

COVID-19 WEEKLY EPIDEMIOLOGY BRIEF



NATIONAL INSTITUTE FOR
COMMUNICABLE DISEASES

Division of the National Health Laboratory Service

SOUTH AFRICA WEEK 49 2021

CUMULATIVE DATA FROM



CASES

3 167 497
IN TOTAL

119 060
THIS WEEK**

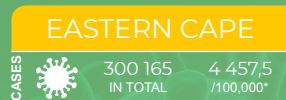


PERSONS

5 312,6
INCIDENCE RISK*

39
MEDIAN AGE

PROVINCES AT A GLANCE



* 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 11 December 2021 (week 49 of 2021). 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. As of week 36 of 2021, the format of this report has been simplified, more detailed reports will be produced at regular interval.

Highlights

- As of 11 December 2021, a total of 3 167 497 laboratory-confirmed COVID-19 cases had been detected in South Africa. Of these, 135 803 were cases reported since the last report (week 48 of 2021). There was a 42.0% increase in the number of new cases detected in week 49 of 2021 (119 060) compared to the number of new cases detected in week 48 of 2021 (83 838).
- In the past week, the Gauteng Province reported the highest number of cases detected (58 391/119 060, 49.0%), and other provinces reported below 15% of all reported cases each.
- In the past week, all provinces reported an increase in weekly incidence risk, except the Gauteng Province which reported a decrease (15.1 cases per 100 000 persons, 3.9% decrease), compared to the previous week. The increase ranged from 37.7 cases per 100 000 persons (81.7% increase) in the Limpopo Province to 136.8 cases per 100 000 persons (254.6% increase) in the Free State Province.
- In the past week, the Gauteng Province reported the highest weekly incidence risk (377.0 cases per 100 000 persons), followed by the Free State Province (190.5 cases per 100 000 persons), Western Cape Province (180.5 cases per 100 000 persons), and the North West Province (175.1 cases per 100 000 persons). The other provinces reported below 150 cases per 100 000 persons.
- The highest weekly incidence risk among cases detected in week 49 of 2021 was reported in the 35-39-year age group (318.1 cases per 100 000 persons), and the lowest weekly incidence risk was in the 0-4-year age group (39.0 cases per 100 000 persons).

INCIDENCE
RISK FOR
CURRENT WEEK

199,7

CASES PER
100 000
PERSONS

49,0%

OF CASES
REPORTED IN
GAUTENG IN
CURRENT WEEK

IN CURRENT
WEEK, THE
HIGHEST
WEEKLY
INCIDENCE
RISK WAS IN
CASES AGED 35-
39 YEARS (318,1
CASES PER 100
000 PERSONS)

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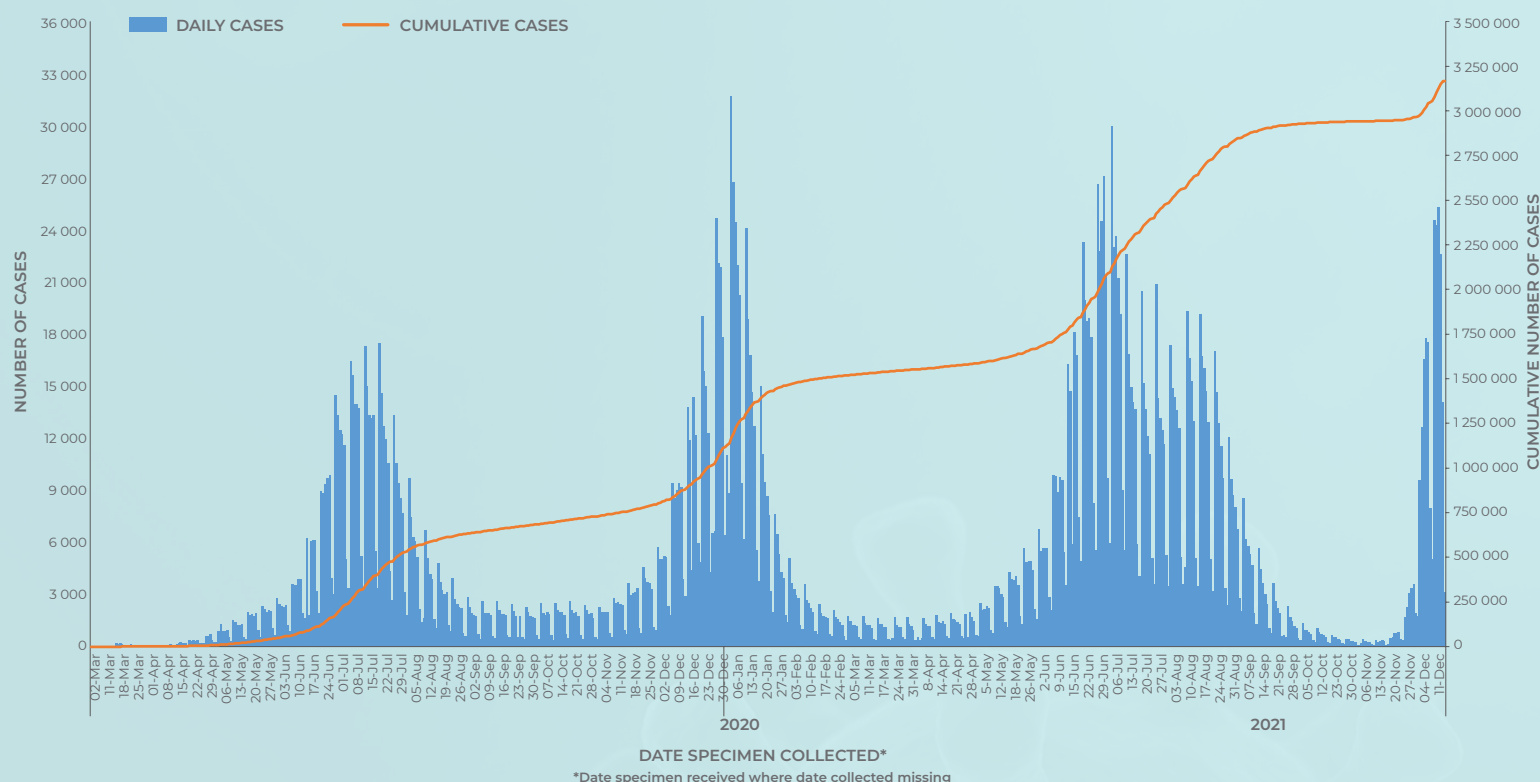


Figure 1. Number and cumulative number of laboratory-confirmed cases of COVID-19 by date of specimen collection, South Africa, 3 March 2020 –11 December (n=3 167 497)

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 –11 December 2021 (n=3 167 497)

Province	Cumulative cases (n) (percentage, n/ total cases in South Africa)	New cases ¹ detected in week 49 (5-11 Dec 2021), n (percentage ² , n/total)	Population in mid-2020 ³ , n	Cumulative incidence risk (cases per 100 000 persons)	Incidence risk of new cases detected in week 49 of 2021 (cases/100 000 persons)	Tests ⁴ per 100 000 persons, 5-11 Dec 2021
Eastern Cape	300 165 (9.5)	5 587 (4.7)	6 734 001	4 457.5	83.0	409.7
Free State	172 704 (5.5)	5 581 (4.7)	2 928 903	5 896.5	190.5	701.6
Gauteng	1 063 349 (33.6)	58 391 (49.0)	15 488 137	6 865.6	377.0	1264.4
KwaZulu-Natal	540 383 (17.1)	17 086 (14.4)	11 531 628	4 686.1	148.2	633.7
Limpopo	131 243 (4.1)	4 907 (4.1)	5 852 553	2 242.5	83.8	225.7
Mpumalanga	163 671 (5.2)	6 350 (5.3)	4 679 786	3 497.4	135.7	411.0
North West	164 794 (5.2)	7 193 (6.0)	4 108 816	4 010.7	175.1	525.3
Northern Cape	95 097 (3.0)	1 319 (1.1)	1 292 786	7 356.0	102.0	495.8
Western Cape	536 091 (16.9)	12 646 (10.6)	7 005 741	7 652.2	180.5	860.3
Unknown						
Total	3 167 497	119 060	59 622 350	5 312.6	199.7	734.3

¹New cases refer to cases whose samples were collected or received in the current reporting week; ²Percentage=n/total number of new cases (specimen collected or received in current reporting week); ³2020 Mid-year population Statistics South Africa ⁴Data on number of tests conducted sourced from COVID-19 weekly testing report of the same reporting week

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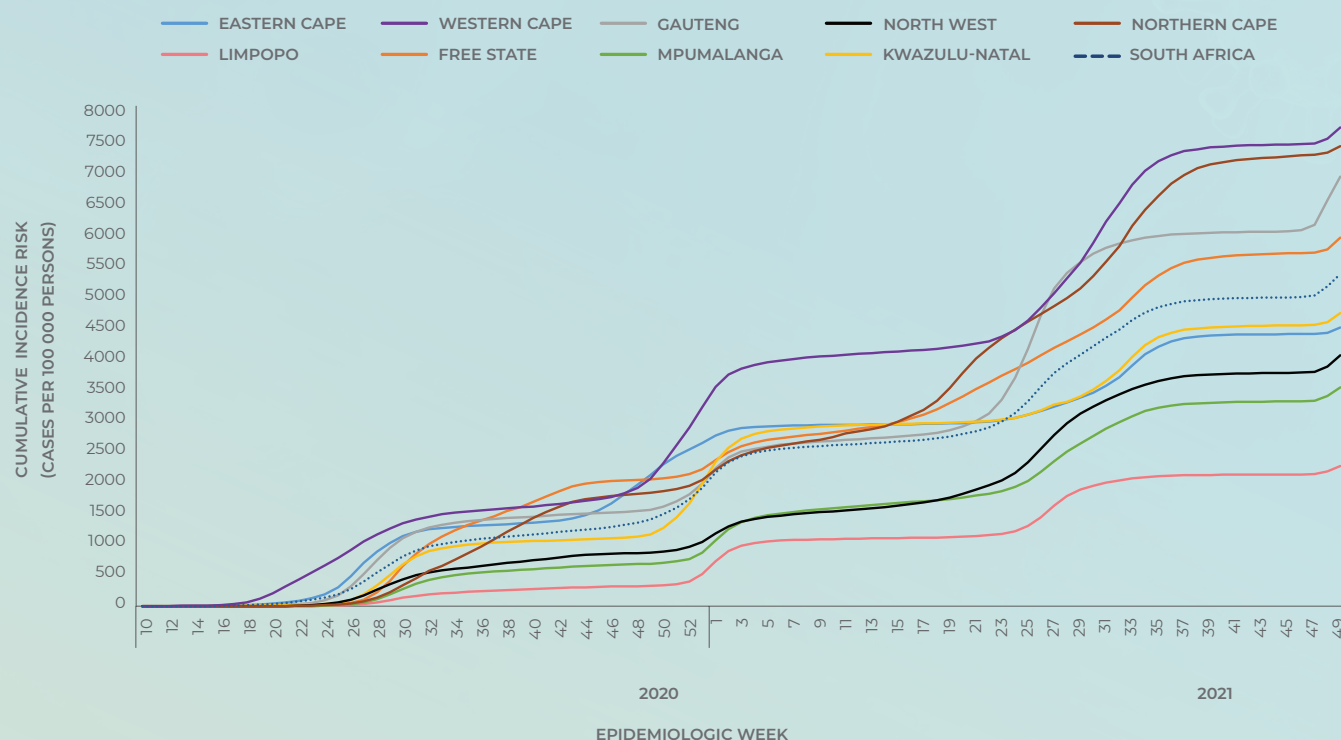


Figure 2. Cumulative incidence risk of laboratory-confirmed cases of COVID-19 by province and epidemiologic week, South Africa, 3 March 2020 –11 December 2021 (n=3 167 497)

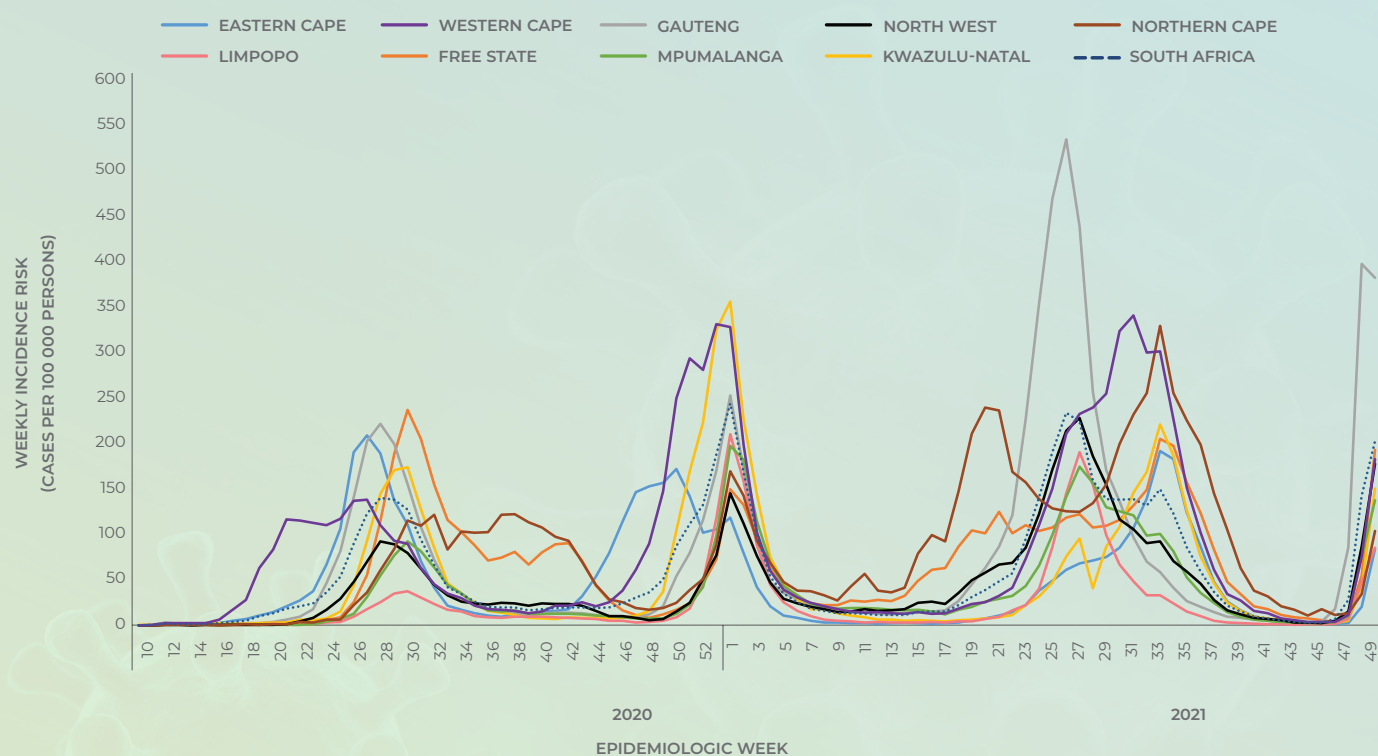


Figure 3. Weekly incidence risk of laboratory-confirmed cases of COVID-19 by province and epidemiologic week, South Africa, 3 March 2020 –11 December 2021 (n=3 167 497)

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

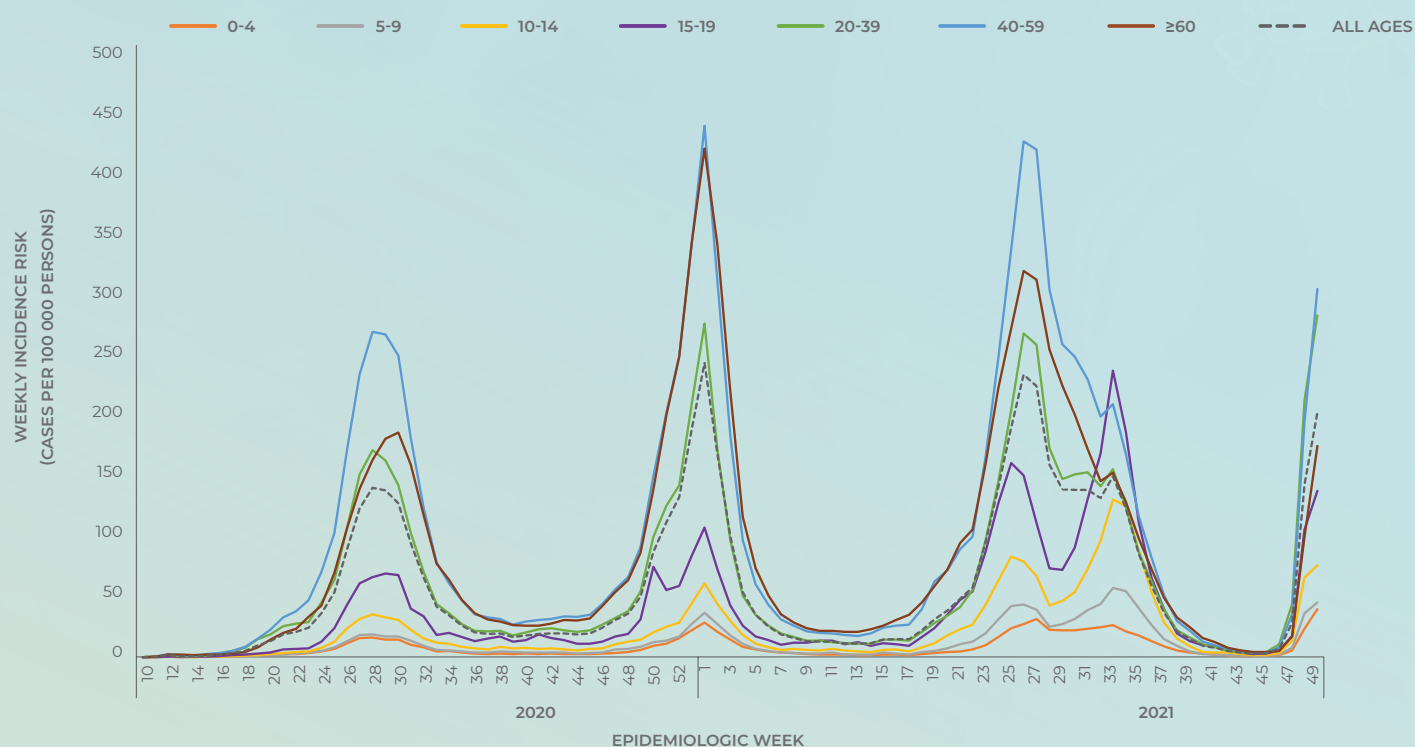


Figure 4. Weekly incidence risk of laboratory-confirmed cases of COVID-19 by age group in years and epidemiologic week, South Africa, 3 March 2020 -11 December 2021 (n=3 137 715, 29 782 missing age)

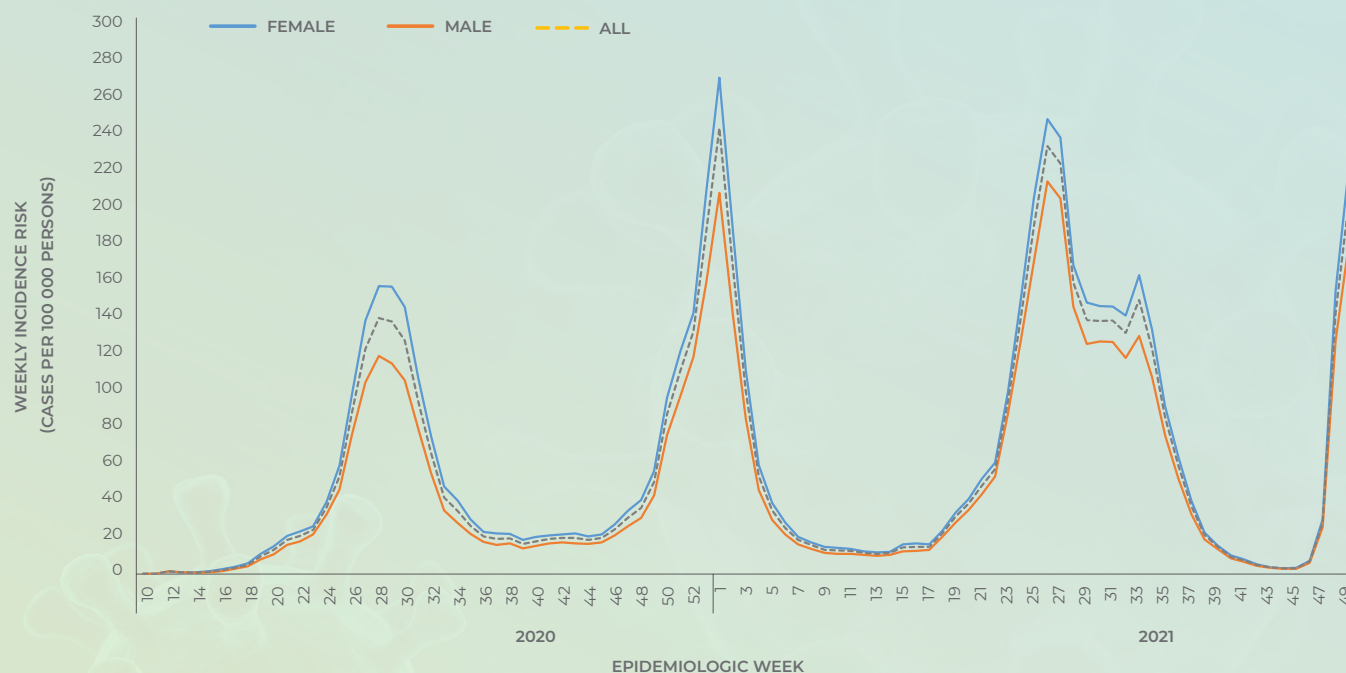


Figure 5. Weekly incidence risk of laboratory-confirmed cases of COVID-19 by sex and epidemiologic week, South Africa, 3 March 2020 -11 December 2021 (n=3 133 164, sex missing for 34 333)

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Table 2. Number of laboratory-confirmed cases of COVID-19 and cumulative/weekly incidence risk by age group, South Africa, 3 March 2020 –11 December 2021, n=3 137 715, 29 782 missing age)

Age group (years)	Cumulative cases (n) (percentage, n/total cases in South Africa)	New cases ¹ detected in week 49 (5-11 Dec 2021), n (percentage ² , n/total)	Population in mid-2020 ³ , n	Cumulative incidence risk (cases per 100 000 persons)	Incidence risk of new cases detected in week 49 of 2021 (cases/100 000 persons)
0-4	42 802 (1.4)	2 241 (1.9)	5 743 450	745.2	39.0
5-9	62 448 (2.0)	2 544 (2.2)	5 715 952	1 092.5	44.5
10-14	115 223 (3.7)	4 199 (3.6)	5 591 553	2 060.7	75.1
15-19	175 391 (5.6)	6 482 (5.5)	4 774 579	3 673.4	135.8
20-24	207 670 (6.6)	10 194 (8.7)	4 823 367	4 305.5	211.3
25-29	305 932 (9.8)	15 526 (13.2)	5 420 754	5 643.7	286.4
30-34	354 414 (11.3)	16 725 (14.2)	5 641 750	6 282.0	296.5
35-39	360 411 (11.5)	15 265 (13.0)	4 798 293	7 511.2	318.1
40-44	306 538 (9.8)	11 868 (10.1)	3 733 942	8 209.5	317.8
45-49	293 535 (9.4)	9 926 (8.4)	3 169 648	9 260.8	313.2
50-54	264 485 (8.4)	7 495 (6.4)	2 571 263	10 286.2	291.5
55-59	219 846 (7.0)	5 829 (5.0)	2 211 309	9 941.9	263.6
60-64	150 776 (4.8)	3 736 (3.2)	1 796 316	8 393.6	208.0
65-69	102 366 (3.3)	2 284 (1.9)	1 408 665	7 266.9	162.1
70-74	73 685 (2.3)	1 582 (1.3)	1 007 174	7 316.0	157.1
75-79	47 186 (1.5)	881 (0.7)	637 062	7 406.8	138.3
≥80	55 007 (1.8)	867 (0.7)	577 273	9 528.8	150.2
Unknown	29 782	1 416			
Total	3 167 497	119 060	59 622 350	5 312.6	199.7

¹New cases refer to cases whose samples were collected or received in the current reporting week; ²Percentage=n/total number of new cases (specimen collected or received in current reporting week); ³2020 Mid-year population Statistics South Africa

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Provincial trends of COVID-19 cases

Eastern Cape Province

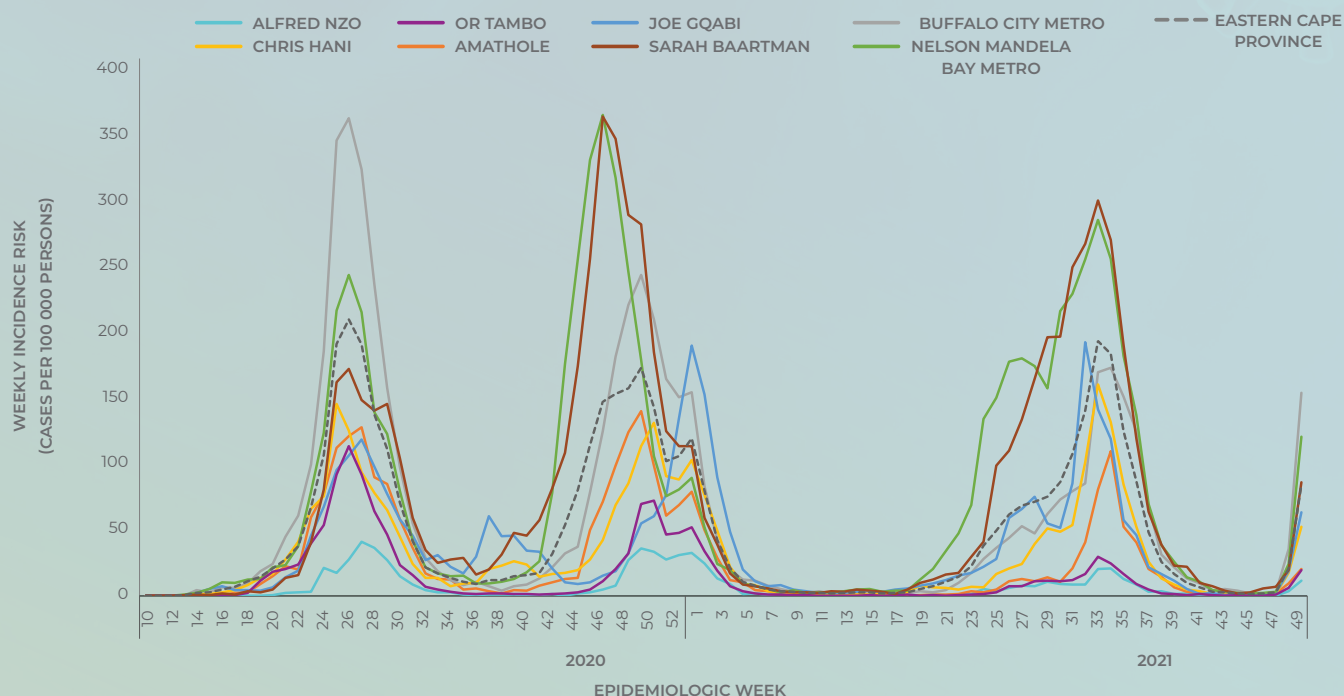


Figure 6. Weekly incidence risk of laboratory-confirmed cases of COVID-19 by district and epidemiologic week, Eastern Cape Province, 3 March 2020 –11 December 2021 (n=234 210, 65 955 missing district)

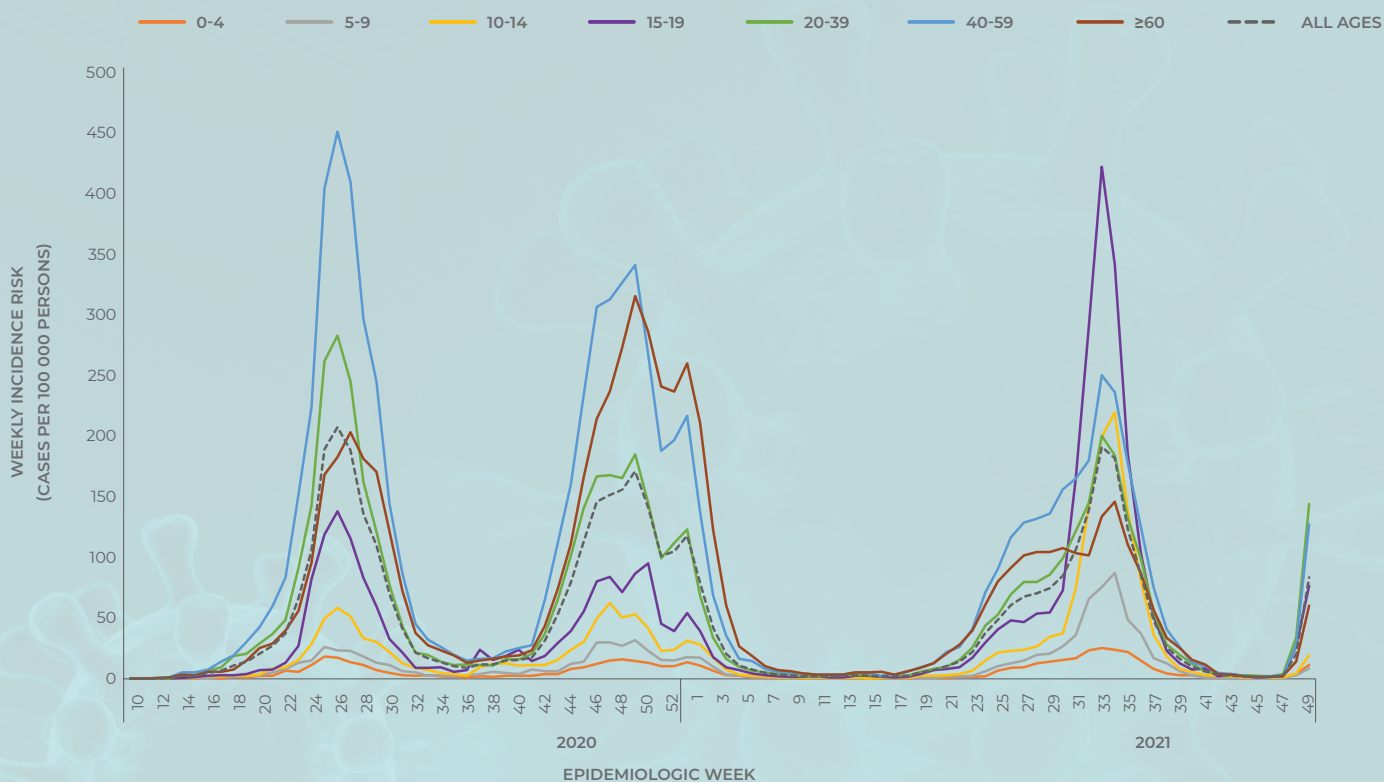


Figure 7. Weekly incidence risk of laboratory-confirmed cases of COVID-19 by age group in years and epidemiologic week, Eastern Cape Province, 3 March 2020 –11 December 2021 (n=296 959, 3 206 missing age)

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Western Cape Province

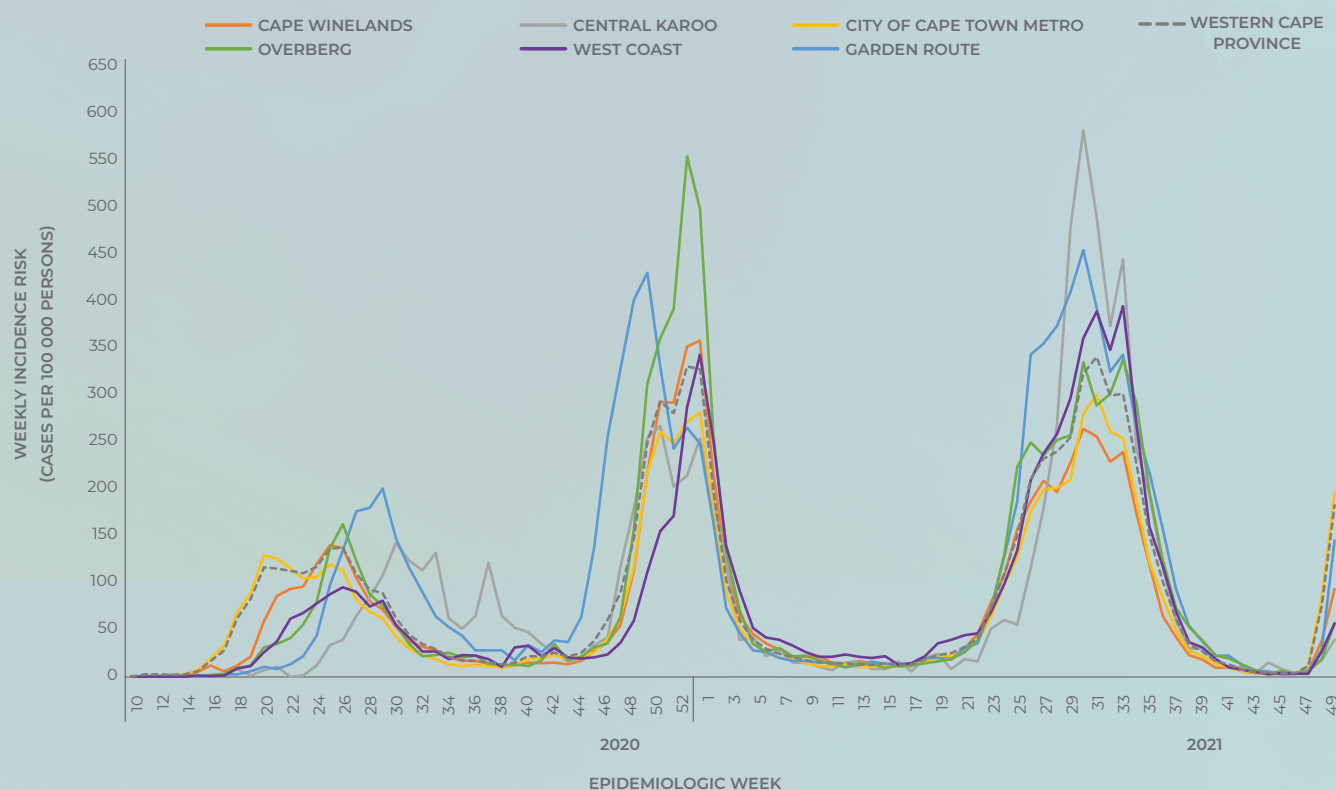


Figure 8. Weekly incidence risk of laboratory-confirmed cases of COVID-19 by district and epidemiologic week, Western Cape Province, 3 March 2020 –11 December 2021 (n=486 670, 49 421 missing district)

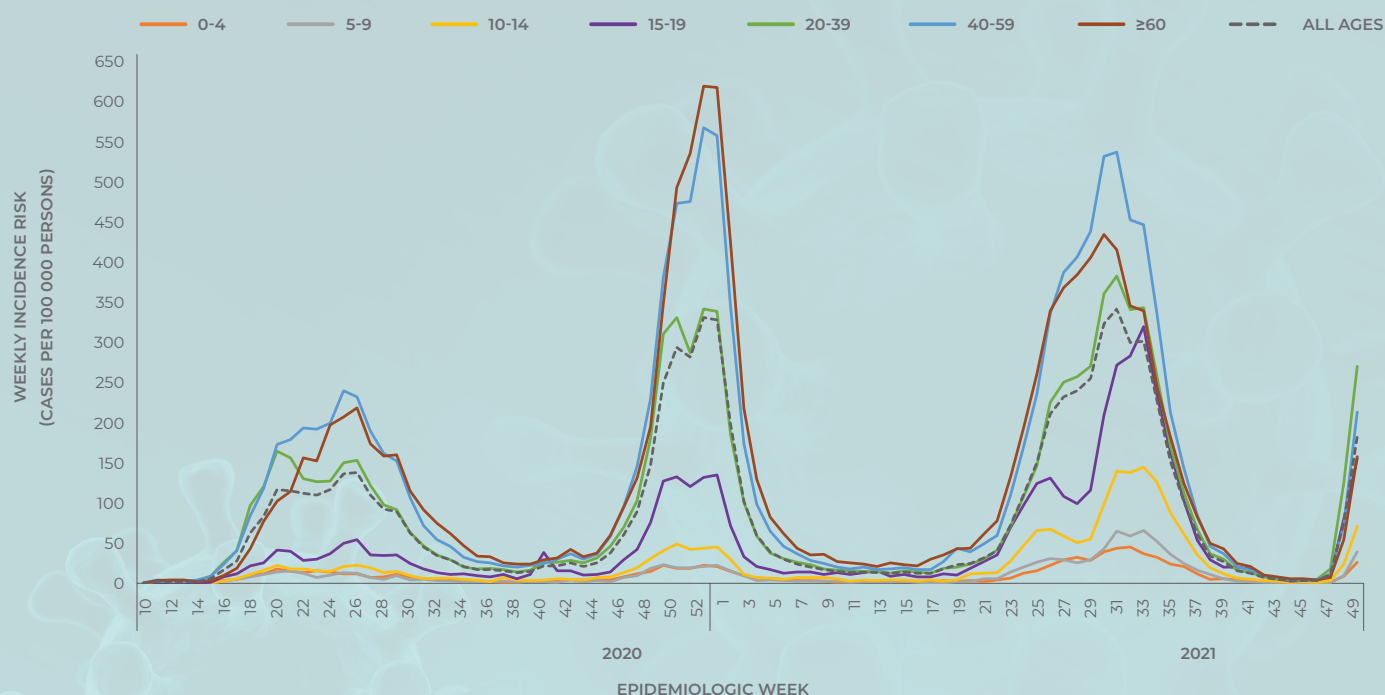


Figure 9. Weekly incidence risk of laboratory-confirmed cases of COVID-19 by age group in years and epidemiologic week, Western Cape Province, 3 March 2020 –11 December 2021 (n=534 567, 1 524 missing age)

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Gauteng Province

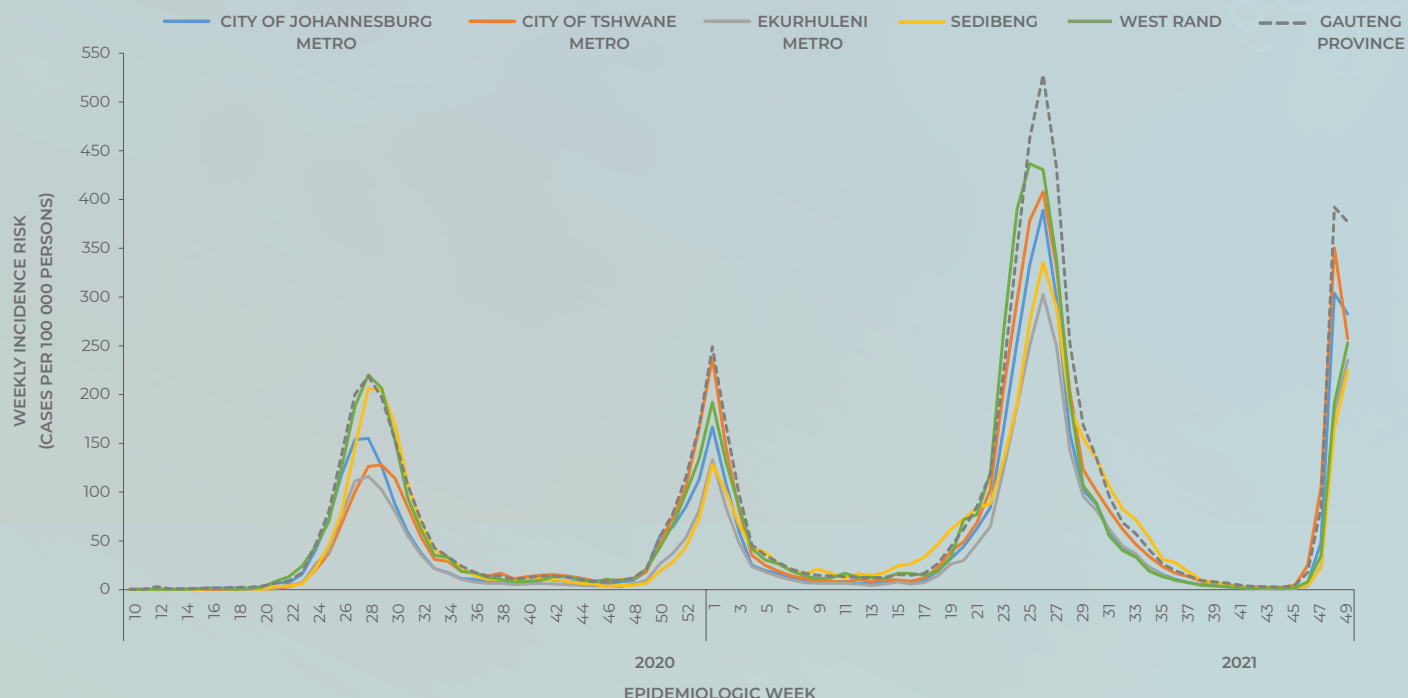


Figure 10. Weekly incidence risk of laboratory-confirmed cases of COVID-19 by district and epidemiologic week, Gauteng Province, 3 March 2020 –11 December 2021 (n=728 840, 334 509 missing district)

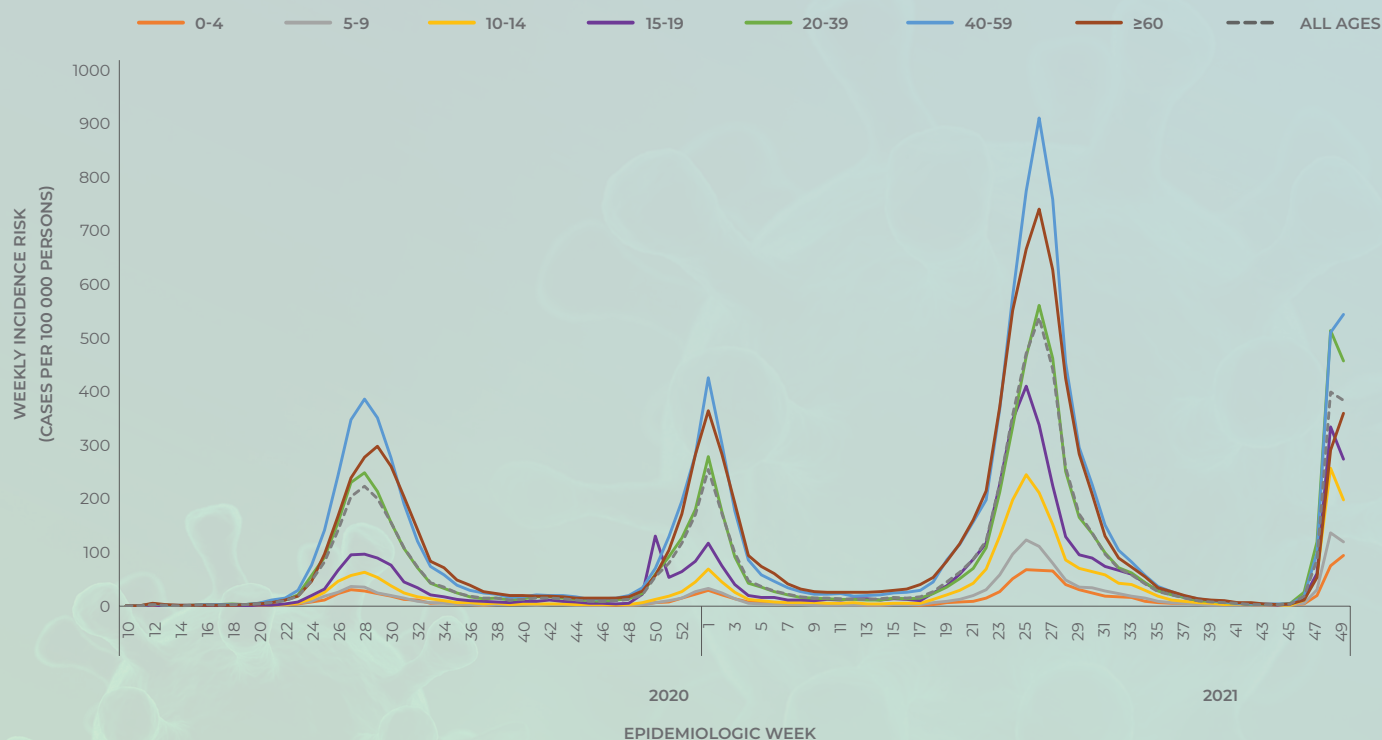


Figure 11. Weekly incidence risk of laboratory-confirmed cases of COVID-19 by age group in years and epidemiologic week, Gauteng Province, 3 March 2020 –11 December 2021 (n=1 052 583, 10 766 missing age)

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KwaZulu-Natal Province

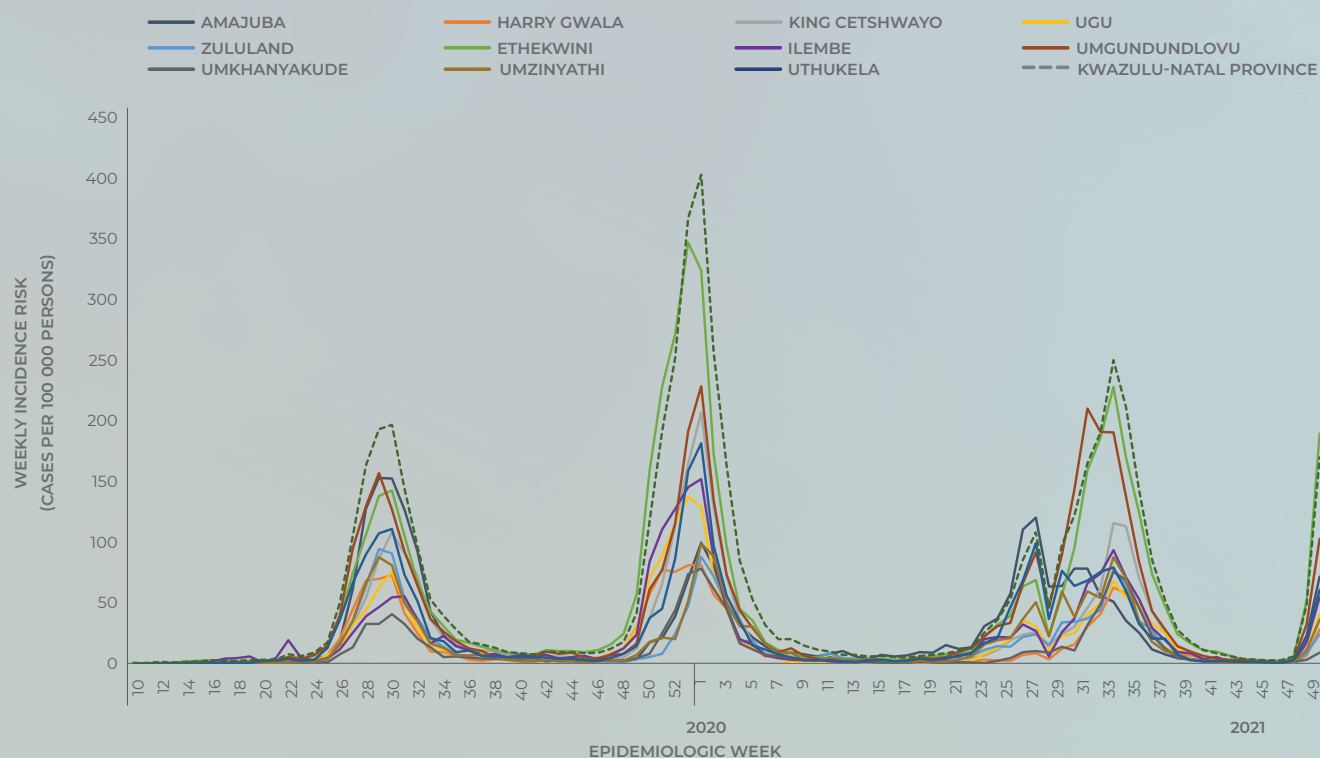


Figure 12. Weekly incidence risk of laboratory-confirmed cases of COVID-19 by district and epidemiologic week, KwaZulu-Natal Province, 3 March 2020 –11 December 2021 (n=294 222, 246 161 missing district)

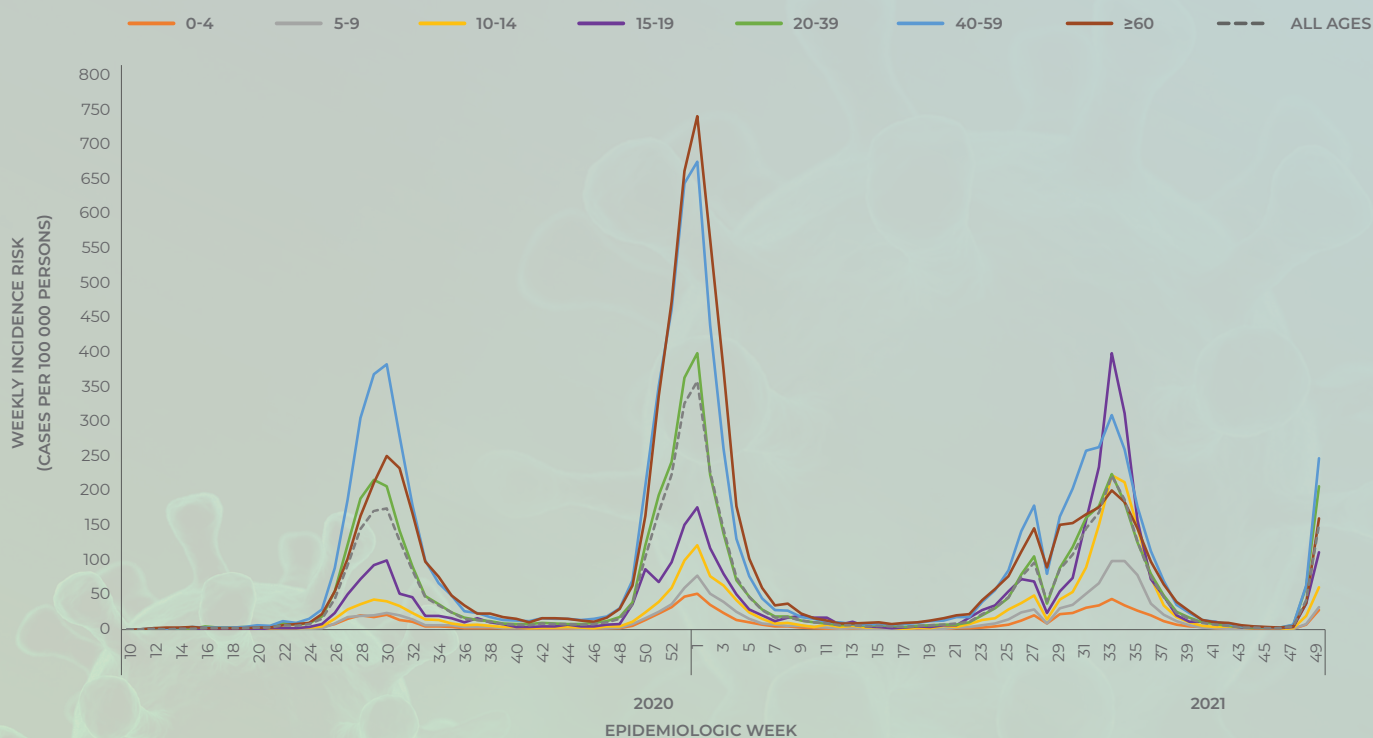


Figure 13. Weekly incidence risk of laboratory-confirmed cases of COVID-19 by age group in years and epidemiologic week, KwaZulu-Natal Province, 3 March 2020 –11 December 2021 (n=533 600, 6 783 missing age)

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Free State Province

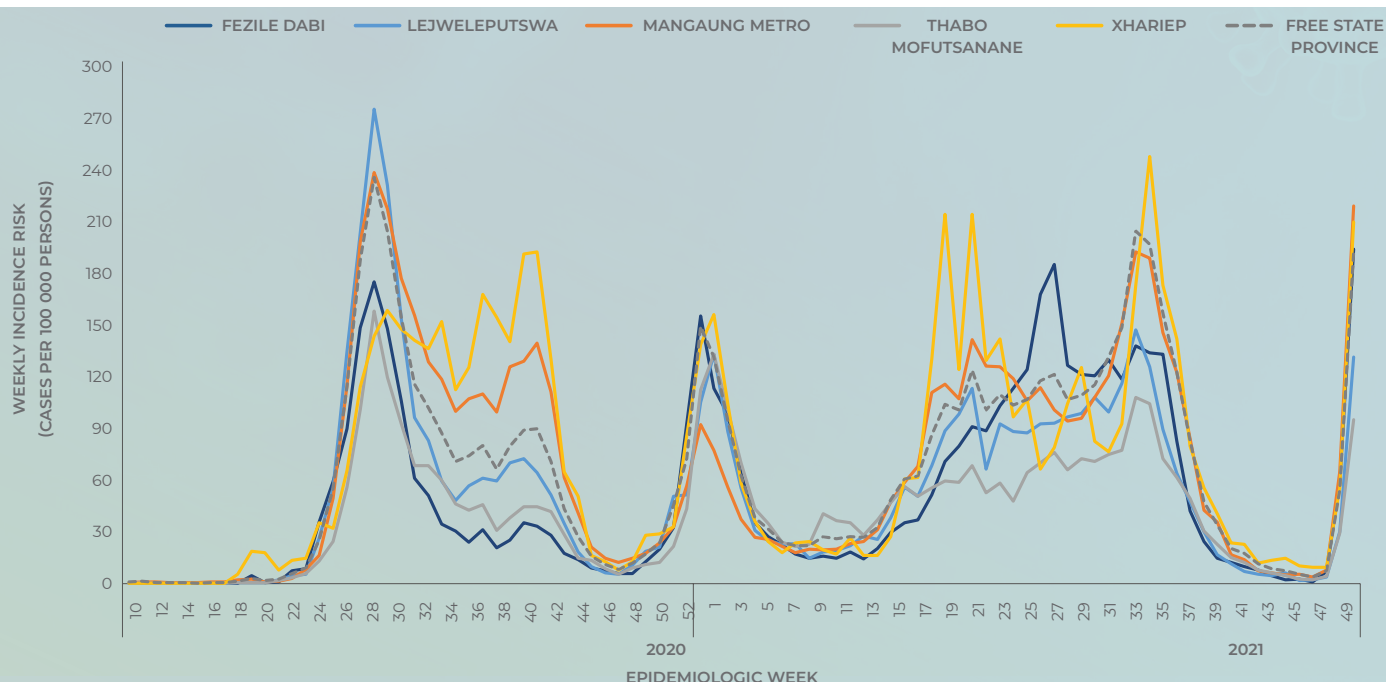


Figure 14. Weekly incidence risk of laboratory-confirmed cases of COVID-19 by district and epidemiologic week, Free State Province, 3 March 2020–11 December 2021 (n=146 256, 26 448 missing district)

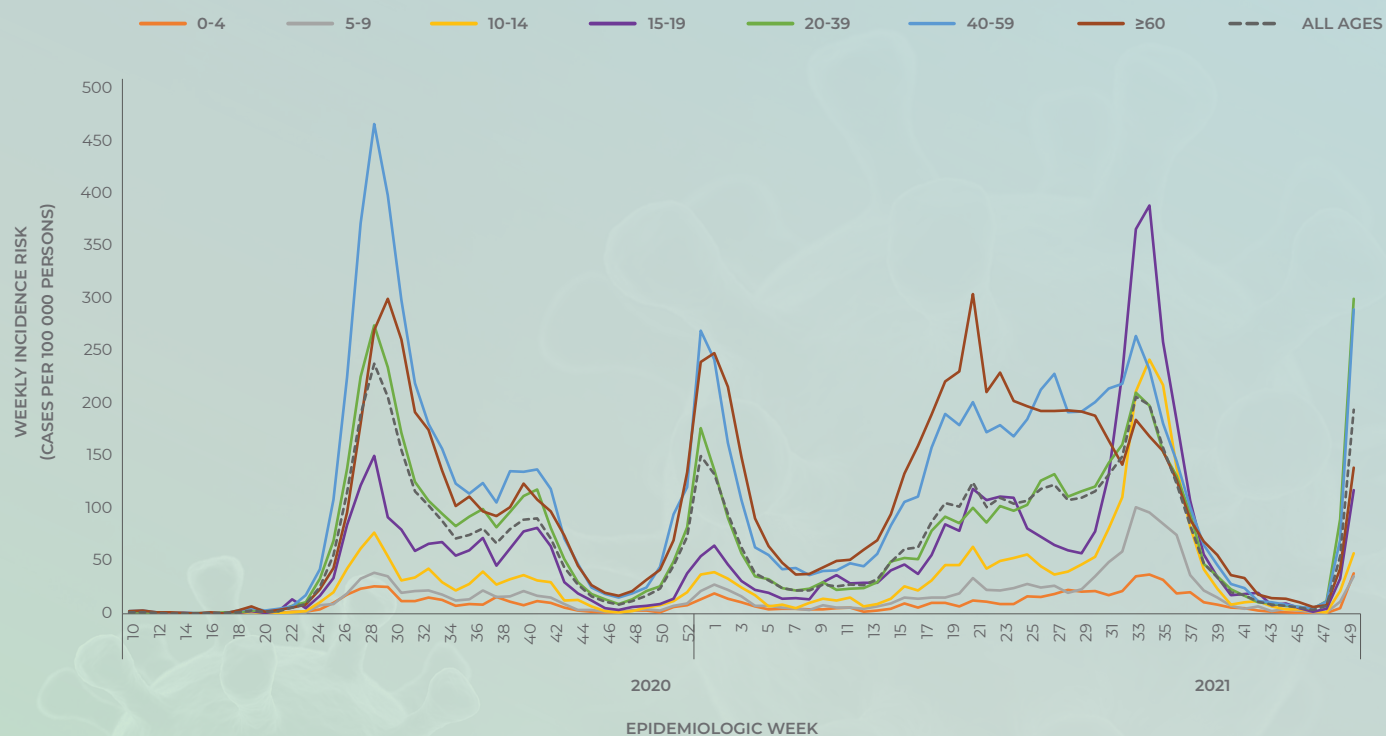


Figure 15. Weekly incidence risk of laboratory-confirmed cases of COVID-19 by age group in years and epidemiologic week, Free State Province, 3 March 2020–11 December 2021 (n=172 024, 680 missing age)

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Limpopo Province

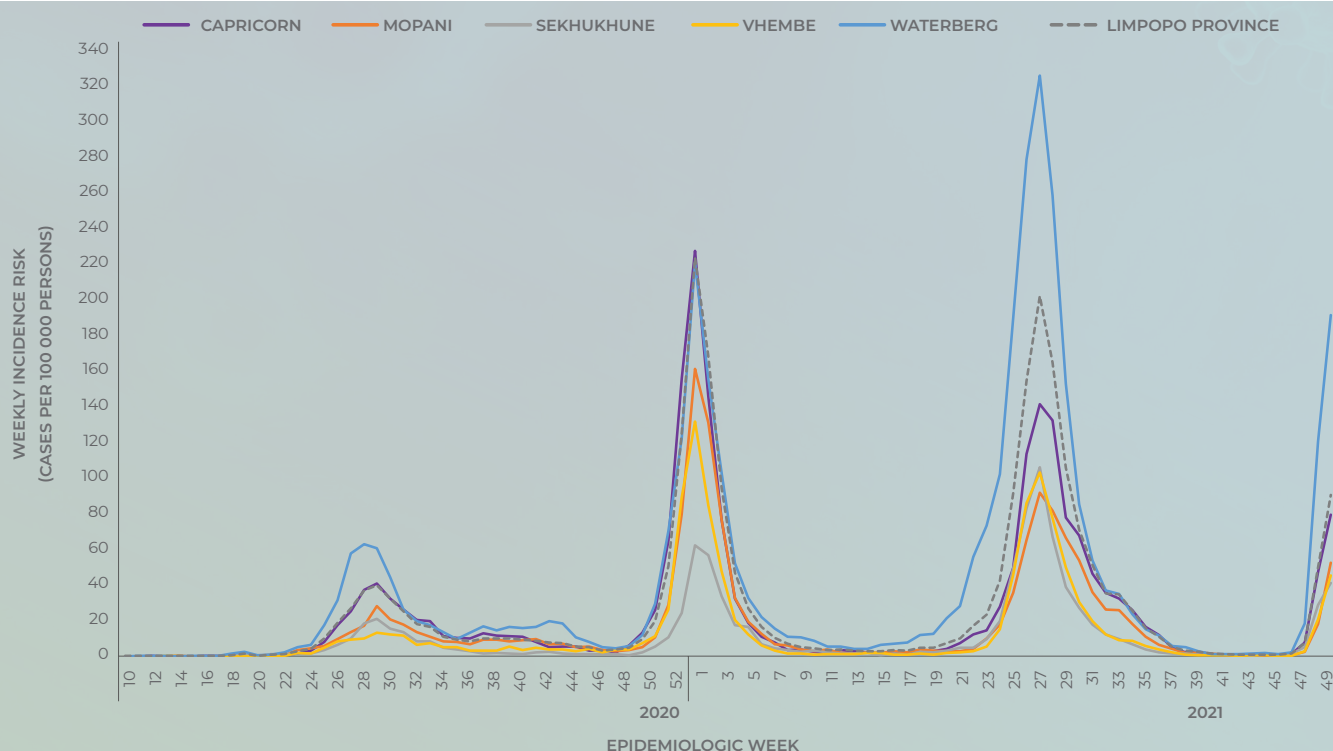


Figure 16. Weekly incidence risk of laboratory-confirmed cases of COVID-19 by district and epidemiologic week, Limpopo Province, 3 March 2020 –11 December 2021 (n=92 457, 38 786 missing district)

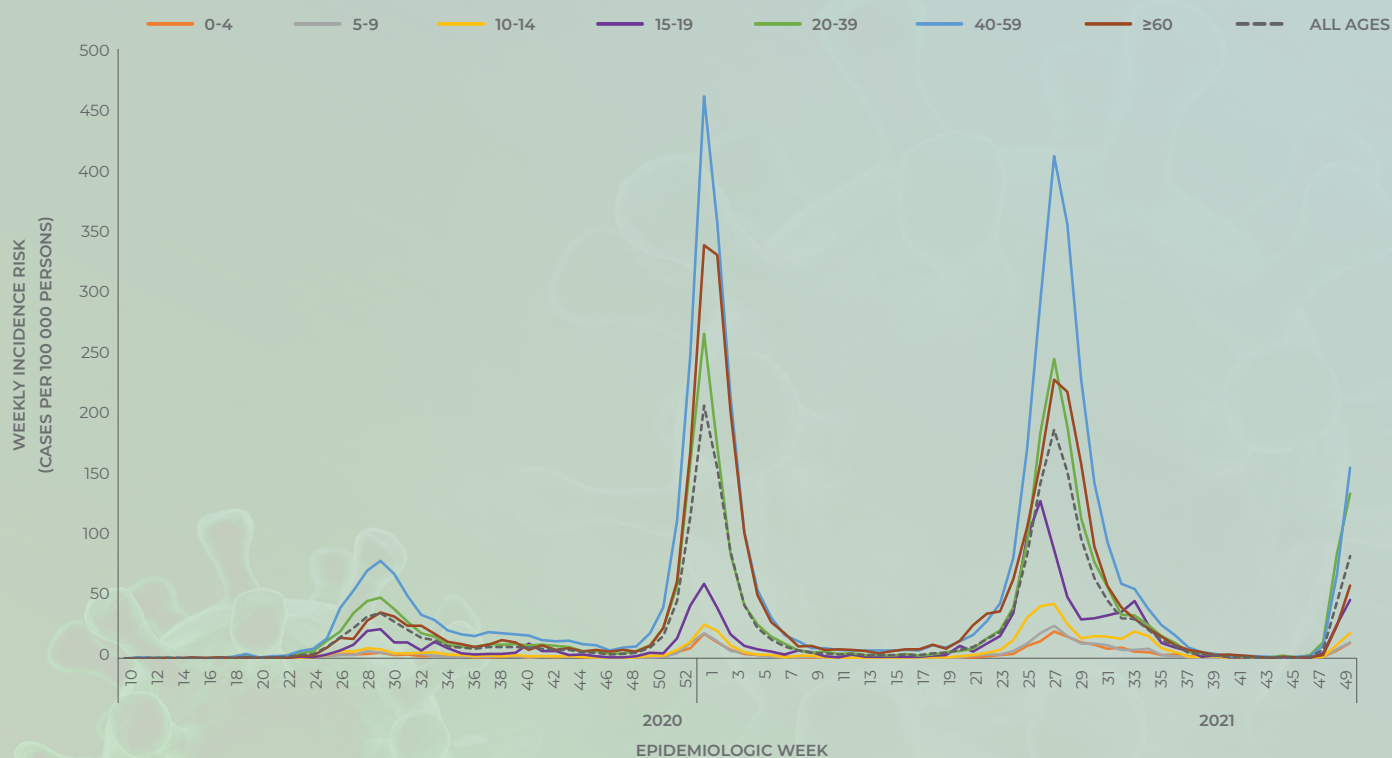


Figure 17. Weekly incidence risk of laboratory-confirmed cases of COVID-19 by age group in years and epidemiologic week, Limpopo Province, 3 March 2020 –11 December 2021 (n=130 555, 688 missing age)

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Mpumalanga Province

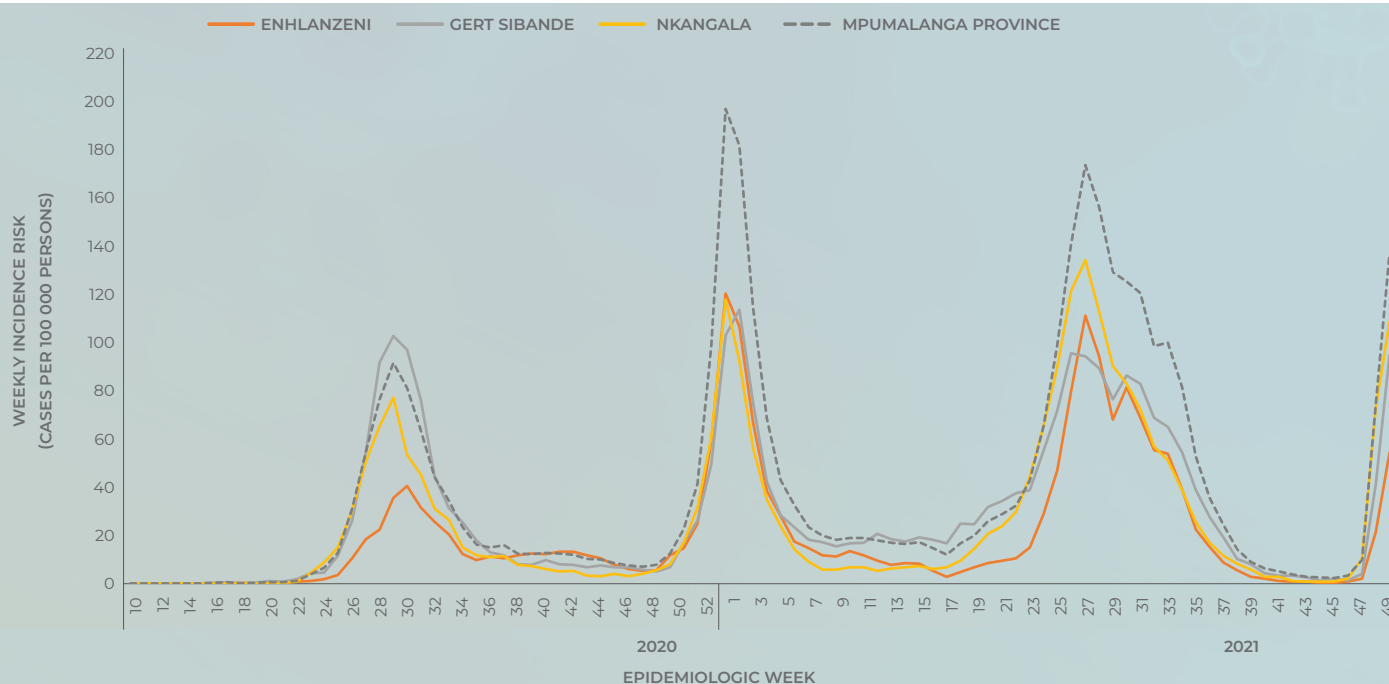


Figure 18. Weekly incidence risk of laboratory-confirmed cases of COVID-19 by district and epidemiologic week, Mpumalanga Province, 3 March 2020 -11 December 2021 (n=104 673, 58 998 missing district)

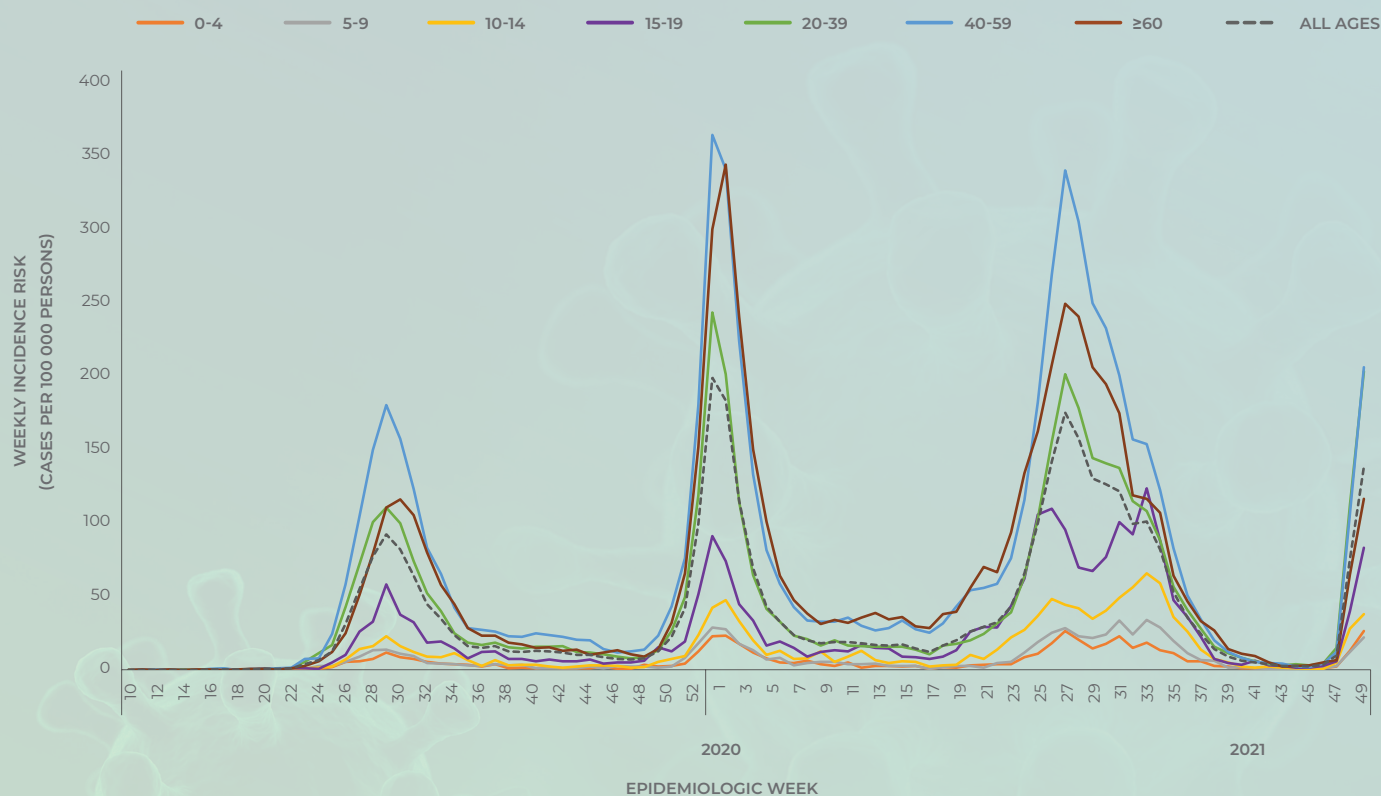


Figure 19. Weekly incidence risk of laboratory-confirmed cases of COVID-19 by age group and epidemiologic week, Mpumalanga Province, 3 March 2020-11 December 2021 (n=160 283, 3 388 missing age)

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North West Province

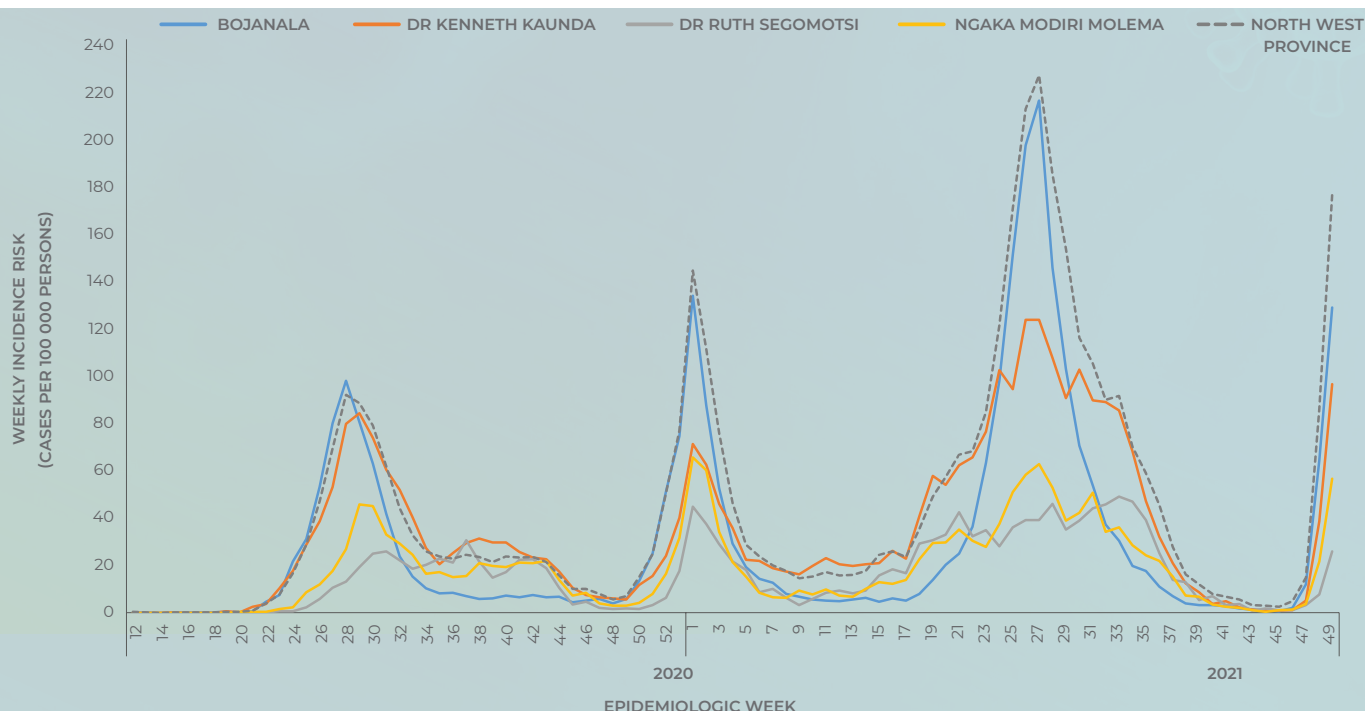


Figure 20. Weekly incidence risk of laboratory-confirmed cases of COVID-19 by district and epidemiologic week, North West Province, 3 March 2020 -11 December 2021 (n=99 591, 65 203 missing district)

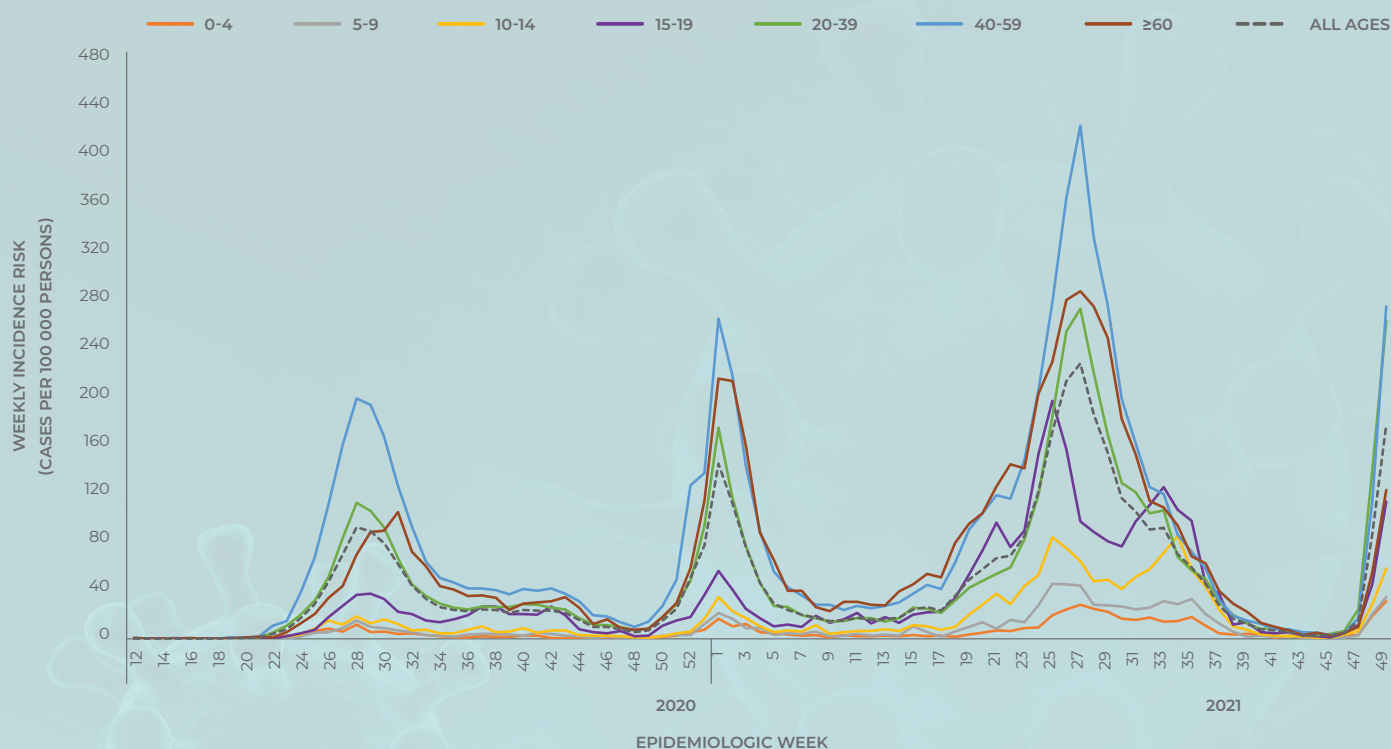


Figure 21. Weekly incidence risk of laboratory-confirmed cases of COVID-19 by age group in years and epidemiologic week, North West Province, 3 March 2020 -11 December 2021 (n=162 686, 2 108 missing age)

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Northern Cape Province

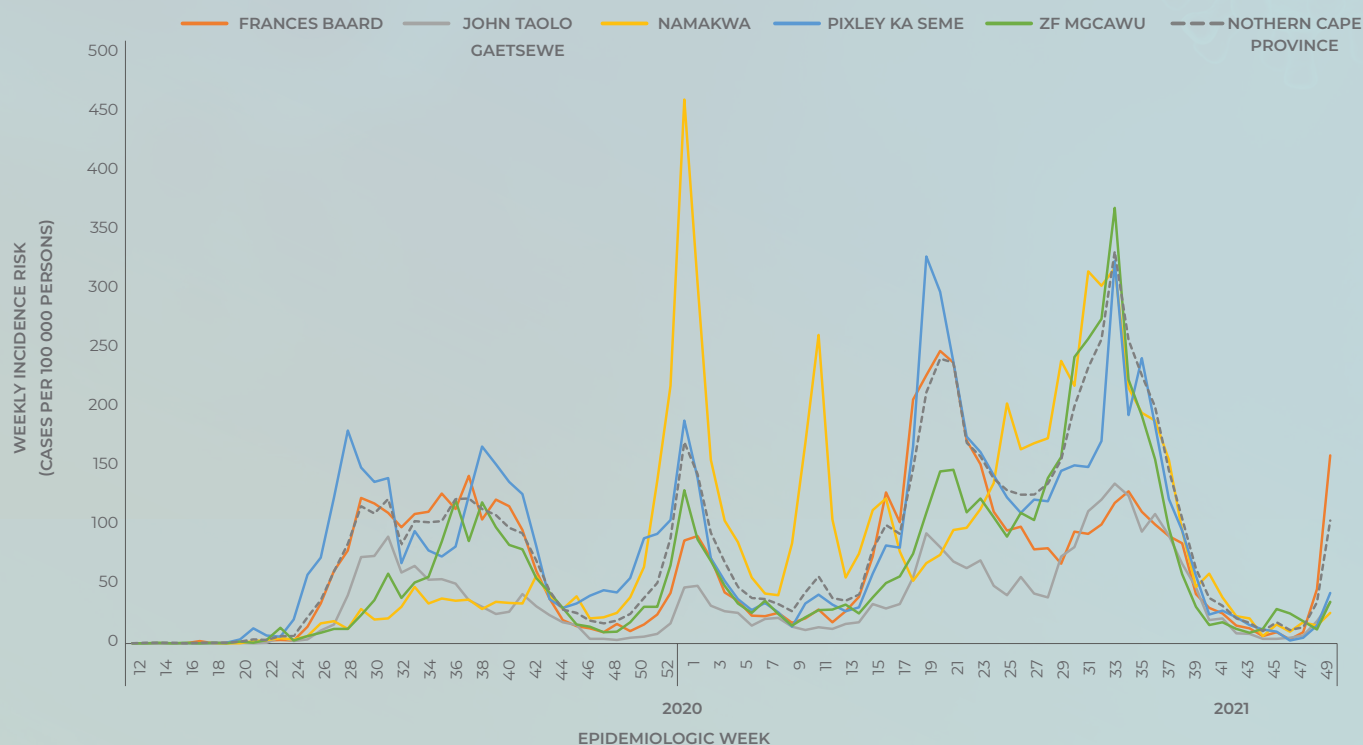


Figure 22. Weekly incidence risk of laboratory-confirmed cases of COVID-19 by district and epidemiologic week, Northern Cape Province, 3 March 2020–11 December 2021 (n=71 779, 23 318 missing district)

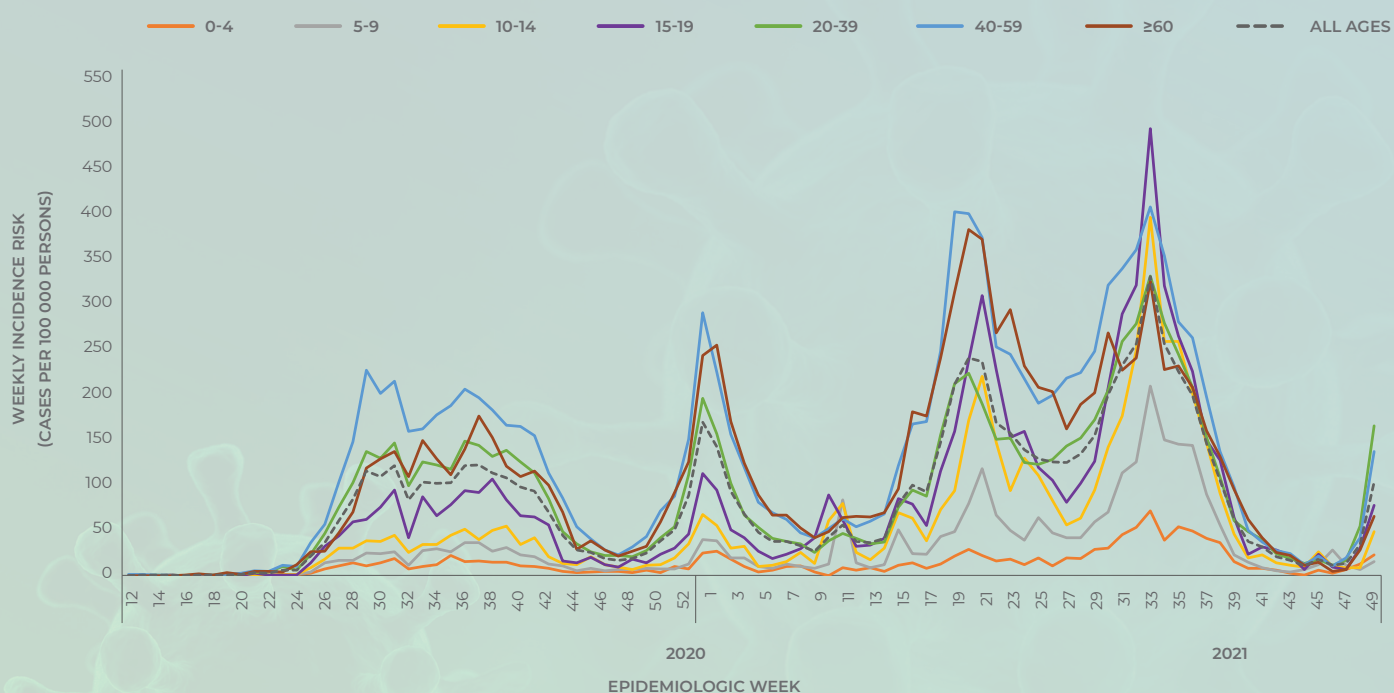


Figure 23 Weekly incidence risk of laboratory-confirmed cases of COVID-19 by age group in years and epidemiologic week, Northern Cape Province, 3 March 2020 –11 December 2021 (n=94 458, 639 missing age)

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 in 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 41 of 2020 onwards we used mid-year population estimates from Statistics South Africa for 2020 to calculate the incidence risk (cumulative or weekly incidence), expressed as cases per 100 000 persons. In historical 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 population. 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 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.