



## **COVID-19 Weekly Epidemiology Brief: Week ending 1 January 2022 (Week 52 of 2021)**

### **Summary**

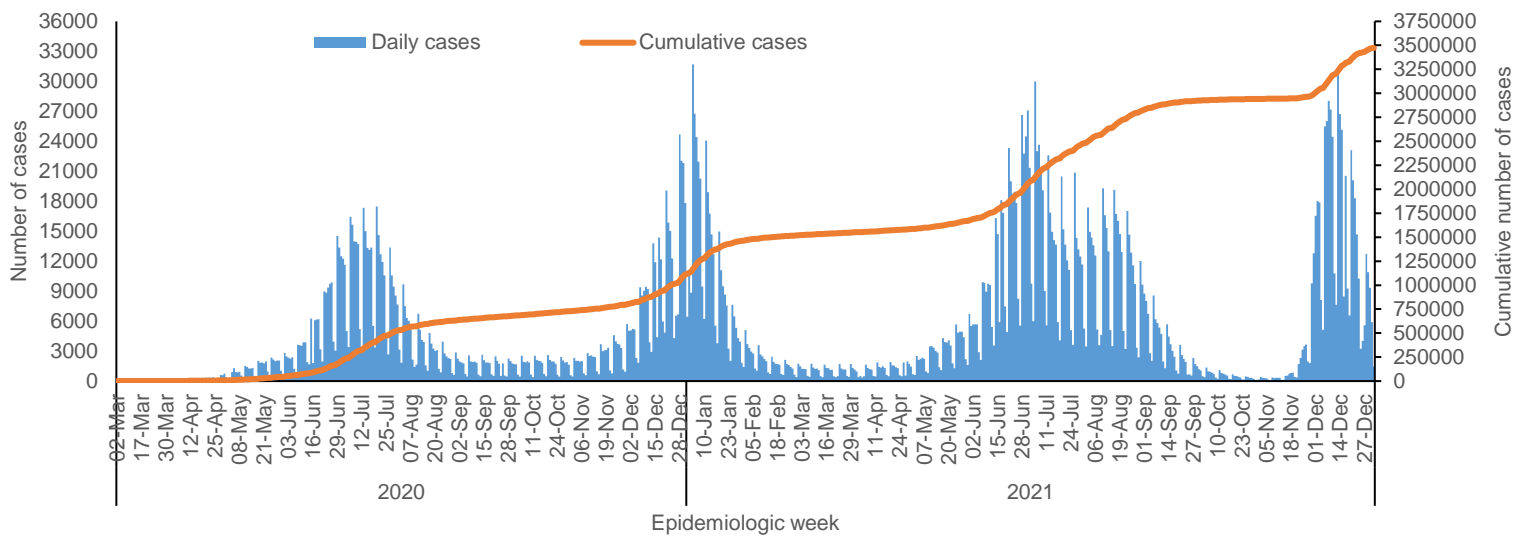
#### Overview of report

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 1 January 2022 (week 52 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.

#### Highlights

- As of 1 January 2022, a total of 3 472 423 laboratory-confirmed COVID-19 cases had been detected in South Africa. Of these, 58 887 were cases reported since the last report (week 51 of 2021). There was a 48.1% decrease in the number of new cases detected in week 52 of 2021 (49 930) compared to the number of new cases detected in week 51 of 2021 (96 250).
- In the past week, the KwaZulu-Natal Province reported the highest number of cases detected (13 168/49 930, 26.4%), followed by the Western Cape (12 648/49 930, 25.3%) and Gauteng (9 246/49 930, 18.5%) provinces, with other provinces reporting below 12% of all reported cases each.
- In the past week, a decrease in weekly incidence risk was observed in all provinces. Some of this reduction could be due to decreased SARS-CoV-2 testing during the holiday period; as also seen in the 36.8% decrease in total number of tests performed since the previous week (511.6 tests per 100 000 persons in week 51 vs 323.3 tests per 100 000 persons in week 52). The percentage decrease in weekly incidence risk ranged from 62.2% in North West Province (70.4 cases per 100 000 persons decrease) to 42.0% in Northern Cape Province (80.4 cases per 100 000 persons decrease).
- In the past week, the Western Cape Province reported the highest weekly incidence risk (180.5 cases per 100 000 persons), followed by the KwaZulu-Natal Province (114.2 cases per 100 000 persons), Northern Cape Province (111.0 cases per 100 000 persons), and the Free State Province (85.5 cases per 100 000 persons). The other provinces reported below 85 cases per 100 000 persons.
- The highest weekly incidence risk among cases detected in week 52 of 2021 was reported in the ≥80-year age group (278.0 cases per 100 000 persons), and the lowest weekly incidence risk was in the 5-9-year age group (22.1 cases per 100 000 persons).

## National and provincial trends of COVID-19 cases in South Africa

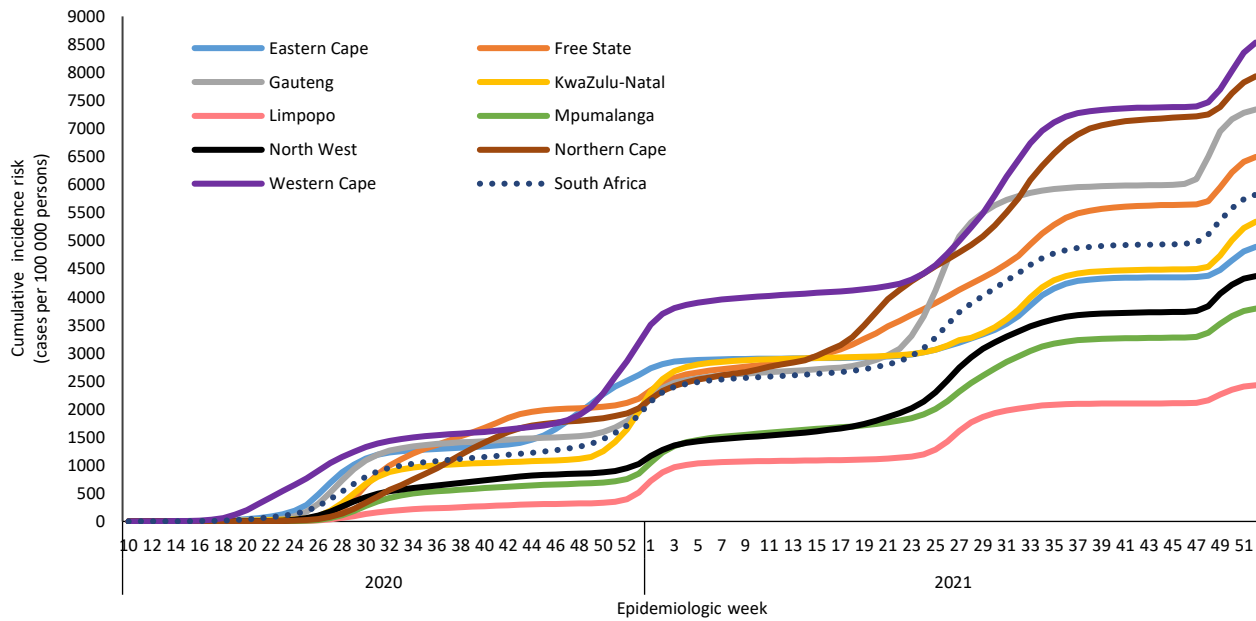


**Figure 1.** Number and cumulative number of laboratory-confirmed cases of COVID-19 by date of specimen collection, South Africa, 3 March 2020 – 1 January 2022 (n= 3 472 423)

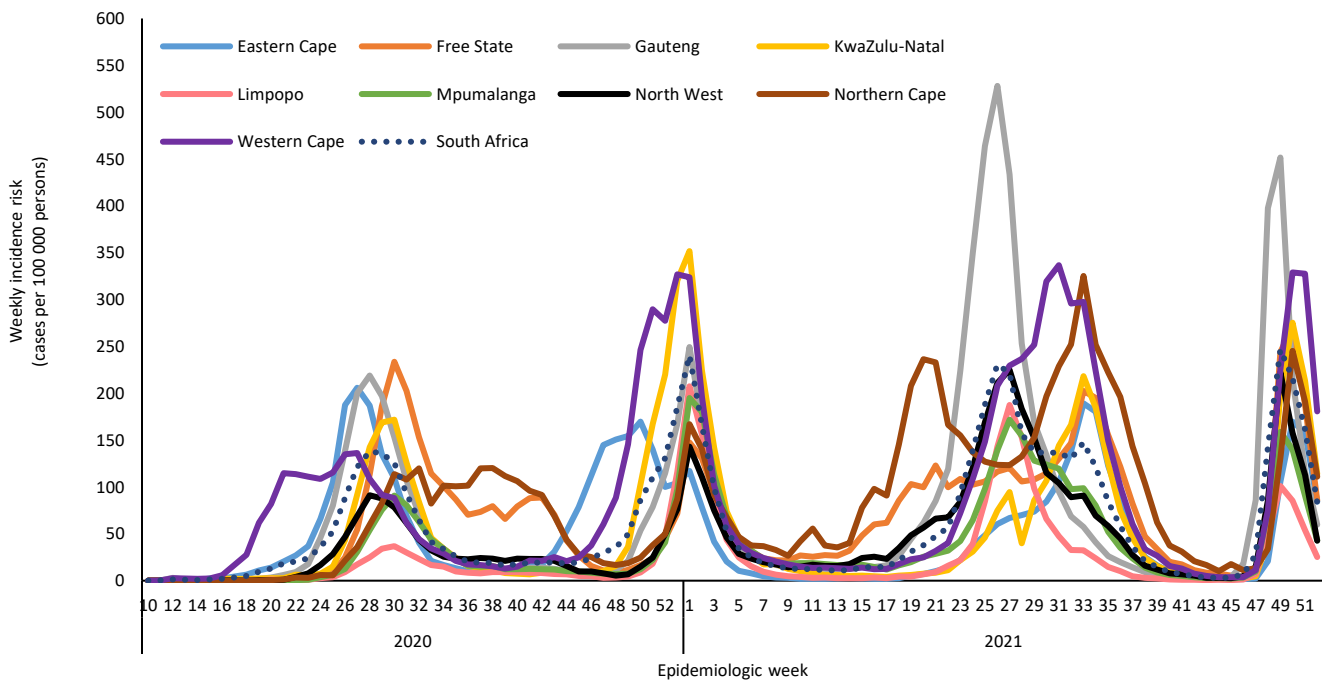
**Table 1.** Number and cumulative/weekly incidence risk of laboratory-confirmed cases of COVID-19 and testing per 100 000 persons by province, South Africa, 3 March 2020 – 1 January 2022 (n = 3 472 423)

Province	Cumulative cases (n) (percentage, n/total cases in South Africa)	New cases <sup>1</sup> detected in week 52 (26 Dec 2021-1 Jan 2022), n (percentage <sup>2</sup> , n/total)	Population in mid-2020 <sup>3</sup> , n	Cumulative incidence risk (cases per 100 000 persons)	Incidence risk of new cases detected in week 52 of 2021 (cases/100 000 persons)	Tests <sup>4</sup> per 100 000 persons, 26 Dec 2021-1 Jan 2022
Eastern Cape	329 507 (9.5)	5 687 (11.4)	6 734 001	4 893.2	84.5	242.5
Free State	190 260 (5.5)	2 505 (5.0)	2 928 903	6 495.9	85.5	354.4
Gauteng	1 137 094 (32.7)	9 246 (18.5)	15 488 137	7 341.7	59.7	387.8
KwaZulu-Natal	615 912 (17.7)	13 168 (26.4)	11 531 628	5 341.1	114.2	360.8
Limpopo	142 026 (4.1)	1 475 (3.0)	5 852 553	2 426.7	25.2	87.0
Mpumalanga	177 524 (5.1)	2 009 (4.0)	4 679 786	3 793.4	42.9	195.2
North West	179 626 (5.2)	1 757 (3.5)	4 108 816	4 371.7	42.8	192.9
Northern Cape	102 552 (3.0)	1 435 (2.9)	1 292 786	7 932.6	111.0	359.7
Western Cape	597 922 (17.2)	12 648 (25.3)	7 005 741	8 534.7	180.5	536.5
Unknown						
<b>Total</b>	<b>3 472 423</b>	<b>49 930</b>	<b>59 622 351</b>	<b>5 824.0</b>	<b>83.7</b>	<b>323.3</b>

<sup>1</sup>New cases refer to cases whose samples were collected or received in the current reporting week <sup>2</sup>Percentage=n/total number of new cases (specimen collected or received in current reporting week) <sup>3</sup>2020 Mid-year population Statistics South Africa <sup>4</sup>Data on number of tests conducted sourced from COVID-19 weekly testing report of the same reporting week

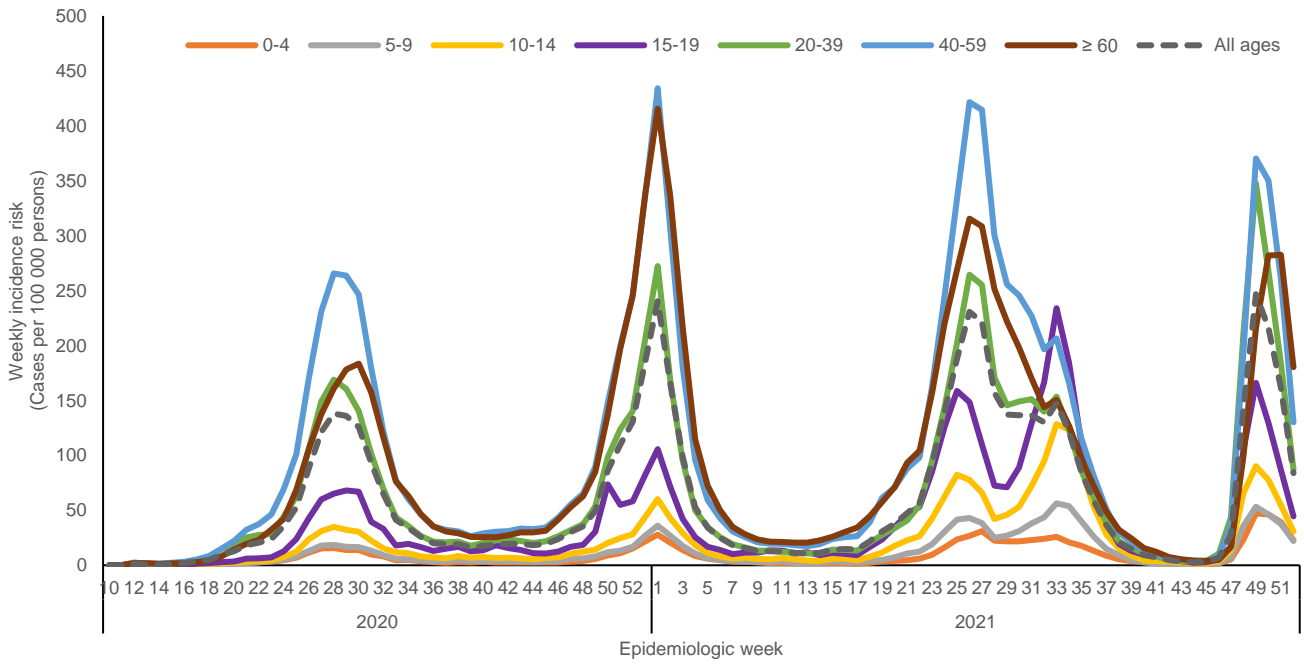


**Figure 2:** Cumulative incidence risk of laboratory-confirmed cases of COVID-19 by province and epidemiologic week South Africa 3 March 2020 – 1 January 2022 (n = 3 472 423)

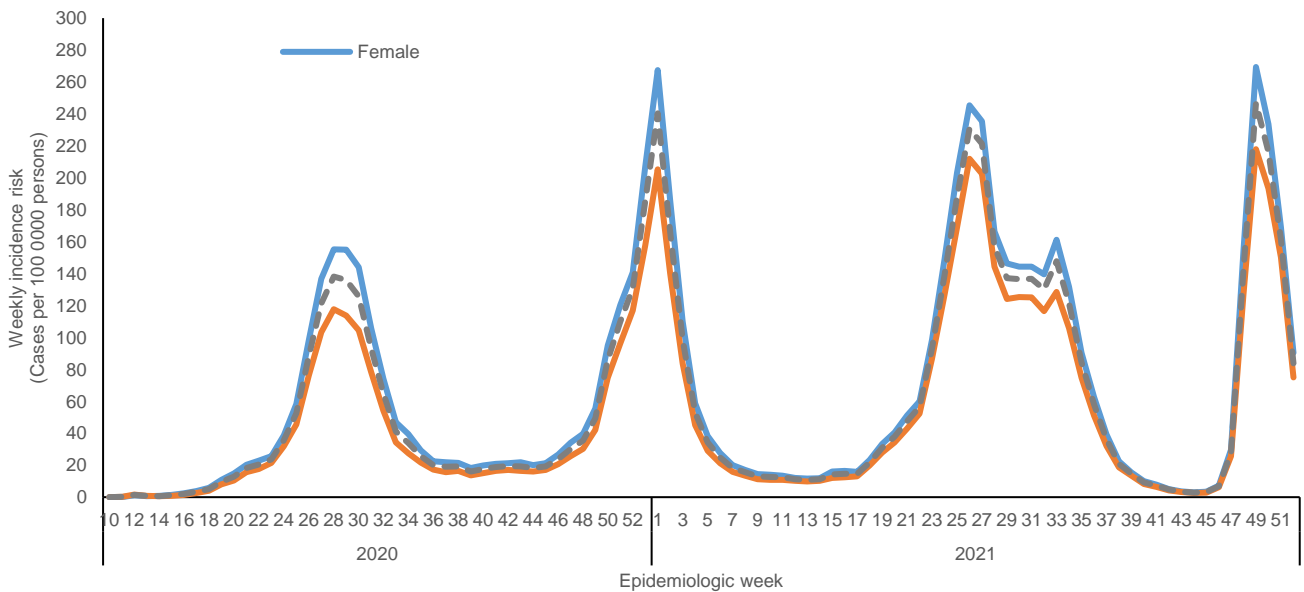


**Figure 3:** Weekly incidence risk of laboratory-confirmed cases of COVID-19 by province and epidemiologic week South Africa 3 March 2020 – 1 January 2022 (n = 3 472 423)

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 – 1 January 2022 (n = 3 439 569, 32 854 missing age)



**Figure 5.** Weekly incidence risk of laboratory-confirmed cases of COVID-19 by sex and epidemiologic week South Africa 3 March 2020 – 1 January 2022 (n = 3 434 856, sex missing for 37 567)

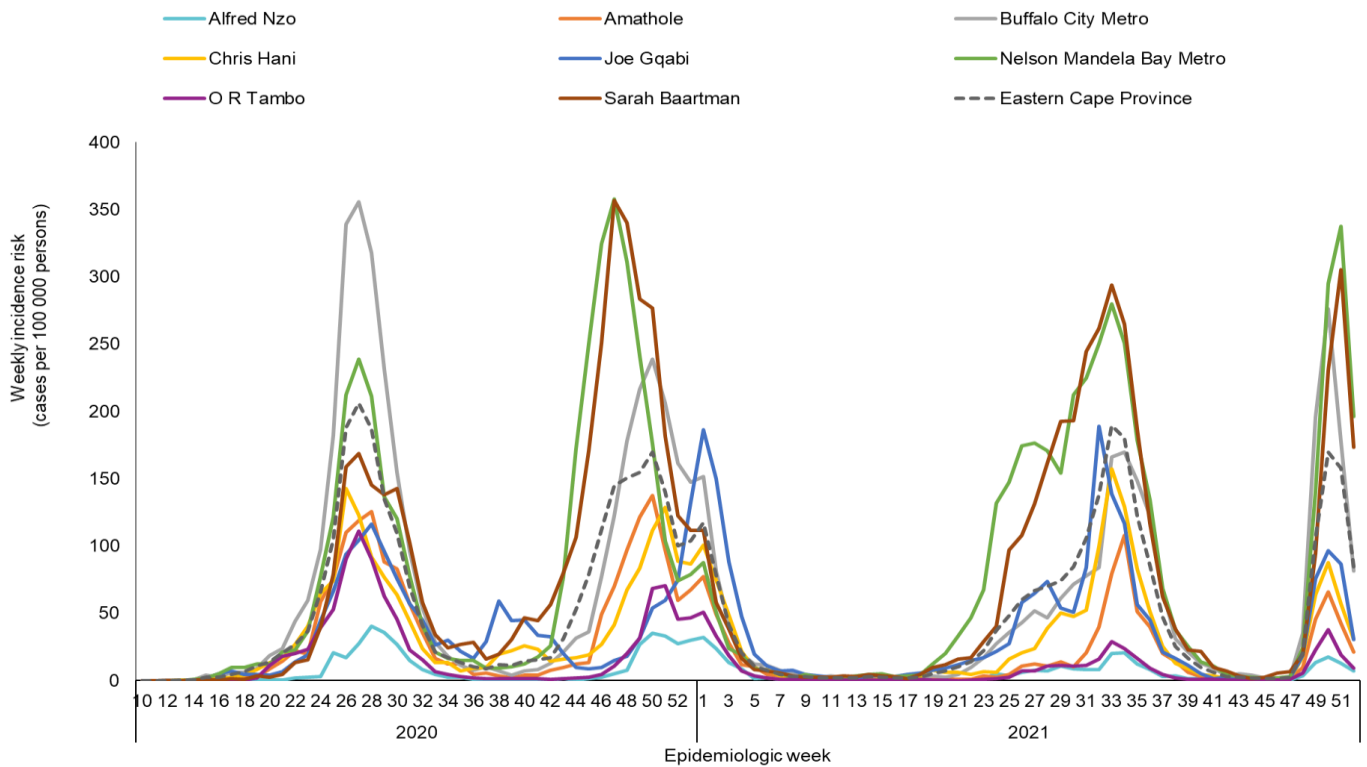
**Table 2.** Number of laboratory-confirmed cases of COVID-19 and cumulative/weekly incidence risk by age group South Africa 3 March 2020 – 1 January 2022 n = 3 472 423, 32 854 missing age)

Age group (years)	Cumulative cases (n) (percentage n/total cases in South Africa)	New cases <sup>1</sup> detected in week 52 (26 Dec 2021- 1 Jan 2022) n (percentage <sup>2</sup> n/total)	Population in mid-2020 <sup>3</sup> n	Cumulative incidence risk (cases per 100 000 persons)	Incidence risk of new cases detected in week 52 of 2021 (cases/100 000 persons)
0-4	49 532 (1.4)	1 316 (2.7)	5 743 450	862.4	22.9
5-9	69 010 (2.0)	1 262 (2.6)	5 715 952	1 207.3	22.1
10-14	125 275 (3.6)	1 727 (3.5)	5 591 553	2 240.4	30.9
15-19	189 361 (5.5)	2 131 (4.3)	4 774 579	3 966.0	44.6
20-24	230 158 (6.7)	3 160 (6.4)	4 823 367	4 771.7	65.5
25-29	338 908 (9.9)	4 605 (9.3)	5 420 754	6 252.0	85.0
30-34	390 301 (11.3)	5 031 (10.2)	5 641 750	6 918.1	89.2
35-39	395 369 (11.5)	5 206 (10.5)	4 798 293	8 239.8	108.5
40-44	334 986 (9.7)	4 191 (8.5)	3 733 942	8 971.4	112.2
45-49	319 478 (9.3)	3 965 (8.0)	3 169 648	10 079.3	125.1
50-54	286 969 (8.3)	3 790 (7.7)	2 571 263	11 160.6	147.4
55-59	238 240 (6.9)	3 248 (6.6)	2 211 309	10 773.7	146.9
60-64	164 822 (4.8)	2 815 (5.7)	1 796 316	9 175.6	156.7
65-69	112 572 (3.3)	2 252 (4.6)	1 408 665	7 991.4	159.9
70-74	81 504 (2.4)	1 771 (3.6)	1 007 174	8 092.3	175.8
75-79	52 344 (1.5)	1 339 (2.7)	637 062	8 216.5	210.2
≥80	60 740 (1.8)	1 605 (3.2)	577 273	10 521.9	278.0
Unknown	32 854	516			
<b>Total</b>	<b>3 472 423 (100.0)</b>	<b>49 930 (100.0)</b>	<b>59 622 350</b>	<b>5 824.0</b>	<b>83.7</b>

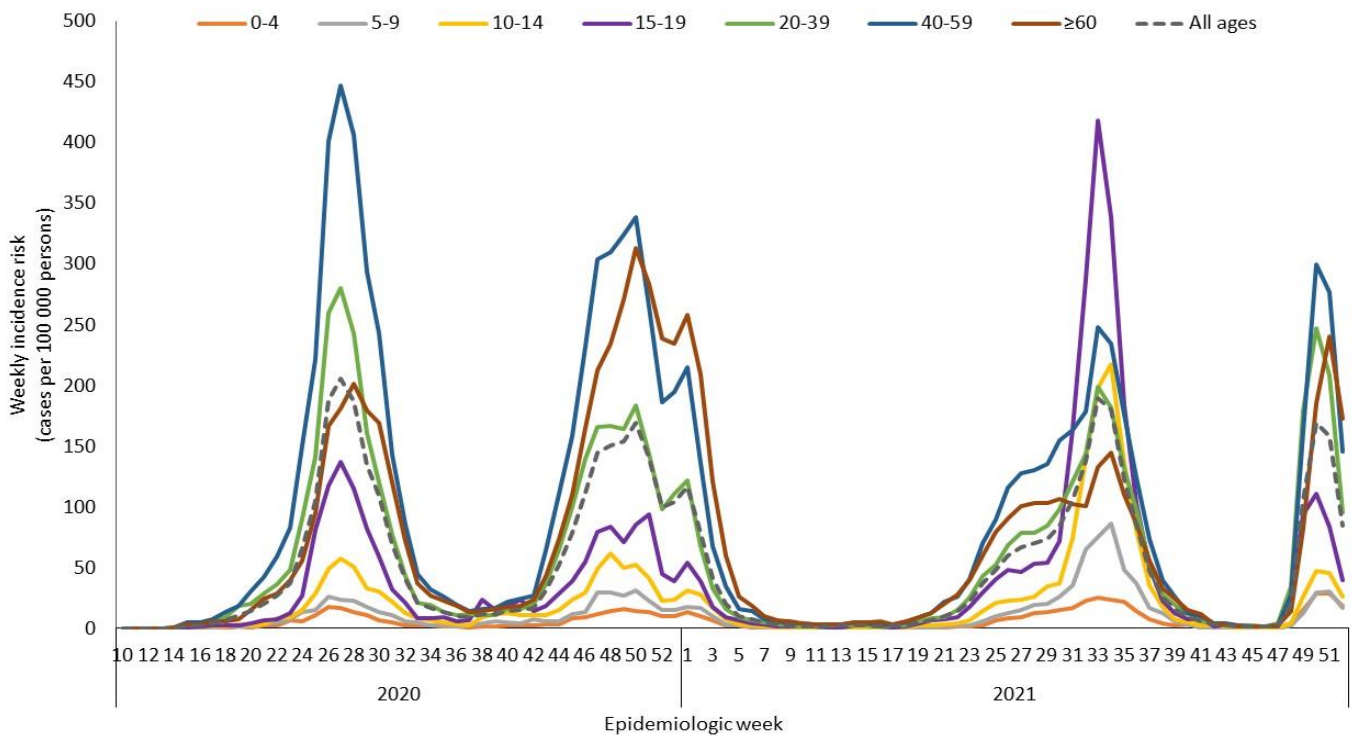
<sup>1</sup>New cases refer to cases whose samples were collected or received in the current reporting week <sup>2</sup>Percentage=n/total number of new cases (specimen collected or received in current reporting week) <sup>3</sup>2020 Mid-year population Statistics South Africa

Provincial trends of COVID-19 cases

Eastern Cape Province

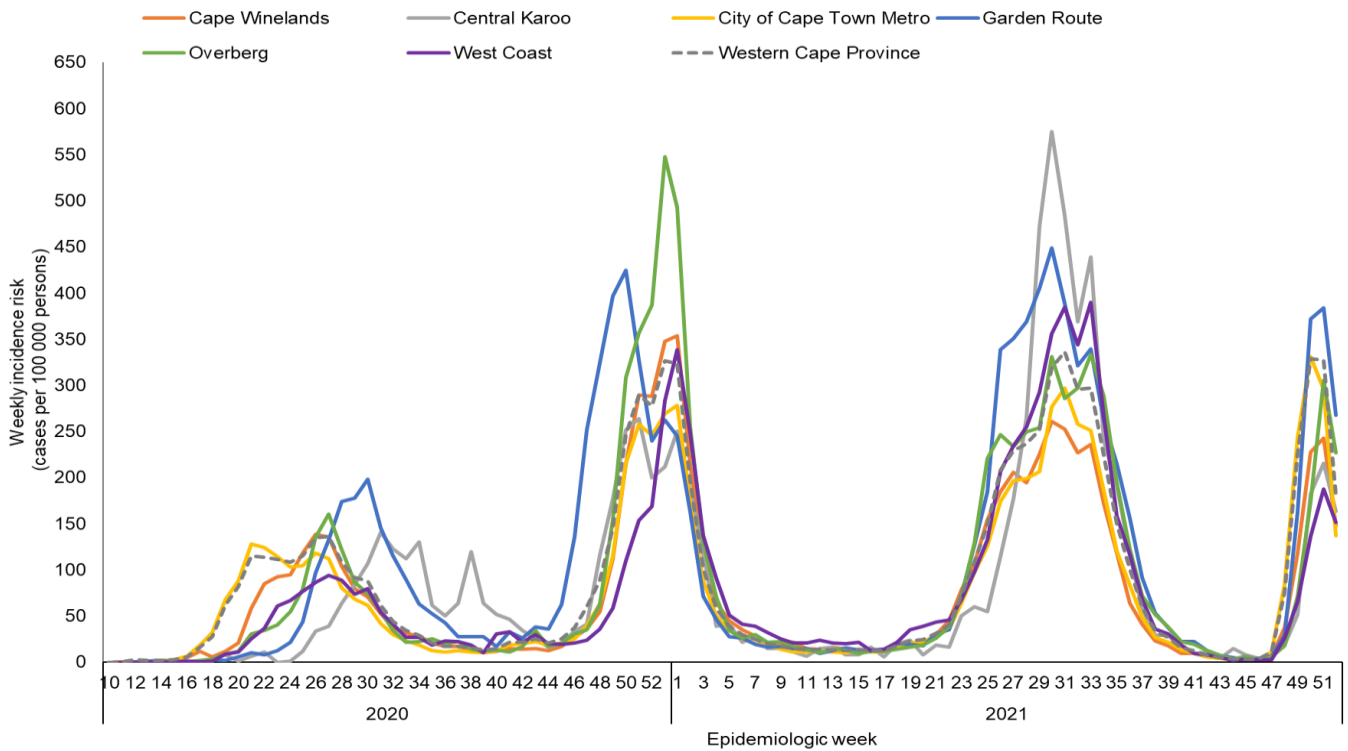


**Figure 6:** Weekly incidence risk of laboratory-confirmed cases of COVID-19 by district and epidemiologic week Eastern Cape Province 3 March 2020 – 1 January 2022 (n = 257 479, 72 028 missing district)

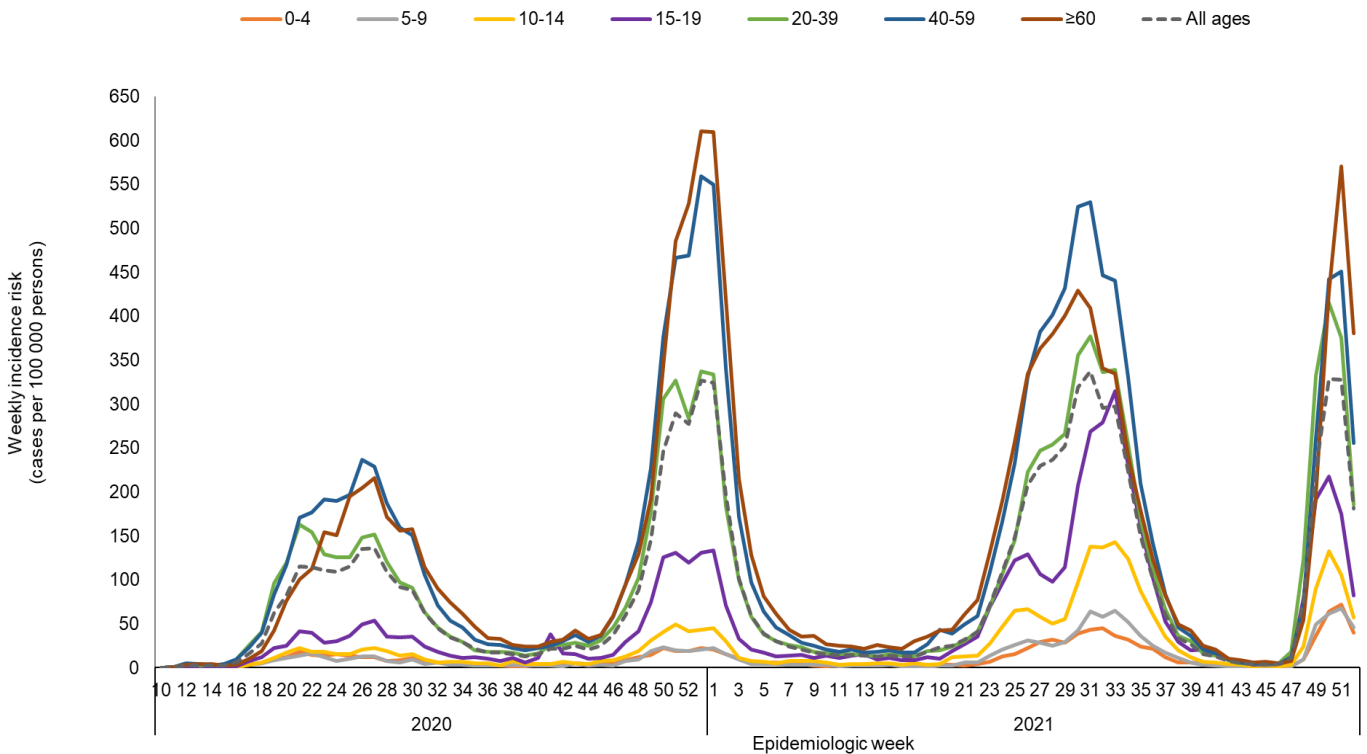


**Figure 7:** Weekly incidence risk of laboratory-confirmed cases of COVID-19 by age group in years and epidemiologic week Eastern Cape Province 3 March 2020 – 1 January 2022 (n = 325 991, 3 516 missing age)

## Western Cape Province



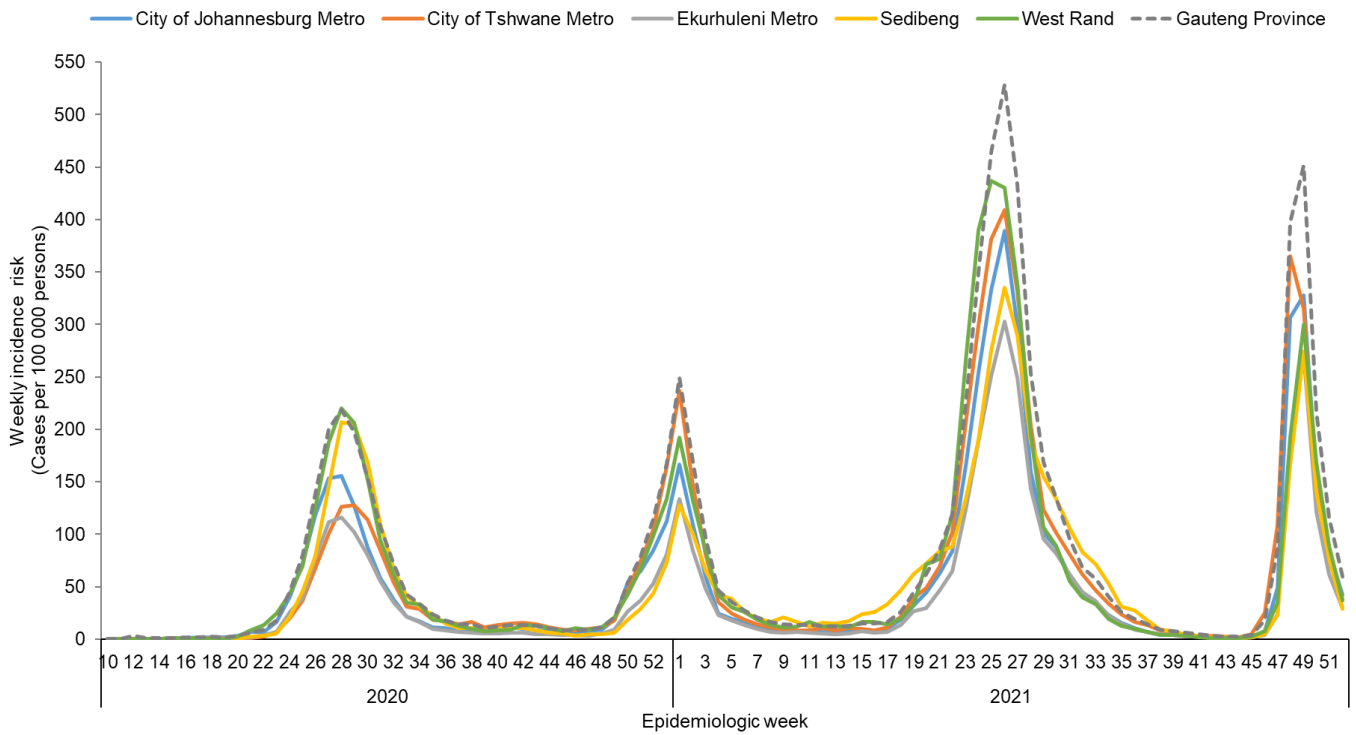
**Figure 8:** Weekly incidence risk of laboratory-confirmed cases of COVID-19 by district and epidemiologic week Western Cape Province 3 March 2020 – 1 January 2022 (n = 541 523, 56 399 missing district)



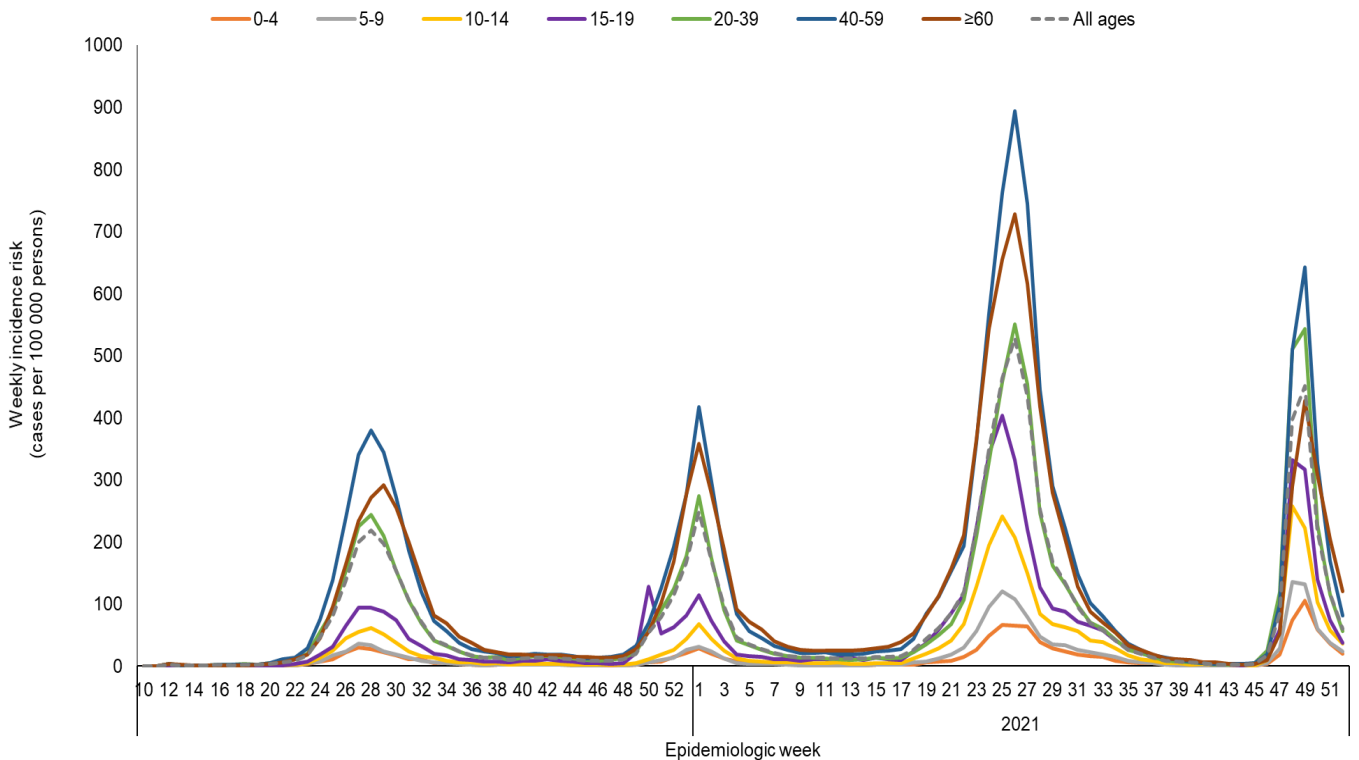
**Figure 9:** Weekly incidence risk of laboratory-confirmed cases of COVID-19 by age group in years and epidemiologic week Western Cape Province 3 March 2020 – 1 January 2022 (n = 596 256, 1 666 missing age)



## Gauteng Province

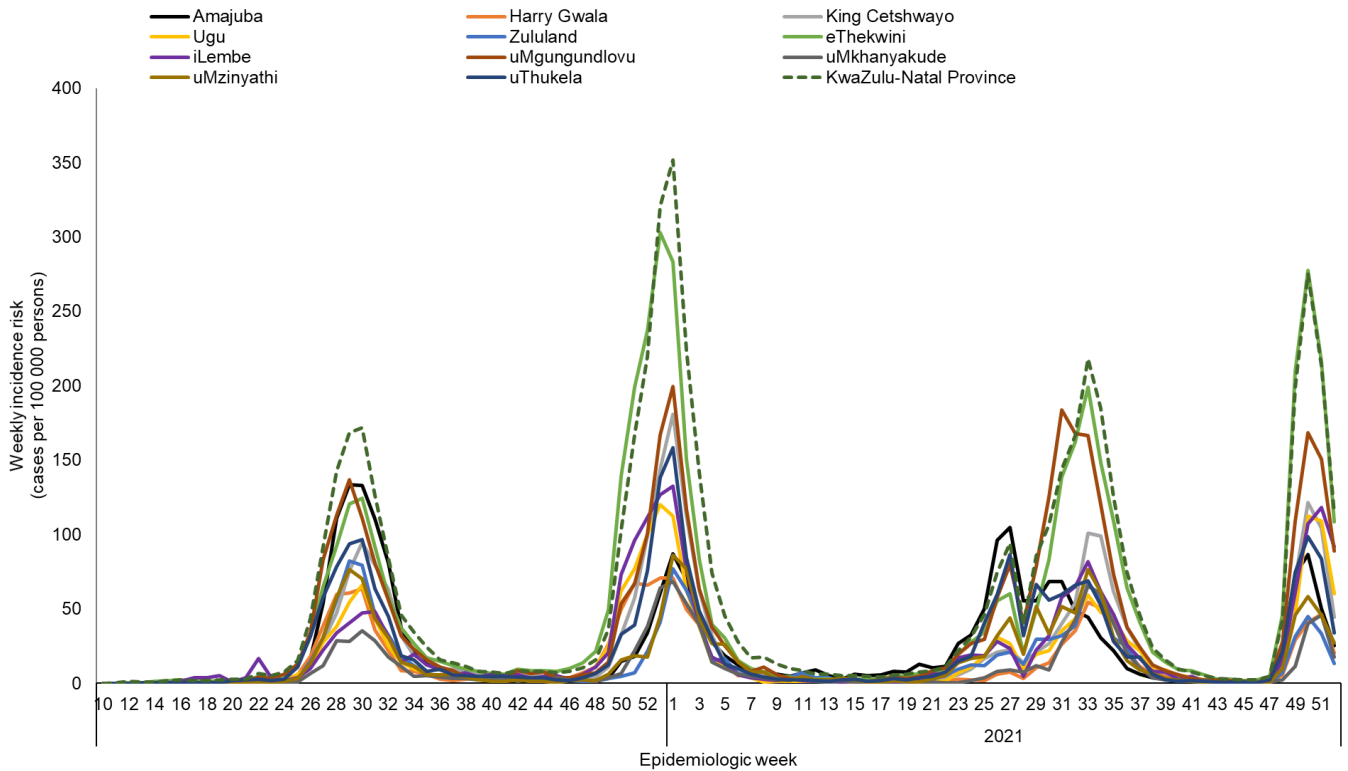


**Figure 10:** Weekly incidence risk of laboratory-confirmed cases of COVID-19 by district and epidemiologic week Gauteng Province 3 March 2020 – 1 January 2022 (n = 776 876, 360 218 missing district)

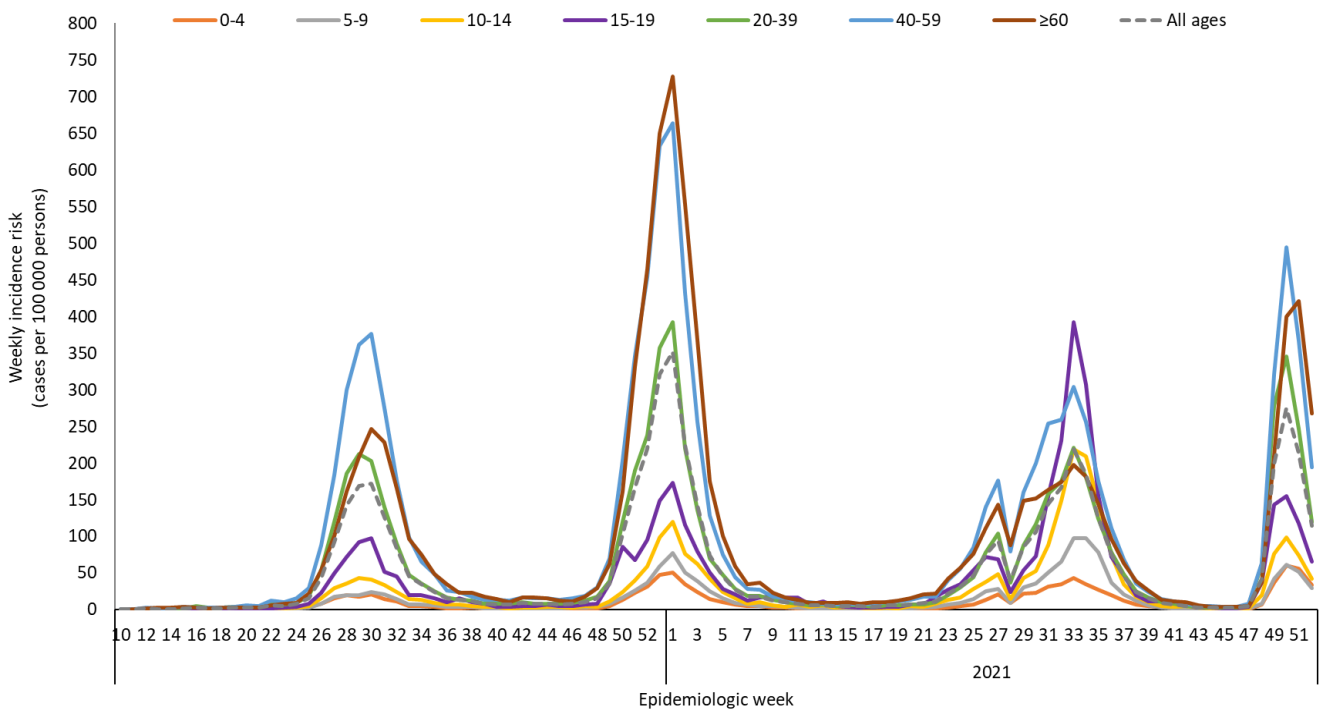


**Figure 11:** Weekly incidence risk of laboratory-confirmed cases of COVID-19 by age group in years and epidemiologic week Gauteng Province 3 March 2020 – 1 January 2022 (n = 1 125 474, 11 620 missing age)

## KwaZulu-Natal Province

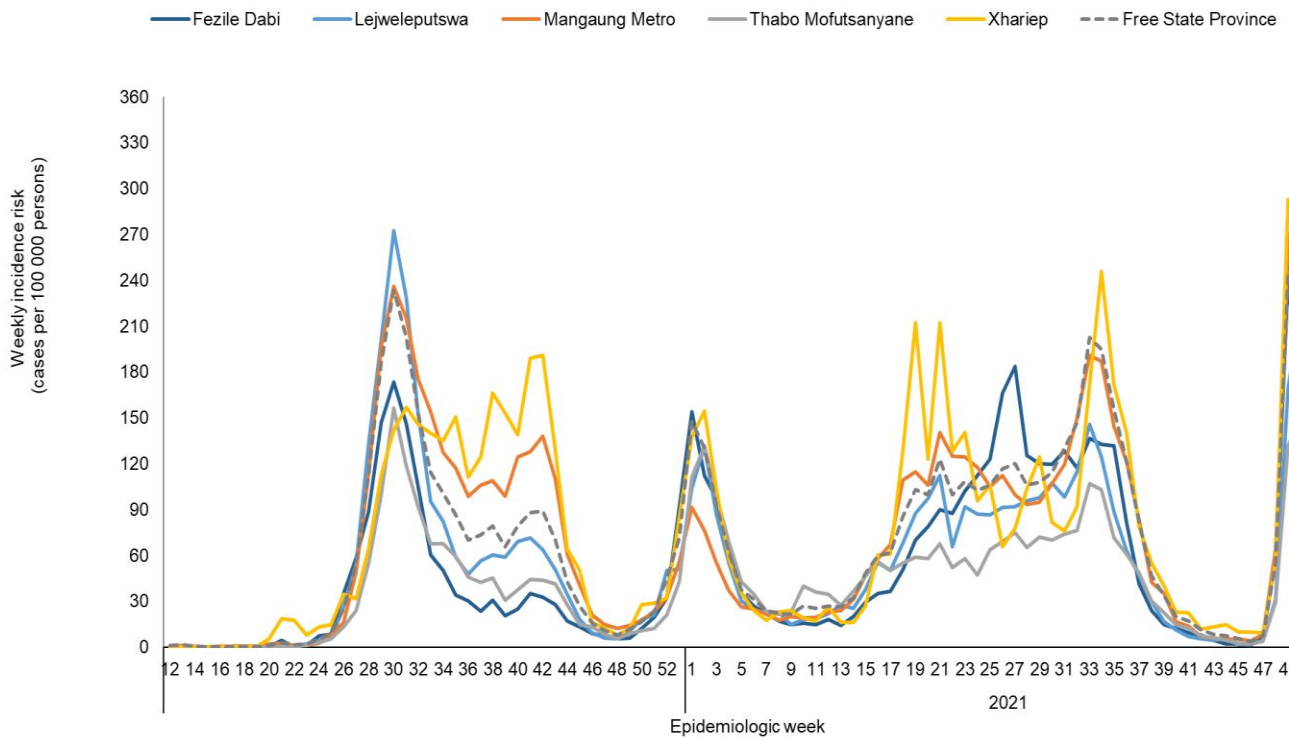


**Figure 12:** Weekly incidence risk of laboratory-confirmed cases of COVID-19 by district and epidemiologic week KwaZulu-Natal Province 3 March 2020 – 1 January 2022 (n = 338 162, 277 750 missing district)

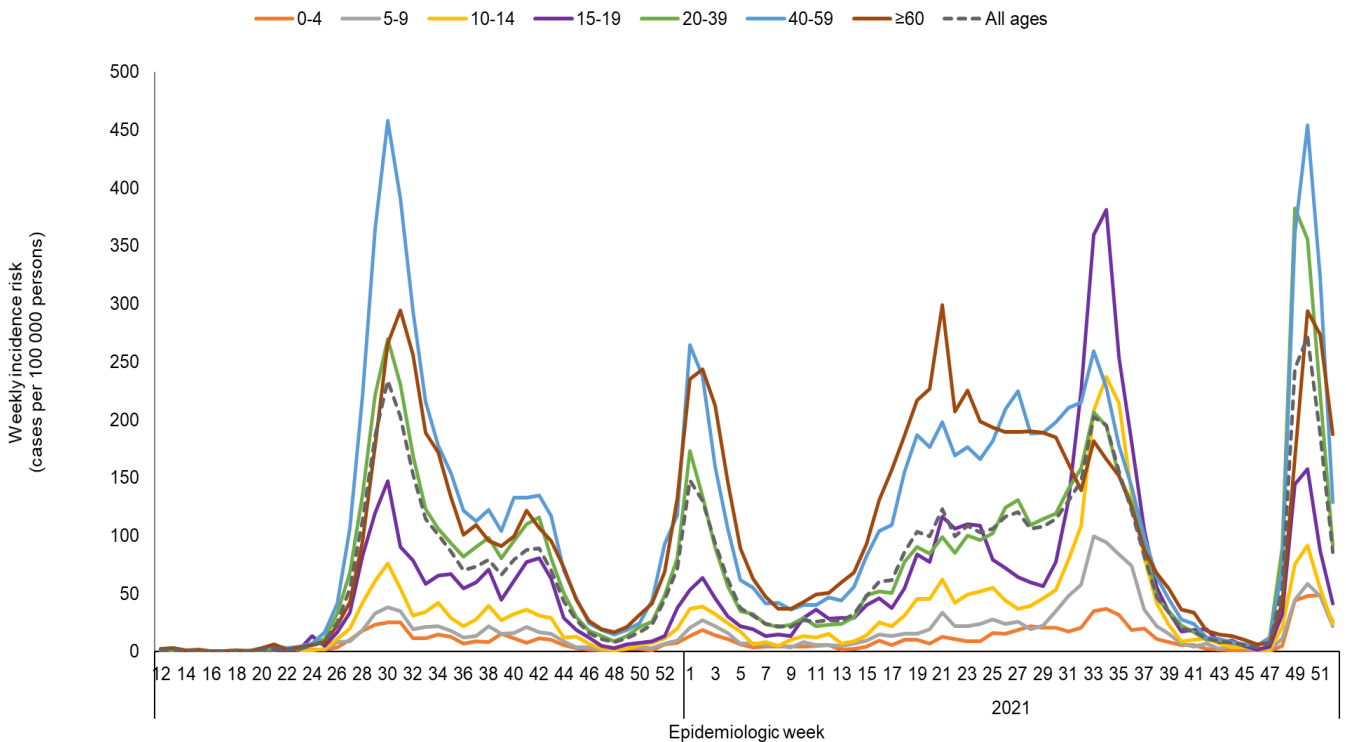


**Figure 13:** Weekly incidence risk of laboratory-confirmed cases of COVID-19 by age group in years and epidemiologic week KwaZulu-Natal Province 3 March 2020 – 1 January 2022 (n = 608 027, 7 885 missing age)

## Free State Province

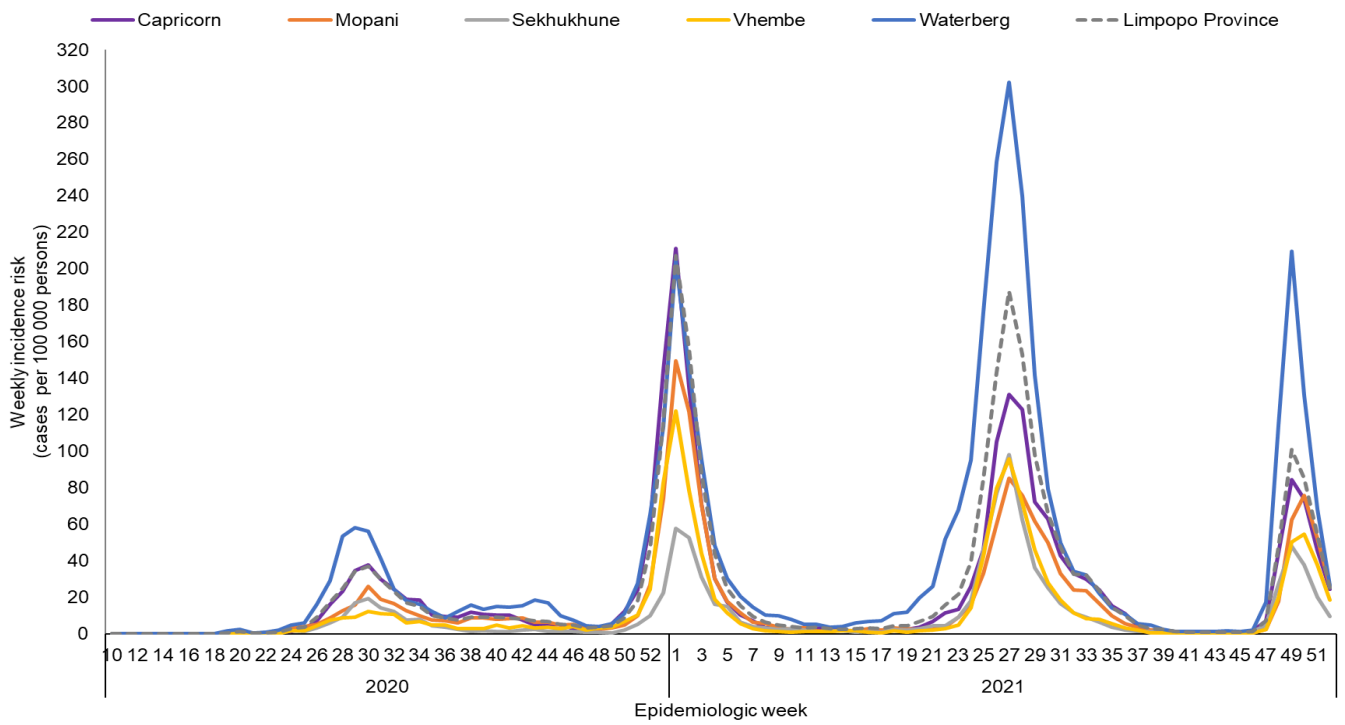


**Figure 14:** Weekly incidence risk of laboratory-confirmed cases of COVID-19 by district and epidemiologic week Free State Province 3 March 2020 – 1 January 2022 (n = 160 450, 29 778 missing district)

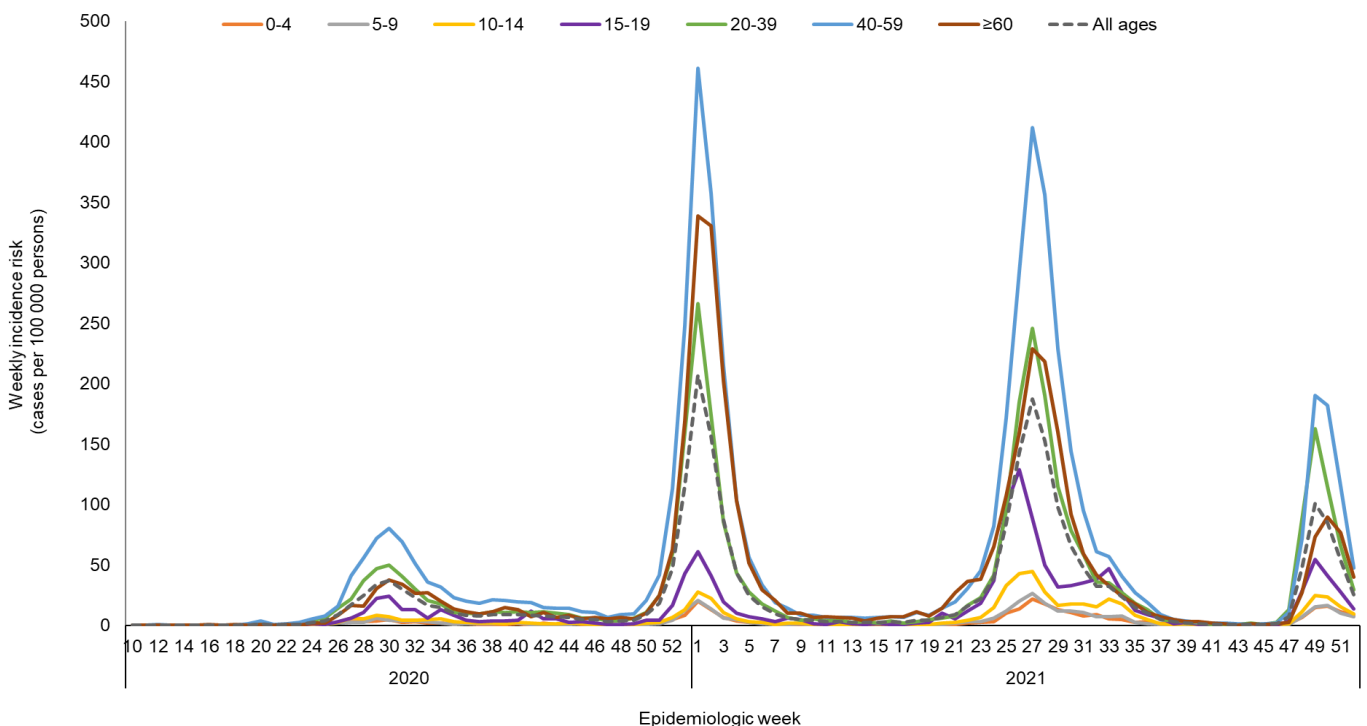


**Figure 15:** Weekly incidence risk of laboratory-confirmed cases of COVID-19 by age group in years and epidemiologic week Free State Province 3 March 2020 – 1 January 2022 (n = 189 501, 759 missing age)

## Limpopo Province

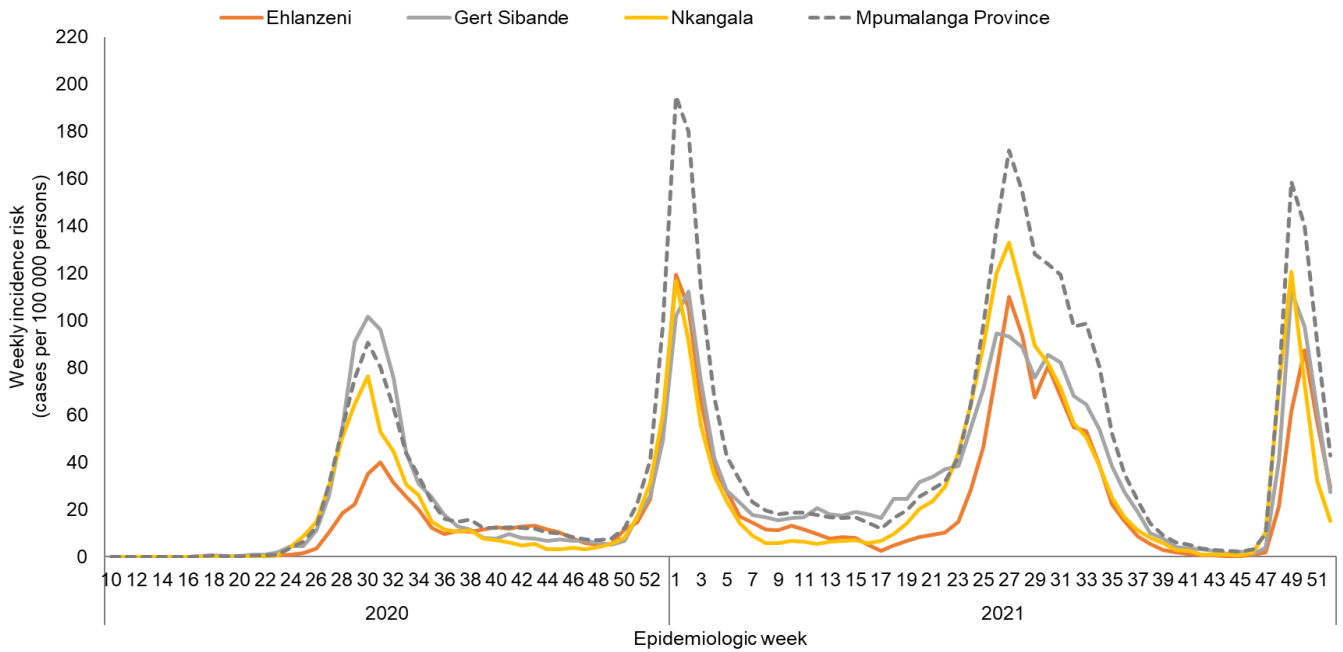


**Figure 16:** Weekly incidence risk of laboratory-confirmed cases of COVID-19 by district and epidemiologic week Limpopo Province 3 March 2020 – 1 January 2022 (n = 101 106, 40 920 missing district)

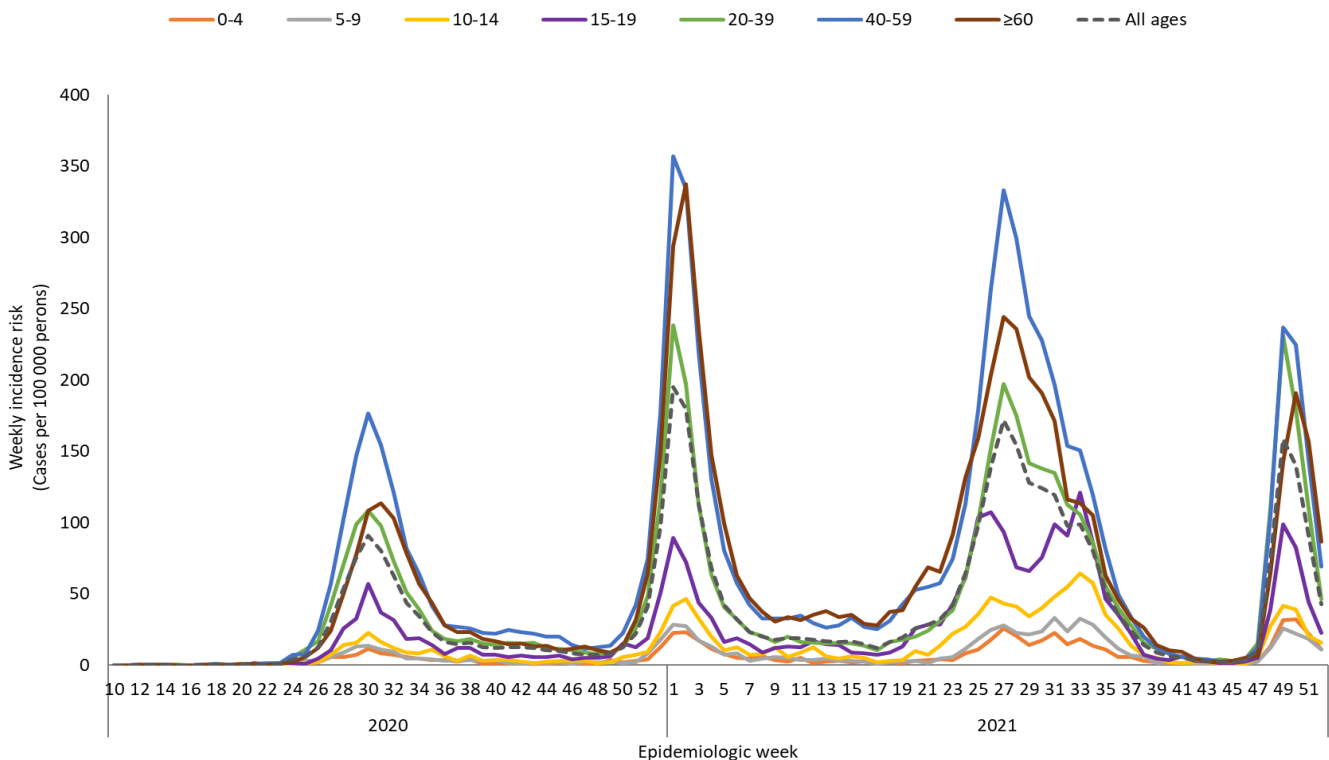


**Figure 17:** Weekly incidence risk of laboratory-confirmed cases of COVID-19 by age group in years and epidemiologic week Limpopo Province 3 March 2020 – 1 January 2022 (n = 139 848, 703 missing age)

## Mpumalanga Province

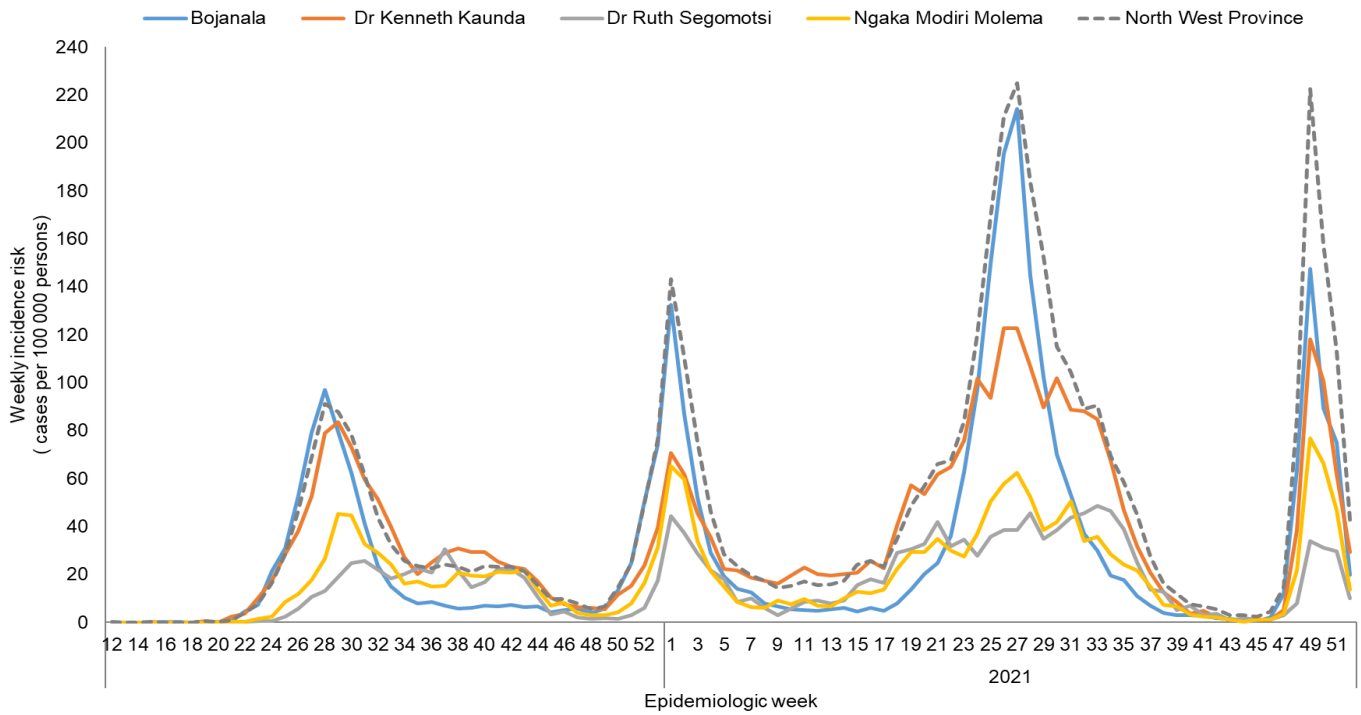


**Figure 18:** Weekly incidence risk of laboratory-confirmed cases of COVID-19 by district and epidemiologic week Mpumalanga Province 3 March 2020 – 1 January 2022 (n = 112 700, 64 824 missing district)

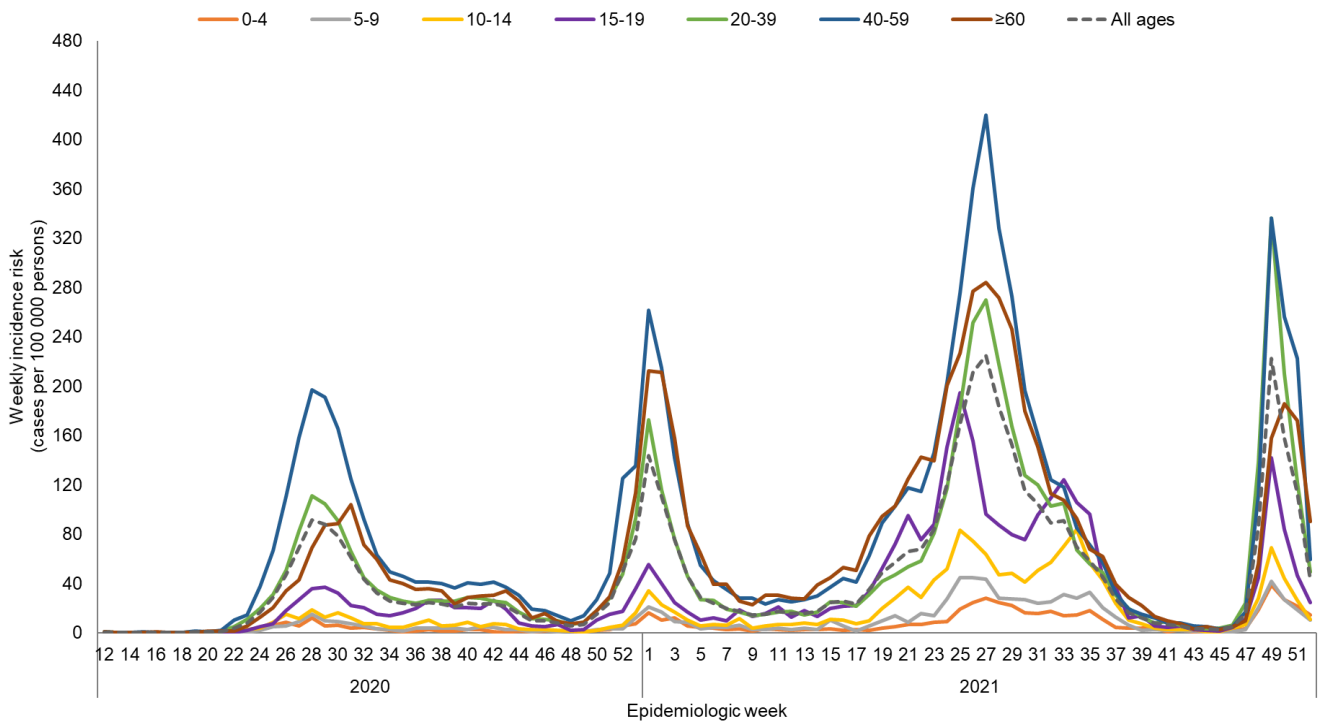


**Figure 19:** Weekly incidence risk of laboratory-confirmed cases of COVID-19 by age group and epidemiologic week Mpumalanga Province 3 March 2020 – 1 January 2022 (n = 173 807, 3 717 missing age)

## North West Province



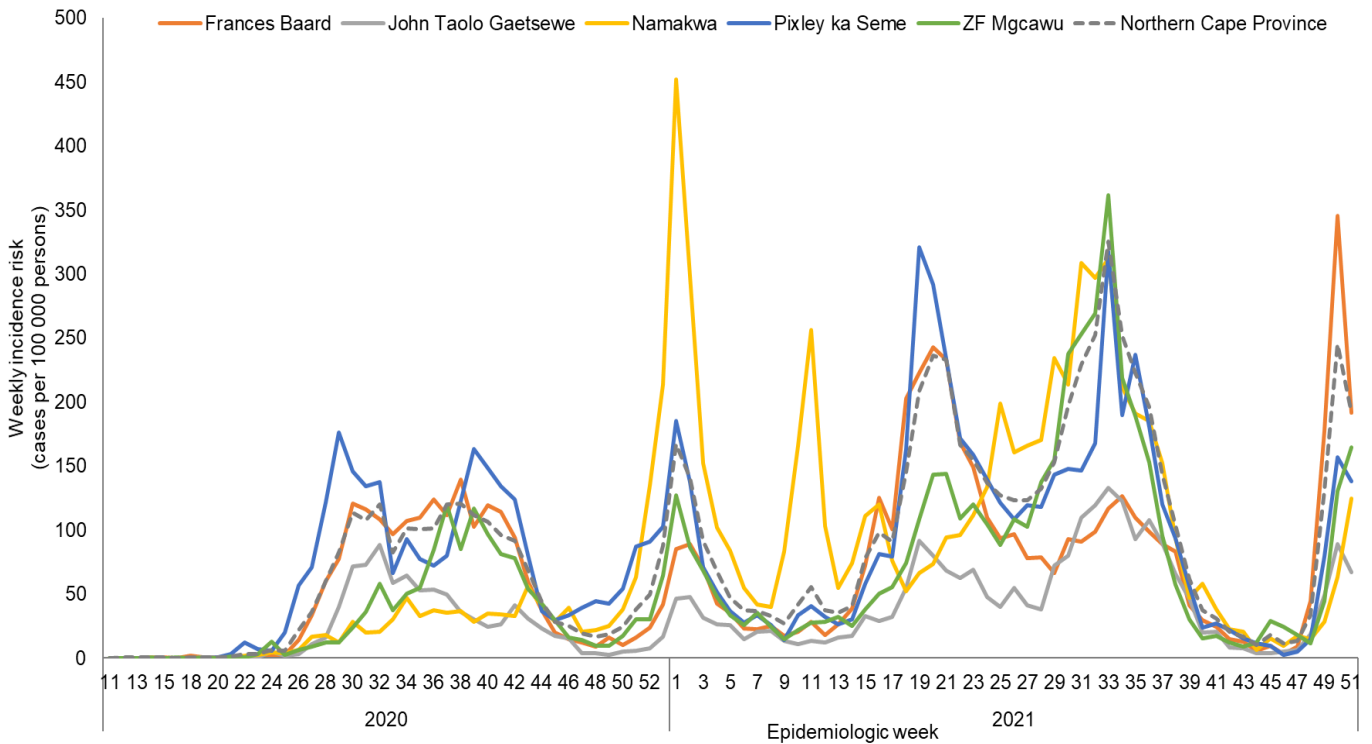
**Figure 20:** Weekly incidence risk of laboratory-confirmed cases of COVID-19 by district and epidemiologic week North West Province 3 March 2020 – 1 January 2022 (n = 106 950, 72 676 missing district)



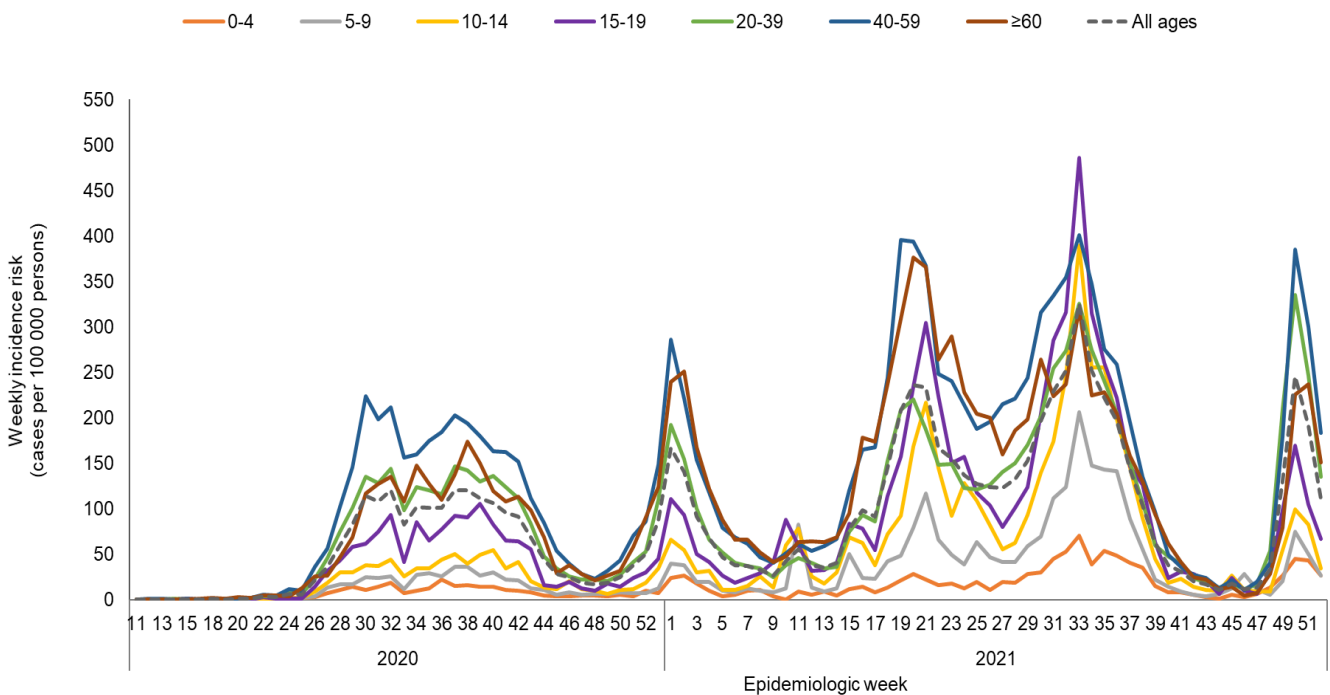
**Figure 21:** Weekly incidence risk of laboratory-confirmed cases of COVID-19 by age group in years and epidemiologic week North West Province 3 March 2020 – 1 January 2022 (n = 177 328, 2 298 missing age)



## 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 – 1 January 2022 (n = 77 471, 25 081 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 – 1 January 2022 (n = 101 865, 687 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 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 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 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.