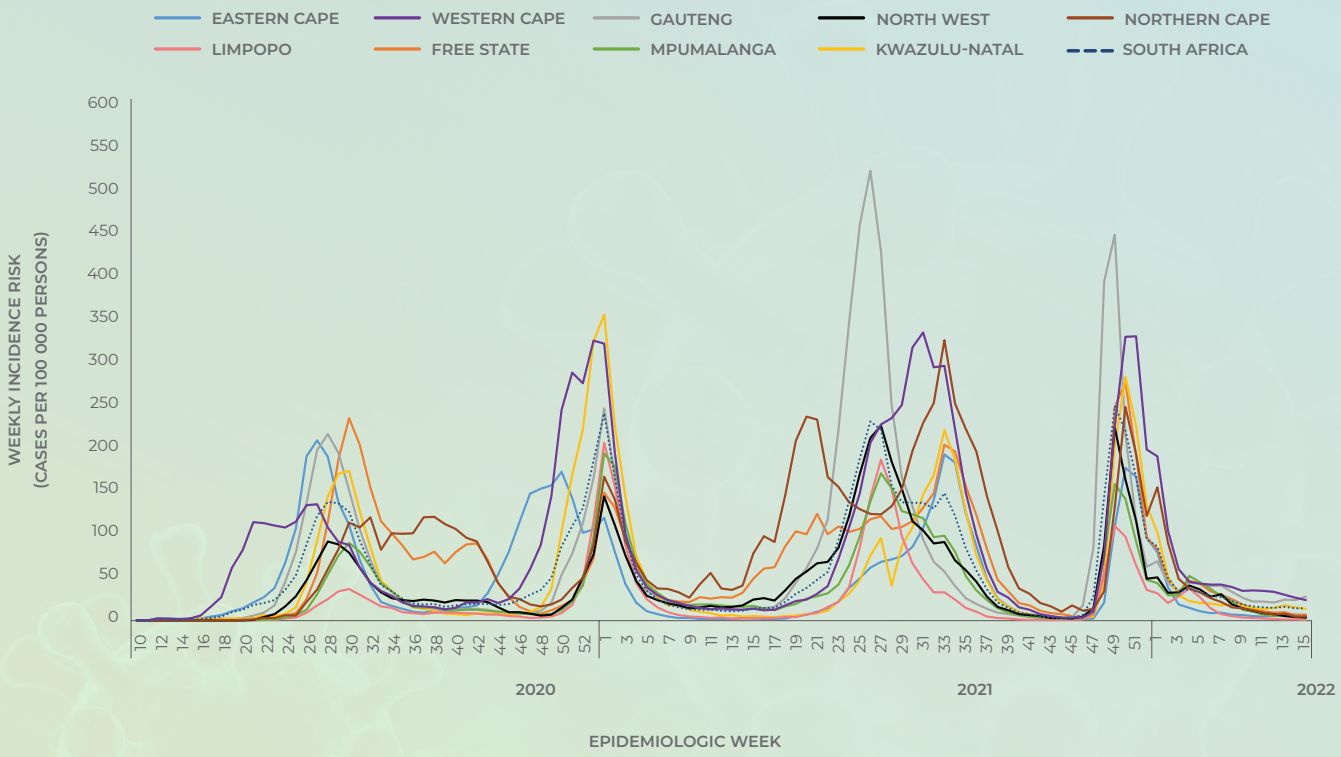


Figure 3. Weekly incidence risk of laboratory-confirmed cases of COVID-19 by province and epidemiologic week South Africa 3 March 2020 – 16 April 2022 (n = 3 741 230)

Characteristics of COVID-19 cases in South Africa by age and sex

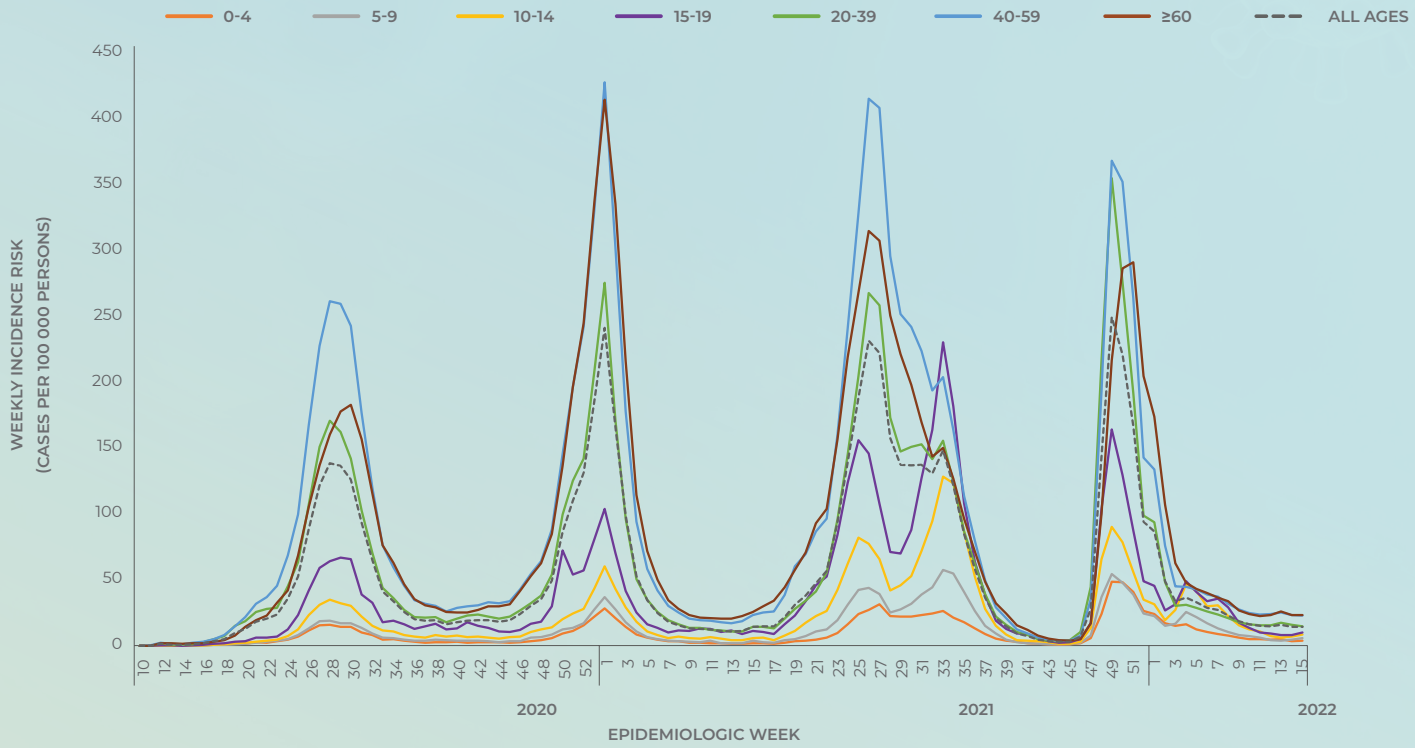


Figure 4. Weekly incidence risk of laboratory-confirmed cases of COVID-19 by age group in years and epidemiologic week South Africa 3 March 2020 – 16 April 2022 (n = 3 706 114, 35 116 missing age)

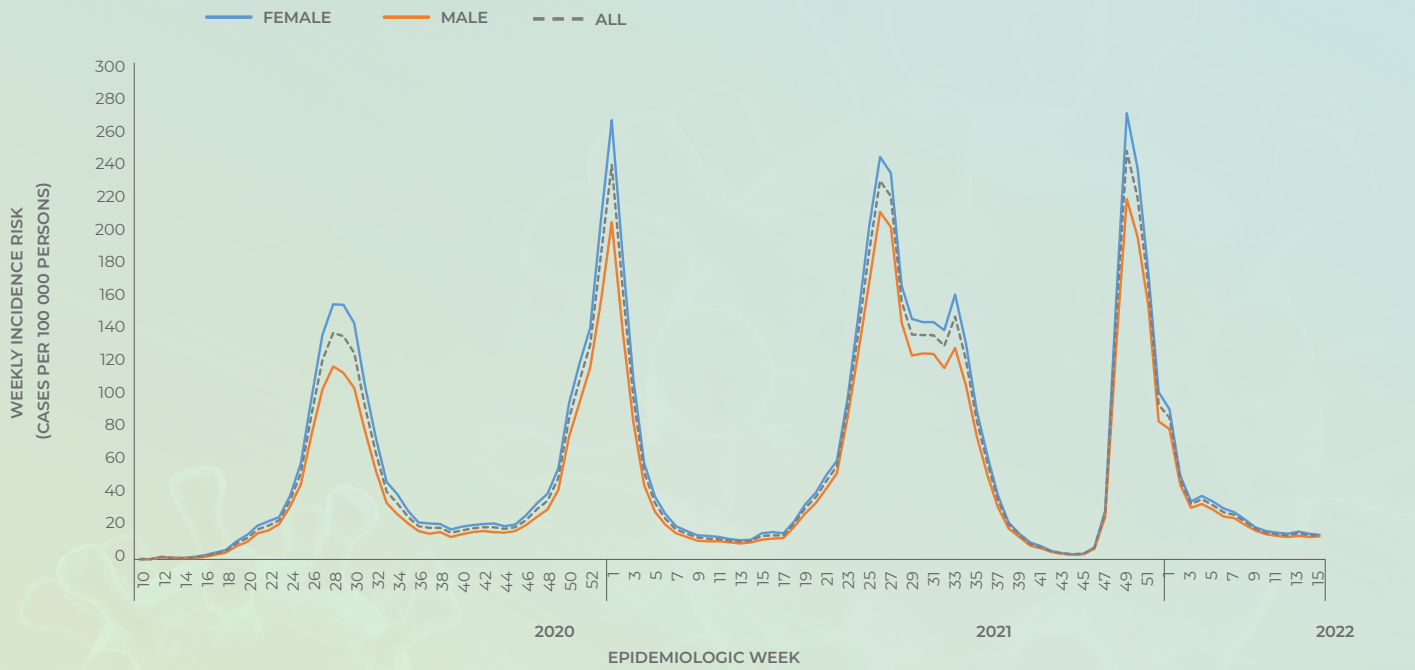


Figure 5. Weekly incidence risk of laboratory-confirmed cases of COVID-19 by sex and epidemiologic week South Africa 3 March 2020 – 16 April 2022 (n = 3 701 677, sex missing for 39 553)

Table 2. Number of laboratory-confirmed cases of COVID-19 and cumulative/weekly incidence risk by age group South Africa 3 March 2020 – 16 April 2022 (n = 3 706 114, 35 116 missing age)

Age group (years)	Cumulative cases (n) (percentage, n/ total cases in South Africa)	New cases[1] detected in week 15 of 2022 (10-16 Apr) n (percentage[2], n/ total)	Population in mid-2021[3], n	Cumulative incidence risk (cases per 100 000 persons)	Incidence risk of new cases detected in week 15 of 2022 (cases/100 000 persons)
0-4	58 138 (1.6)	226 (2.6)	5 708 956	1 018.4	4.0
5-9	79 503 (2.1)	328 (3.8)	5 663 296	1 403.8	5.8
10-14	143 544 (3.9)	487 (5.7)	5 671 023	2 531.2	8.6
15-19	207 874 (5.6)	499 (5.8)	4 909 941	4 233.7	10.2
20-24	246 443 (6.6)	468 (5.5)	4 739 305	5 200.0	9.9
25-29	361 025 (9.7)	754 (8.8)	5 324 134	6 780.9	14.2
30-34	416 195 (11.2)	945 (11.0)	5 630 643	7 391.6	16.8
35-39	422 162 (11.4)	874 (10.2)	4 985 251	8 468.2	17.5
40-44	357 908 (9.7)	791 (9.2)	3 881 731	9 220.3	20.4
45-49	340 651 (9.2)	696 (8.1)	3 254 138	10 468.2	21.4
50-54	305 638 (8.2)	626 (7.3)	2 625 390	11 641.6	23.8
55-59	253 764 (6.8)	600 (7.0)	2 243 823	11 309.4	26.7
60-64	177 549 (4.8)	419 (4.9)	1 815 810	9 778.0	23.1
65-69	122 189 (3.3)	312 (3.6)	1 422 604	8 589.1	21.9
70-74	89 006 (2.4)	209 (2.4)	1 024 345	8 689.1	20.4
75-79	57 666 (1.6)	168 (2.0)	647 265	8 909.2	26.0
≥80	66 859 (1.8)	156 (1.8)	595 323	11 230.7	26.2
Unknown	35 116 (0.0)	32 (0.0)			
Total	**3 741 230 (100.0)**	**8 590 (100.0)**	**60 142 978**	**6 220.6**	**14.3**

[1]New cases refer to cases whose samples were collected or received in the current reporting week; [2]Percentage=n/total number of new cases (specimen collected or received in current reporting week); [3]2021 Mid-year population Statistics South Africa

Provincial trends of COVID-19 cases

Eastern Cape Province

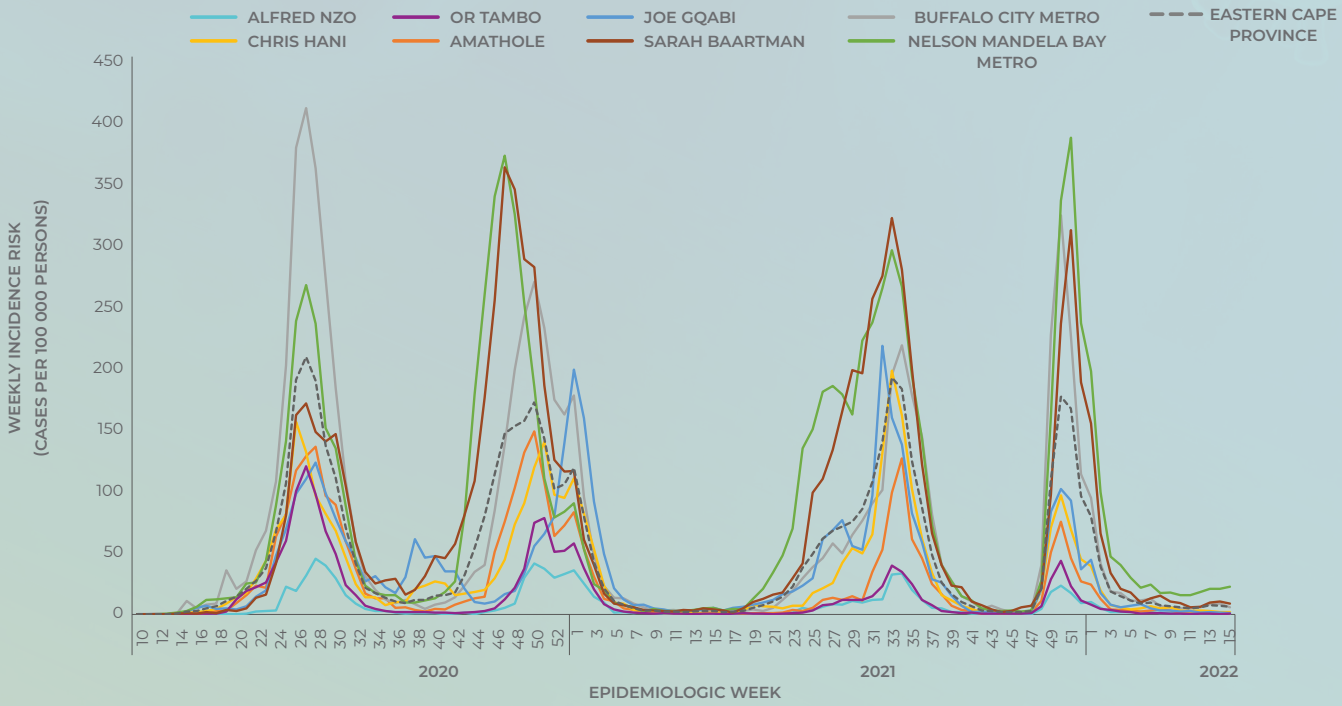


Figure 6. Weekly incidence risk of laboratory-confirmed cases of COVID-19 by district and epidemiologic week Eastern Cape Province 3 March 2020 – 16 April 2022 (n = 291 512, 54 754 missing district)

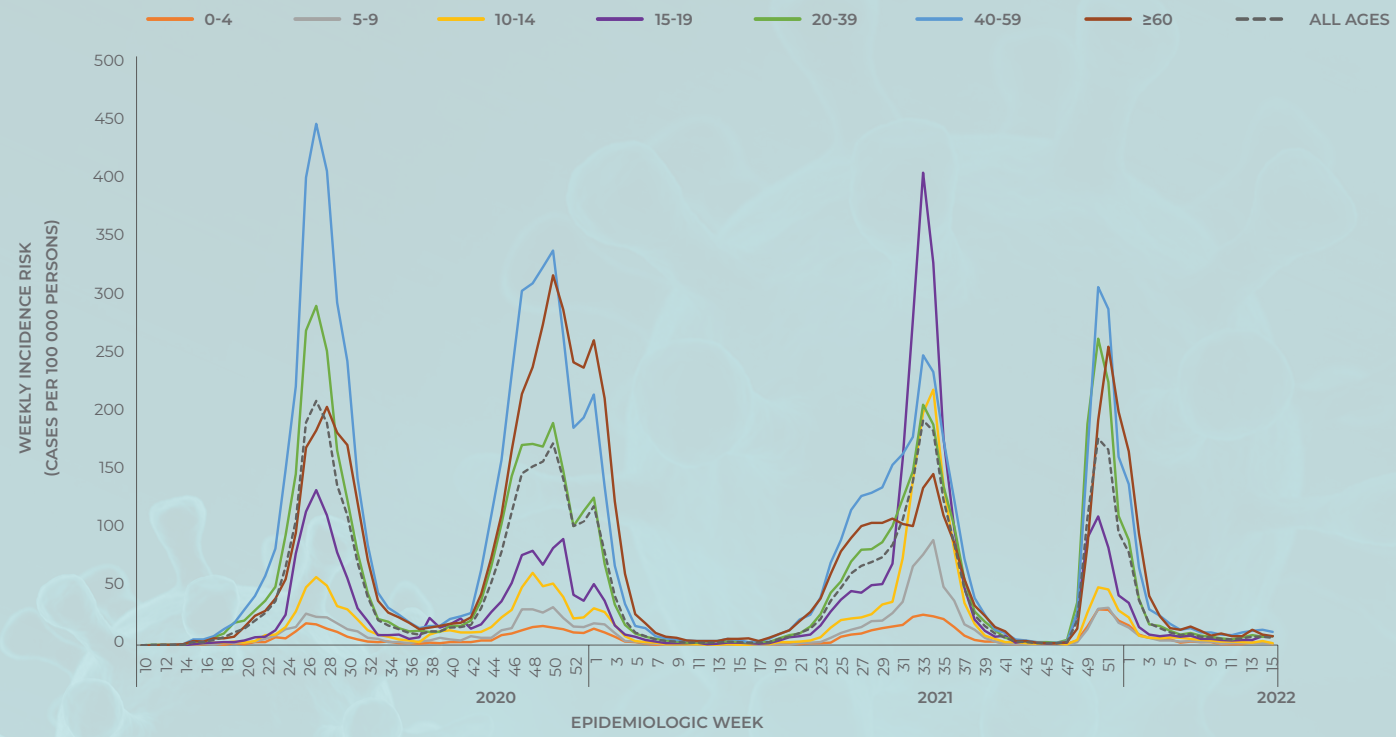


Figure 7. Weekly incidence risk of laboratory-confirmed cases of COVID-19 by age group in years and epidemiologic week Eastern Cape Province 3 March 2020 – 16 April 2022 (n = 342 613, 3 653 missing age)

Western Cape Province

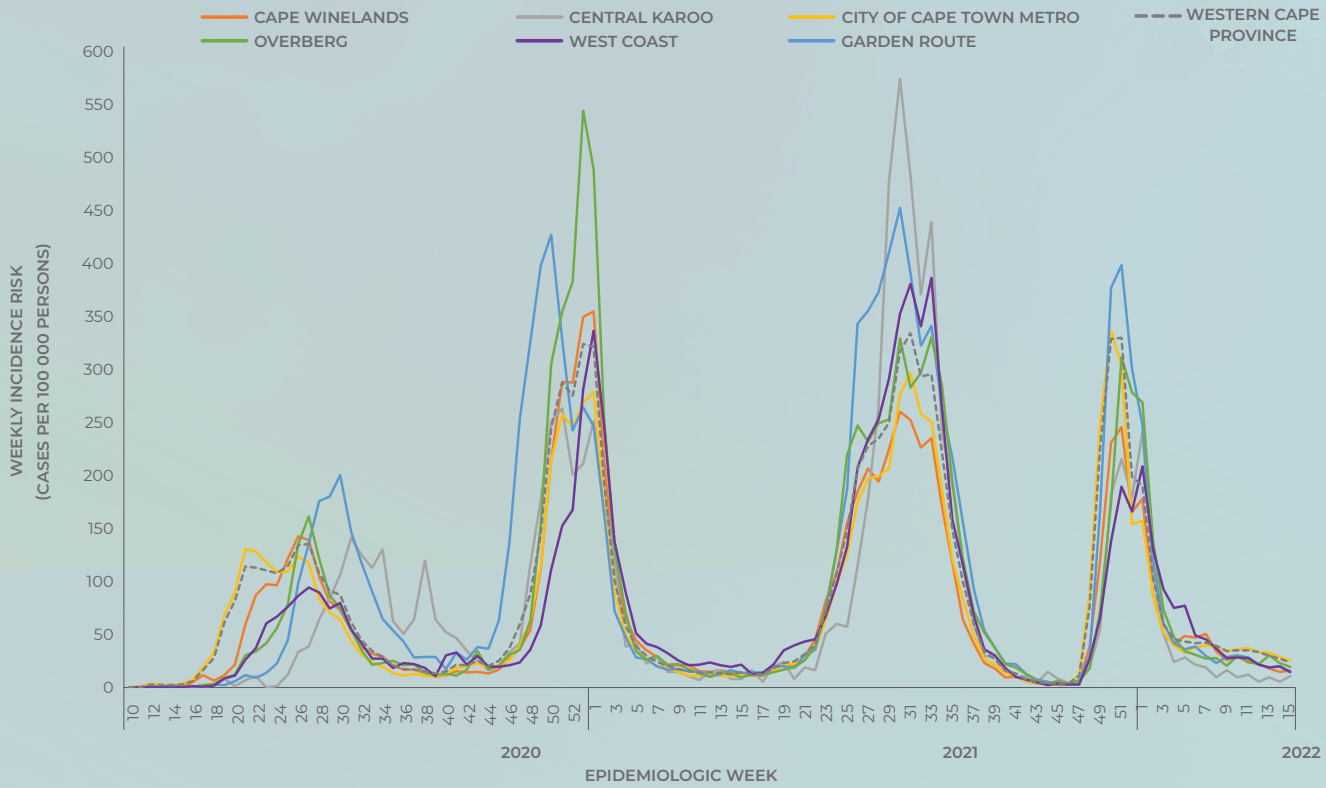


Figure 8. Weekly incidence risk of laboratory-confirmed cases of COVID-19 by district and epidemiologic week Western Cape Province 3 March 2020 – 16 April 2022 (n = 602 486, 52 860 missing district)

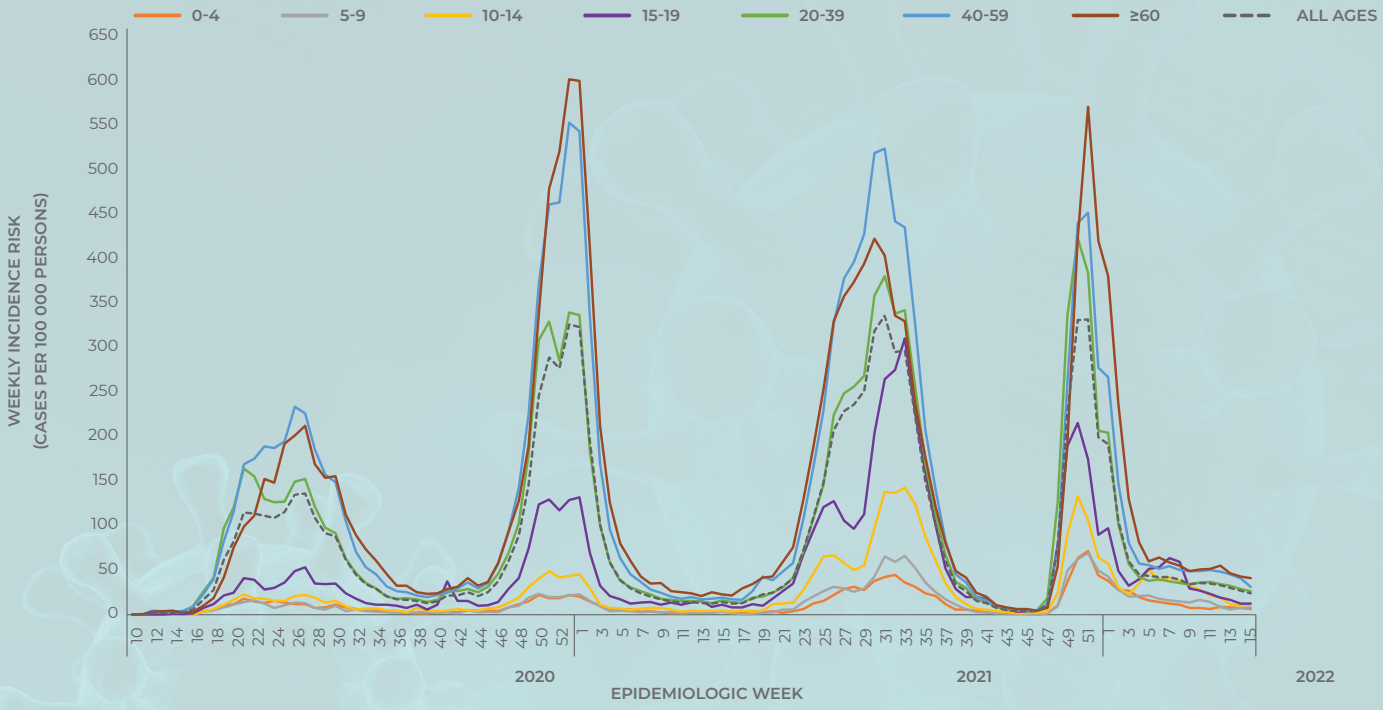


Figure 9. Weekly incidence risk of laboratory-confirmed cases of COVID-19 by age group in years and epidemiologic week Western Cape Province 3 March 2020 – 16 April 2022 (n = 653 576, 1 770 missing age)

Gauteng Province

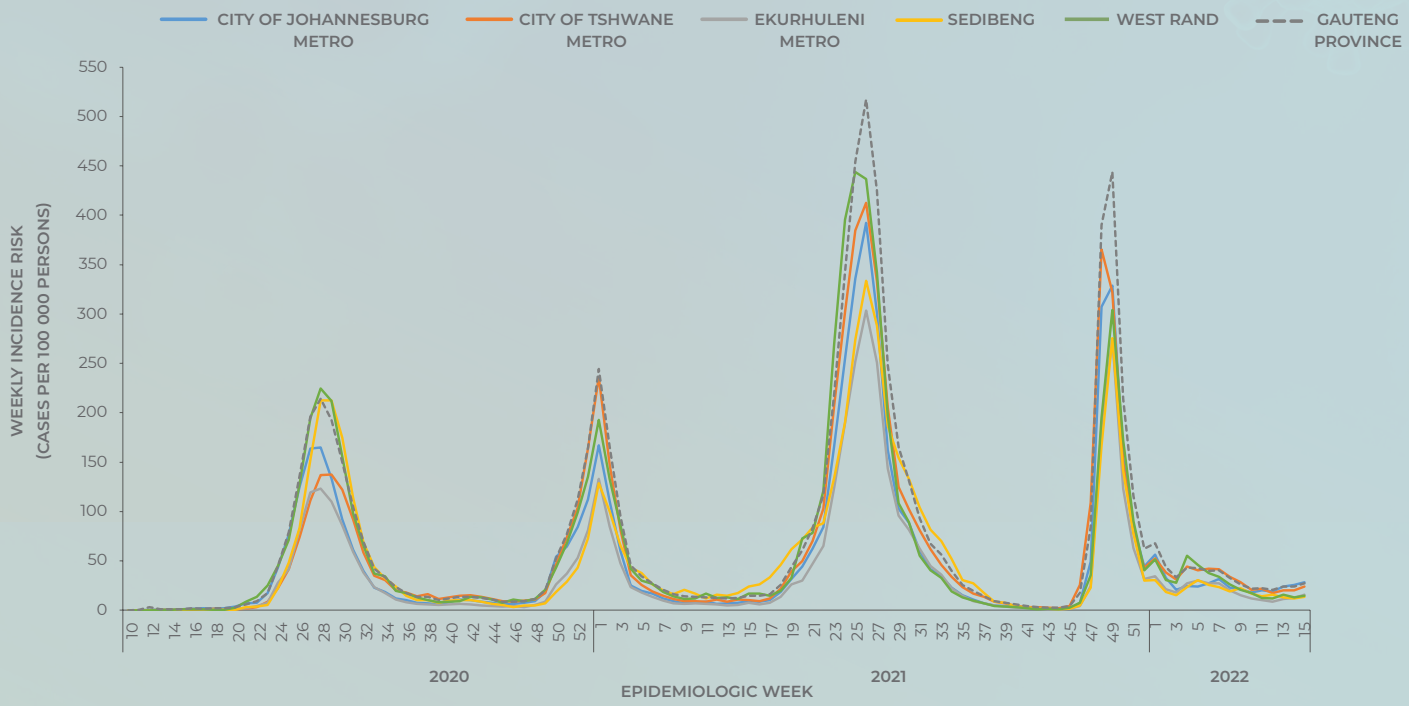


Figure 10. Weekly incidence risk of laboratory-confirmed cases of COVID-19 by district and epidemiologic week Gauteng Province 3 March 2020 – 16 April 2022 (n = 867 090, 352 228 missing district)

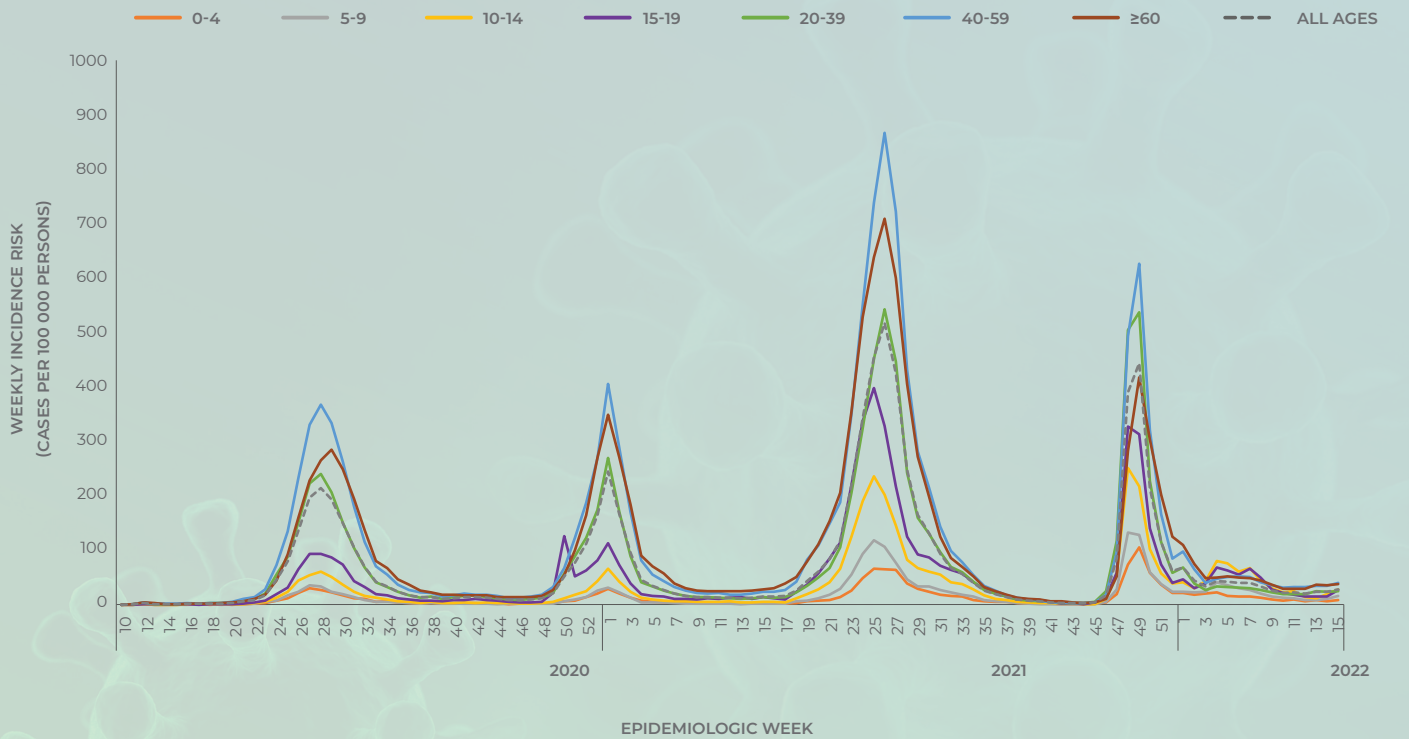


Figure 11. Weekly incidence risk of laboratory-confirmed cases of COVID-19 by age group in years and epidemiologic week Gauteng Province 3 March 2020 – 16 April 2022 (n = 1 206 951, 12 367 missing age)

KwaZulu-Natal Province

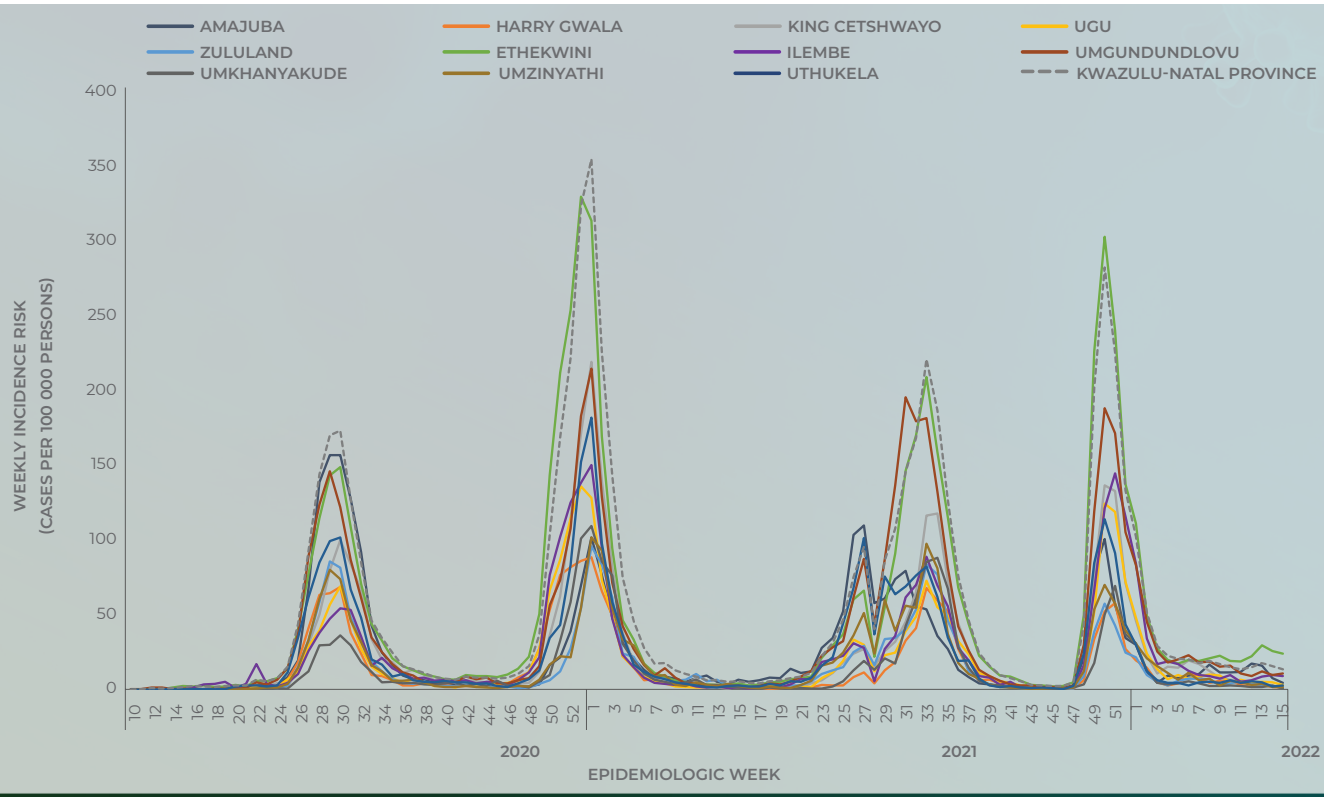


Figure 12. Weekly incidence risk of laboratory-confirmed cases of COVID-19 by district and epidemiologic week KwaZulu-Natal Province 3 March 2020 – 16 April 2022 (n = 409 504, 255 422 missing district)

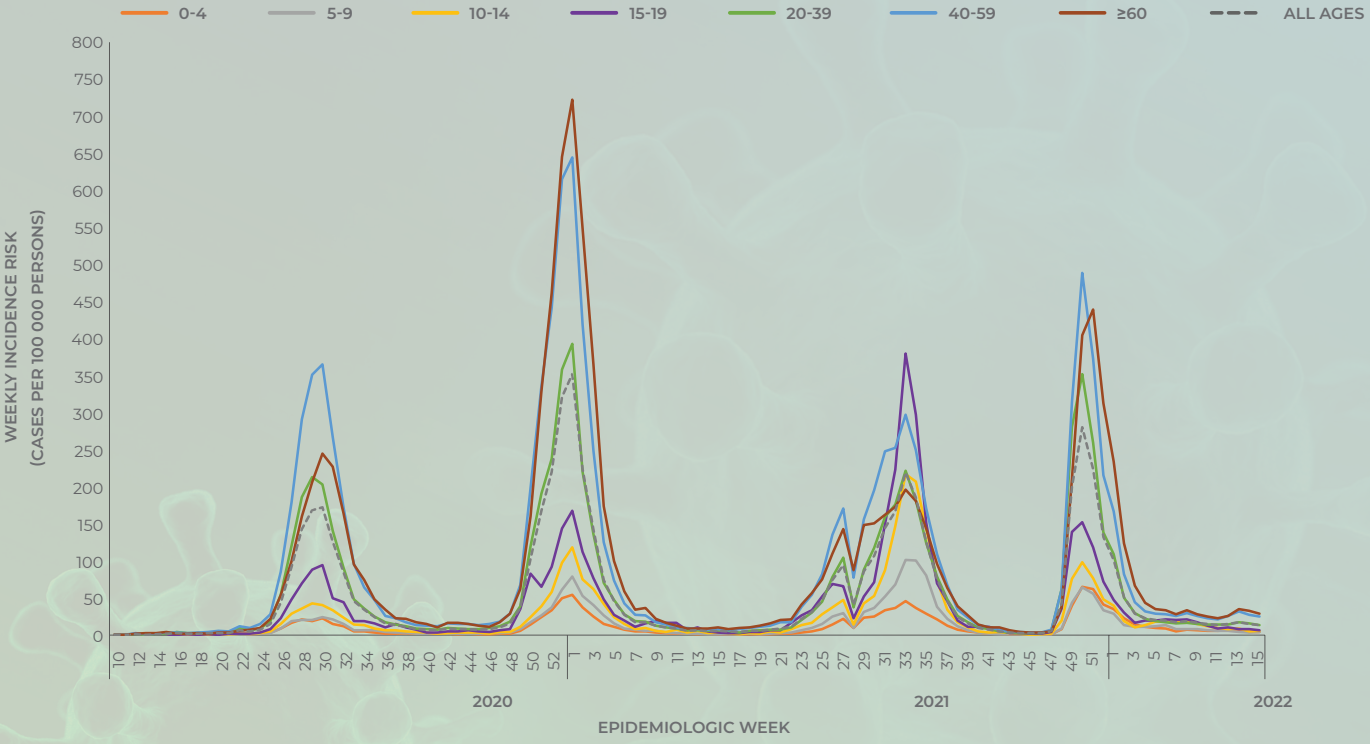


Figure 13. Weekly incidence risk of laboratory-confirmed cases of COVID-19 by age group in years and epidemiologic week KwaZulu-Natal Province 3 March 2020 – 16 April 2022 (n = 656 392, 8 534 missing age)

Free State Province

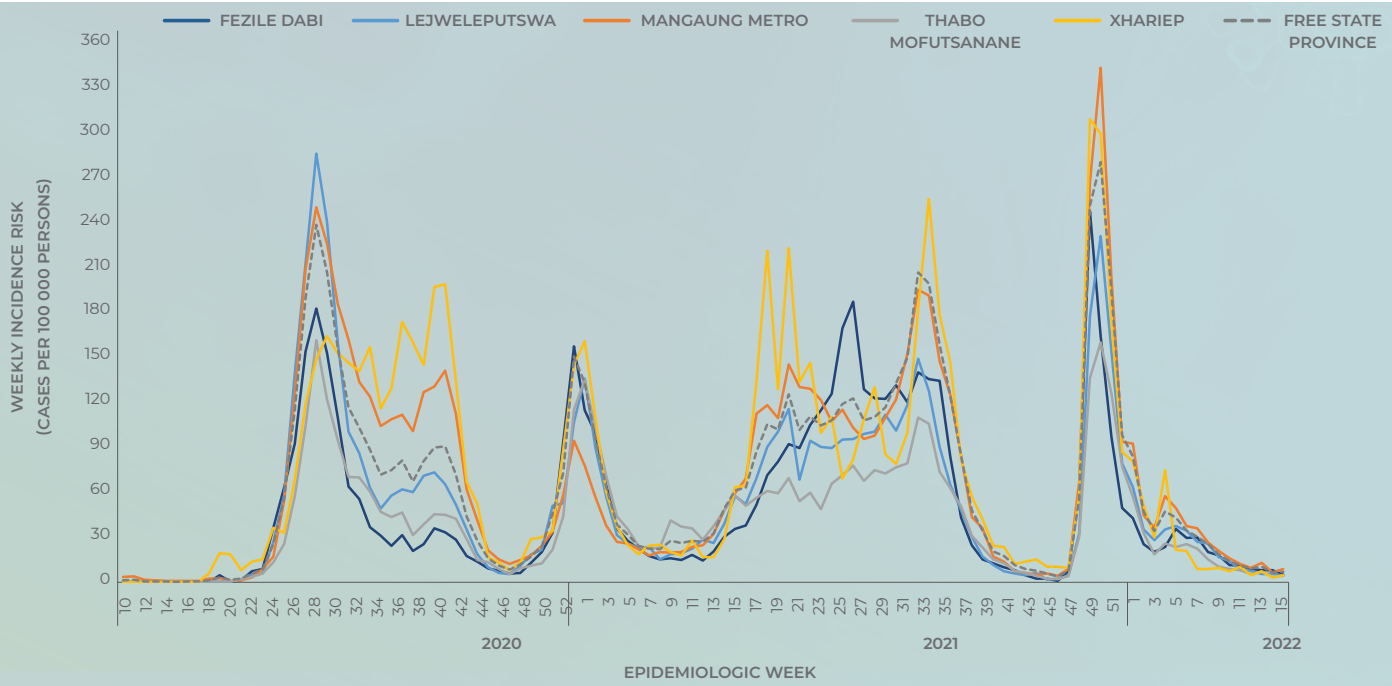


Figure 14. Weekly incidence risk of laboratory-confirmed cases of COVID-19 by district and epidemiologic week Free State Province 3 March 2020 – 16 April 2022 (n = 173 125, 29 792 missing district)

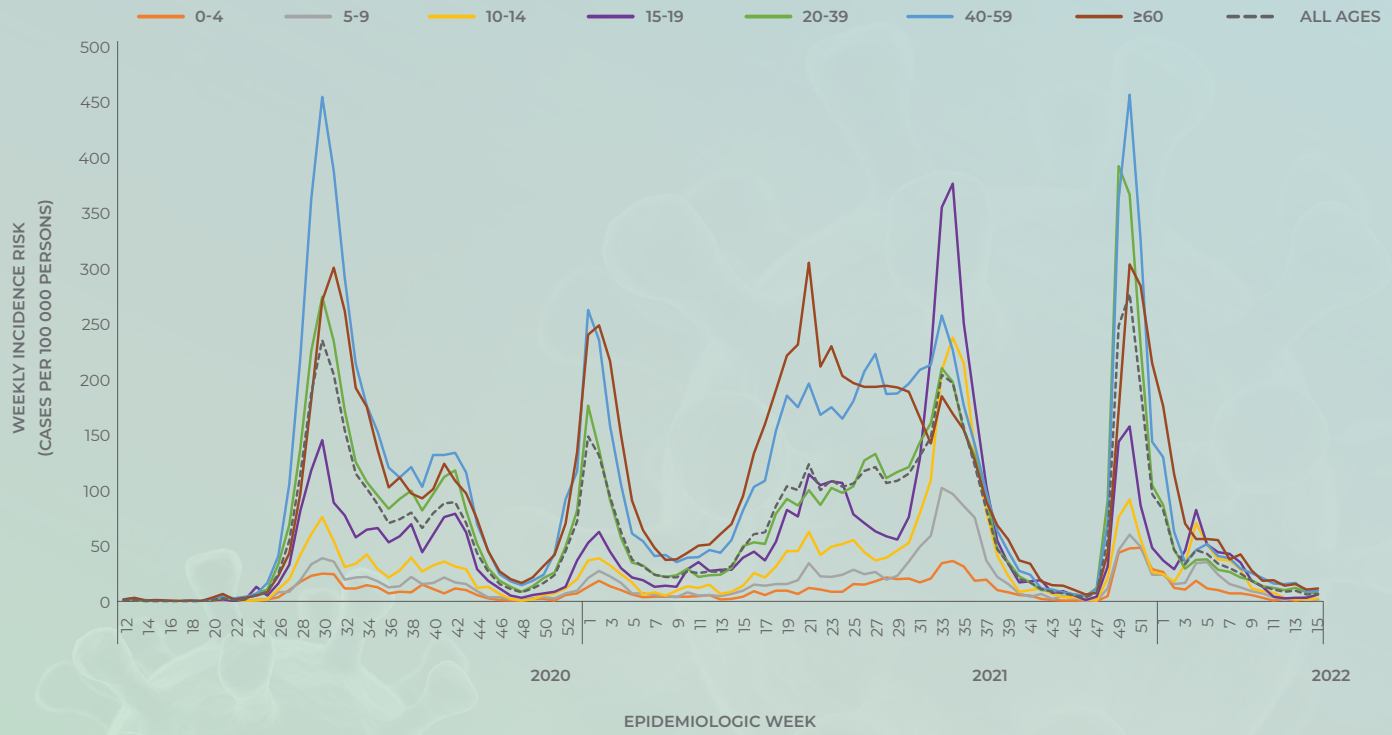


Figure 15. Weekly incidence risk of laboratory-confirmed cases of COVID-19 by age group in years and epidemiologic week Free State Province 3 March 2020 – 16 April 2022 (n = 202 099, 818 missing age)

Limpopo Province

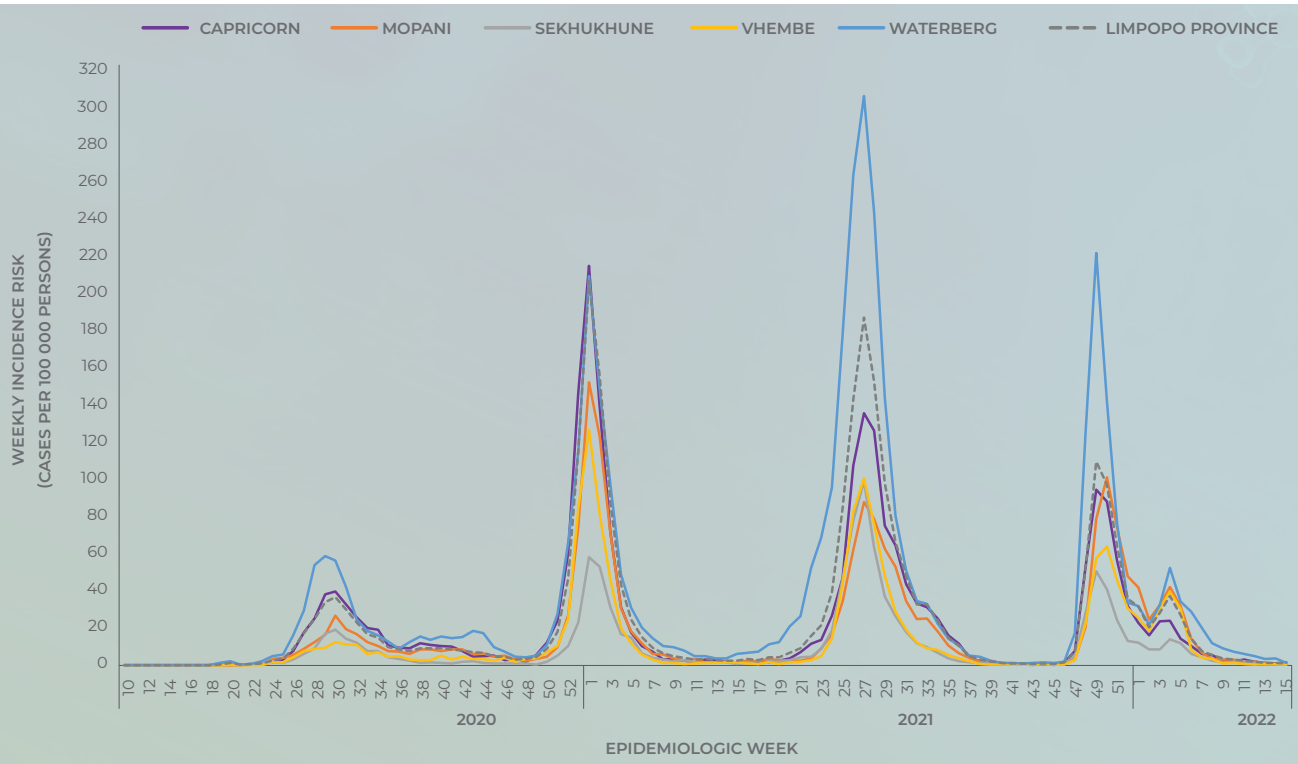


Figure 16. Weekly incidence risk of laboratory-confirmed cases of COVID-19 by district and epidemiologic week Limpopo Province 3 March 2020 – 16 April 2022 (n = 116 049, 40 026 missing district)

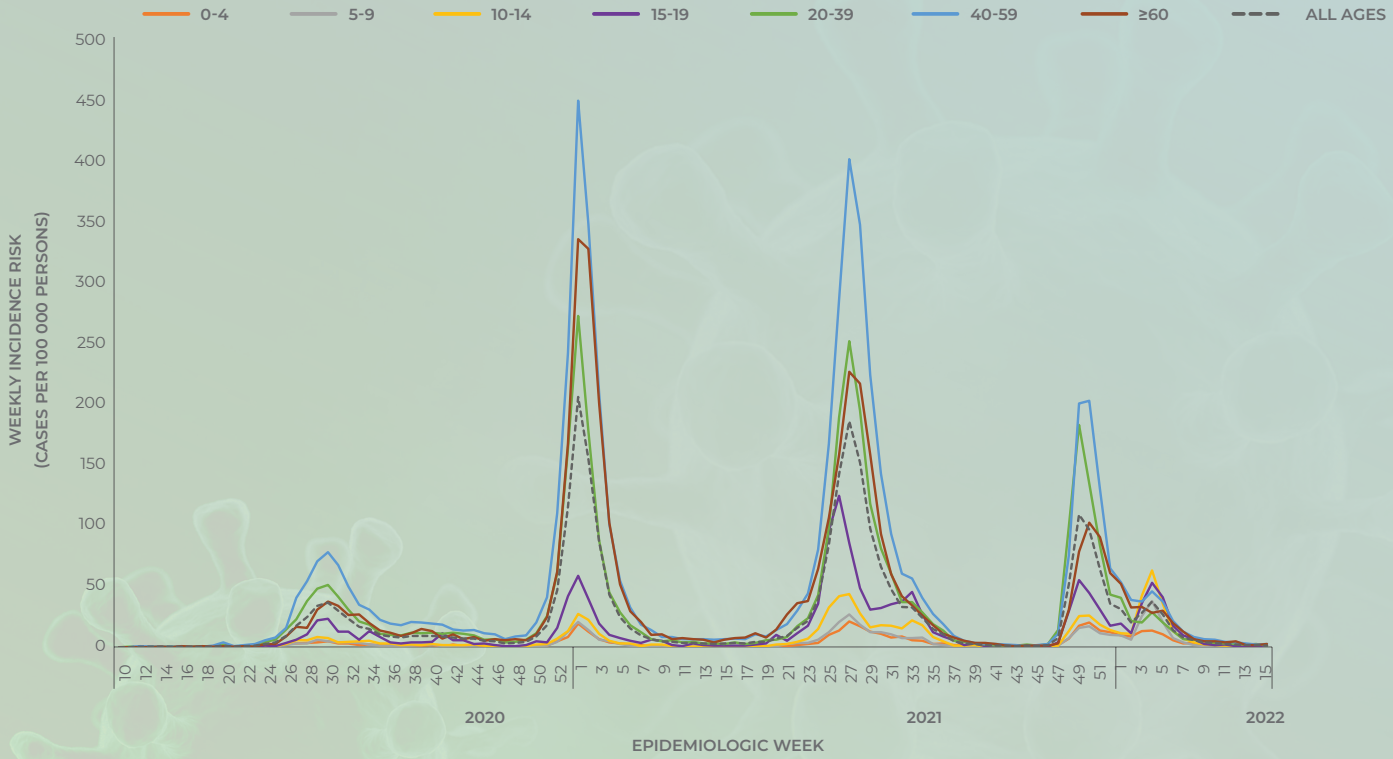


Figure 17. Weekly incidence risk of laboratory-confirmed cases of COVID-19 by age group in years and epidemiologic week Limpopo Province 3 March 2020 – 16 April 2022 (n = 155 365, 710 missing age)

Mpumalanga Province

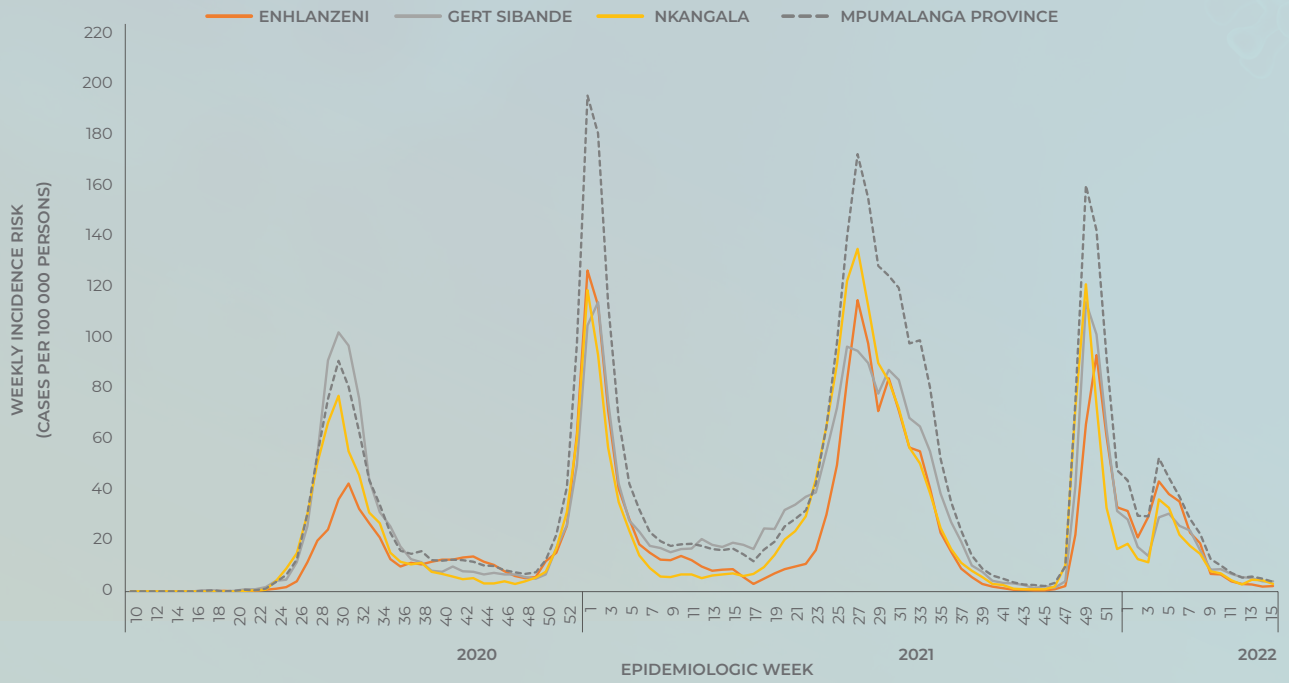


Figure 18. Weekly incidence risk of laboratory-confirmed cases of COVID-19 by district and epidemiologic week Mpumalanga Province 3 March 2020 – 16 April 2022 (n = 126 645, 67 194 missing district)

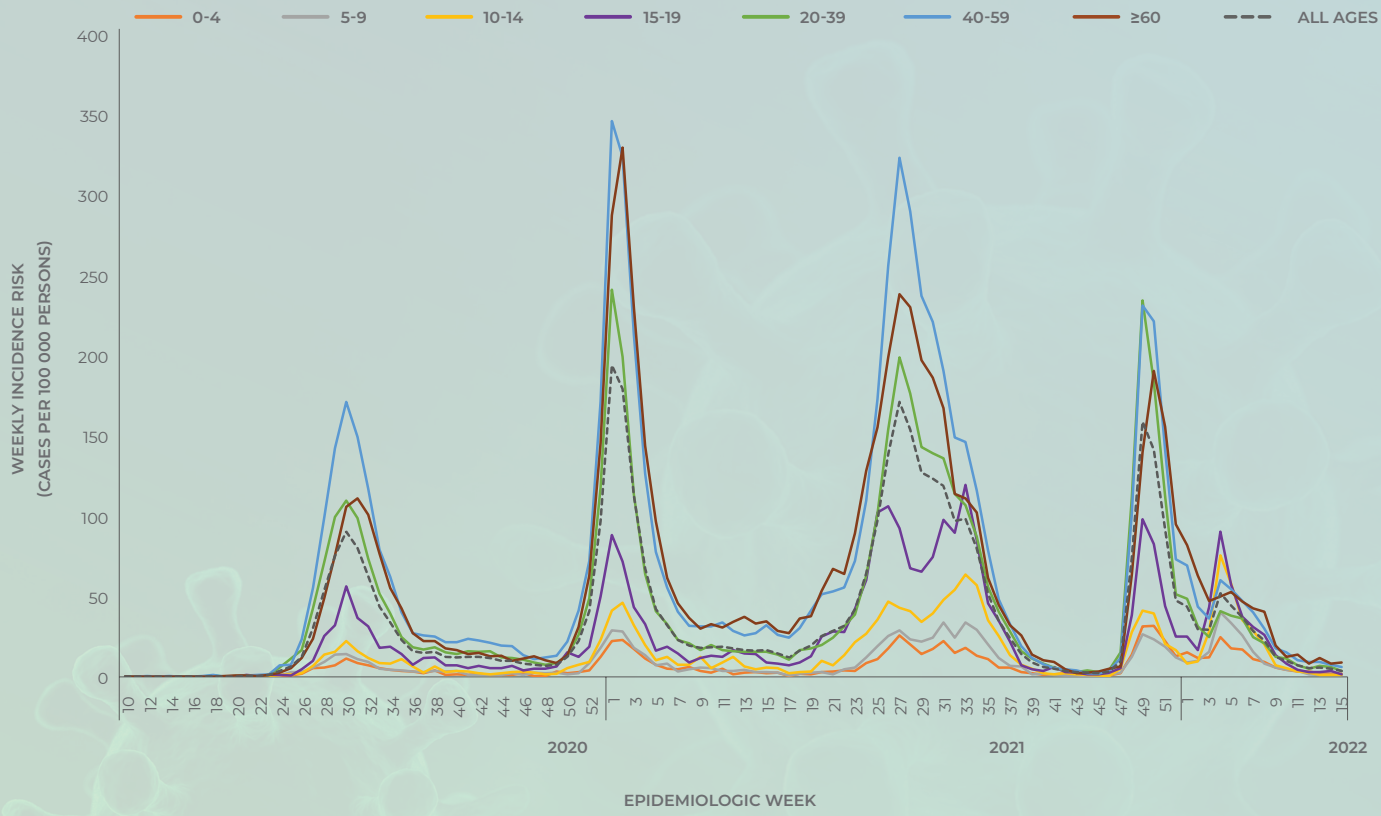


Figure 19. Weekly incidence risk of laboratory-confirmed cases of COVID-19 by age group and epidemiologic week Mpumalanga Province 3 March 2020 – 16 April 2022 (n = 193 839, 4 063 missing age)

North West Province

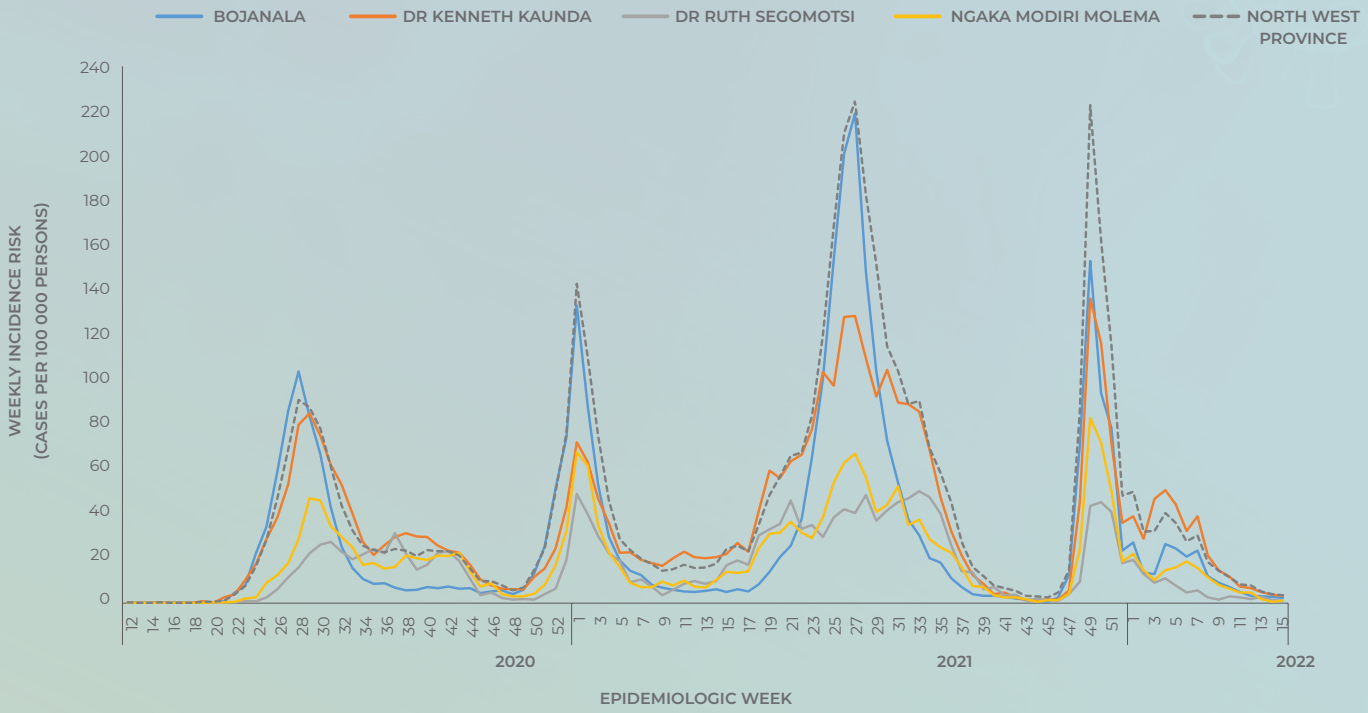


Figure 20. Weekly incidence risk of laboratory-confirmed cases of COVID-19 by district and epidemiologic week North West Province 3 March 2020 – 16 April 2022 (n = 120 220, 73 232 missing district)

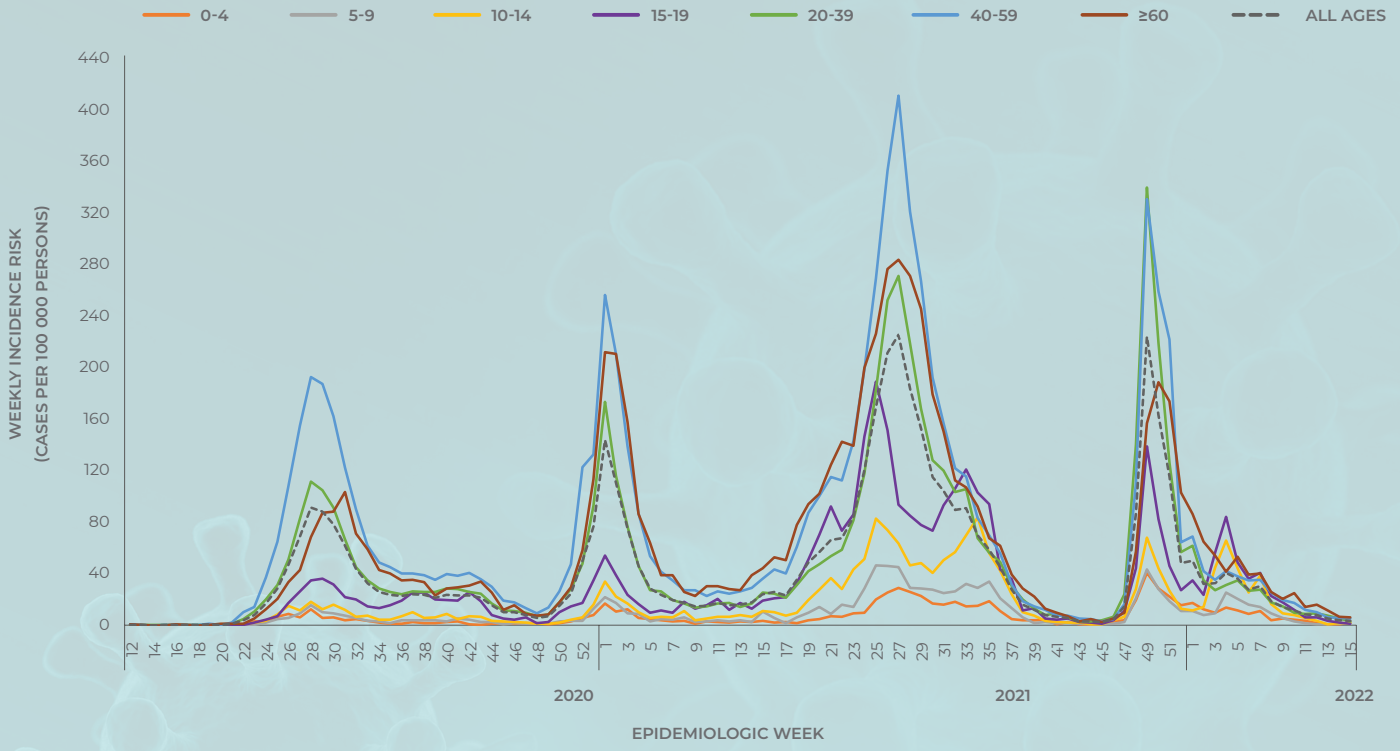


Figure 21. Weekly incidence risk of laboratory-confirmed cases of COVID-19 by age group in years and epidemiologic week North West Province 3 March 2020 – 16 April 2022 (n = 190 970, 2 482 missing age)

Northern Cape Province

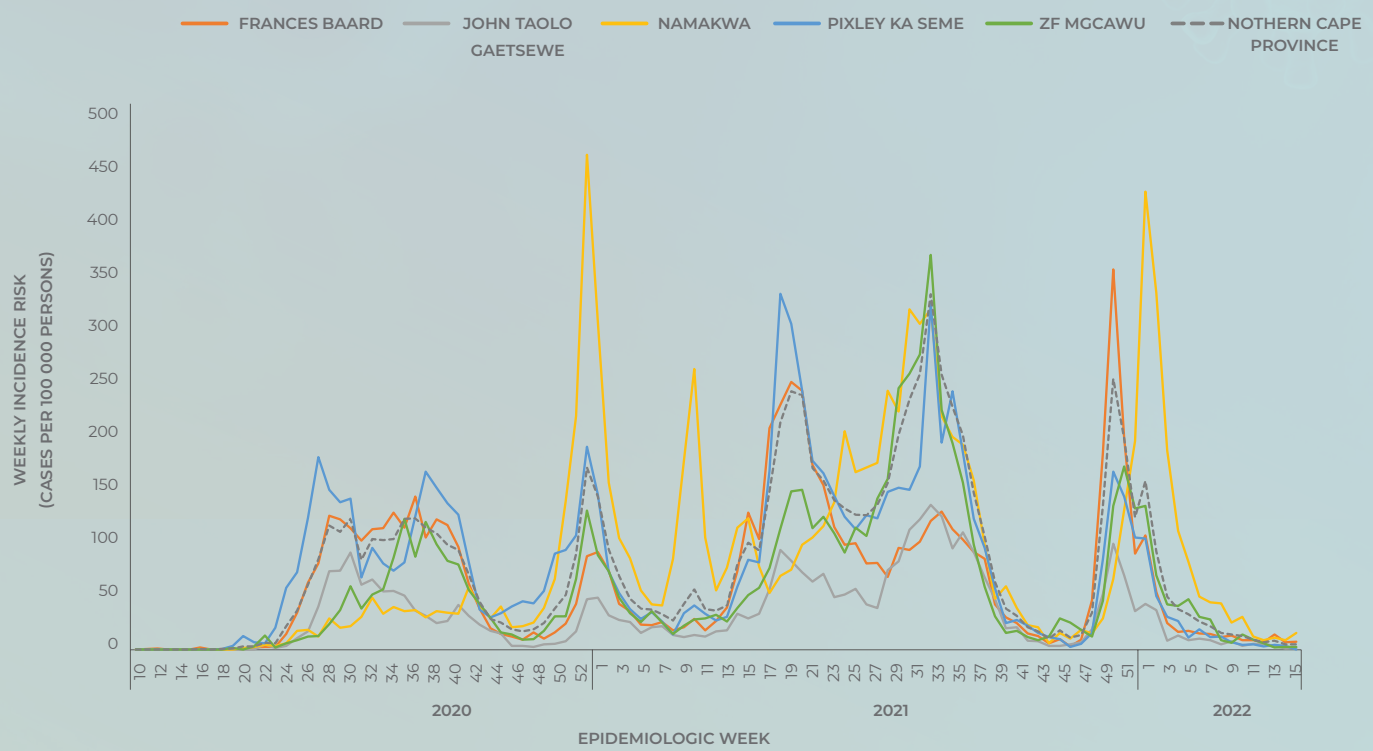


Figure 22. Weekly incidence risk of laboratory-confirmed cases of COVID-19 by district and epidemiologic week Northern Cape Province 3 March 2020 – 16 April 2022 (n = 83 519, 25 572 missing district)

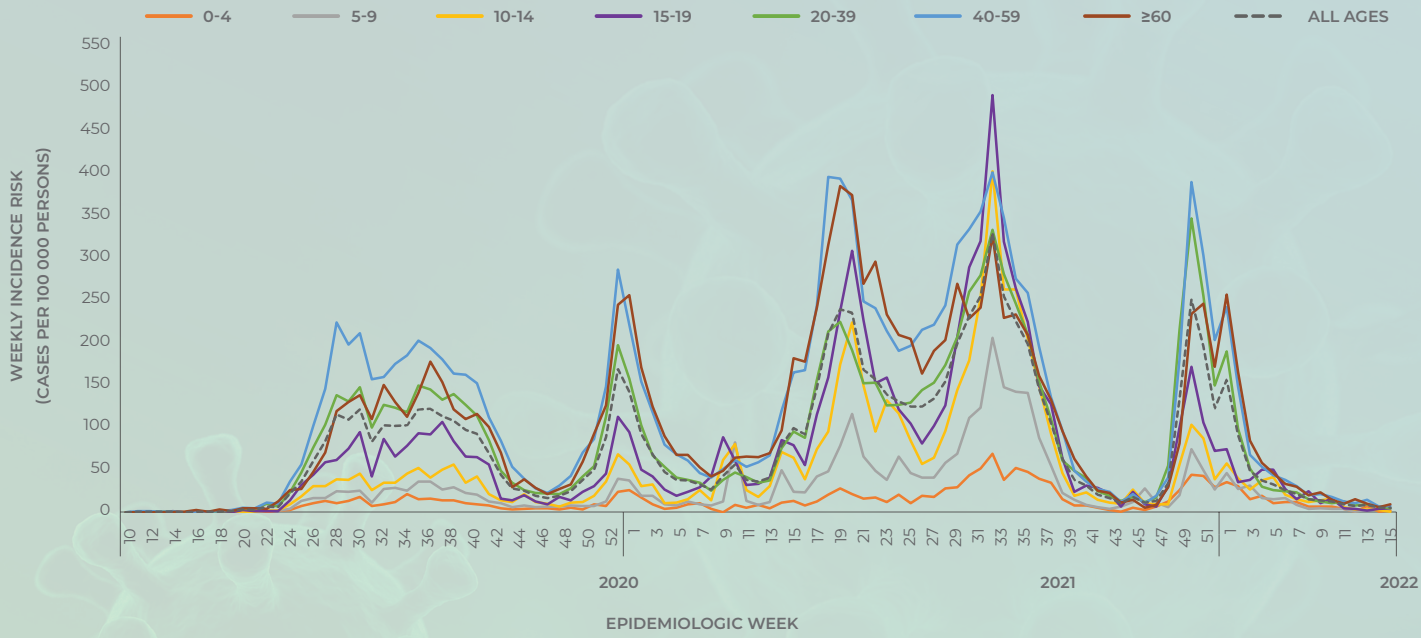


Figure 23 Weekly incidence risk of laboratory-confirmed cases of COVID-19 by age group in years and epidemiologic week Northern Cape Province 3 March 2020 – 16 April 2022 (n = 108 372, 719 missing age)

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 largely discontinued and testing efforts then focussed on areas identified as hot spots and on investigating clusters. Contacts of cases were traced and tested if symptomatic. In some provinces and certain circumstances (e.g. closed settings, workplaces), asymptomatic contacts were tested. In recent weeks, testing has been prioritised for healthcare workers and hospitalised patients. Laboratories used any one of several in-house and commercial PCR assays to test for the presence of SARS-CoV-2 RNA. Testing for SARS-CoV-2 using rapid antigen-based tests was implemented during November 2020. 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 single positive SARS-CoV-2 PCR or antigen test. For reports published from week 2 of 2022 onwards, we used 2021 mid-year population estimates to calculate incidence risk (cumulative and weekly incidence). For historical reports published from week 41 of 2020 to week 1 of 2022, 2020 mid-year population estimates were used, and reports published from epidemiologic week 10 (during the start of COVID-19 epidemic in South Africa) to week 40 of 2020, 2019 mid-year population estimates were used. Data on number of tests conducted in the past week as reported in the simultaneously-published COVID-19 weekly testing report was used to calculate tests conducted per 100 000 persons. Data on province and district allocation was based on geocoding algorithm using in order of priority (i) completeness of patient data, (ii) submitting doctor's address, (iii) registering doctor's address and as final option, (iv) the guarantor's address data. The geocoding algorithm used the most complete data for assigning data on province and district where adequate information was provided on the lab request form at the time of sample collection. Data on district allocation may lag resulting in number of cases in recent weeks missing district allocation. Prevalence and incidence risk by districts should be interpreted with caution.

Until the week 29 of 2020 report, new cases were defined as all cases reported since the last report, irrespective of when the sample was collected. Subsequent to the week 29 of 2020 report, new cases are now defined as cases detected in the past epidemiologic week based on date of sample collection or sample receipt. It is therefore possible for numbers reported as new cases for the current reporting week not to tally with total additional cases reported since the last report. This will be the case when there was a delay in reporting of cases.

Limitations

This report is based on laboratory-based surveillance of laboratory-confirmed cases. 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. Differences in health-seeking behaviour by age group and sex could also contribute to the observed differences in case numbers between groups. Delays in reporting may result in incomplete data for recent weeks, leading to an apparent reduction in number of cases. Changes in testing strategy during the different times of the epidemic may also affect the number of cases reported, leading to a decrease in number of positive cases if testing is only conducted for severe cases or certain risk groups.