

COVID-19 WEEKLY EPIDEMIOLOGY BRIEF

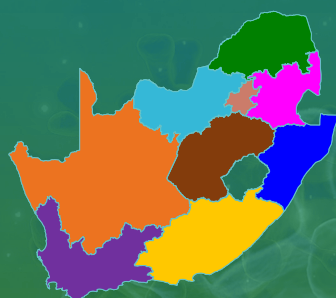


NATIONAL INSTITUTE FOR
COMMUNICABLE DISEASES

Division of the National Health Laboratory Service

SOUTH AFRICA WEEK 50 2021

CUMULATIVE DATA FROM



CASES

3 308 070
IN TOTAL

114 409
THIS WEEK**

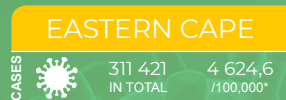


PERSONS

5 548,4
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 18 December 2021 (week 50 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 18 December 2021, a total of 3 308 070 laboratory-confirmed COVID-19 cases had been detected in South Africa. Of these, 140 573 were cases reported since the last report (week 49 of 2021). There was a 20.8% decrease in the number of new cases detected in week 50 of 2021 (114 409) compared to the number of new cases detected in week 49 of 2021 (144 502).
- In the past week, the Gauteng Province reported the highest number of cases detected (31 314/114 409, 27.4%), followed by the KwaZulu-Natal (27 596/114 409, 24.1%) and Western Cape (20 321/114 409, 17.8%) provinces, with other provinces reporting below 15% of all reported cases each.
- In the past week, a decrease in weekly incidence risk was observed in Gauteng Province (174.8 cases per 100 000 persons, 46% decrease), North West Province (40.3 cases per 100 000 persons, 23% decrease), Limpopo Province (11.3 cases per 100 000 persons, 14% decrease), and Mpumalanga Province (8.5 cases per 100 000 persons, 6% decrease). All other provinces reported an increase in weekly incidence risk, ranging from a 101% increase in Northern Cape Province (103.3 cases per 100 000 persons) to a 26% increase in Free State Province (49.1 cases per 100 000 persons).
- In the past week, the Free State Province reported the highest weekly incidence risk (239.6 cases per 100 000 persons), followed by the KwaZulu-Natal Province (239.3 cases per 100 000 persons), Western Cape Province (290.1 cases per 100 000 persons), the Northern Cape Province (205.4 cases per 100 000 persons) and Gauteng Province (202.2 cases per 100 000 persons). The other provinces reported below 200 cases per 100 000 persons.
- The highest weekly incidence risk among cases detected in week 50 of 2021 was reported in the 50-54-year age group (329.4 cases per 100 000 persons), and the lowest weekly incidence risk was in the 5-9-year age group (40.8 cases per 100 000 persons).

INCIDENCE
RISK FOR
CURRENT WEEK

191,9
CASES PER
100 000
PERSONS

27,4%
OF CASES
REPORTED IN
GAUTENG IN
CURRENT WEEK

IN CURRENT
WEEK, THE
HIGHEST
WEEKLY
INCIDENCE RISK
WAS IN CASES
AGED 50-54
YEARS (329,4
CASES PER 100
000 PERSONS)

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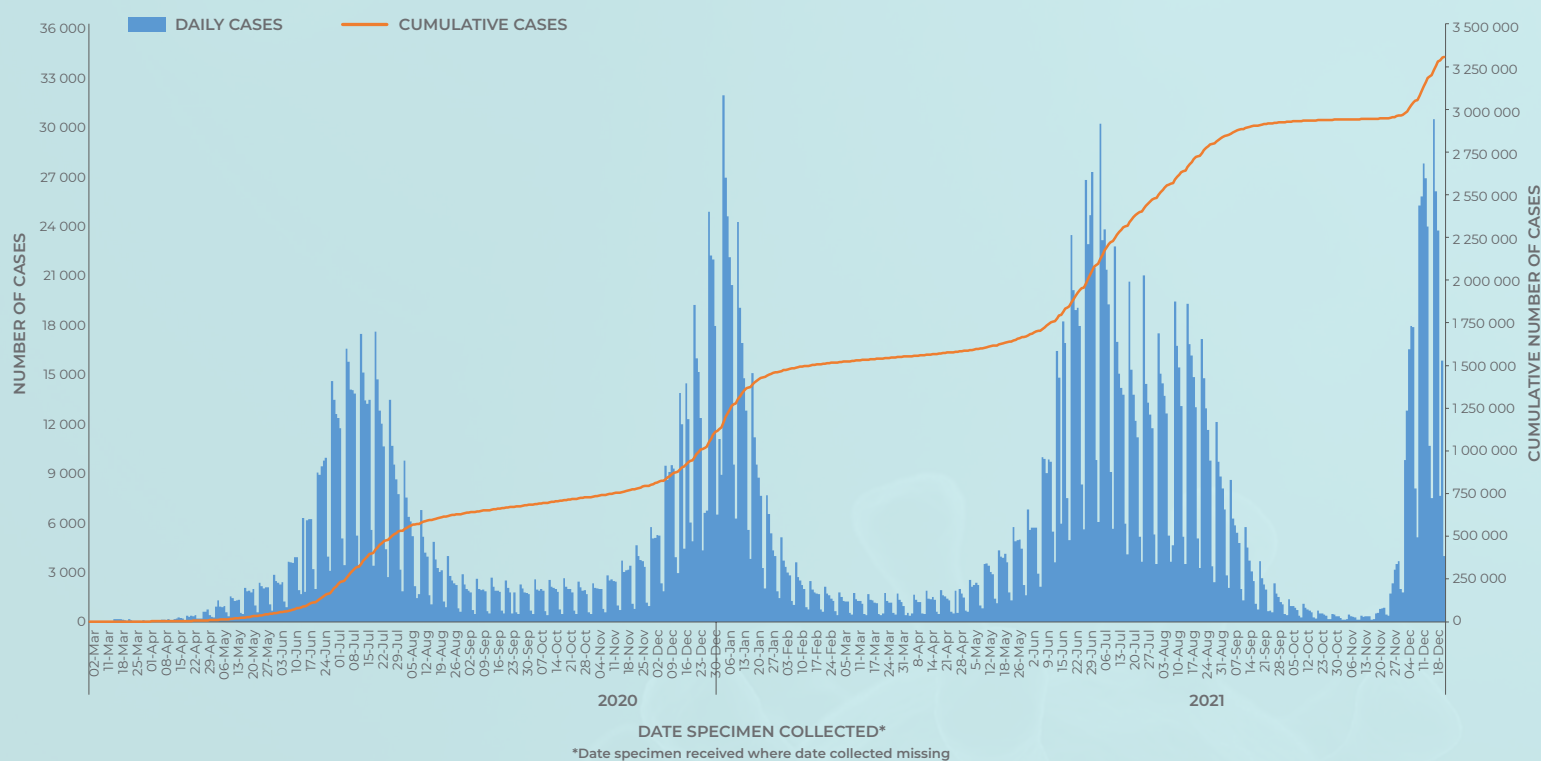


Figure 1. Number and cumulative number of laboratory-confirmed cases of COVID-19 by date of specimen collection, South Africa, 3 March 2020 – 18 December (n=3 308 070)

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 – 18 December 2021 (n=3 308 070)

Province	Cumulative cases (n) (percentage, n/total cases in South Africa)	New cases ¹ detected in week 50 (12-18 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 50 of 2021 (cases/100 000 persons)	Tests ⁴ per 100 000 persons, 12-18 Dec 2021
Eastern Cape	311 421 (9.4)	9 769 (8.5)	6 734 001	4 624.6	145.1	428.0
Free State	181 216 (5.5)	7 019 (6.1)	2 928 903	6 187.2	239.6	729.8
Gauteng	1 105 453 (33.4)	31 314 (27.4)	15 488 137	7 137.4	202.2	862.5
KwaZulu-Natal	573 435 (17.3)	27 596 (24.1)	11 531 628	4 972.7	239.3	687.8
Limpopo	136 305 (4.1)	4 246 (3.7)	5 852 553	2 329.0	72.5	193.5
Mpumalanga	170 668 (5.2)	5 951 (5.2)	4 679 786	3 646.9	127.2	375.4
North West	172 225 (5.2)	5 538 (4.8)	4 108 816	4 191.6	134.8	432.8
Northern Cape	98 130 (3.0)	2 655 (2.3)	1 292 786	7 590.6	205.4	629.2
Western Cape	559 217 (16.9)	20 321 (17.8)	7 005 741	7 982.3	290.1	931.2
Unknown						
Total	3 308 070	114 409	59 622 351	5 548.4	191.9	642.6

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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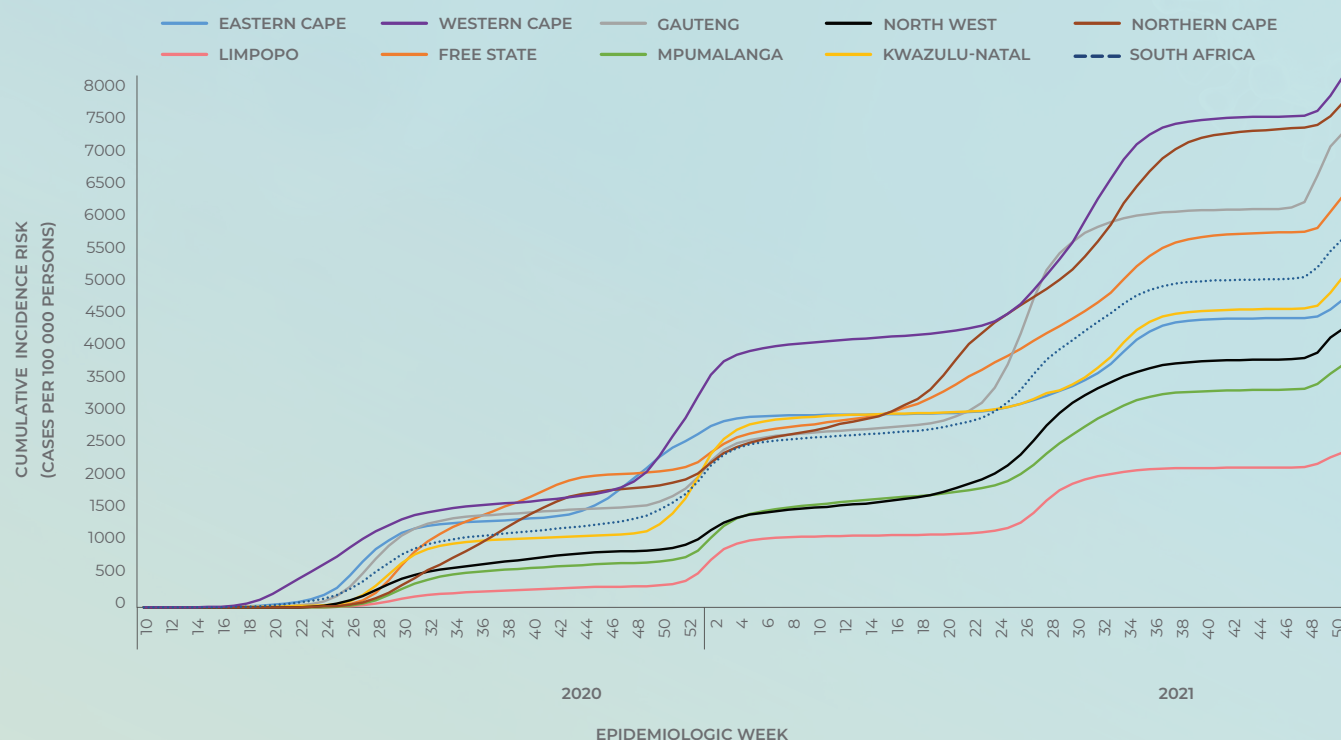


Figure 2. Cumulative incidence risk of laboratory-confirmed cases of COVID-19 by province and epidemiologic week, South Africa, 3 March 2020 – 18 December 2021 (n=3 308 070)

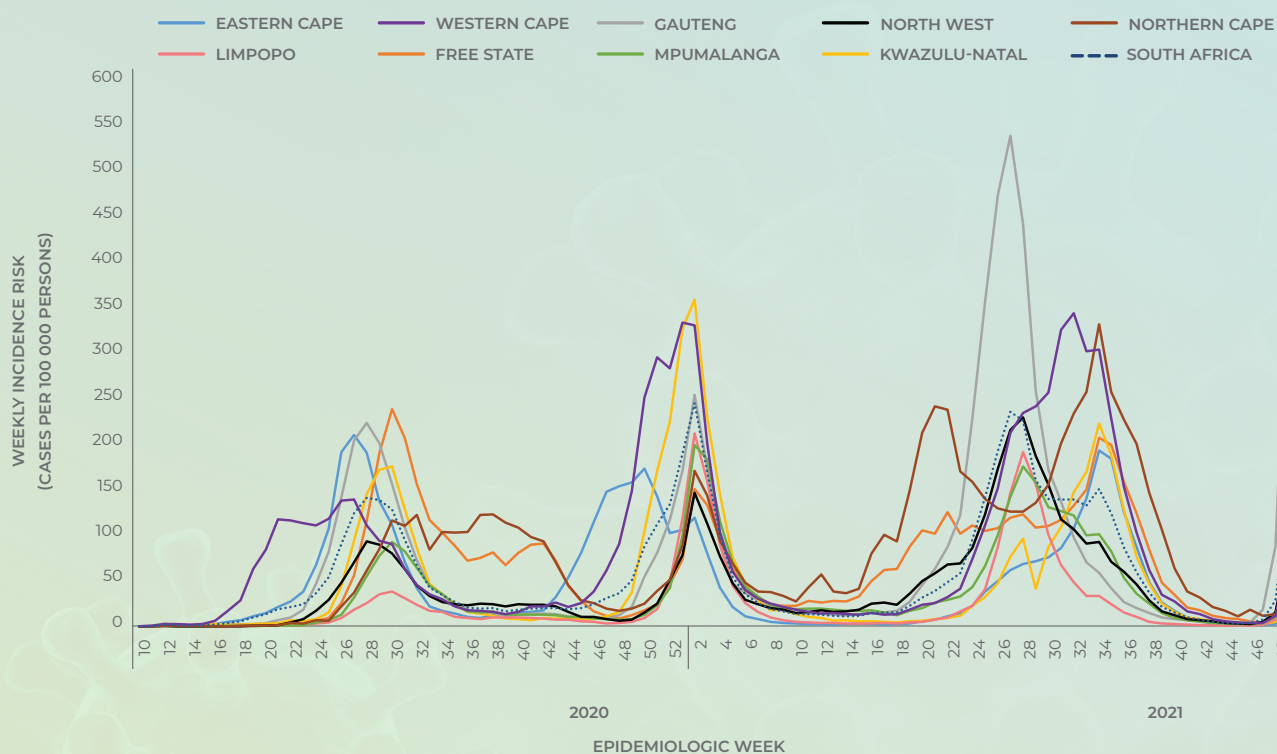


Figure 3. Weekly incidence risk of laboratory-confirmed cases of COVID-19 by province and epidemiologic week, South Africa, 3 March 2020 – 18 December 2021 (n=3 308 070)

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

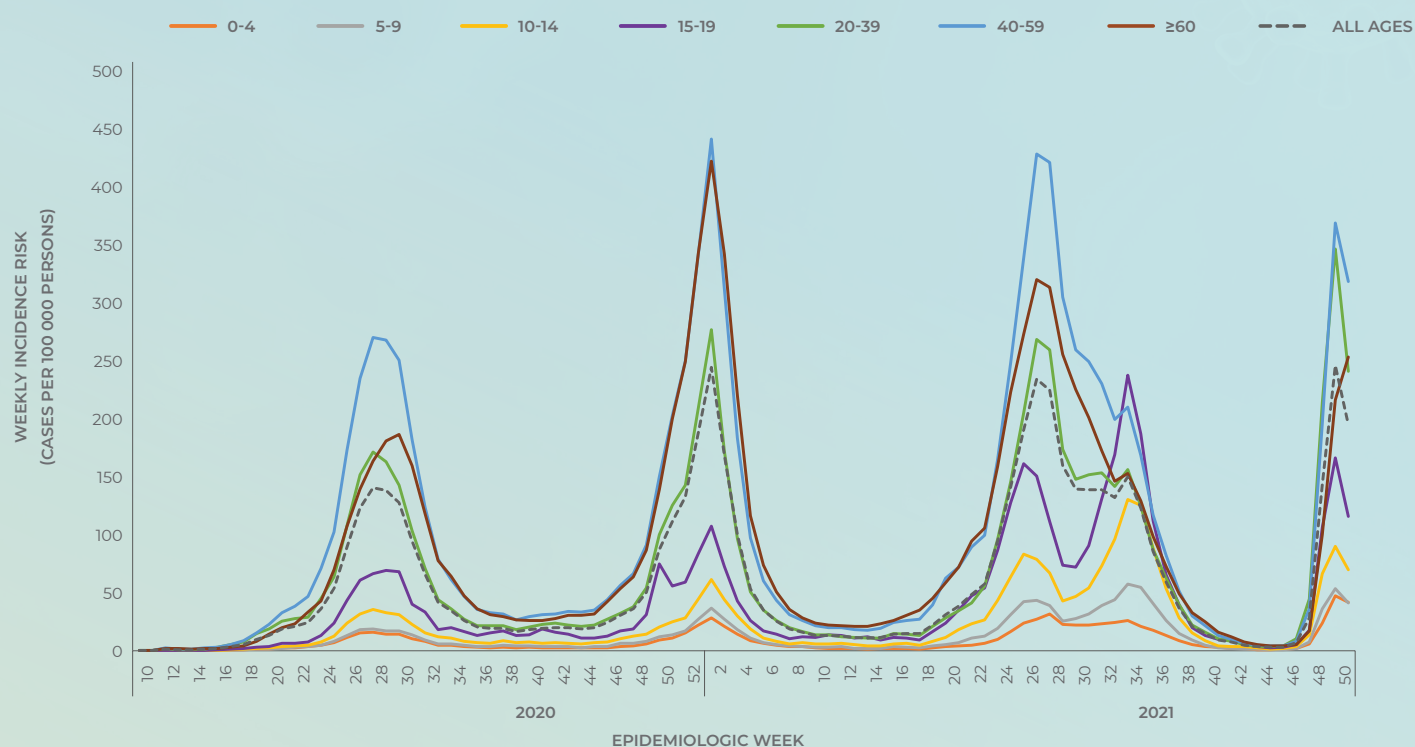


Figure 4. Weekly incidence risk of laboratory-confirmed cases of COVID-19 by age group in years and epidemiologic week, South Africa, 3 March 2020 – 18 December 2021 (n=3 276 921, 31 149 missing age)

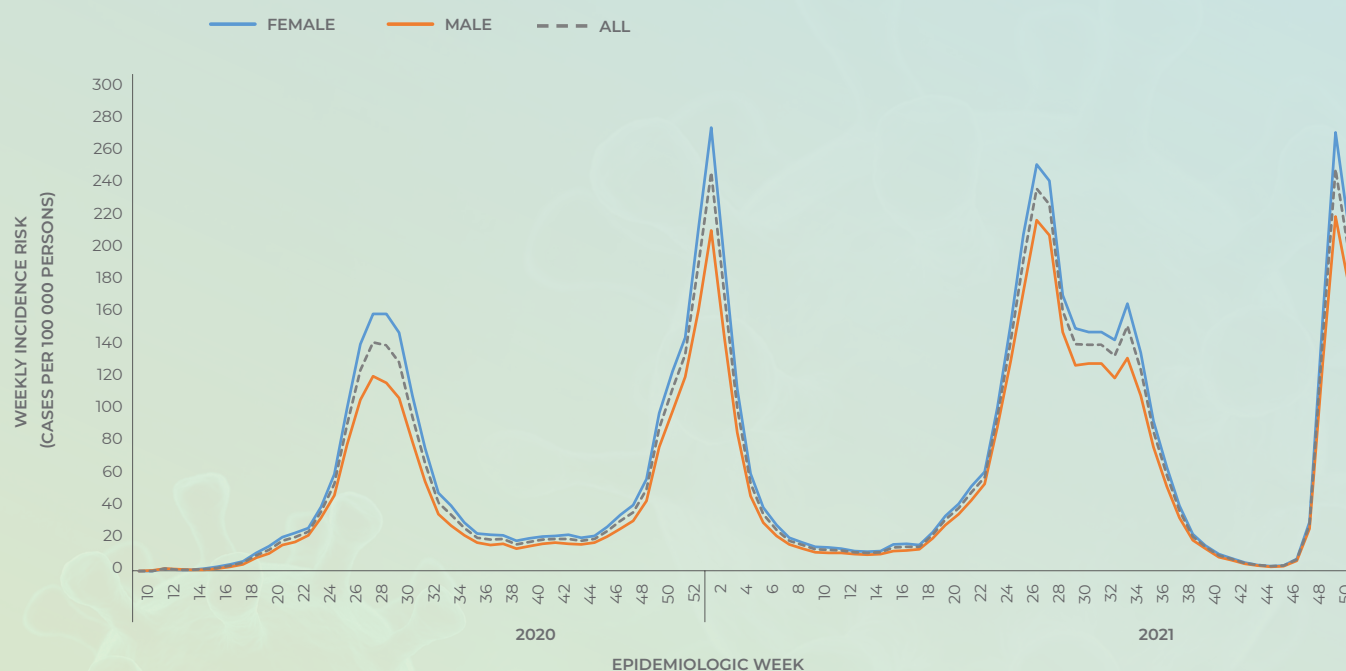


Figure 5. Weekly incidence risk of laboratory-confirmed cases of COVID-19 by sex and epidemiologic week, South Africa, 3 March 2020 – 18 December 2021 (n=3 272 202, sex missing for 35 868)

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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 – 18 December 2021, n=3 308 070, 31 149 missing age)

Age group (years)	Cumulative cases (n) (percentage, n/total cases in South Africa)	New cases ¹ detected in week 50 (12-18 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 50 of 2021 (cases/100 000 persons)
0-4	45 597 (1.4)	2 350 (2.1)	5 743 450	793.9	40.9
5-9	65 258 (2.0)	2 331 (2.1)	5 715 952	1 141.7	40.8
10-14	119 877 (3.7)	3 857 (3.4)	5 591 553	2 143.9	69.0
15-19	182 177 (5.6)	5 441 (4.8)	4 774 579	3 815.6	114.0
20-24	218 665 (6.7)	8 522 (7.5)	4 823 367	4 533.5	176.7
25-29	322 319 (9.8)	12 715 (11.2)	5 420 754	5 946.0	234.6
30-34	372 234 (11.4)	14 083 (12.4)	5 641 750	6 597.8	249.6
35-39	377 372 (11.5)	13 701 (12.1)	4 798 293	7 864.7	285.5
40-44	320 263 (9.8)	11 244 (9.9)	3 733 942	8 577.1	301.1
45-49	305 920 (9.3)	10 224 (9.0)	3 169 648	9 651.5	322.6
50-54	274 621 (8.4)	8 469 (7.5)	2 571 263	10 680.4	329.4
55-59	227 821 (7.0)	6 698 (5.9)	2 211 309	10 302.5	302.9
60-64	156 456 (4.8)	4 858 (4.3)	1 796 316	8 709.8	270.4
65-69	106 180 (3.2)	3 240 (2.9)	1 408 665	7 537.6	230.0
70-74	76 497 (2.3)	2 438 (2.2)	1 007 174	7 595.2	242.1
75-79	48 931 (1.5)	1 513 (1.3)	637 062	7 680.7	237.5
≥80	56 733 (1.7)	1 475 (1.3)	577 273	9 827.8	255.5
Unknown	31 149 (0.0)	1 250 (0.0)			
Total	3 308 070 (100.0)	114 409 (100.0)	59 622 350	5 548.4	191.9

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

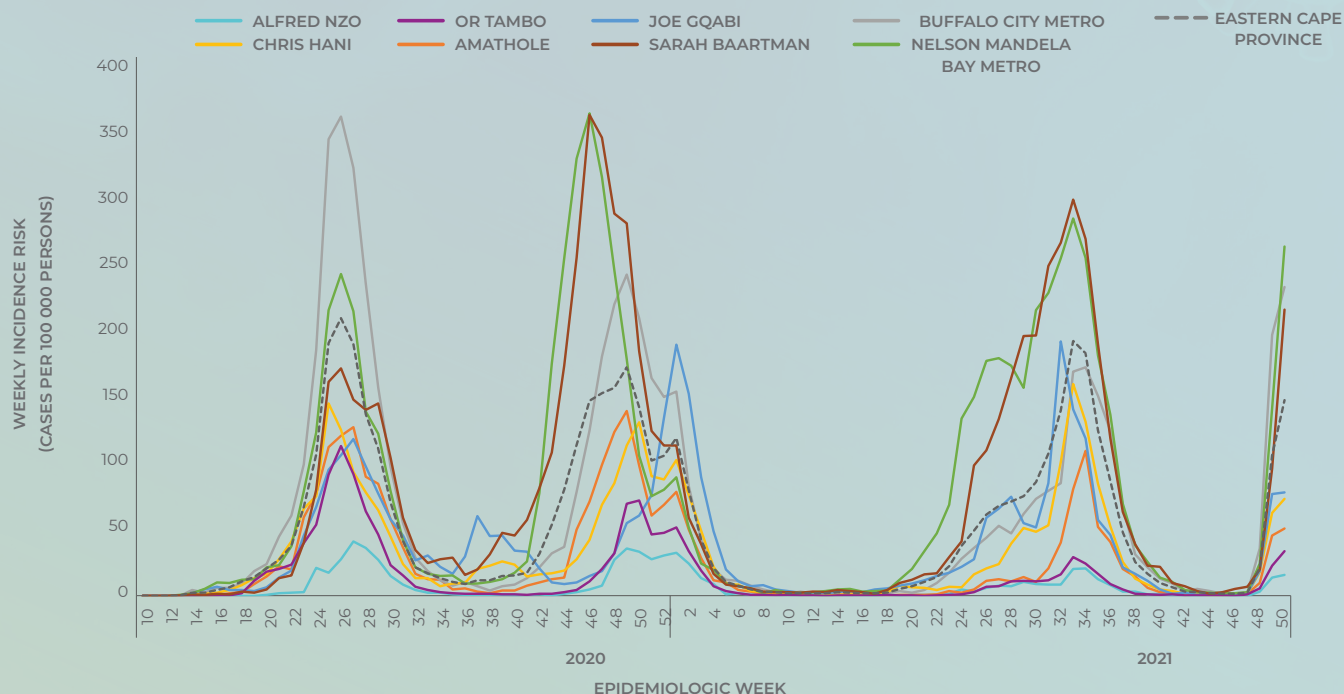


Figure 6. Weekly incidence risk of laboratory-confirmed cases of COVID-19 by district and epidemiologic week, Eastern Cape Province, 3 March 2020 – 18 December 2021 (n=243 108, 68 313 missing district)

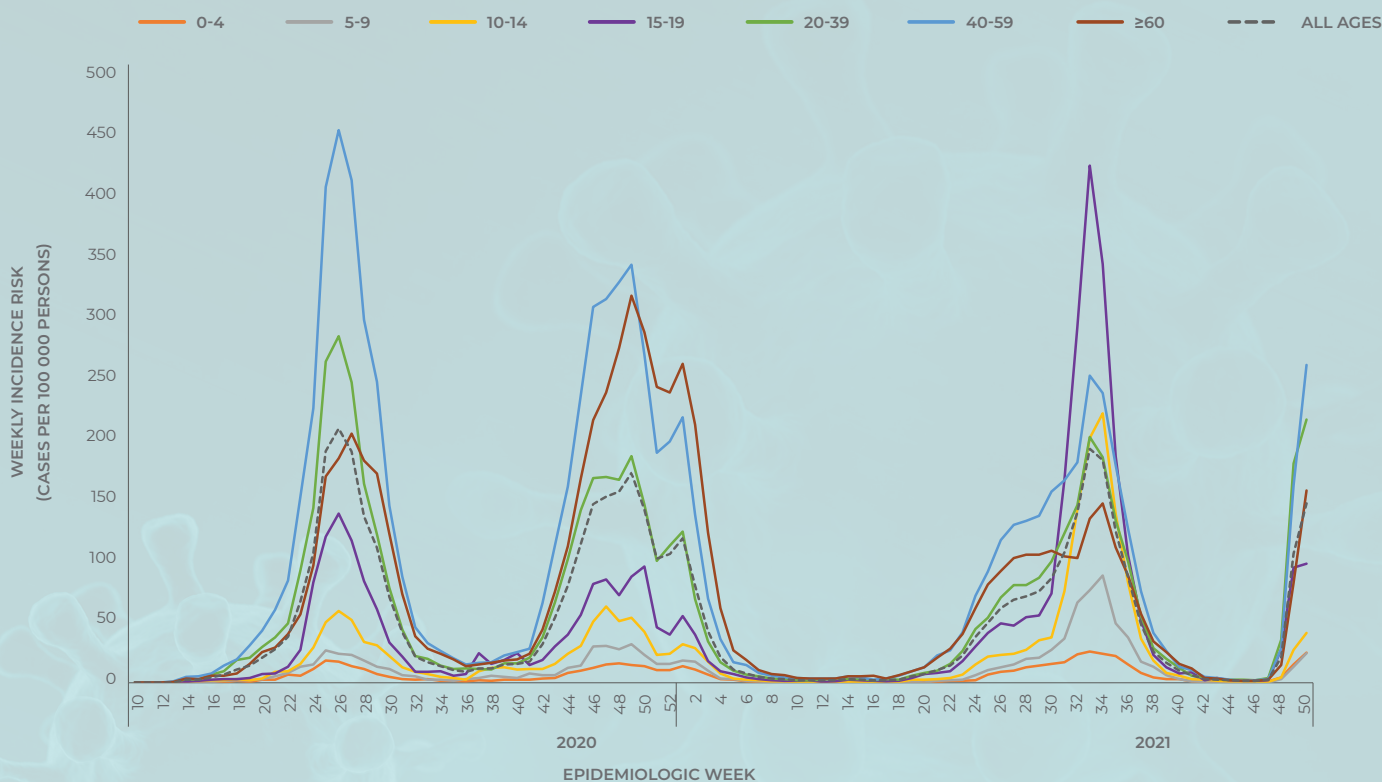


Figure 7. Weekly incidence risk of laboratory-confirmed cases of COVID-19 by age group in years and epidemiologic week, Eastern Cape Province, 3 March 2020 – 18 December 2021 (n=308 109, 3 312 missing age)

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Western Cape Province

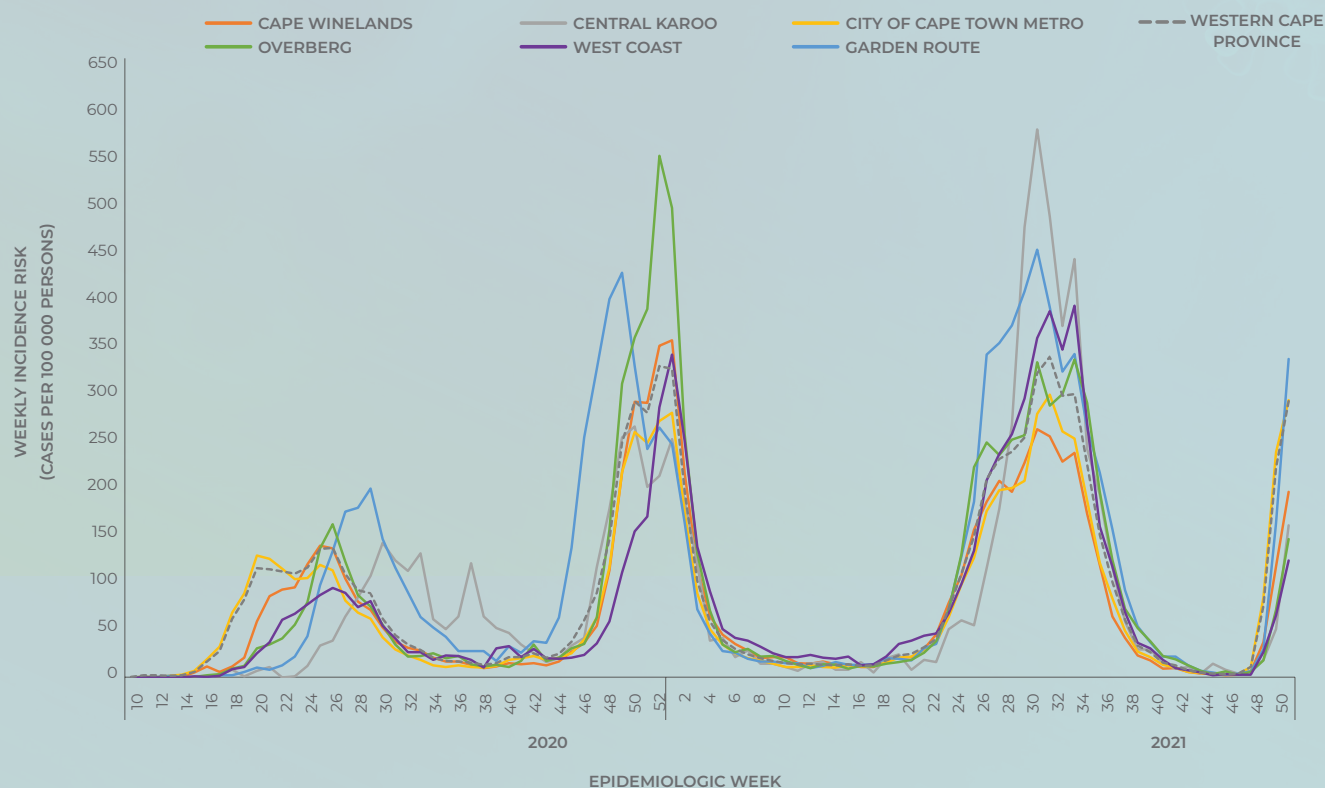


Figure 8. Weekly incidence risk of laboratory-confirmed cases of COVID-19 by district and epidemiologic week, Western Cape Province, 3 March 2020 – 18 December 2021 (n=507 505, 51 712 missing district)

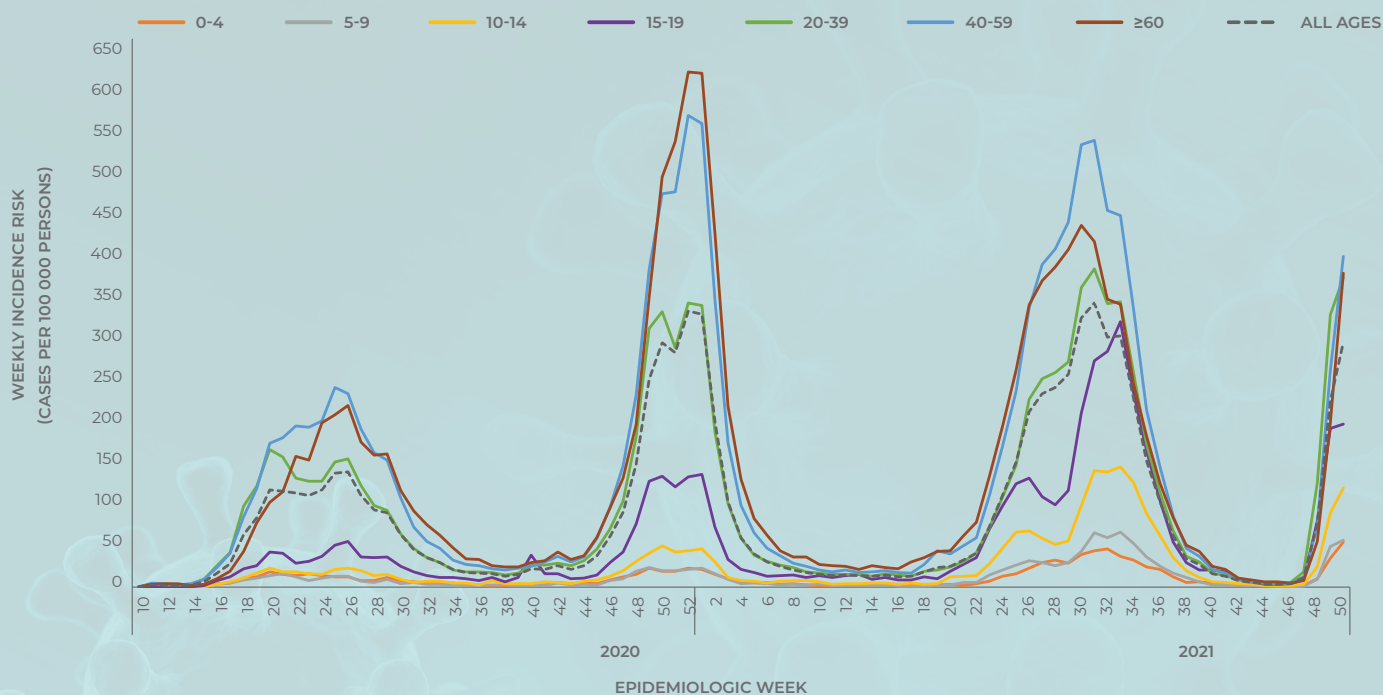


Figure 9. Weekly incidence risk of laboratory-confirmed cases of COVID-19 by age group in years and epidemiologic week, Western Cape Province, 3 March 2020 – 18 December 2021 (n=557 640, 1 577 missing age)

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Gauteng Province

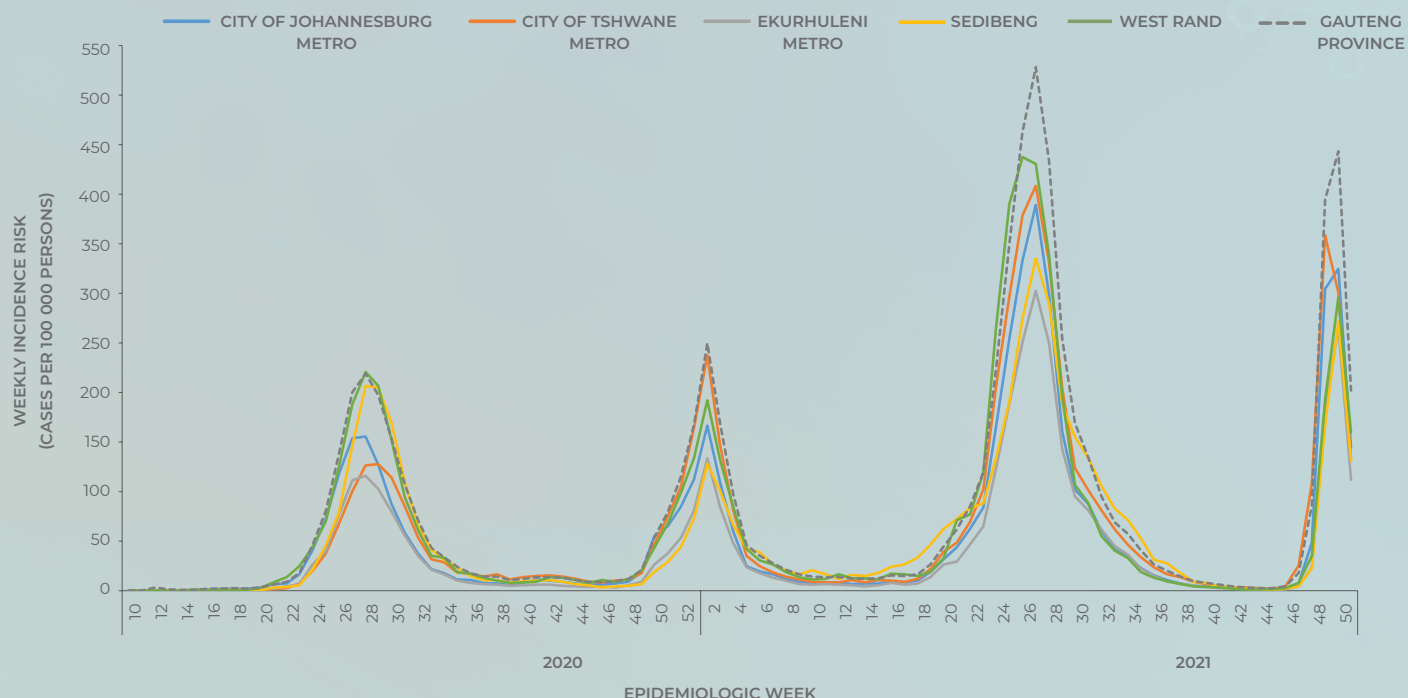


Figure 10. Weekly incidence risk of laboratory-confirmed cases of COVID-19 by district and epidemiologic week, Gauteng Province, 3 March 2020 – 18 December 2021 (n=756 091, 349 362 missing district)

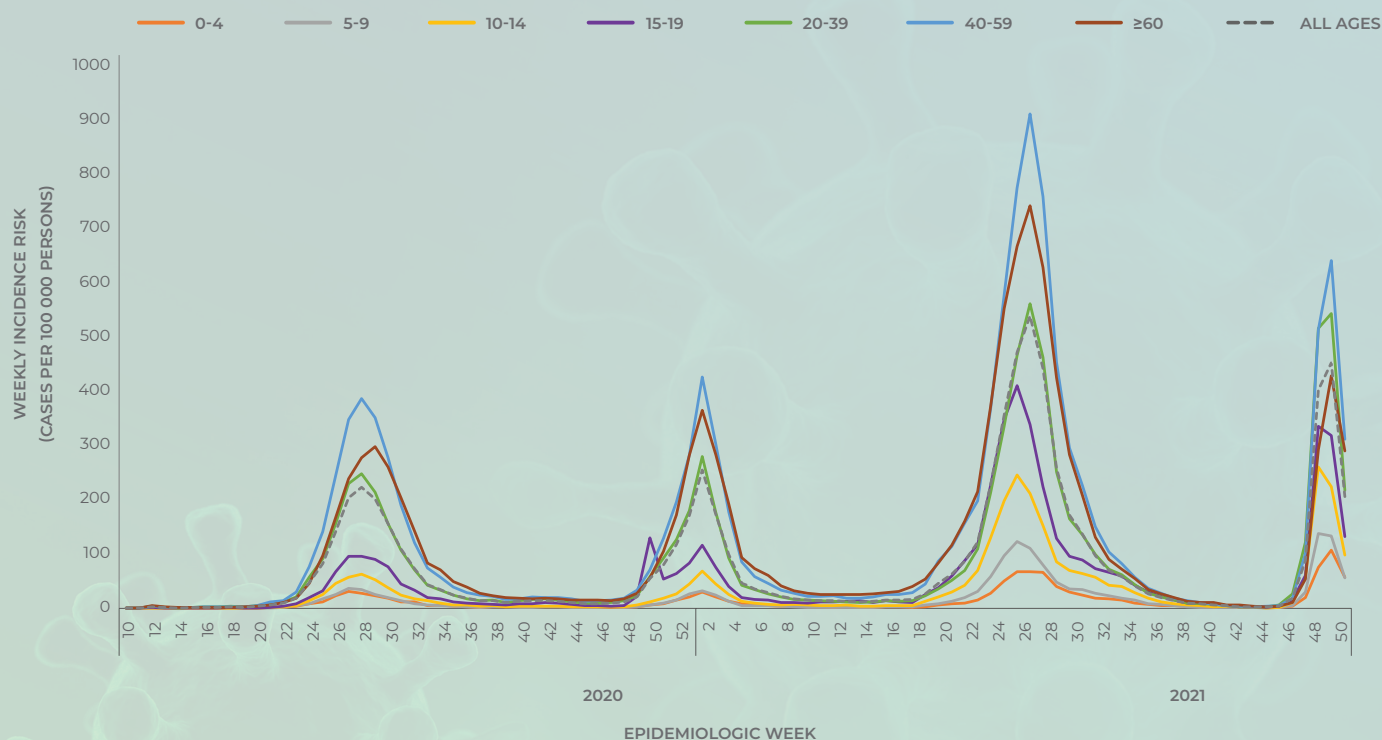


Figure 11. Weekly incidence risk of laboratory-confirmed cases of COVID-19 by age group in years and epidemiologic week, Gauteng Province, 3 March 2020 – 18 December 2021 (n=1 094 204, 11 249 missing age)

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KwaZulu-Natal Province

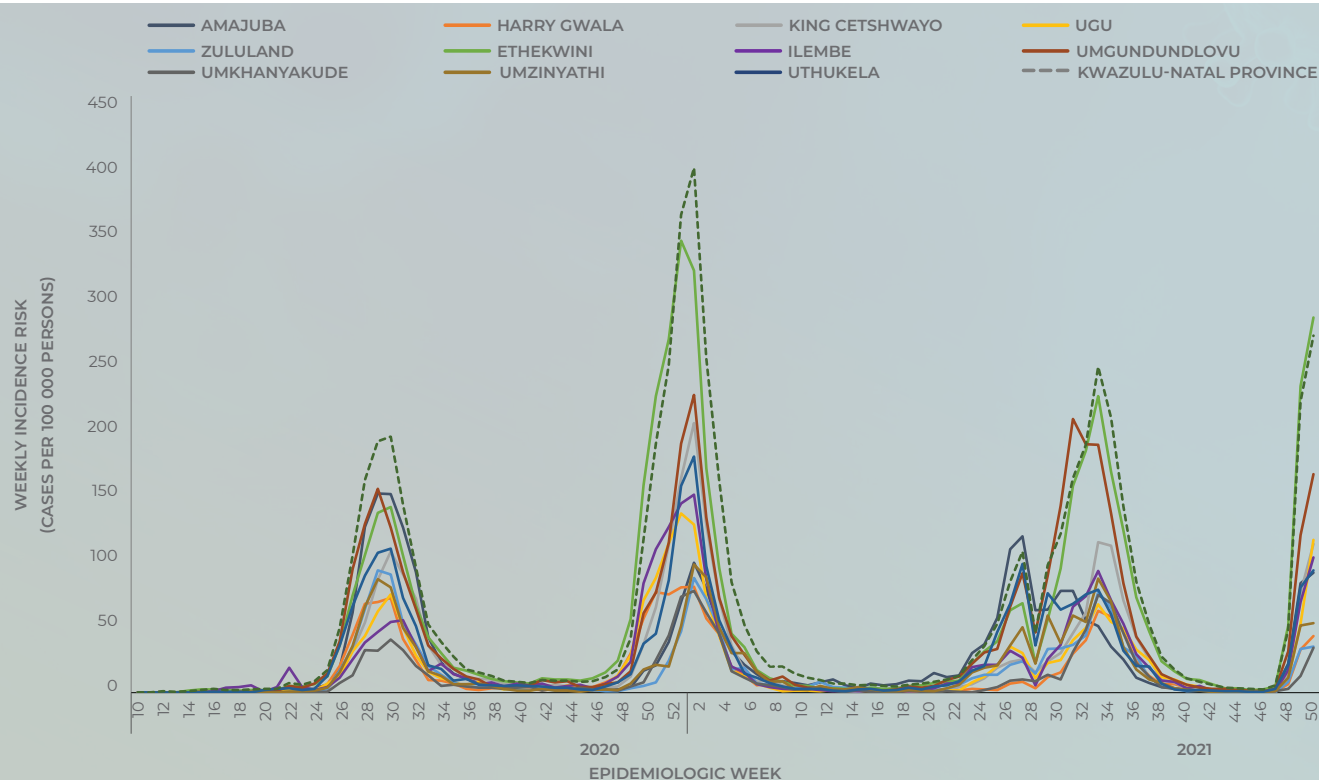


Figure 12. Weekly incidence risk of laboratory-confirmed cases of COVID-19 by district and epidemiologic week, KwaZulu-Natal Province, 3 March 2020 – 18 December 2021 (n=312 818, 260 617 missing district)

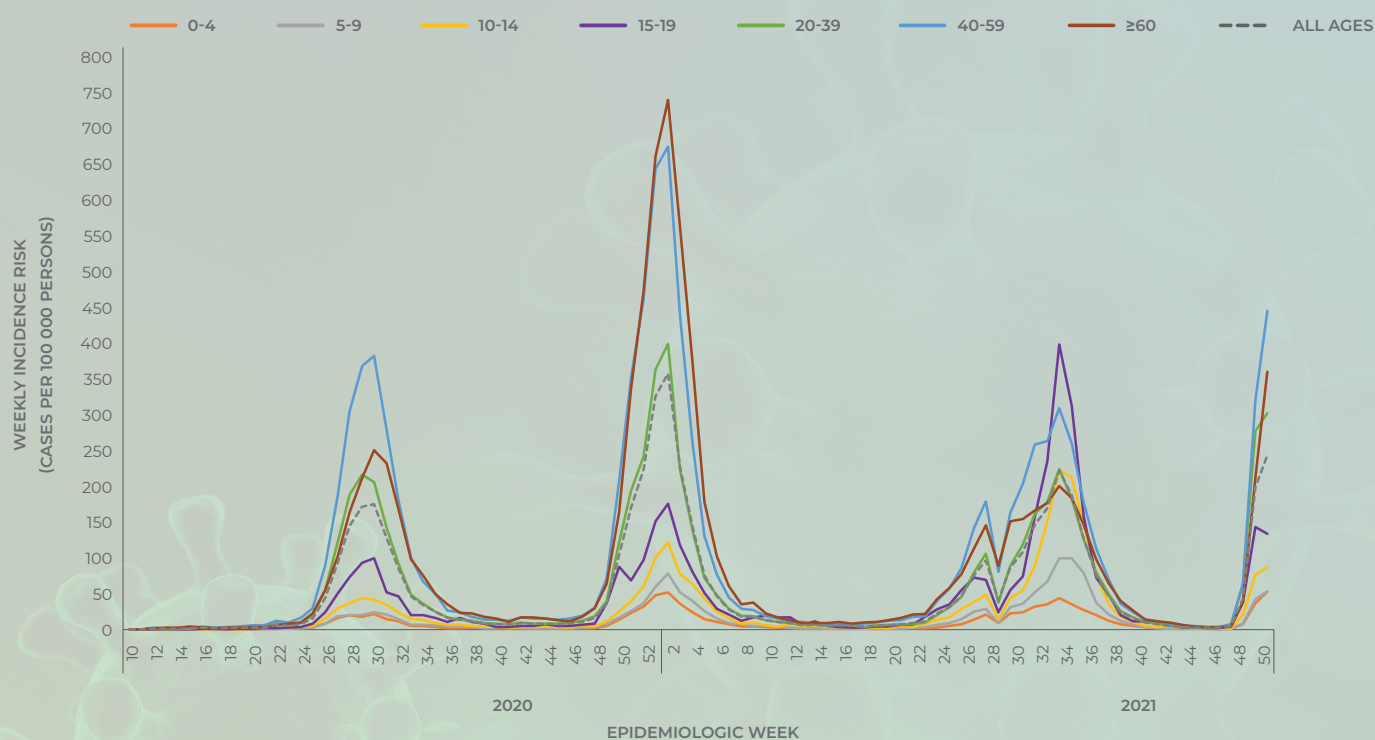


Figure 13. Weekly incidence risk of laboratory-confirmed cases of COVID-19 by age group in years and epidemiologic week, KwaZulu-Natal Province, 3 March 2020 – 18 December 2021 (n=566 228, 7 207 missing age)

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Free State Province

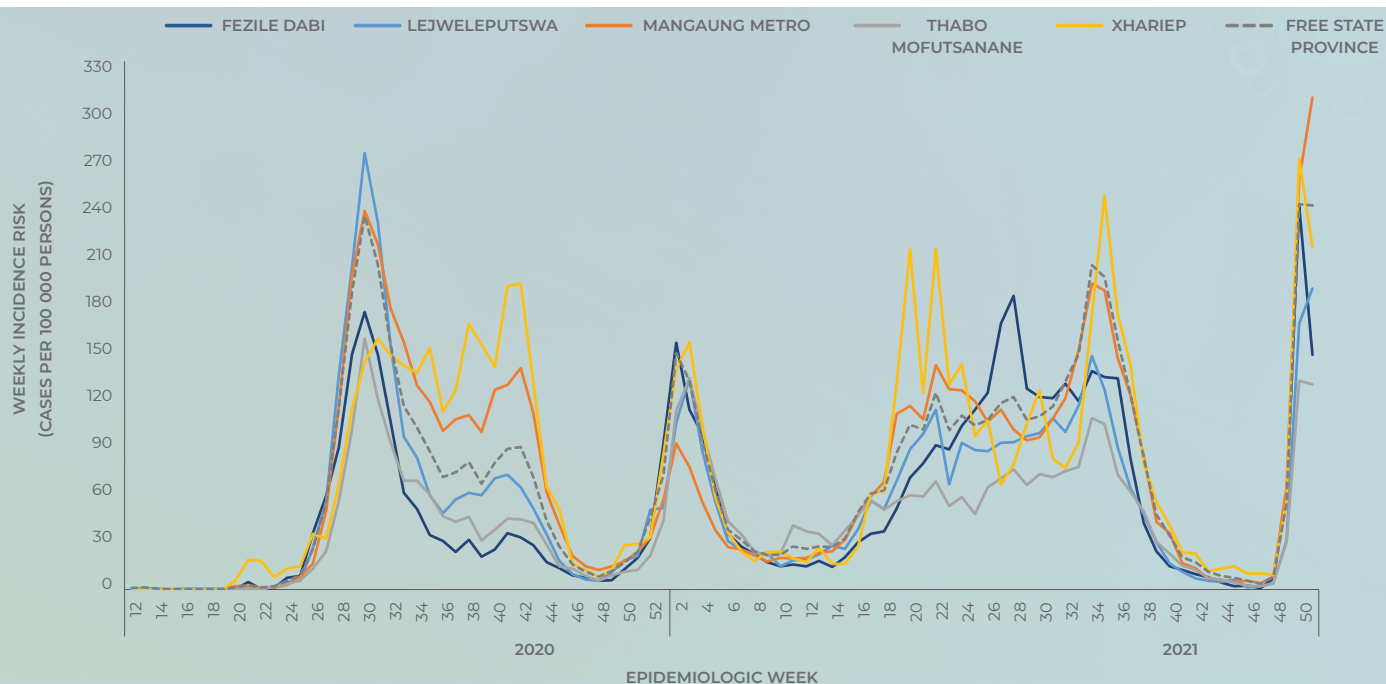


Figure 14. Weekly incidence risk of laboratory-confirmed cases of COVID-19 by district and epidemiologic week, Free State Province, 3 March 2020 – 18 December 2021 (n=153 356, 27 860 missing district)

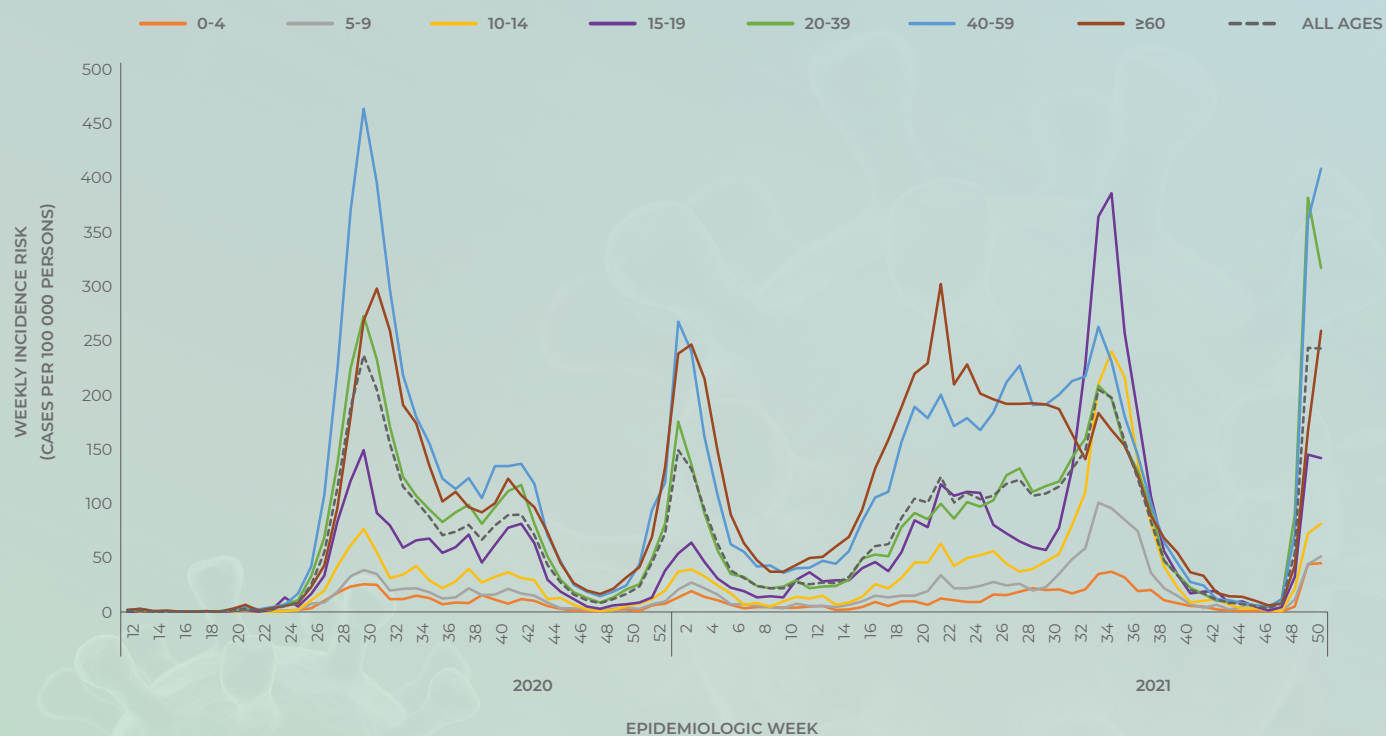


Figure 15. Weekly incidence risk of laboratory-confirmed cases of COVID-19 by age group in years and epidemiologic week, Free State Province, 3 March 2020 – 18 December 2021 (n=180 501, 715 missing age)

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Limpopo Province

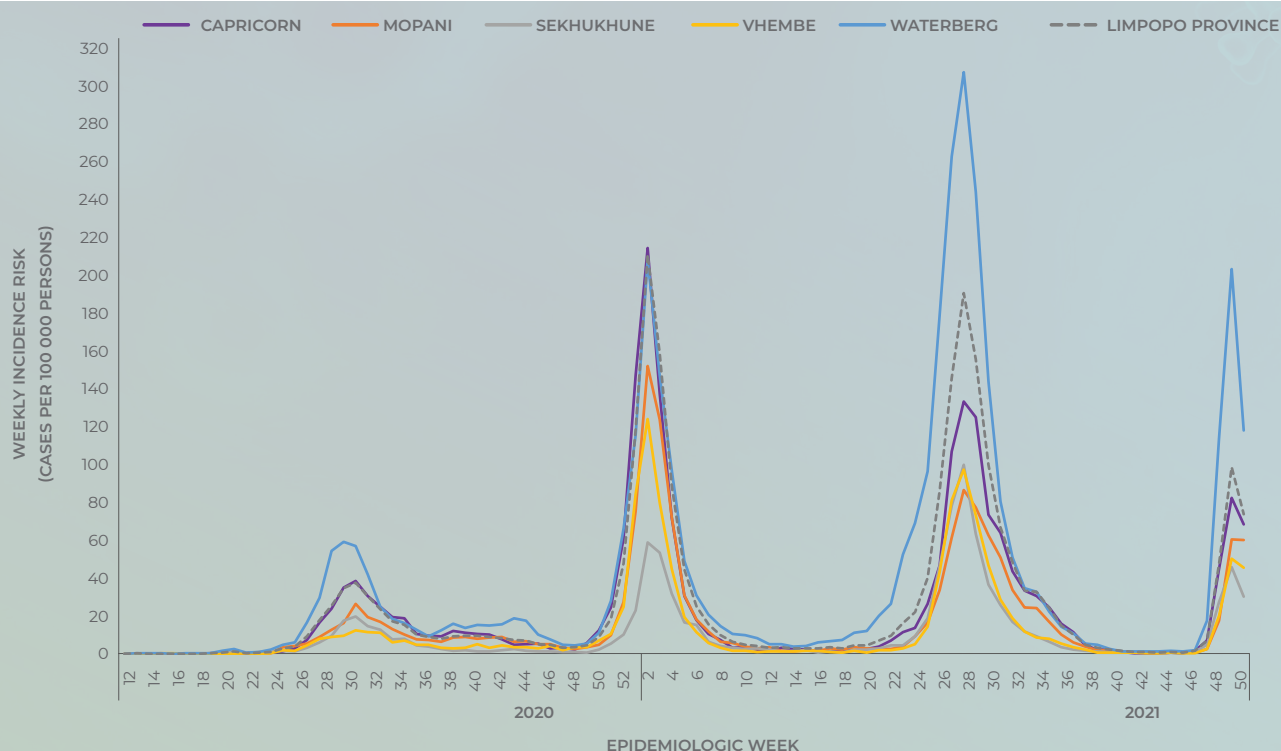


Figure 16. Weekly incidence risk of laboratory-confirmed cases of COVID-19 by district and epidemiologic week, Limpopo Province, 3 March 2020 – 18 December 2021 (n=96 514, 39 791 missing district)

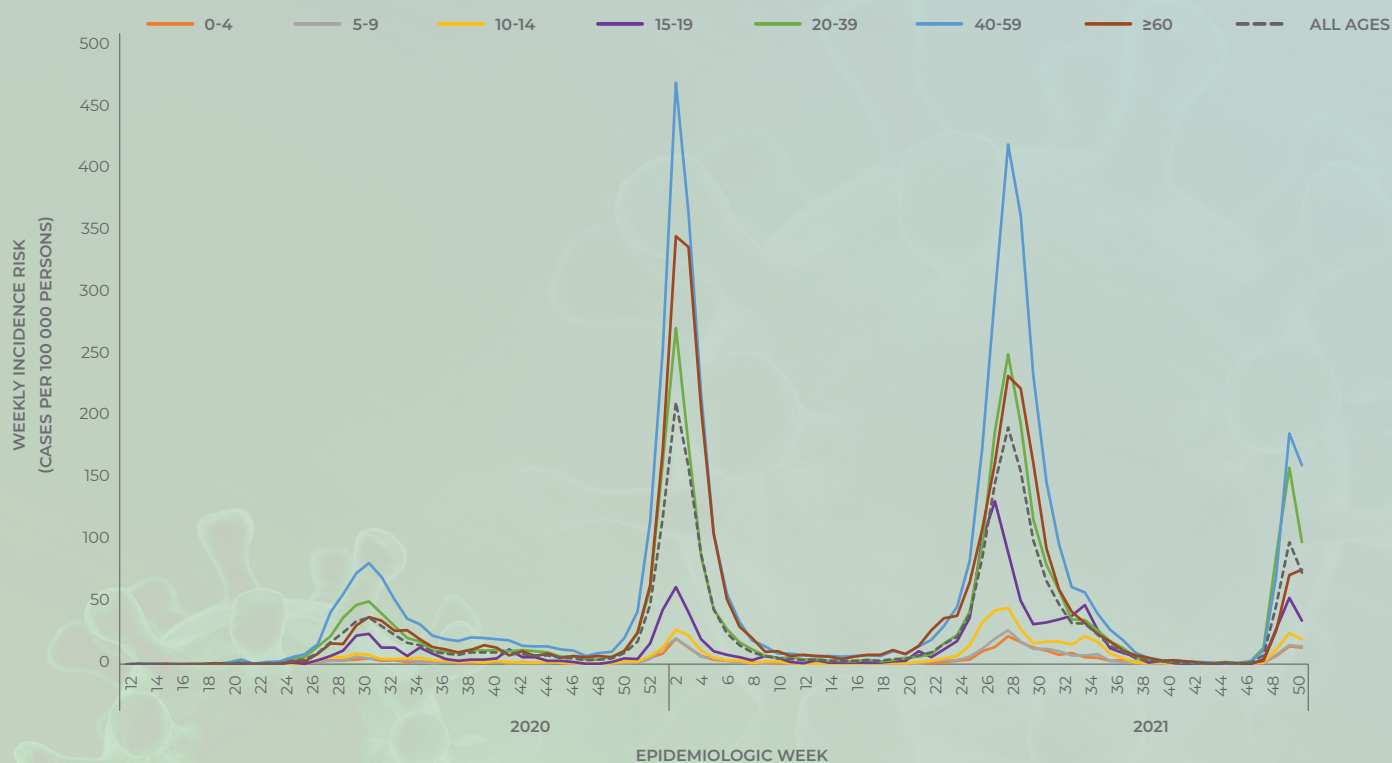


Figure 17. Weekly incidence risk of laboratory-confirmed cases of COVID-19 by age group in years and epidemiologic week, Limpopo Province, 3 March 2020 – 18 December 2021 (n=135 610, 695 missing age)

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Mpumalanga Province

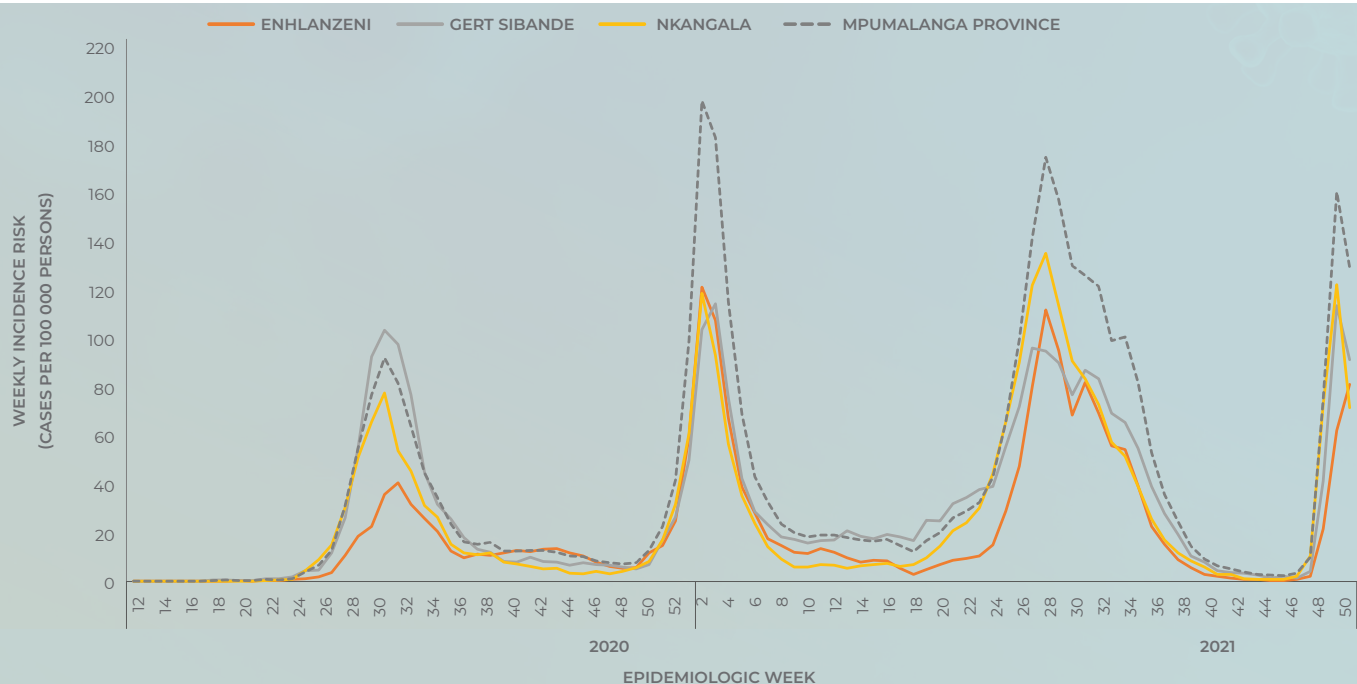


Figure 18. Weekly incidence risk of laboratory-confirmed cases of COVID-19 by district and epidemiologic week, Mpumalanga Province, 3 March 2020 – 18 December 2021 (n=108 939, 61 729 missing district)

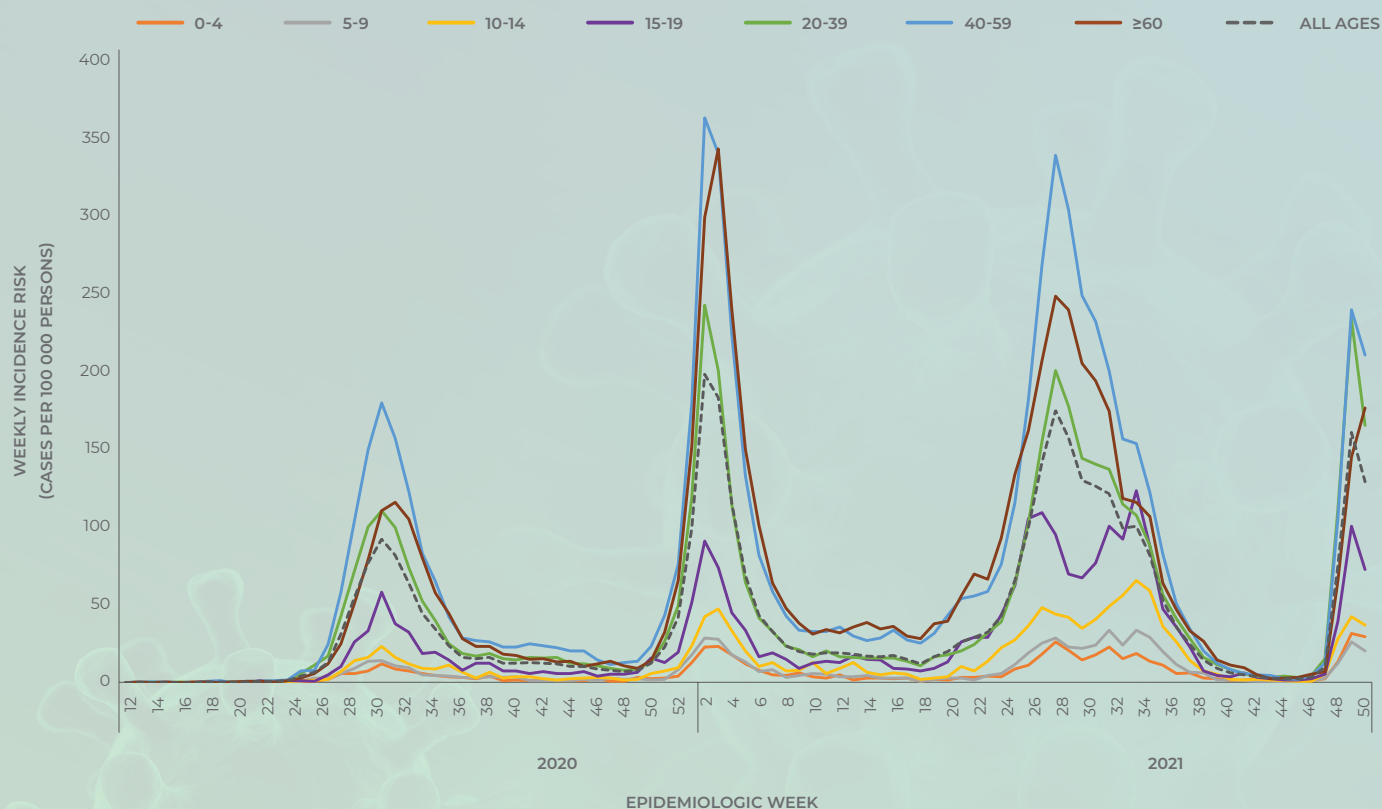


Figure 19. Weekly incidence risk of laboratory-confirmed cases of COVID-19 by age group and epidemiologic week, Mpumalanga Province, 3 March 2020 – 18 December 2021 (n=167 146, 3 522 missing age)

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North West Province

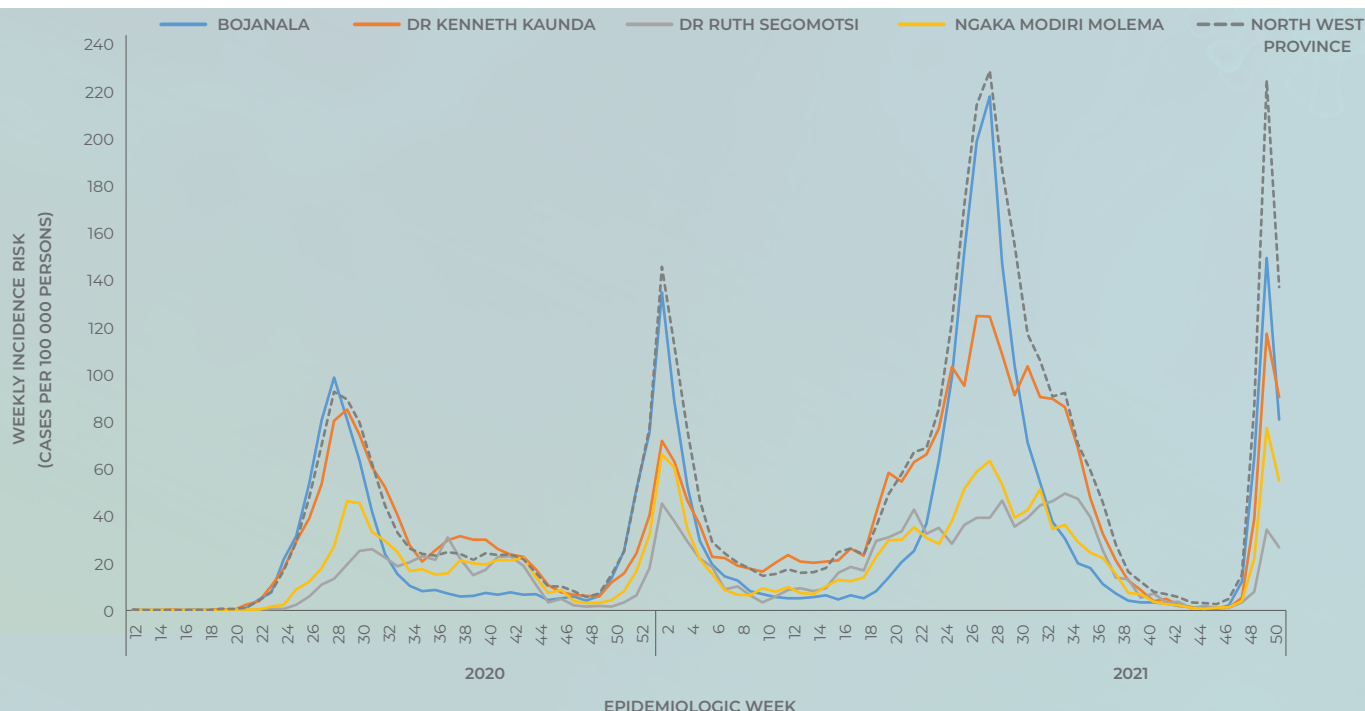


Figure 20. Weekly incidence risk of laboratory-confirmed cases of COVID-19 by district and epidemiologic week, North West Province, 3 March 2020 – 18 December 2021 (n=103 199, 69 026 missing district)

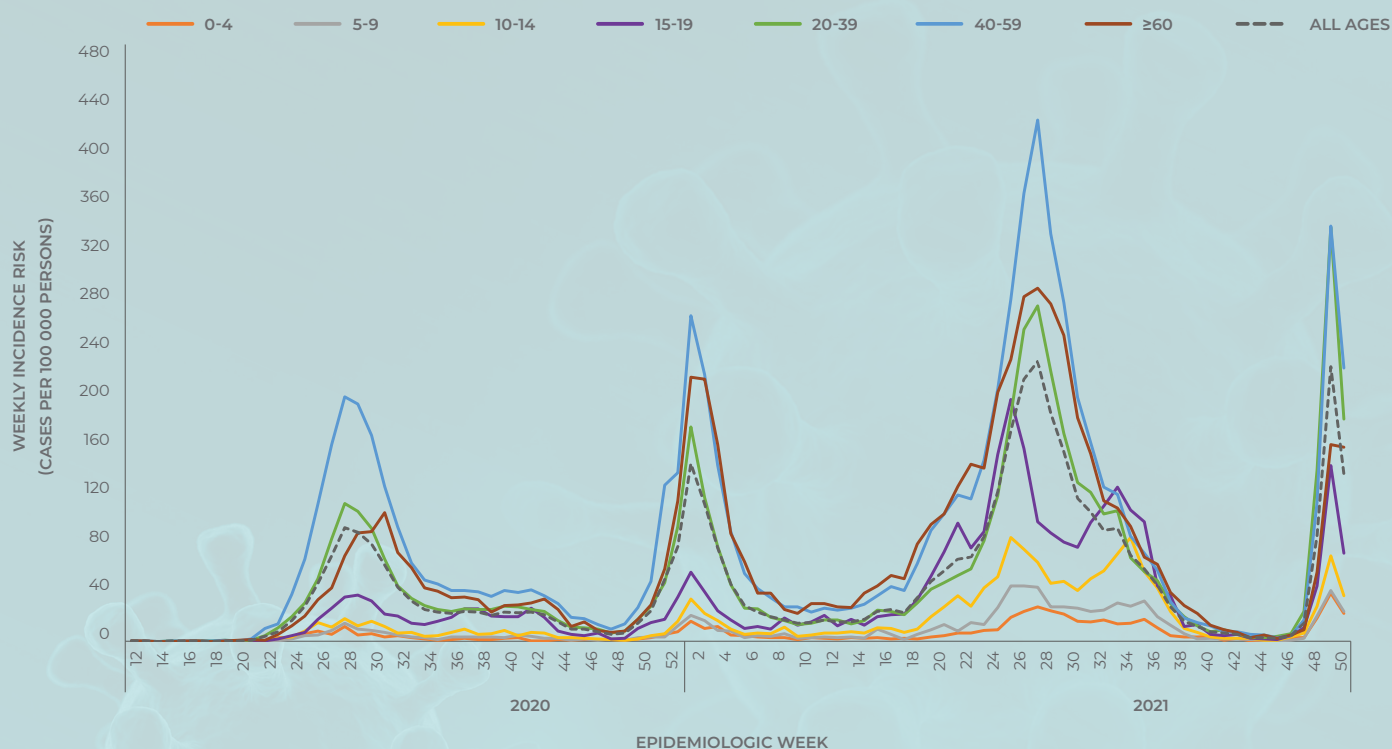


Figure 21. Weekly incidence risk of laboratory-confirmed cases of COVID-19 by age group in years and epidemiologic week, North West Province, 3 March 2020 – 18 December 2021 (n=170 006, 2 219 missing age)

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Northern Cape Province

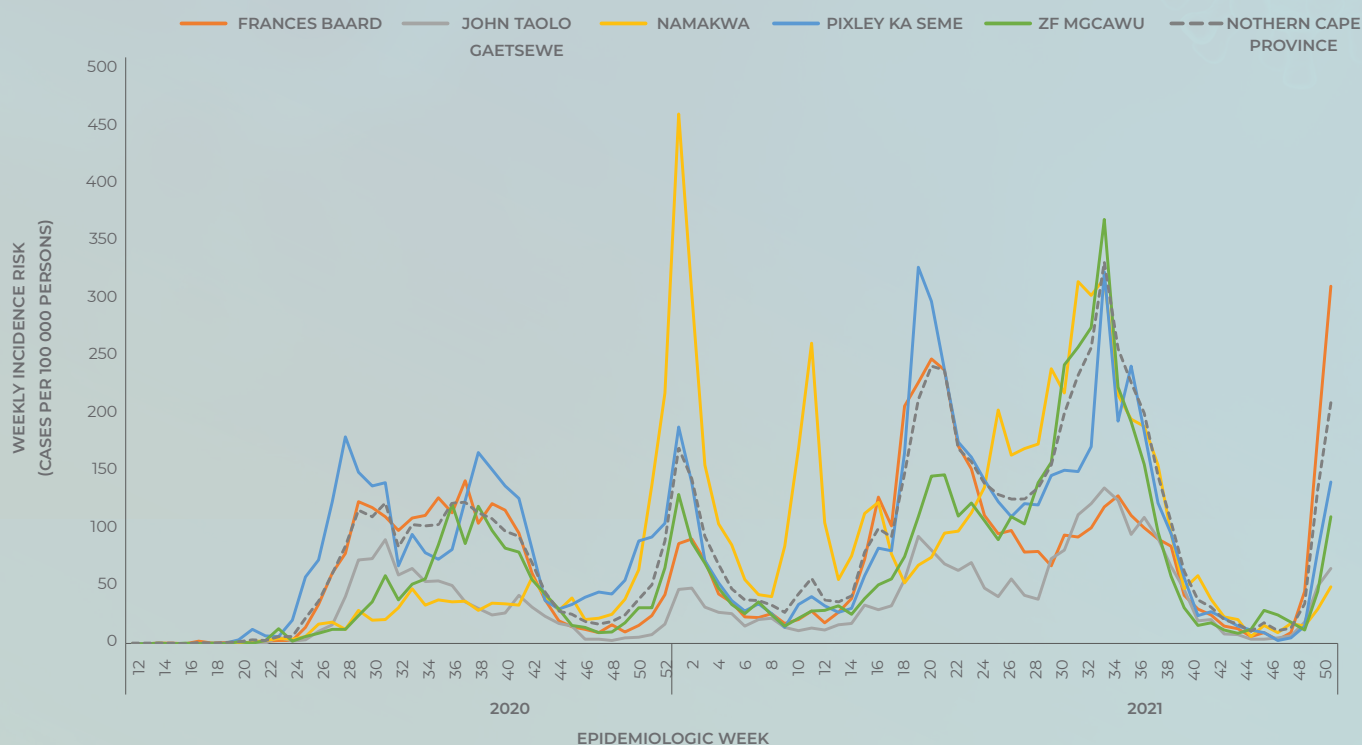


Figure 22. Weekly incidence risk of laboratory-confirmed cases of COVID-19 by district and epidemiologic week, Northern Cape Province, 3 March 2020 – 18 December 2021 (n=74 107, 24 023 missing district)

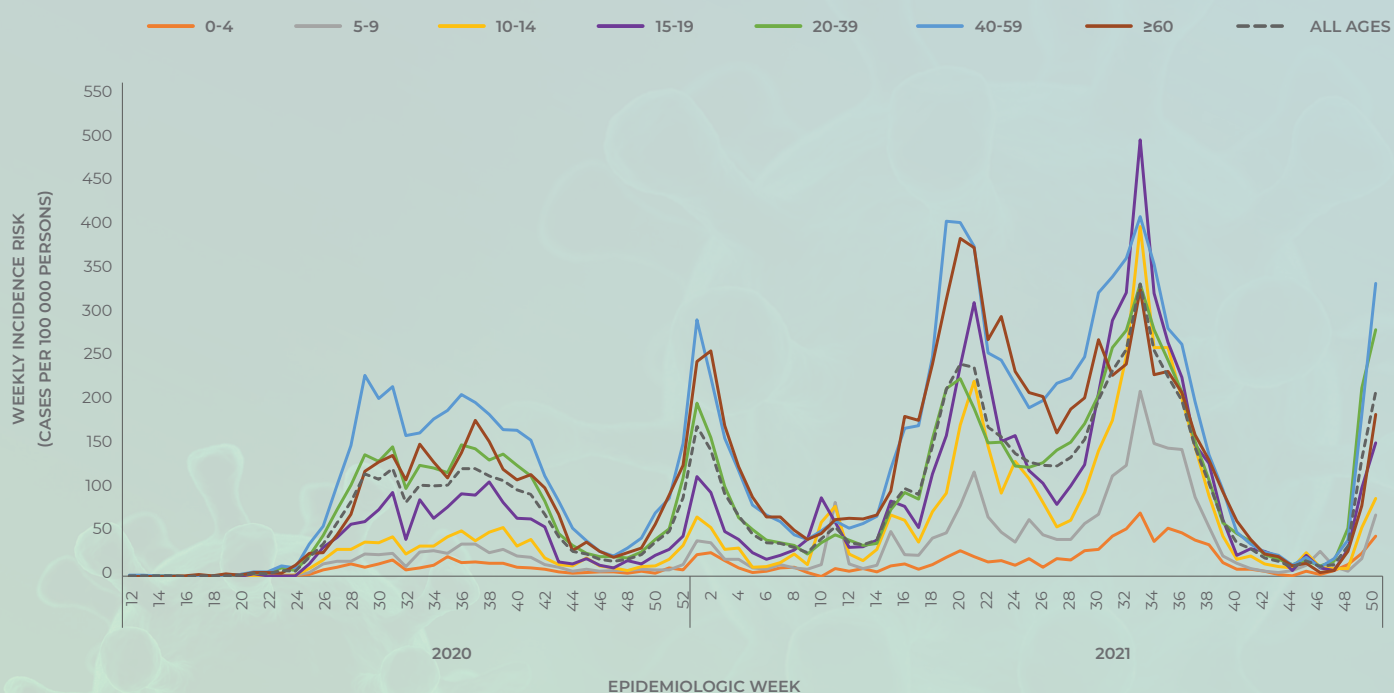


Figure 23 Weekly incidence risk of laboratory-confirmed cases of COVID-19 by age group in years and epidemiologic week, Northern Cape Province, 3 March 2020 – 18 December 2021 (n=97 477, 653 missing age)

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.