COVID-19 WEEKLY EPIDEMIOLOGY BRIEF

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

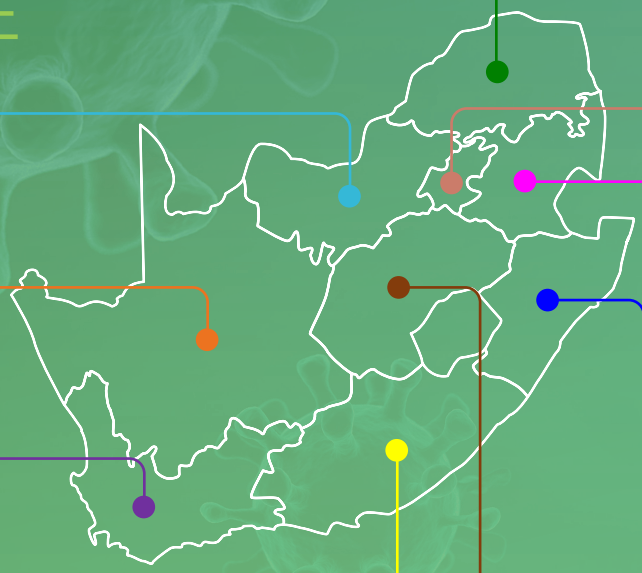
SOUTH AFRICA | WEEK 3 2021

CUMULATIVE DATA FROM

31 JANUARY 2020 — 23 JANUARY 2021

CASES	PERSONS
1 412 986 IN TOTAL	2 369,9 INCIDENCE RISK*
47 526 THIS WEEK	40 MEDIAN AGE

PROVINCES AT A GLANCE



NORTH WEST
CASES: 54 724 IN TOTAL | 1 331,9 /100,000*

NORTHERN CAPE
CASES: 30 959 IN TOTAL | 2 394,8 /100,000*

WESTERN CAPE
CASES: 265 428 IN TOTAL | 3 788,7 /100,000*

EASTERN CAPE
CASES: 190 402 IN TOTAL | 2 827,5 /100,000*

LIMPOPO
CASES: 54 362 IN TOTAL | 928,9 /100,000*

GAUTENG
CASES: 380 382 IN TOTAL | 2 456,0 /100,000*

MPUMALANGA
CASES: 60 354 IN TOTAL | 1 289,7 /100,000*

KWAZULU-NATAL
CASES: 302 582 IN TOTAL | 2 623,9 /100,000*

FREE STATE
CASES: 73 793 IN TOTAL | 2 519,5 /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 in South Africa. This report is based on data collected up to 23 January 2021 (week 3 of 2021). Note: COVID-19 is the name of the disease and SARS-CoV-2 is the name of the virus. 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. The numbers reported may change as more data become available.

Highlights

- As of 23 January 2021, a total of 1 421 986 laboratory-confirmed COVID-19 cases had been detected in South Africa. Of these, 75 060 were cases reported since the last report (week 2 of 2021 report). There was a 51.3% decrease in number of new cases detected in week 3 (47 526) compared to the number of new cases detected in week 2 (97 513), possibly related in part to delays in reporting.
- An additional 3 769 deaths were reported since the last report. The overall case-fatality ratio is 2.9% (40 874/1 412 986).
- In the past week, the Gauteng Province reported the highest proportion of the new cases detected (13 103/47 526, 27.6%), followed by the KwaZulu-Natal Province (12 526/47 526, 26.4 %), and the Western Cape Province (6 829/47 526, 14.4%).
- In the past week, all provinces reported a decrease in weekly incidence risk, compared to the previous week. The decrease in weekly incidence risk ranged from 41.4 cases per 100 000 persons (53.2% decrease) in the Eastern Cape Province to 113.4 cases per 100 000 persons (51.1% decrease) in the KwaZulu-Natal Province.
- In week 3, KwaZulu-Natal Province reported the highest weekly incidence risk (108.6 cases per 100 000 persons), followed by the Western Cape Province (97.5 cases per 100 000 persons), and the Gauteng Province (84.6 cases per 100 000 persons), this is similar to the previous six weeks.
- Since week 53 of 2020, all the districts in the Western Cape Province reported weekly incidence risks higher than those reported in the first wave peaks.
- From week 50 through week 1, all districts in Kwazulu-Natal, except Amajuba District reported incidence risks above those reported in the first wave peaks. However, in the past two weeks a downward trend in number of cases has been reported.
- In the past two weeks all the districts in Gauteng, North West, Northern Cape, Limpopo, KwaZulu-Natal, Western Cape and Eastern Cape reported a decrease in number of new cases and incidence risk.
- Continued increase in number of new cases and incidence risk was reported in week 2 for some districts in Free State (3 districts), Mpumalanga (1 district) and Northern Cape (1 district). However, in week 3 all districts reported a decrease in numbers which could be due to delays in reporting.

INCIDENCE RISK FOR CURRENT WEEK

79,7

CASES PER 100 000 PERSONS

27,6%

OF CASES REPORTED IN GAUTENG IN CURRENT WEEK

IN CURRENT WEEK, THE HIGHEST WEEKLY INCIDENCE RISK WAS IN CASES AGED 80+ YEARS (220,3 CASES PER 100 000 PERSONS)

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 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. Aggregate data on the number of deaths by province were obtained from the Department of Health. 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.

We estimated the time-varying (weekly) doubling time of the COVID-19 epidemic for the provinces with sufficient data and from weeks with sufficient number of cases and complete data (week 12 to the week before the current reporting period). The unit of analysis (epidemiological week) was defined from Sunday to the following Saturday. We first estimated the weekly growth rate of the epidemic by fitting a linear regression model to the logarithm of the daily cumulative number of laboratory-confirmed COVID-19 cases. We then estimated the doubling time for each week using the following formula log(2)/gr (where gr is the estimated weekly growth rate). An increase in the doubling time may suggest a slowing of transmission but this may also be affected by changes in testing strategy or care seeking. 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 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.

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

As of 23 January 2021, a total of 1 421 986 laboratory-confirmed COVID-19 cases were reported in South Africa (Figures 1 and 2). This is 75 060 more cases than the number reported in the last report (week 2 of 2021 report). The number of new cases detected in week 3 (47 526) was lower than the number of new cases detected in week 2 (97 513), this represented a 51.3% decrease in the number of new cases compared to the previous week, possibly in part related to delays in reporting. In the past week, the Gauteng Province reported the highest number of new cases (13 103/47 526, 27.6%), followed by the KwaZulu-Natal Province (12 526/47 526, 26.4%), and the Western Cape Province (6 829/47 526, 14.4 %) (Table 1). Five provinces, Gauteng (380 382/1 412 986, 26.9%), KwaZulu-Natal (302 582/1 412 986, 21.4%), Western Cape (265 428/1 412 986, 18.8%), Eastern Cape (190 402/1 412 986, 13.5%), and Free State (73 793/1 412 986, 5.2%) continued to report the majority (1 212 587/1 412 986, 85.8%) of total COVID-19 cases in South Africa. In keeping with the data reported in the previous weeks, there was minimal change in percent contribution of cases in the different provinces from week 2 to week 3 of 2021.

The cumulative incidence risk for the country increased from 2 290.2 cases per 100 000 persons in week 2 of 2021 to 2 369.9 cases per 100 000 persons in week 3. The cumulative incidence risk varied by province over time (Figure 3). This is partly explained by testing differences by province (Table 1). The Western Cape Province reported the highest cumulative incidence risk (3 788.7 cases per 100 000

persons), followed by the Eastern Cape Province (2 827.5 cases per 100 000 persons), the KwaZulu-Natal Province (2 623.9 cases per 100 000 persons), the Free State Province (2 519.5 cases per 100 000 persons), the Gauteng Province (2 456.0 cases per 100 000 persons), and the Northern Cape Province (2 394.8 cases per 100 000 persons). The other provinces continued to report cumulative incidence risk below 2 000 cases per 100 000 persons, with Limpopo Province reporting the lowest cumulative incidence risk (928.9 cases per 100 000 persons).

The KwaZulu-Natal Province reported the highest weekly incidence risk (108.6 cases per 100 000 persons) in week 3 of 2021, followed by the Western Cape Province (97.5 cases per 100 000 persons), and the Gauteng Province (84.6 cases per 100 000 persons), this is similar to the previous six weeks. The weekly incidence risk in all the other provinces remained below 80 cases per 100 000 persons. In the past week, all provinces reported a decrease in weekly incidence risk, compared to the previous week. The decrease in weekly incidence risk ranged from 41.4 cases per 100 000 persons (53.2% decrease) in the Eastern Cape Province to 113.4 cases per 100 000 persons (51.1% decrease) in the KwaZulu-Natal Province (Figure 4). Some of the reductions in week 3 weekly incidence risk could be as a result of reporting delays.

Since the peak of weekly incidence risk experienced at different levels and weeks by the different provinces in July (Western Cape and Eastern Cape peaked earlier in week 27 and Northern Cape peaked last in week 30), followed by a decline in number of cases in subsequent weeks, all provinces reported increases in number of cases from week 43, exceeding the peak in the first wave in all the provinces, except Eastern Cape Province and Free State Province which continued to report weekly incidence risk below those reported during the first wave peaks (Figure 3). Weekly number of new cases has been declining since week 51 in the Eastern Cape Province and week 2 in all the other provinces.

Among the five provinces reporting the majority of cases in South Africa to date, doubling time of number of cases varied with time. In week 2 of 2021, the estimated doubling time of number of cases increased in all provinces, Gauteng Province (from 36.6 days to 60.1 days, 64.1% increase), the Free State Province (from 70.6 days to 83.0 days, 17.6% increase), Eastern Cape Province (from 98.4 days to 154.1 days, 56.7% increase), Western Cape Province (from 45.5 days to 80.1 days, 76.1% increase), and the Kwazulu-Natal Province (from 28.4 days to 48.9 days, 72.1% increase) (Figure 5).

The case-fatality ratio (CFR) is 2.9% (40 874/1 412 986); an additional 3 769 deaths were reported since the last report. The number of deaths reported in the past week was lower than the number reported in the previous week, 3 769 compared to 3 942. A CFR calculated in this way (number of deaths/number of diagnosed cases) is subject to numerous limitations. Because deaths are delayed in relation to cases, as case numbers decrease rapidly, the crude CFR may increase as a result of a more rapid reduction in the denominator compared to the numerator. The CFR may be an underestimate as deaths in hospital are more likely to be reported than deaths out of hospital. In addition, occurrence and reporting of deaths may be delayed to several weeks after case diagnoses.

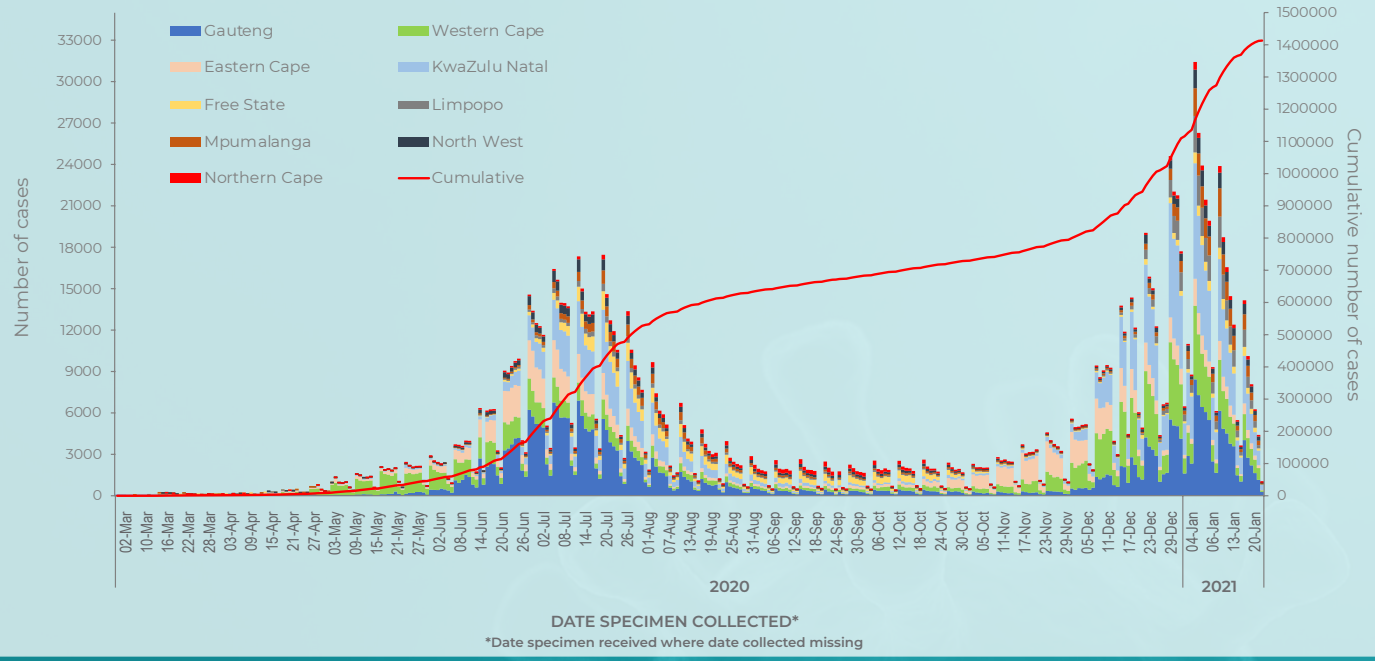


Figure 1. Number and cumulative number of laboratory-confirmed cases of COVID-19 by province and date of specimen collection, South Africa, 3 March 2020- 23 January 2021 (n=1 412 986)

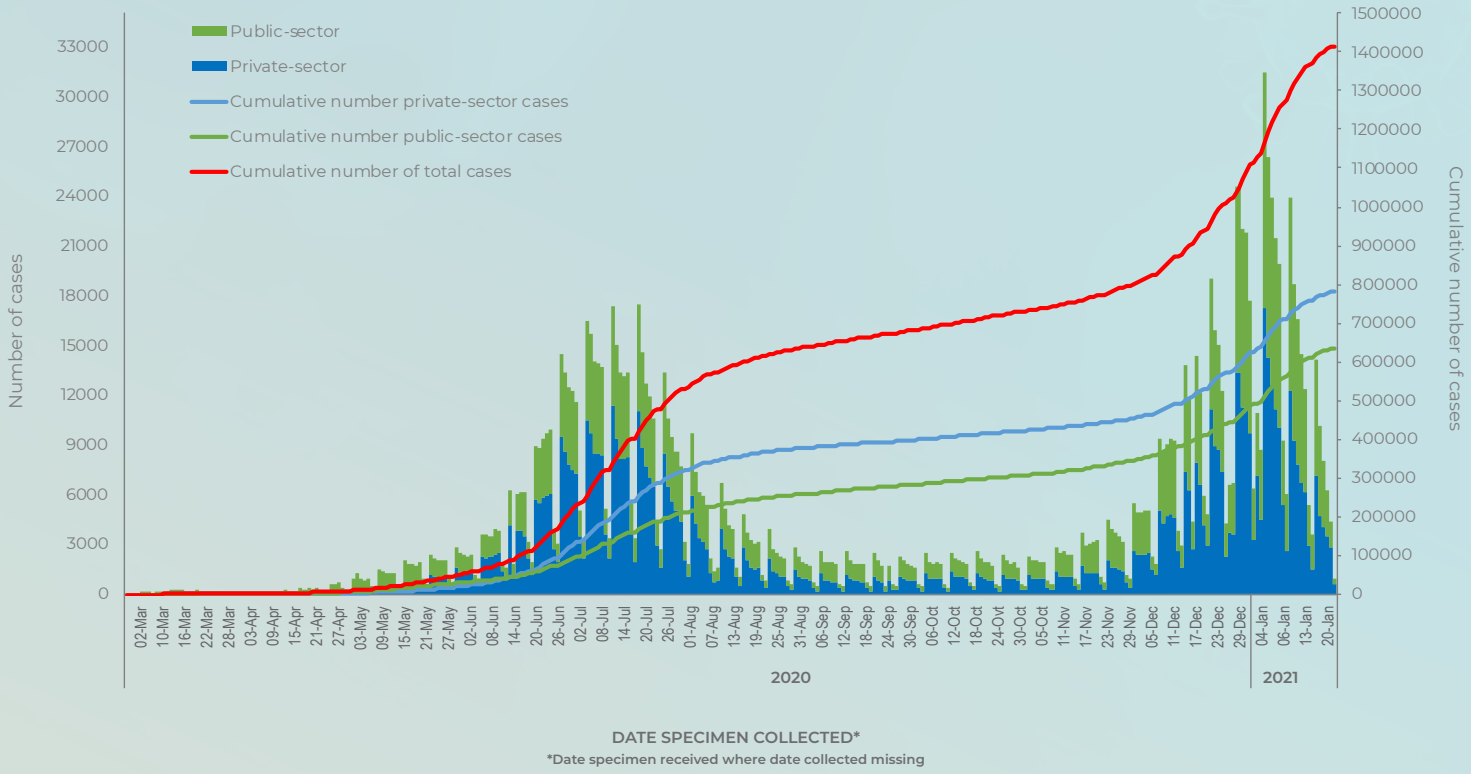


Figure 2. Number and cumulative number of laboratory-confirmed cases of COVID-19, by testing laboratory sector and date of specimen collection, South Africa, 3 March 2020-23 January 2021 (n=1 412 986)

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 2020-23 January 2021 (n=1 412 986)

Province	Cumulative cases (n) (percentage, n/ total cases in South Africa)	New cases[1] detected in week 3 (17-23 January 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 3 (cases/100 000 persons)	Tests[4] per 100 000 persons, 17-23 January 2021
Eastern Cape	190 402 (13.5)	2 450 (5.2)	6 734 001	2 827.5	36.4	299.4
Free State	73 793 (5.2)	2 079 (4.4)	2 928 903	2 519.5	71.0	443.7
Gauteng	380 382 (26.9)	13 103 (27.6)	15 488 137	2 456.0	84.6	619.0
KwaZulu-Natal	302 582 (21.4)	12 526 (26.4)	11 531 628	2 623.9	108.6	662.1
Limpopo	54 362 (3.8)	3 658 (7.7)	5 852 553	928.9	62.5	186.0
Mpumalanga	60 354 (4.3)	3 502 (7.4)	4 679 786	1 289.7	74.8	414.3
North West	54 724 (3.9)	2 437 (5.1)	4 108 816	1 331.9	59.3	247.0
Northern Cape	30 959 (2.2)	942 (2.0)	1 292 786	2 394.8	72.9	527.9
Western Cape	265 428 (18.8)	6 829 (14.4)	7 005 741	3 788.7	97.5	541.9
Unknown	0	0	0			
Total	**1 412 986**	**47 526**	**59 622 350**	**2 369.9**	**79.7**	**487.4**

[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]2020 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

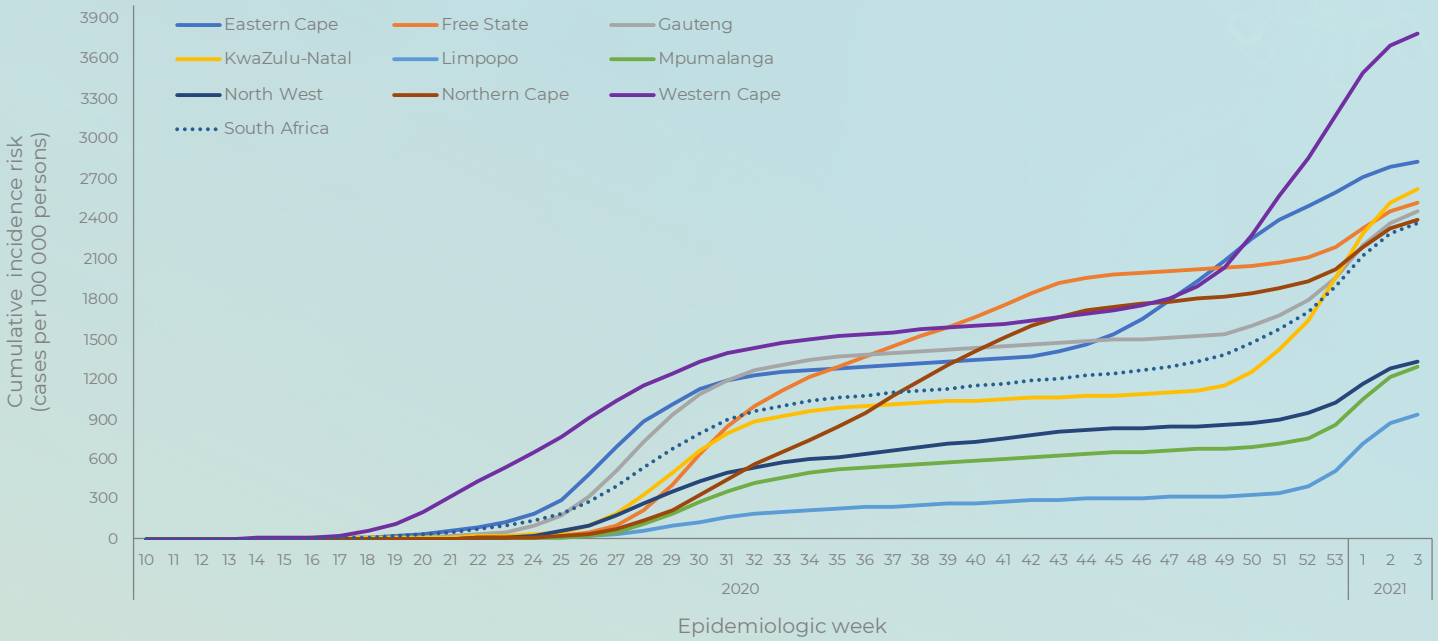


Figure 3. Cumulative incidence risk of laboratory-confirmed cases of COVID-19 by province and epidemiologic week, South Africa, 3 March 2020-23 January 2021 (n= 1 412 986)

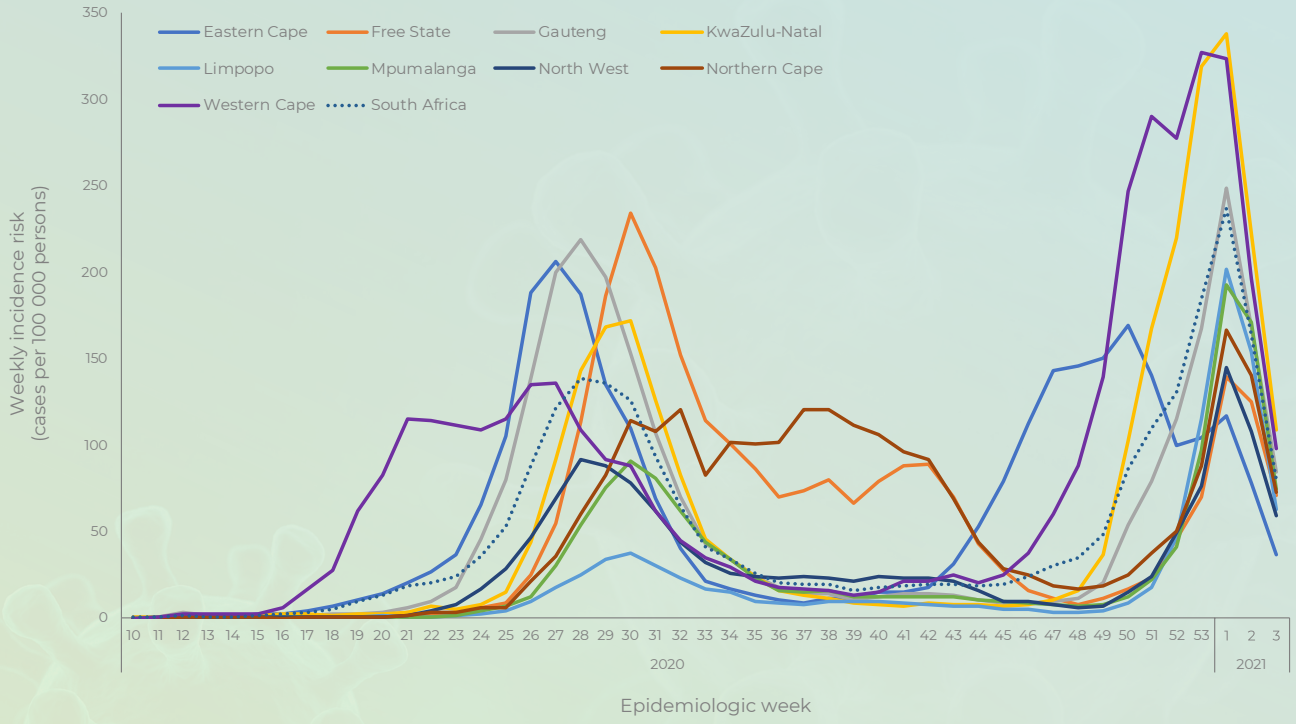


Figure 4. Weekly incidence risk of laboratory-confirmed cases of COVID-19 by province and epidemiologic week, South Africa, 3 March 2020- 23 January 2021 (n=1 412 986)

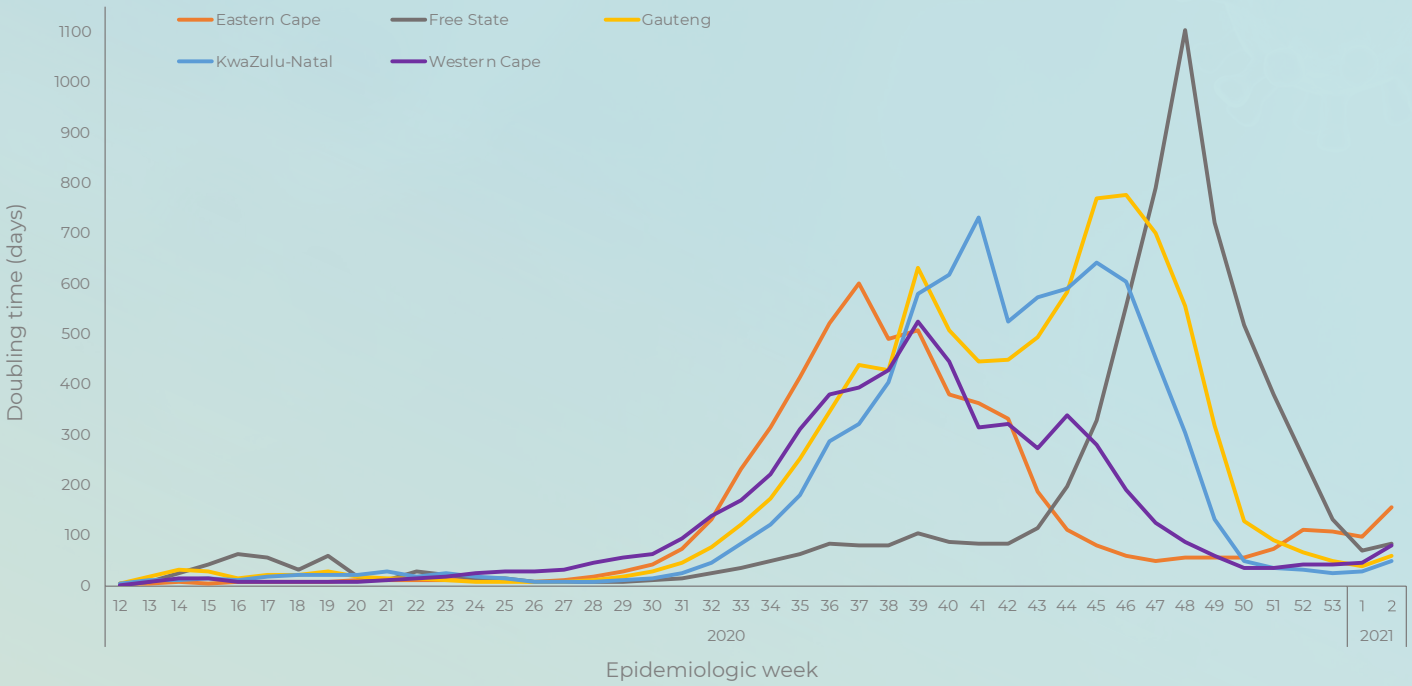


Figure 5. Doubling time of number of laboratory-confirmed cases of COVID-19 by province (for 5 provinces with the majority of cases) and epidemiologic week, South Africa, 23 March-2020- 16 January 2021 (n= 1 365 373)

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

Cases of COVID-19 were reported across all age groups. The median age of COVID-19 cases in South Africa to date was 40 years with an interquartile range (IQR) of 29-53 years. The distribution of cases varied by age, with highest number of all cases to date in the 35-39-year (167 922/1 400 727, 12.0%) and 30-34-year (163 258/1 400 727, 11.7%) age groups (Figure 6). Similarly, among the cases reported in the past week, the highest number of cases was in the 35-39-year-age group (5 175/46 982, 11.0%) followed by the 40-44-year age group (4 785/46 982, 10.2%). The median age for cases reported in week 3 was similar (43 years, IQR 31-57), to that of total cases (40 years). The highest cumulative incidence risk remained among cases aged 50-54 years (4 832.8 cases per 100 000 persons), followed by cases aged 55-59 years (4 748.9 cases per 100 000 persons) and 80+ years (4 529.9 cases per 100 000 persons). The lowest cumulative incidence risk was reported in the younger age-groups, 283.8 cases per 100 000 persons and 351.4 cases per 100 000 persons in the 0-4-and 5-9-year age groups, respectively (Figure 7 and Table 2). The highest weekly incidence risk among cases detected in week 3 of 2021 was reported in cases aged 80+ years (220.3 cases per 100 000 persons), followed by cases in the 75-79-year-age group (181.9 cases per 100 000 persons) and the lowest weekly incidence risk was in the 0-4-year age group (10.5 cases per 100 000 persons) (Figure 8 and table 2).

To date, the majority of COVID-19 cases reported were female 57.8% (808 319/1 398 194). This trend continued in the past week where 57.1% (26 753/46 890) of cases were female. The cumulative incidence risk has remained consistently higher among females (2 629.3 cases per 100 000 persons) than among males (2 009.5 cases per 100 000 persons) (Figure 9). The peak cumulative incidence risk was in the 50-54-year-age group (5 063.5 cases per 100 000 persons) for females, and in the ≥80-year-age group (4 723.1 cases per 100 000 persons) and 55-59-year-age group (4 601.9 cases per 100 000 persons) for males (Figure 10). In week 3, the highest weekly incidence risk for both females and males was in the ≥80-year-age group (205.3 cases per 100 000 persons), and (240.6 cases per 100 000 persons), respectively. The high prevalence and incidence risk among females could be explained by the fact that females are likely to be more represented in occupations, which put them in close proximity to others and thus exposing them to a higher risk of infection (e.g. teaching and health). This may also be partly explained by varying testing practices by age and sex (data not shown) and by different health seeking behaviour.

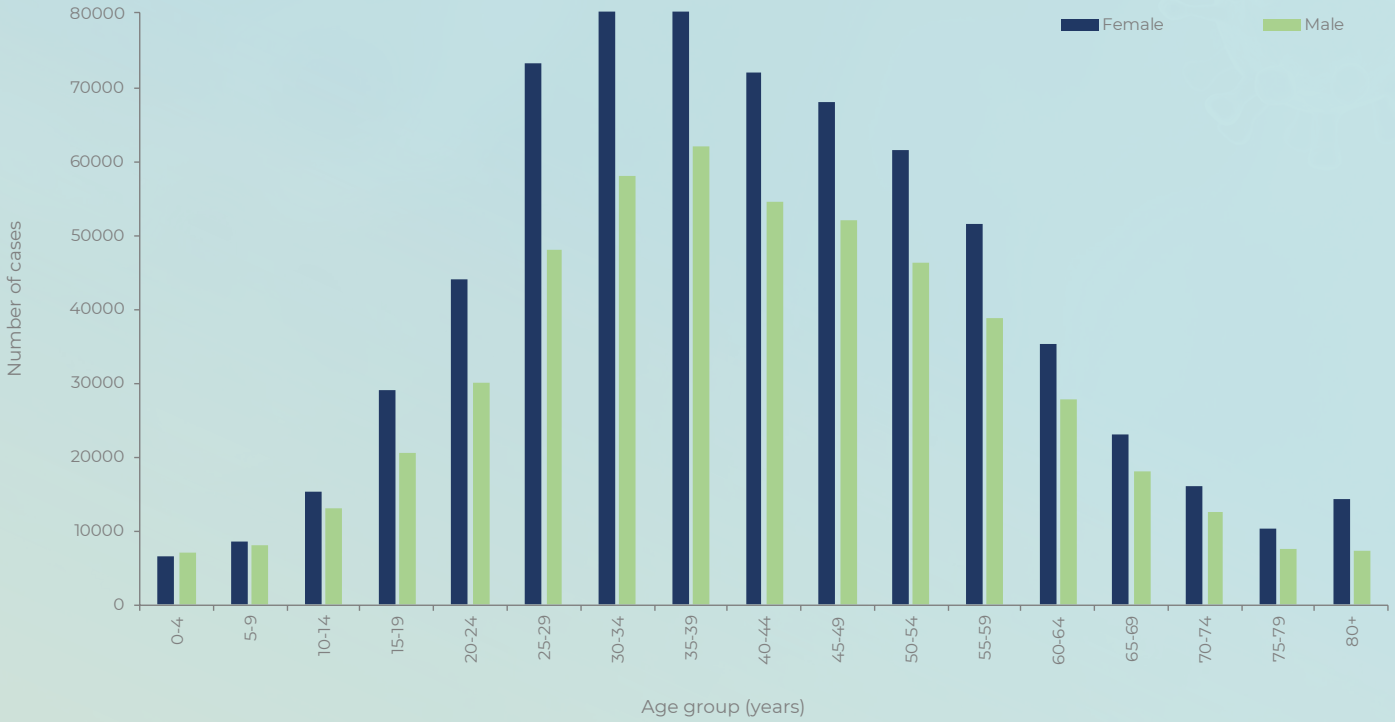


Figure 6. Number of laboratory-confirmed cases of COVID-19 by age group and sex, South Africa, 3 March 2020-23 January 2021 (n = 1 387 124, sex/age missing for 25 862)

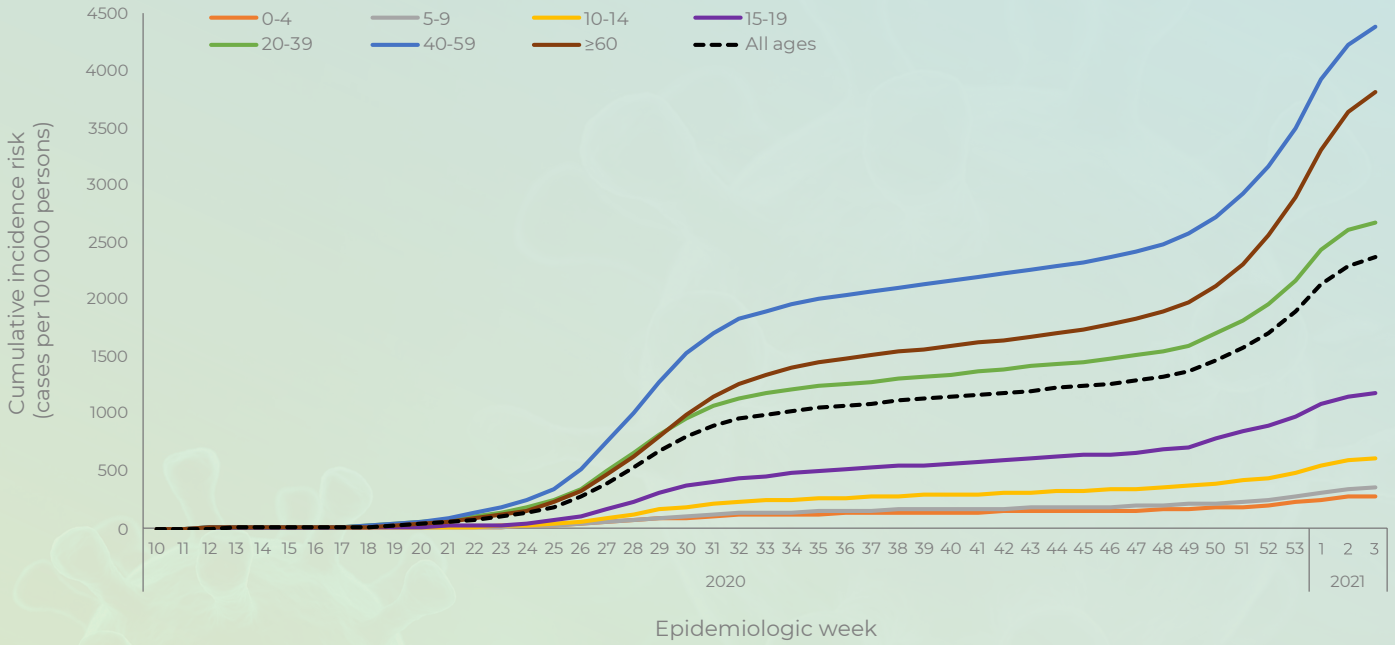


Figure 7. Cumulative incidence risk of laboratory-confirmed cases of COVID-19 by age group in years and epidemiologic week, South Africa, 3 March 2020-23 January 2021 (n= 1 400 727, 12 259 missing age)

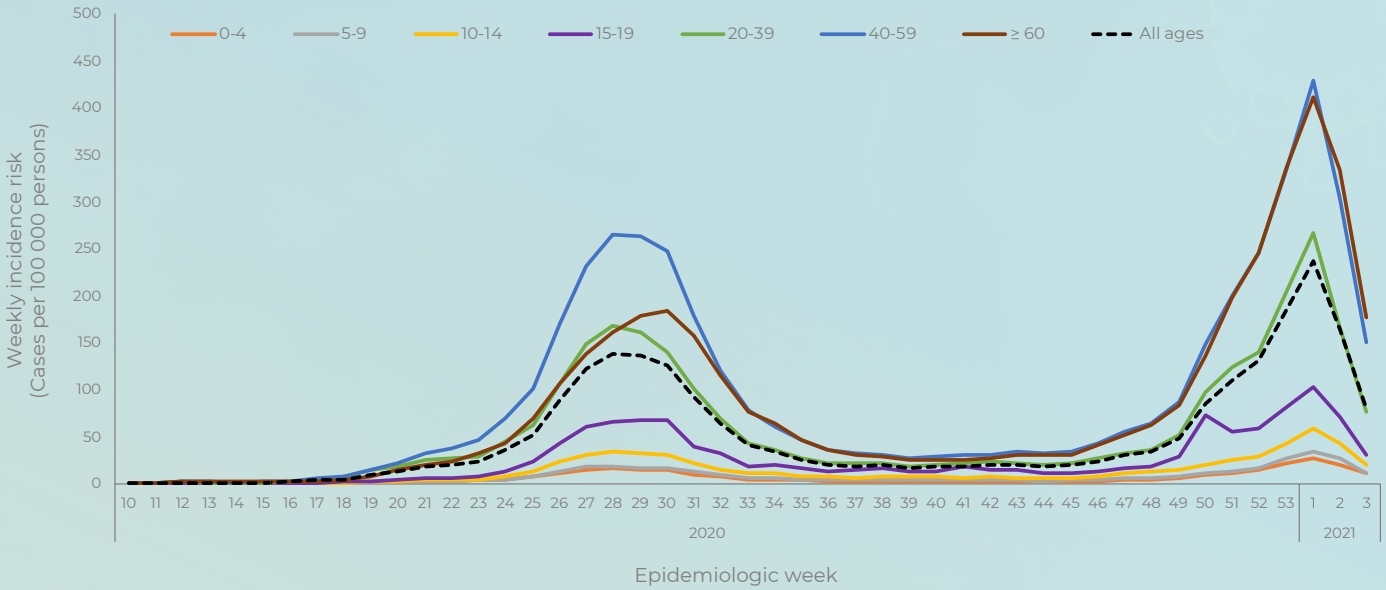


Figure 8. Weekly incidence risk of laboratory-confirmed cases of COVID-19 by age group in years and epidemiologic week, South Africa, 3 March 2020-23 January 2021 (n= 1 400 727, 12 259 missing age)

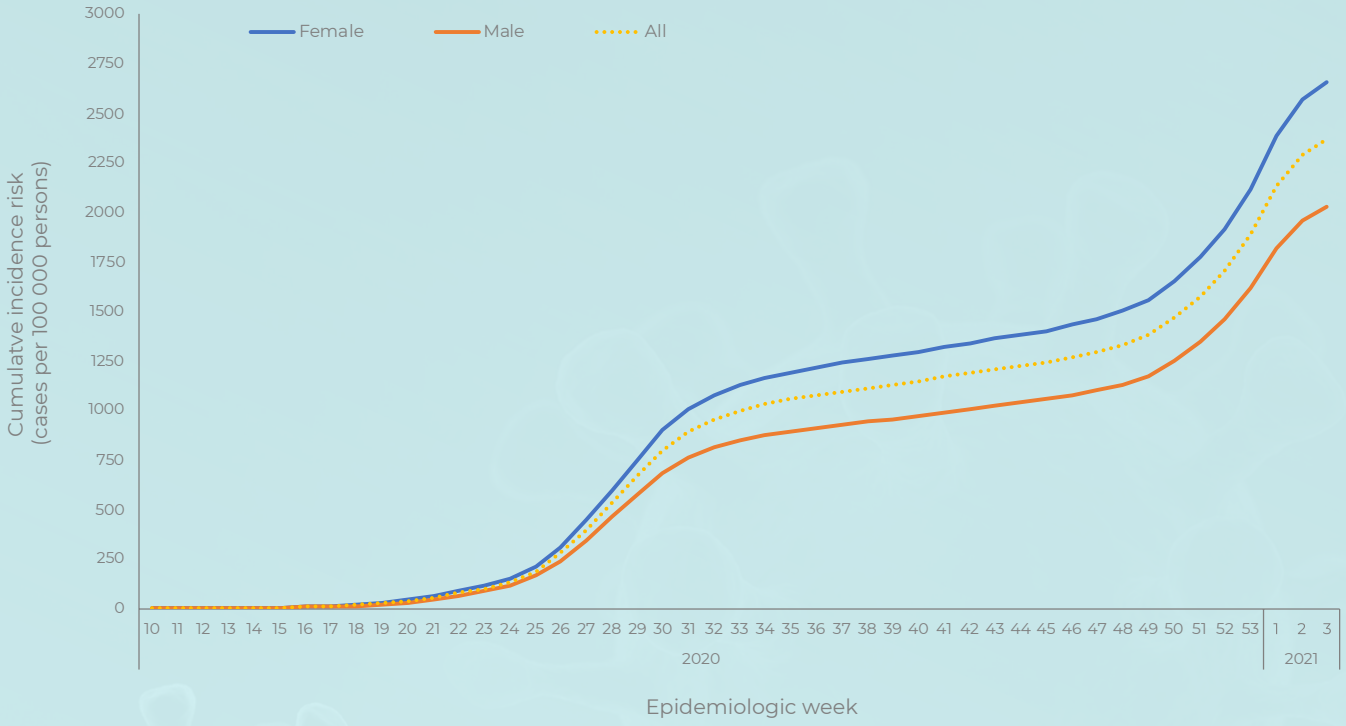


Figure 9. Cumulative incidence risk by sex and epidemiologic week, South Africa, 3 March 2020-23 January 2021 (n= 1 398 194, sex missing for 13 603)

Table 2. Number of laboratory-confirmed cases of COVID-19 and cumulative/weekly incidence risk by age group, South Africa, 3 March 2020- 23 January 2021, n= 1 400 727, 12 259 missing age)

Age group (years)	Cumulative cases (n) (percentage, n/ total cases in South Africa)	New cases[1] detected in week 3 (17-23 January 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 3 (cases/100 000 persons)
0-4	16 301 (1.2)	603 (1.3)	5743 450	283.8	10.5
5-9	20 085 (1.4)	674 (1.4)	5715 952	351.4	11.8
10-14	34 006 (2.4)	1 114 (2.4)	5591 553	608.2	19.9
15-19	56 740 (4.1)	1 484 (3.2)	4774 579	1 188.4	31.1
20-24	85 037 (6.1)	2 378 (5.1)	4823 367	1 763.0	49.3
25-29	138 097 (9.9)	3 686 (7.8)	5420 754	2 547.6	68.0
30-34	163 258 (11.7)	4 647 (9.9)	5641 750	2 893.7	82.4
35-39	167 922 (12.0)	5 175 (11.0)	4798 293	3 499.6	107.9
40-44	145 253 (10.4)	4 785 (10.2)	3733 942	3 890.1	128.1
45-49	137 780 (9.8)	4 609 (9.8)	3169 648	4 346.9	145.4
50-54	124 264 (8.9)	4 323 (9.2)	2571 263	4 832.8	168.1
55-59	105 012 (7.5)	3 940 (8.4)	2211 309	4 748.9	178.2
60-64	74 678 (5.3)	3 117 (6.6)	1796 316	4 157.3	173.5
65-69	49 446 (3.5)	2 266 (4.8)	1408 665	3 510.1	160.9
70-74	34 843 (2.5)	1 750 (3.7)	1007 174	3 459.5	173.8
75-79	21 855 (1.6)	1 159 (2.5)	637 062	3 430.6	181.9
≥80	26 150 (1.9)	1 272 (2.7)	577 273	4 529.9	220.3
Unknown	12 259	544			
Total	**1 412 986**	**47 526**	**59 622 350**	**2 369.9**	**79.7**

[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]2020 Mid-year population Statistics South Africa

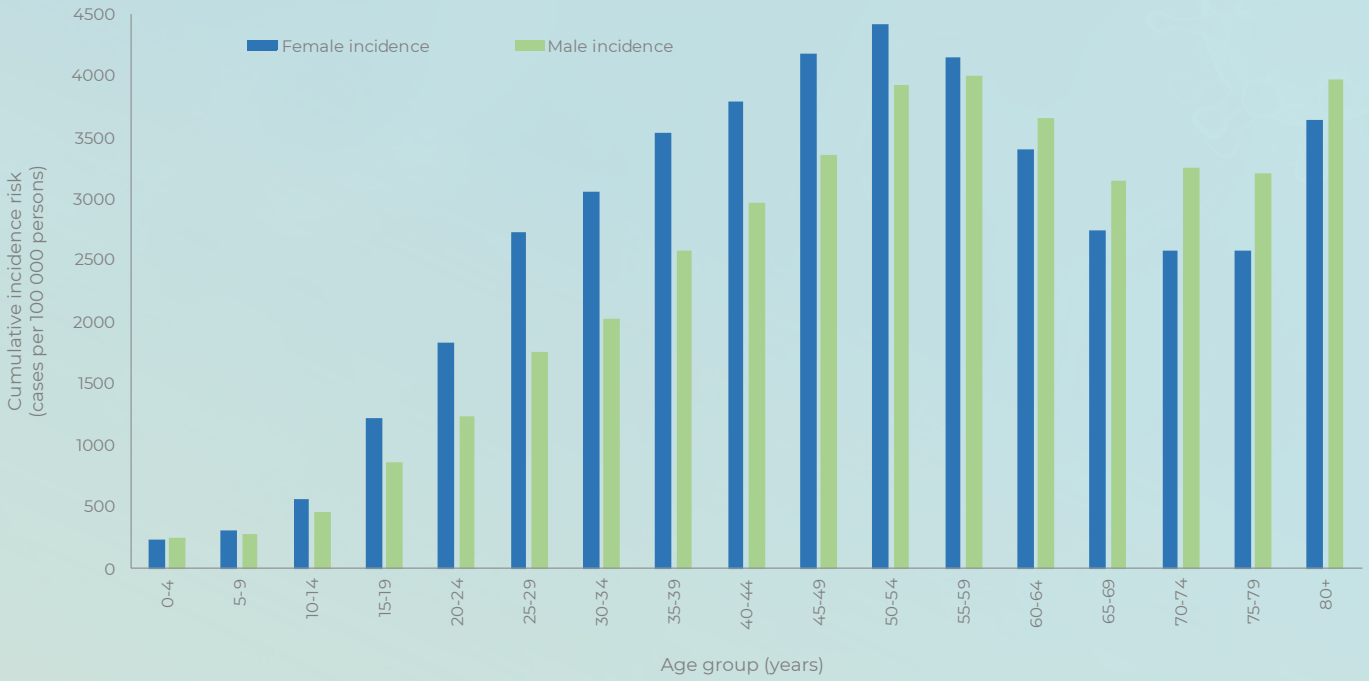


Figure 10. Cumulative incidence risk by age group and sex, South Africa, 3 March 2020- 23 January 2021 (n= 1 387 124, sex/age missing for 25 862)

Provincial trends of COVID-19 cases

In the final weeks of 2020, the majority of provinces (excluding Eastern Cape where numbers have been reducing) reported an increase in the number of new cases and weekly incidence risks. However, from week 1 of 2021 in the majority of provinces, the magnitude of increase in numbers has slowed or numbers are going down, with all provinces reporting a decline in numbers in week 3. Trends by district and age group for each province are presented below.

Eastern Cape Province

Of the 190 402 cases reported from the Eastern Cape Province, 169 003 (88.8%) cases had allocation by district. The Nelson Mandela Bay Metro (46 701/169 003, 27.6%) followed by the Buffalo City Metro (30 720/169 003, 18.2%) contributed the majority of cases from the Eastern Cape. In week 3, the Joe Gqabi (77.1 cases per 100 000 persons), followed by the Chris Hani (50.7 cases per 100 000 persons) districts reported the highest weekly incidence risk (Figure 11). The trend in weekly incidence risk reported in recent weeks varied by district, with Nelson Mandela Bay and Sarah Baartman districts reporting the highest weekly incidence risks in week 47, Amathole District in week 50, and Joe Gqabi District in week 53, all at a higher level compared to the peaks in the first wave.

The majority of cases from the Eastern Cape Province were in the 40-59-year old age group (68 669/188 431, 36.4%), followed by the 20-39-year age group (64 956/188 431, 34.5%). In the past week, the ≥60-year age group (104.8 cases per 100 000 persons), followed by 40-59-year age group (60.4 cases per 100 000 persons), and 20-39-year age group (29.8 cases per 100 000 persons) reported the highest weekly incidence risk. The weekly incidence risk in all other age groups was below 15 cases per 100 000 persons. In the past two weeks, all age groups reported a decrease in weekly incidence risk (Figure 12). From week 47 to week 2, ≥60-year-age group reported a higher weekly incidence risk compared to the peak in the first wave in week 28, whereas the other age groups continued reporting weekly incidence risks below those reported in the first wave.

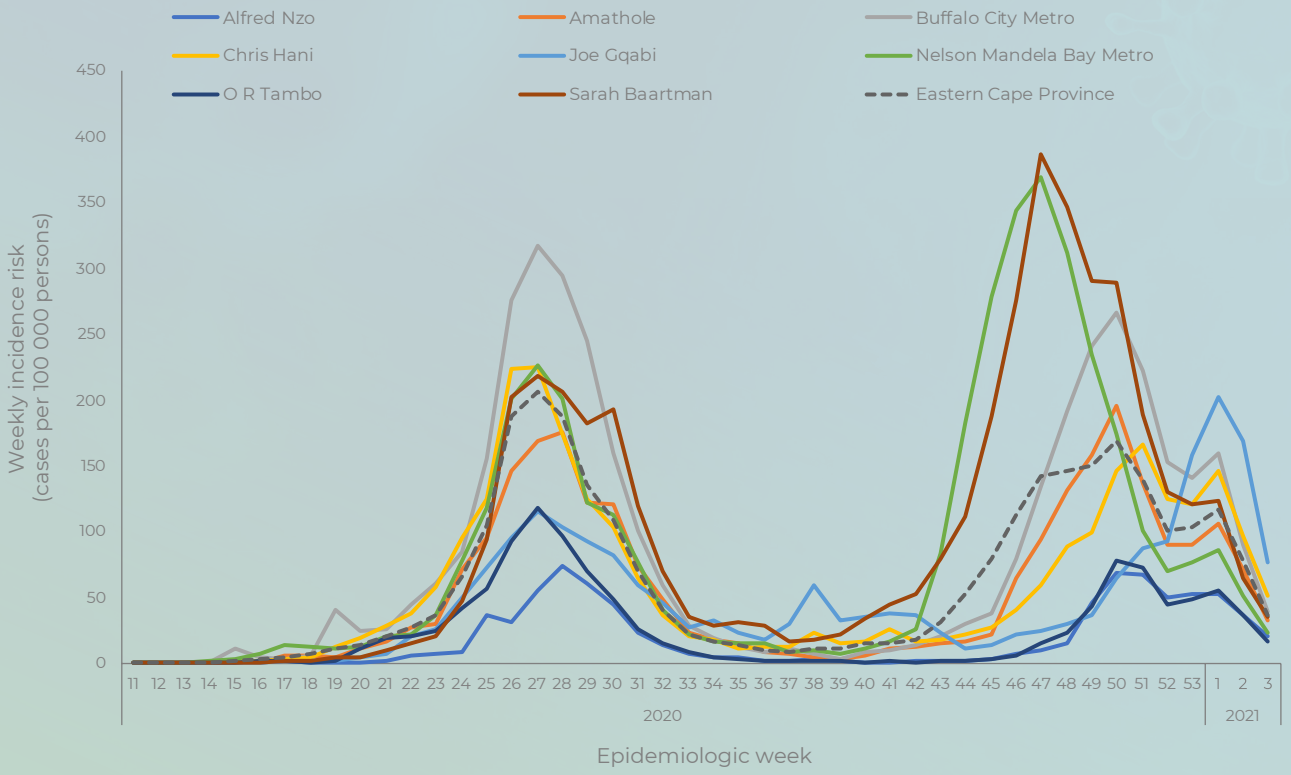


Figure 11. Weekly incidence risk of laboratory-confirmed cases of COVID-19 by district and epidemiologic week, Eastern Cape Province, 3 March 2020- 23 January 2021 (n= 169 003, 21 399 missing district)

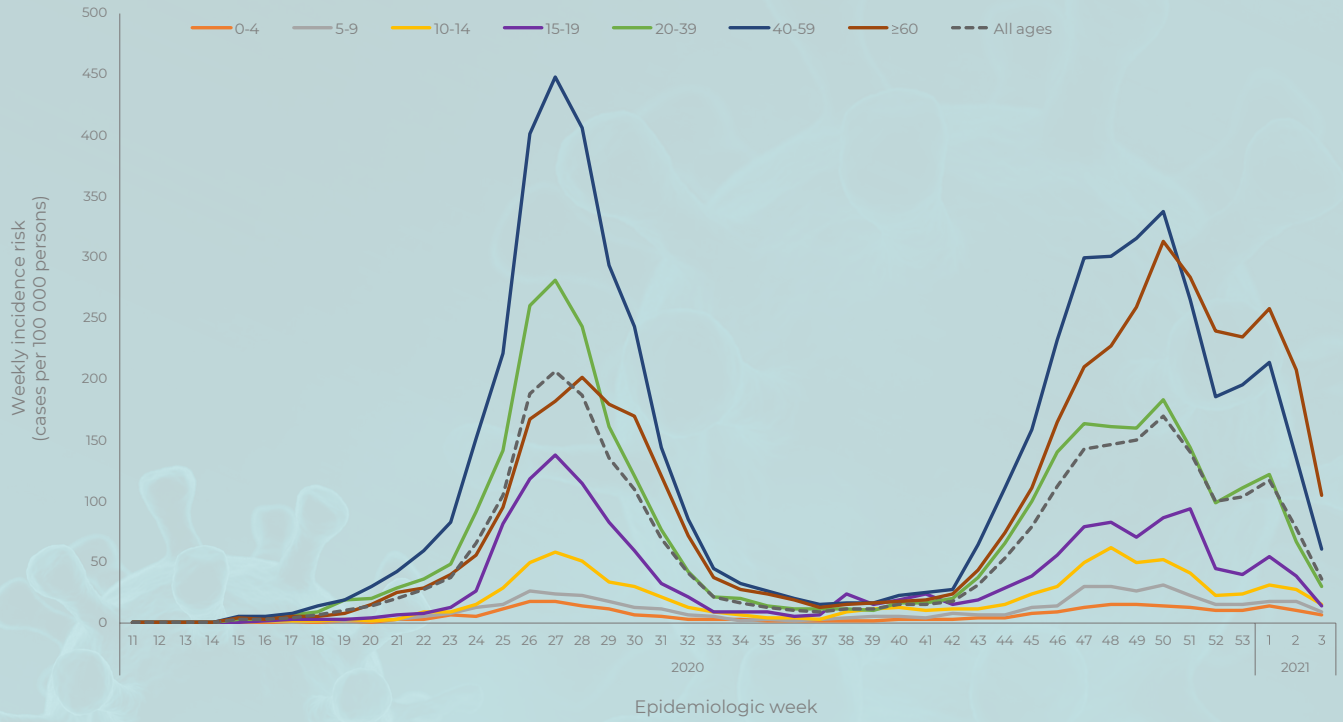


Figure 12. Weekly incidence risk of laboratory-confirmed cases of COVID-19 by age group in years and epidemiologic week, Eastern Cape Province, 3 March 2020 – 23 January 2021 (n= 188 431, 1 971 missing age)

Western Cape Province

Of the 265 428 cases reported from the Western Cape Province, 247 896 (93.4%) cases had allocation by district. The City of Cape Town District (164 275/247 896, 66.3%) followed by the Cape Winelands District (30 233/247 896, 12.2%), and the Garden Route District (28 205/247 896, 11.4%) contributed the majority of cases, all other districts contributed <10% each. In the past week, the highest weekly incidence risk was reported by the West Coast (137.4 cases per 100 000 persons), followed by the Overberg (130.7 cases per 100 000 persons) districts, other districts reported below 110 cases per 100 000 persons (Figure 13). The increasing trend in weekly incidence risk reported from the different districts in recent weeks varied by district, with all the districts reporting the highest weekly incidence risks from week 50 to week 2, higher than the peaks in the first wave. Case numbers are going down in Garden route since the peak in week 50 following the steep increase in cases which started in week 45.

The majority of cases from the Western Cape Province were in the 20-39-year old age group (105 413/264 502, 39.9%), followed by the 40-59-year age group (99 080/264 502, 37.5%). In the past week, the ≥60-year age group (419.1 cases per 100 000 persons), followed by 40-59-year age group (340.4 cases per 100 000 persons), 20-39-year age group (182.8 cases per 100 000 persons), and 15-19-year-age group (70.5 cases per 100 000 persons) reported the highest weekly incidence risk. The weekly incidence risk in all other age groups remained below 40 cases per 100 000 persons. In the past two weeks, all age groups reported a decrease in weekly incidence risk (Figure 14). From week 51 to week 3, all age groups reported the highest weekly incidence risks compared to the peaks in the first wave in different weeks.

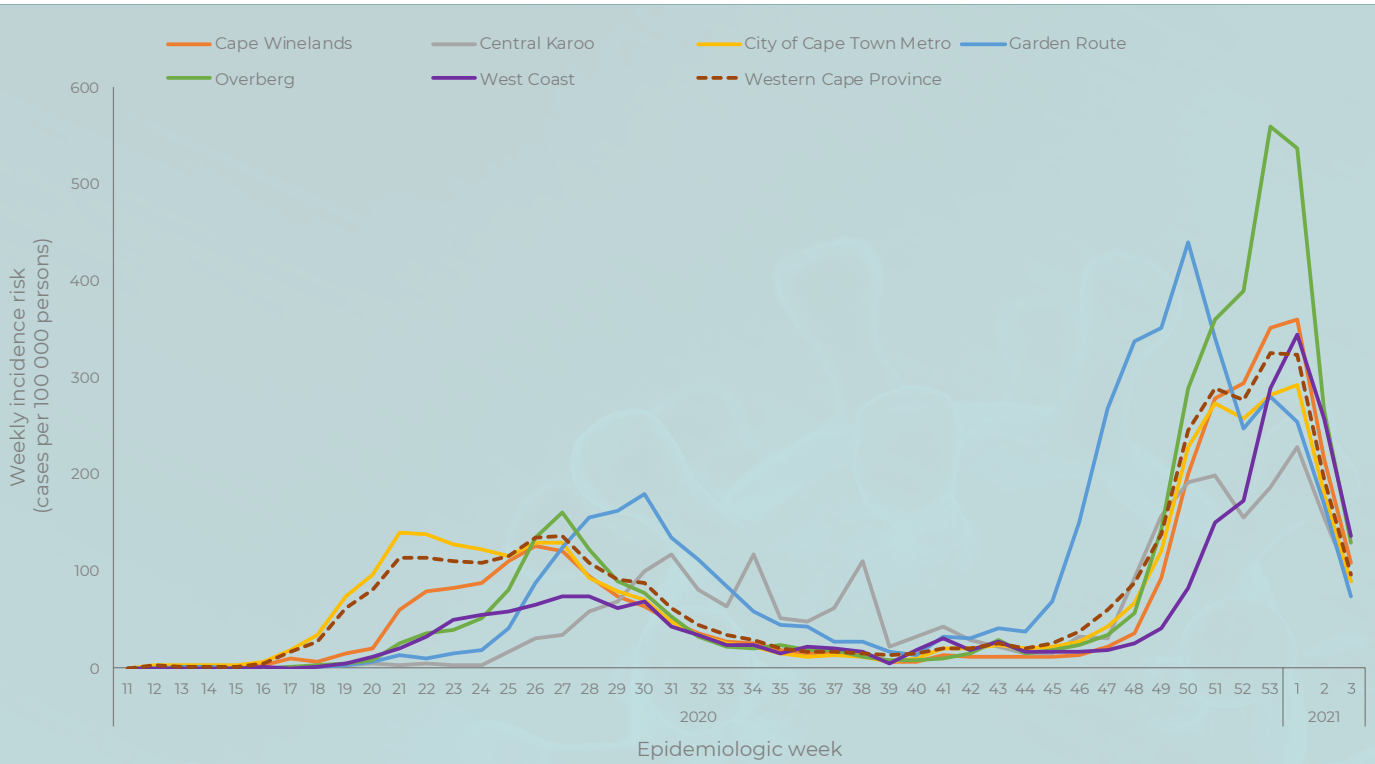


Figure 13. Weekly incidence risk of laboratory-confirmed cases of COVID-19 by district and epidemiologic week, Western Cape Province, 3 March 2020-23 January 2021 (n= 247 896, 17 532 missing district)

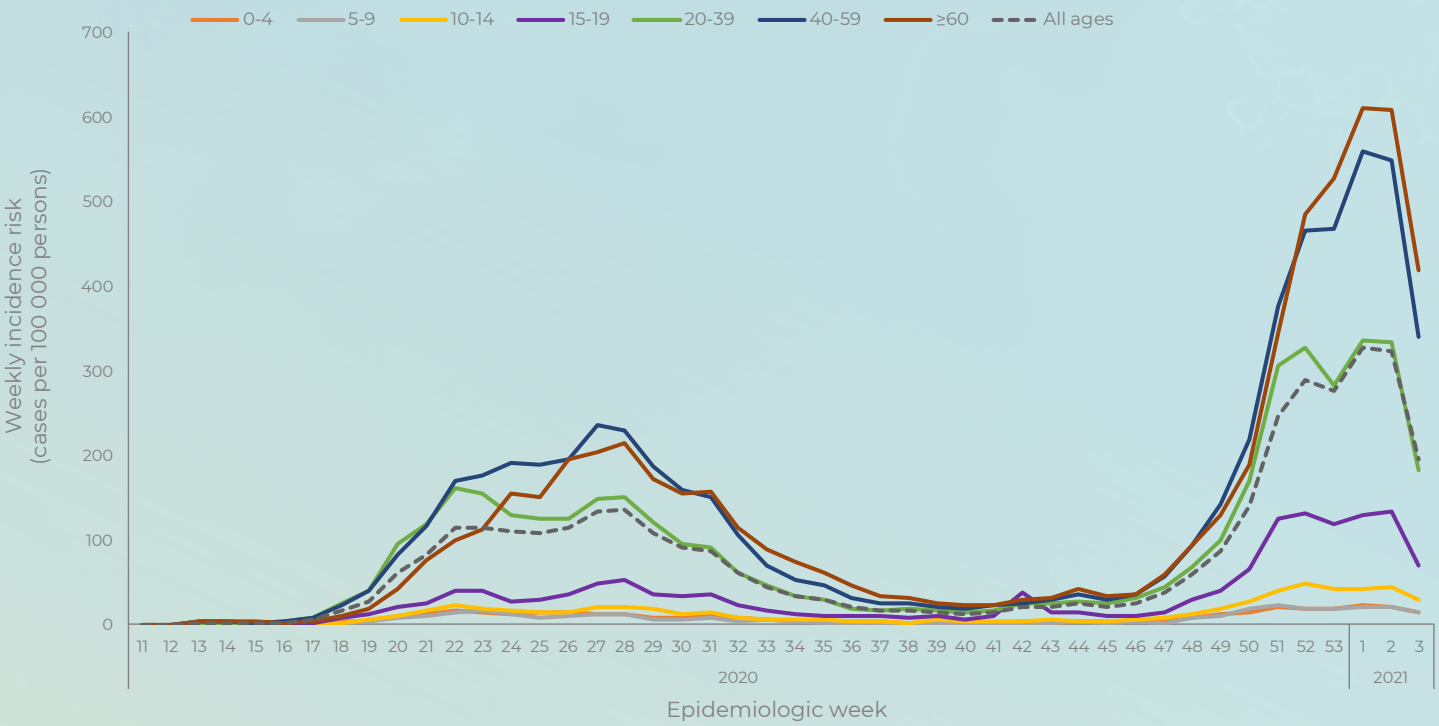


Figure 14. Weekly incidence risk of laboratory-confirmed cases of COVID-19 by age group in years and epidemiologic week, Western Cape Province, 3 March 2020- 23 January 2021 (n= 264 502, 926 missing age)

Gauteng Province

Of the 380 382 cases reported from the Gauteng Province, 333 159 (87.6%) had allocation by district. The City of Johannesburg Metro (128 180/333 159, 38.5 %), followed by the City of Tshwane Metro (89 797/333 159, 27.0%), and the Ekurhululeni Metro (69 628/333 159, 20.9%) contributed the majority of cases, all other districts contributed below 15% each. In week 3, the City of Tshwane (93.6 cases per 100 000 persons), followed by the West Rand District (86.1 cases per 100 000 persons) reported the highest weekly incidence risk. All the districts reported an increase in number of new cases and weekly incidence risk from week 48 to week 1 which remained below that reported during the first peak, except the City of Tshwane Metro and Ekurhululeni District which reported a higher weekly incidence in week 1 compared the first wave peak in week 29 (Figure 15). From week 2 2021, numbers reported have been decreasing.

The majority of cases from Gauteng Province were in the 20-39-year-age group (161 346/376 317, 42.9%), followed by 40-59-year-age group (137 846/376 317, 36.6%). In the past week, all age groups reported a decrease in weekly incidence risk, compared to the previous week (Figure 16).

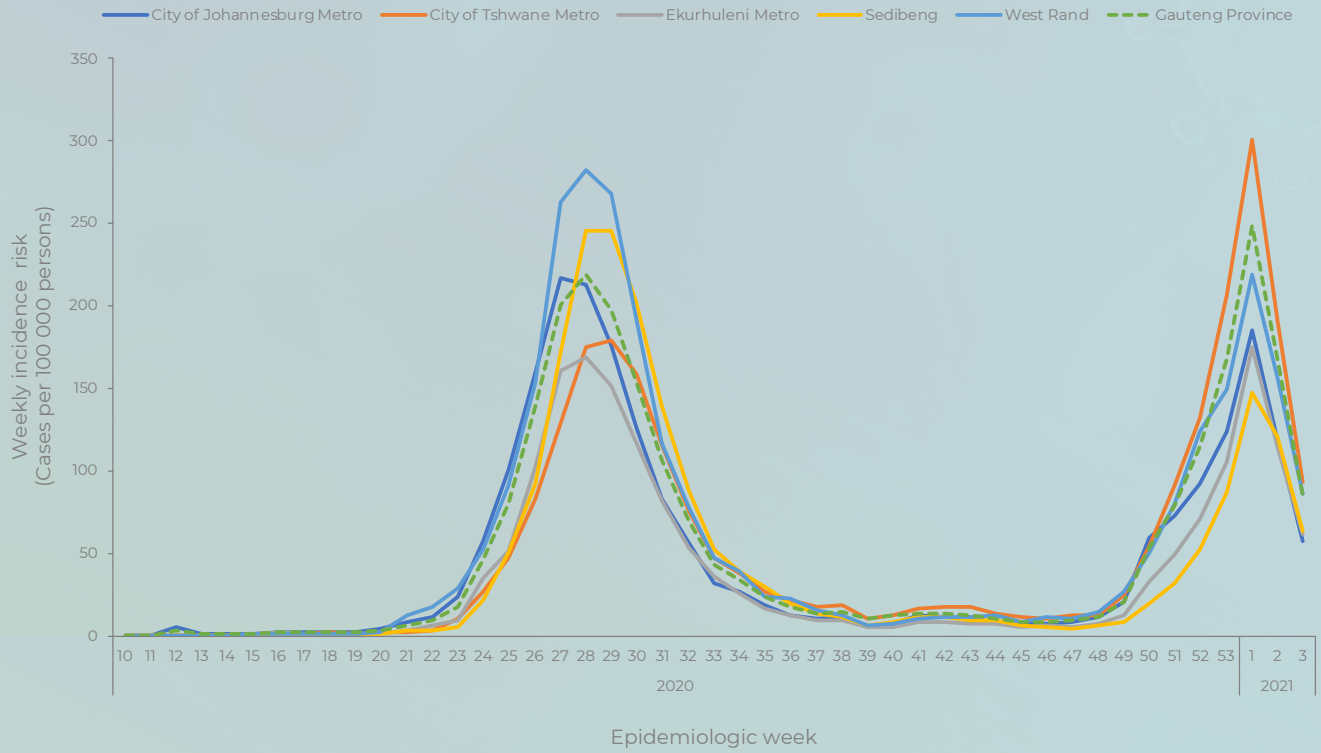


Figure 15. Weekly incidence risk of laboratory-confirmed cases of COVID-19 by district and epidemiologic week, Gauteng Province, 3 March 2020- 23 January 2021 (n= 333 159, 47 223 missing district)

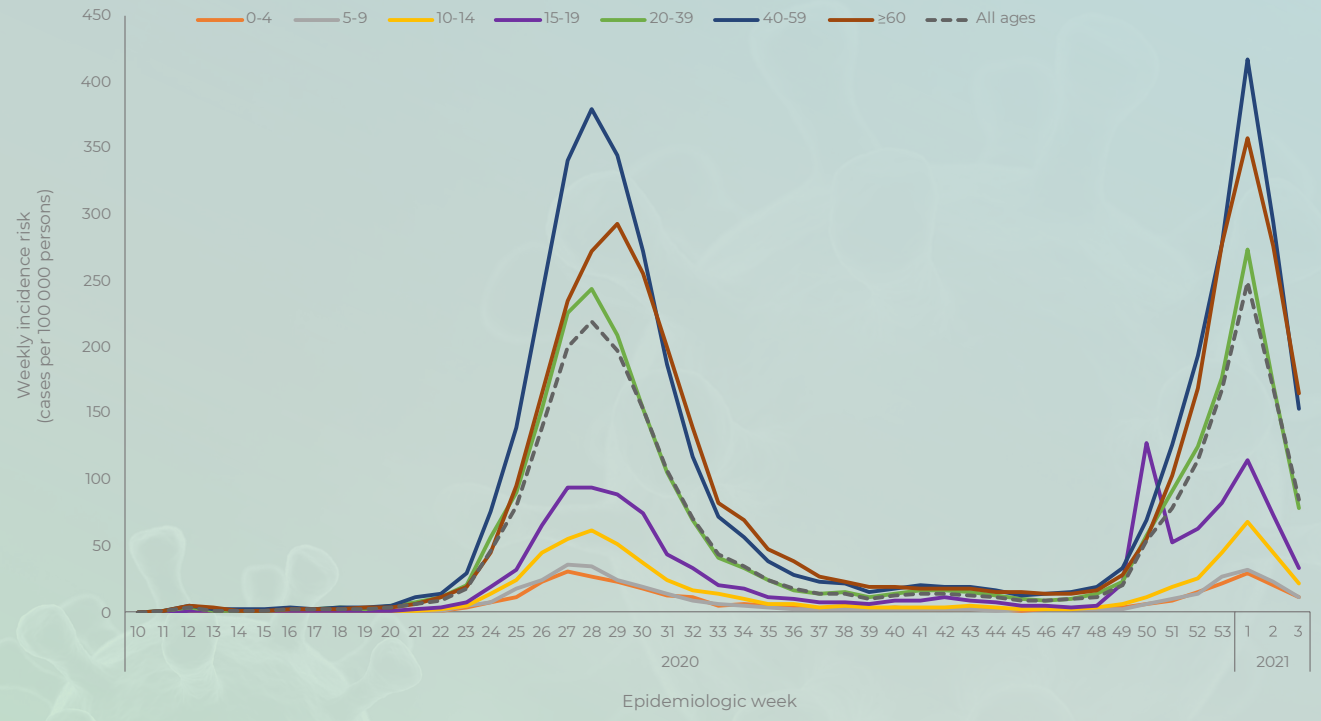


Figure 16. Weekly incidence risk of laboratory-confirmed cases of COVID-19 by age group in years and epidemiologic week, Gauteng Province, 3 March 2020-23 January 2021 (n= 376 317, 4 065 missing age)

KwaZulu-Natal Province

Of the 302 582 cases reported from KwaZulu-Natal Province, 229 377 (75.8%) had allocation by district. The eThekwini Metro (117 032/229 377, 51.0%) followed by uMgungundlovu Metro (24 336/229 377, 10.6%) contributed the majority of cases. In week 3, eThekwini Metro (98.1 cases per 100 000 persons), followed by King Cetshwayo (78.7 cases per 100 000 persons), Zululand (75.0 cases per 100 000 persons), and uMgungundlovu (73.7 cases per 100 000 persons) districts reported the highest weekly incidence risk. In the past week, all districts reported a decrease in weekly incidence risk, compared to week 2. The decrease in week 3 incidence is possibly due to reporting delays.

Following the decline in number of cases after the first wave, an increasing trend in weekly incidence risk which varied by districts, has been reported since week 48. During this period, all the districts reported weekly incidence risks higher than those reported in the first peaks; eThekwini Metro (380.8 vs 165.8 cases per 100 000 persons), iLembe (169.2 cases vs 96.2 per 100 000 persons), Harry Gwala (156.2 vs. 85.2 cases per 100 000 persons), King Cetshwayo (267.9 vs 121.9 cases per 100 000 persons), Ugu (182.0 vs 107.0 cases per 100 000 persons), uThukela (217.9 vs 94.5 cases per 100 000 persons), uMkhanyakude (116.0 vs 61.7 cases per 100 000 persons), uMzinyathi (146.4 vs 94.3 cases per 100 000 persons), uMgungundlovu (258.6 vs 183.7 cases per 100 000 persons), and Zululand (140.4 vs 99.9 cases per 100 000 persons), except Amajuba District which continued to report weekly incidence risk below the first wave peaks (Figure 17).

The majority of cases from KwaZulu-Natal Province were in the 20-39-year-age group (115 591/299 593, 38.6%), followed by 40-59-year-age group (104 493/299 593, 34.9%). In week 52 to week 53, all age groups reported weekly incidence risks higher than those reported in the first wave peaks. From week 2 all age groups reported a decrease in weekly incidence risk (Figure 18).

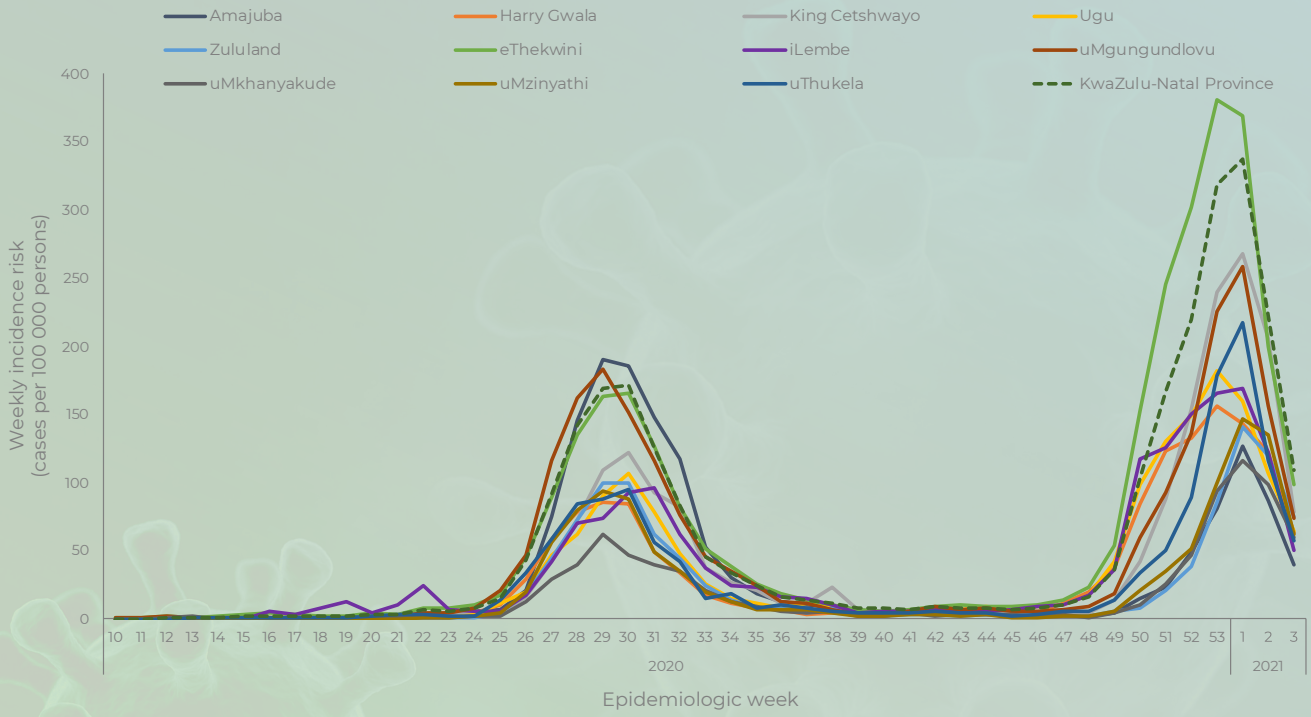


Figure 17. Weekly incidence risk of laboratory-confirmed cases of COVID-19 by district and epidemiologic week, KwaZulu-Natal Province, 3 March 2020-23 January 2021 (n= 229 377, 73 205 missing district)

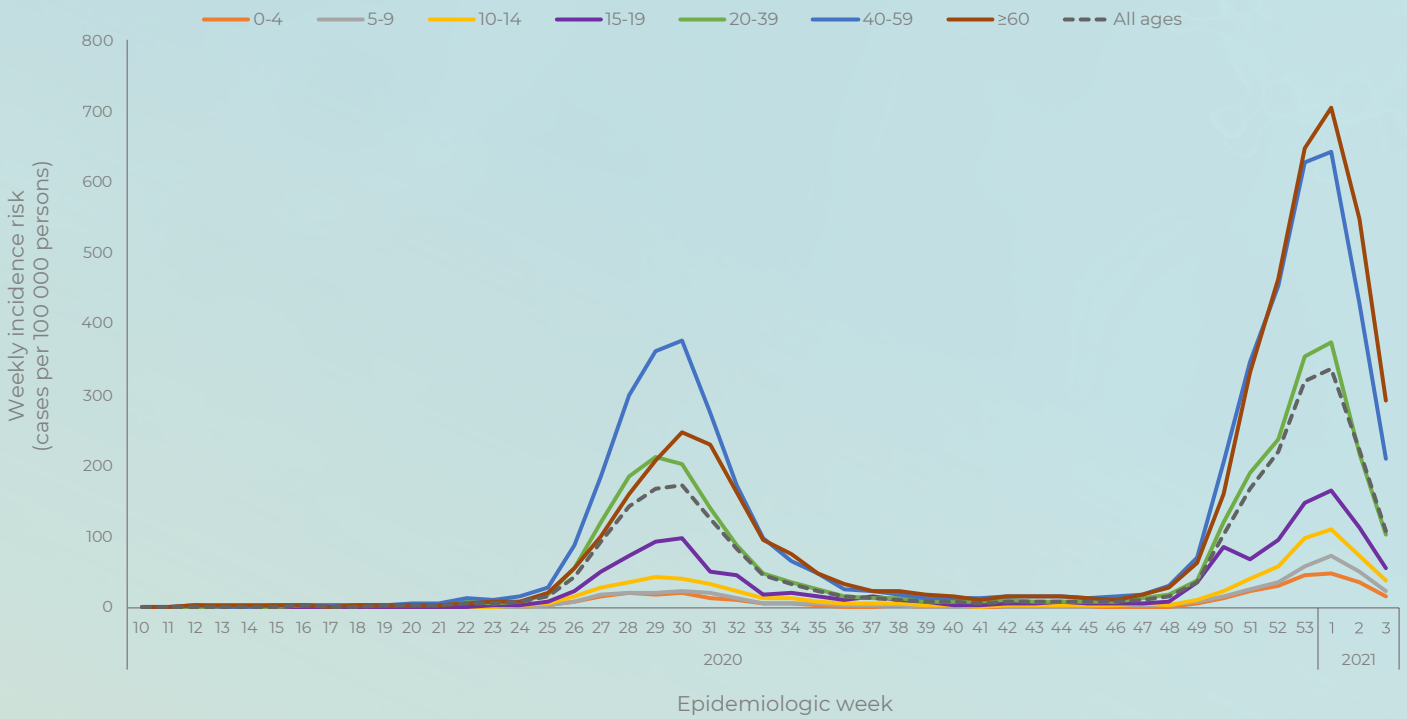


Figure 18. Weekly incidence risk of laboratory-confirmed cases of COVID-19 by age group in years and epidemiologic week, KwaZulu-Natal Province, 3 March 2020-23 January 2021 (n= 299 593, 2 989 missing age)

Free State Province

Of the 73 793 cases reported from the Free State Province, 67 326 (91.2%) had allocation by district. The Mangaung Metro (25 832/67 326, 38.4%), followed by the Lejweleputswa (16 088/67 326, 23.9%), and the Thabo Mofutsanyane (12 835/67 326, 19.1%) districts contributed the majority of cases, all other districts contributed below 20% each. In week 3, the Fezile Dabi District (74.7 cases per 100 000 persons), followed by the Xhariep District (74.2 cases per 100 000 persons) reported the highest weekly incidence risk. All the districts reported an increase in number of new cases and weekly incidence risk from week 50 to week 2, except for Mangaung, which reported an increase until week 1. The increase in numbers and incidence risk reported recently from all the districts remained below that reported during the first peak (Figure 19).

The majority of cases from the Free State Province were in the 20-39-year-age group (28 102/73 513, 38.2%), followed by 40-59-year-age group (26 417/73 513, 35.9%). In the past week, all age groups reported a decrease in weekly incidence risk, compared to the previous week (Figure 20).

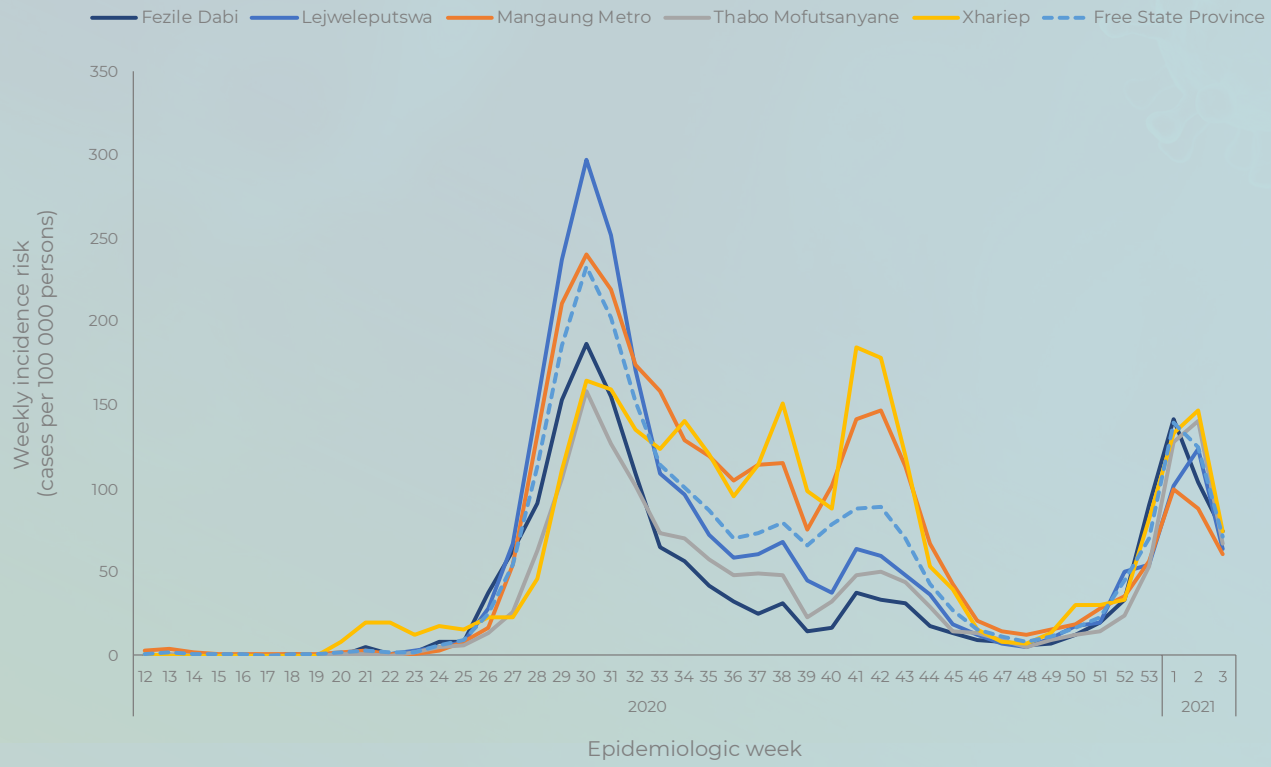


Figure 19. Weekly incidence risk of laboratory-confirmed cases of COVID-19 by district and epidemiologic week, Free State Province, 3 March 202-23 January 2021 (n= 67 326, 6 467 missing district)

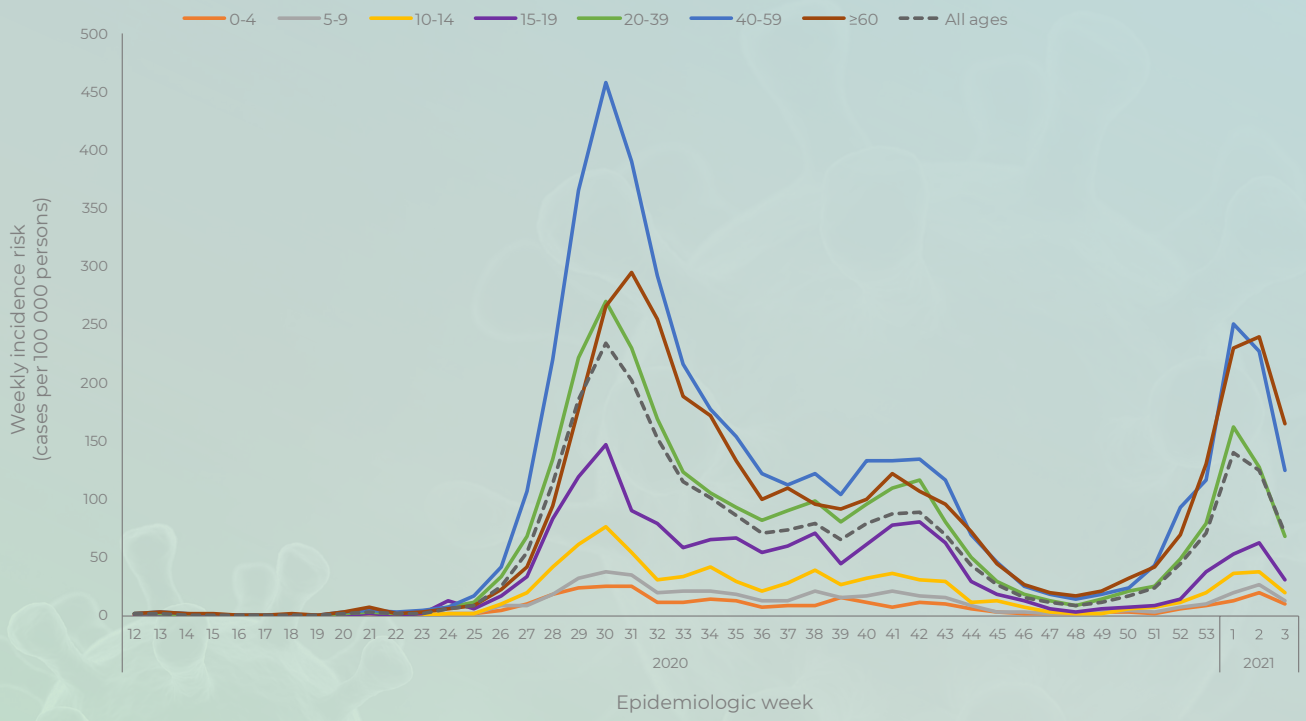


Figure 20. Weekly incidence risk of laboratory-confirmed cases of COVID-19 by age group in years and epidemiologic week, Free State Province, 3 March 2020-23 January 2021 (n= 73 513, 280 missing age)

Limpopo Province

Of the 54 362 cases reported from the Limpopo Province, 48 043 (88.4%) had allocation by district. The Capricorn (15 496/48 043, 32.3%), followed by the Vhembe (9 763/48 043, 20.3%) districts contributed the majority of cases, all other districts contributed below 20% each. In week 3, the Waterberg (70.2 cases per 100 000 persons), followed by the Capricorn (66.4 cases per 100 000 persons) districts reported the highest weekly incidence risk. All the districts reported a gradual increase in number of new cases and weekly incidence risk from week 49 to week 50, then sharp increase from week 51 to week 1. The weekly incidence risk reported in week 1 exceeded those reported in the first peak in the Vhembe District (183.9 vs 15.0 cases per 100 000 persons), Capricorn District (255.5 vs 47.3 cases per 100 000 persons), Waterberg (192.8 vs 60.2 cases per 100 000 persons), Mopani (182.6 vs 28.7 cases per 100 000 persons), and Sekhukhune District (74.2 vs 33.0 cases per 100 000 persons) (Figure 21).

The majority of cases from Limpopo Province were in the 40-59-year-age group (21 449/54 090, 39.75), followed by 20-39-year-age group (20 852/54 090, 38.6%). In the past week, all age groups reported a decrease in weekly incidence risk, compared to the previous week (Figure 21). In week 1, all age groups reported weekly incidence risks higher than those reported during the first peaks in week 30 (Figure 22).

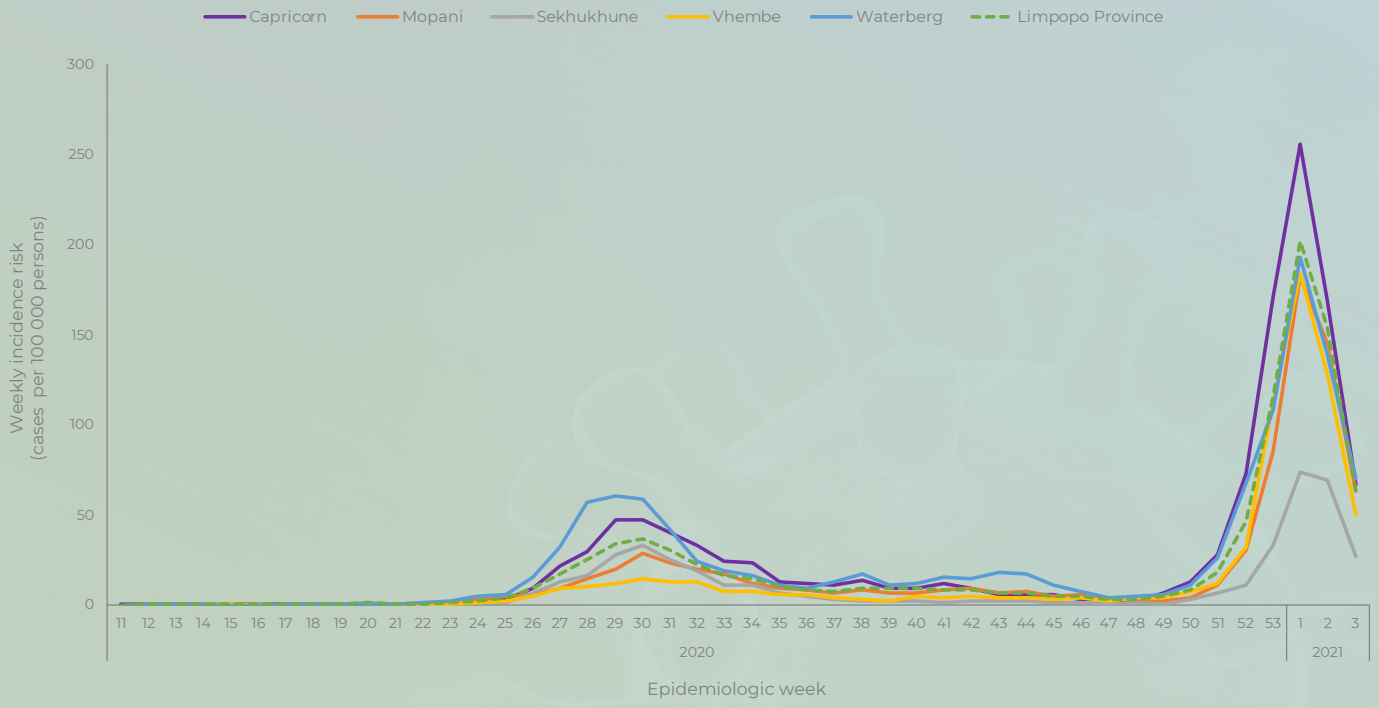


Figure 21. Weekly incidence risk of laboratory-confirmed cases of COVID-19 by district and epidemiologic week, Limpopo Province, 3 March 2020-23 January 2021 (n= 48 043, 6 319 missing district)

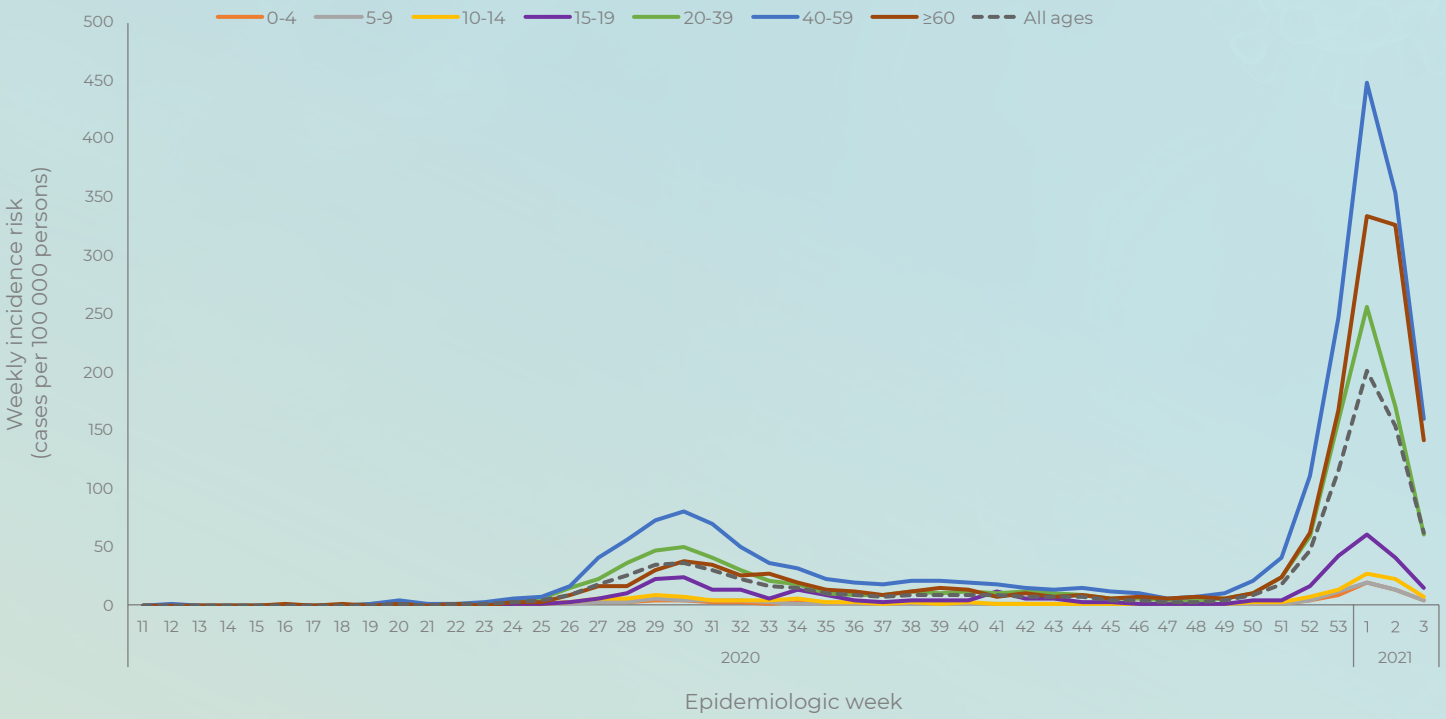


Figure 22. Weekly incidence risk of laboratory-confirmed cases of COVID-19 by age group in years and epidemiologic week, Limpopo Province, 3 March 2020- 23 January 2021 (n= 54 090, 272 missing age)

Mpumalanga Province

Of the 60 354 cases reported from the Mpumalanga Province, 50 039 (82.9%) had allocation by district. All the districts contributed similar number of cases, Ehlanzeni (19 326/50 039, 38.6%), Nkangala (16 914/50 039, 33.8%) and the Gert Sibande (13 799/50 039, 27.6%) districts. In week 3, the Gert Sibande District (55.4 cases per 100 000 persons), followed by the Nkangala District (54.1 cases per 100 000 persons) reported the highest weekly incidence risk. All the districts reported an increase in number of new cases and weekly incidence risk from week 50 to week 1. The increase in numbers and incidence risk reported recently from all the districts was higher than that reported during the first peak (Figure 23).

The majority of cases from Mpumalanga Province were in the 20-39-year-age group (25 341/59 408, 42.7%), followed by 40-59-year-age group (21 376/59 408, 36.0%). In the past week, all age groups reported a decrease in weekly incidence risk, compared to the previous week (Figure 24). In week 1, all age groups reported weekly incidence risks higher than those reported in the first wave peaks.

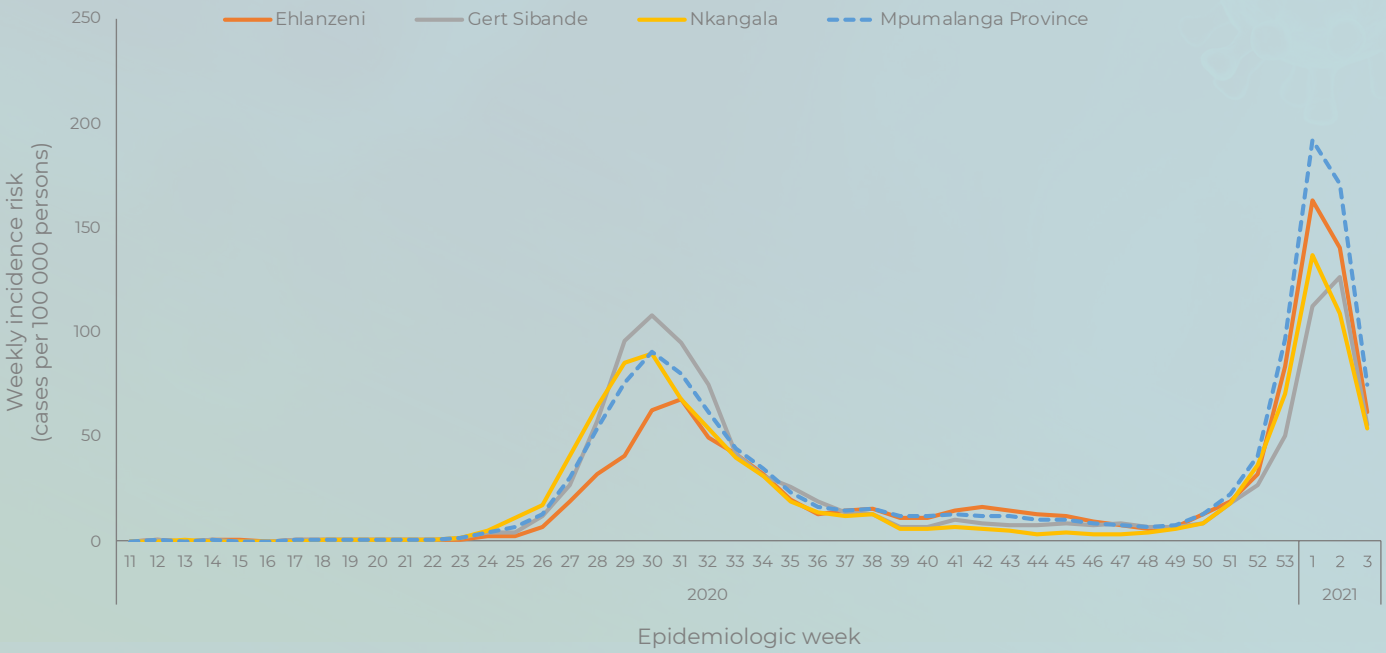


Figure 23. Weekly incidence risk of laboratory-confirmed cases of COVID-19 by district and epidemiologic week, Mpumalanga Province, 3 March 2020-23 January 2021 (n= 50 039, 10 315 missing district)

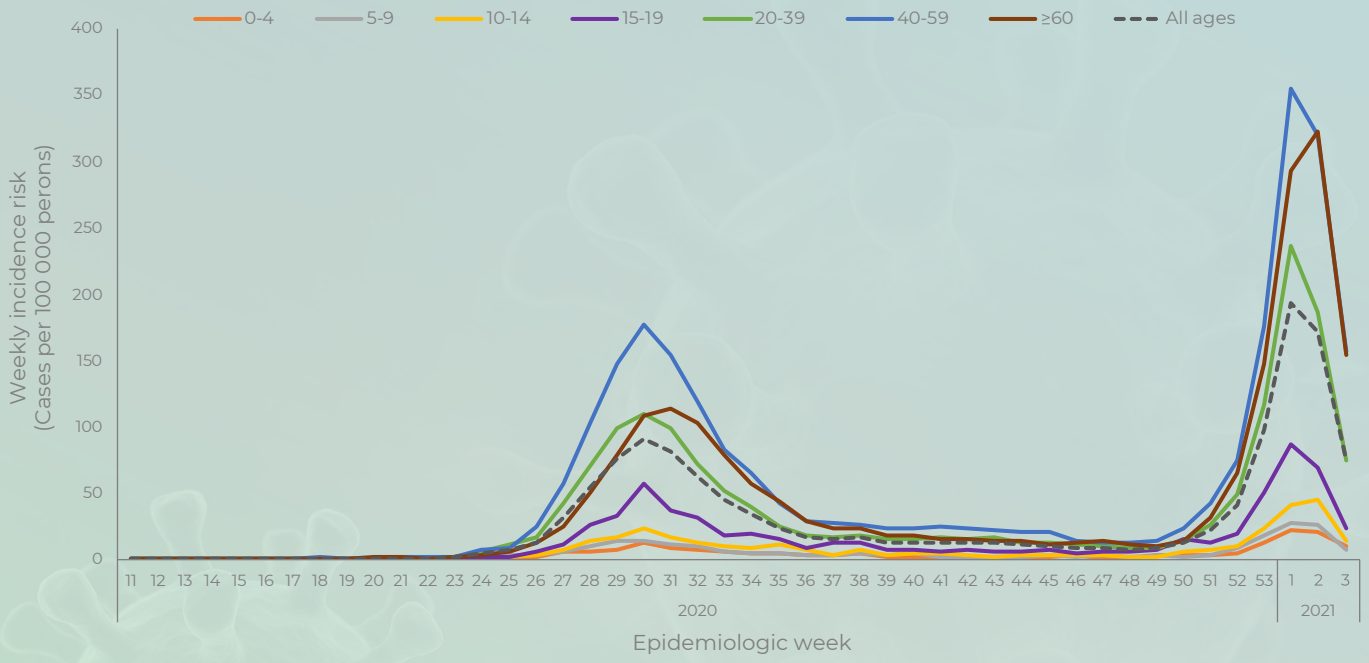


Figure 24. Weekly incidence risk of laboratory-confirmed cases of COVID-19 by age group and epidemiologic week, Mpumalanga Province, 3 March 2020-23 January 2021 (n= 59 408, 946 missing age)

North West Province

Of the 54 724 cases reported from the North West Province, 45 597 (83.3%) had allocation by district. The Bojanala Platinum District (23 137/45 597, 50.7%), followed by the Dr Kenneth Kaunda District (11 183/45 597, 24.5%) contributed the majority of cases, all other districts contributed below 20% each. In week 3, the Bojanala Platinum District (63.6 cases per 100 000 persons) reported the highest weekly incidence risk. All the districts reported a gradual increase in number of new cases and weekly incidence risk from week 50 to week 1, with Bojanala Platinum District showing a sharp increase in week 51 to week 1. The increase in numbers and incidence risk reported recently from all the districts was higher than those reported during the first peak, except the Dr Kenneth Kaunda District which continued to report weekly incidence risk below that reported in the first wave peak (Figure 25).

The majority of cases from North West Province were in the 40-59-year-age group (22 474/54 184, 41.5%), followed by 20-39-year-age group (20 707/54 184, 38.2%). In the past week, all age groups reported a decrease in weekly incidence risk, compared to the previous week. In week 1, all age groups reported weekly incidence risk higher than those reported in the first wave peaks (Figure 26).

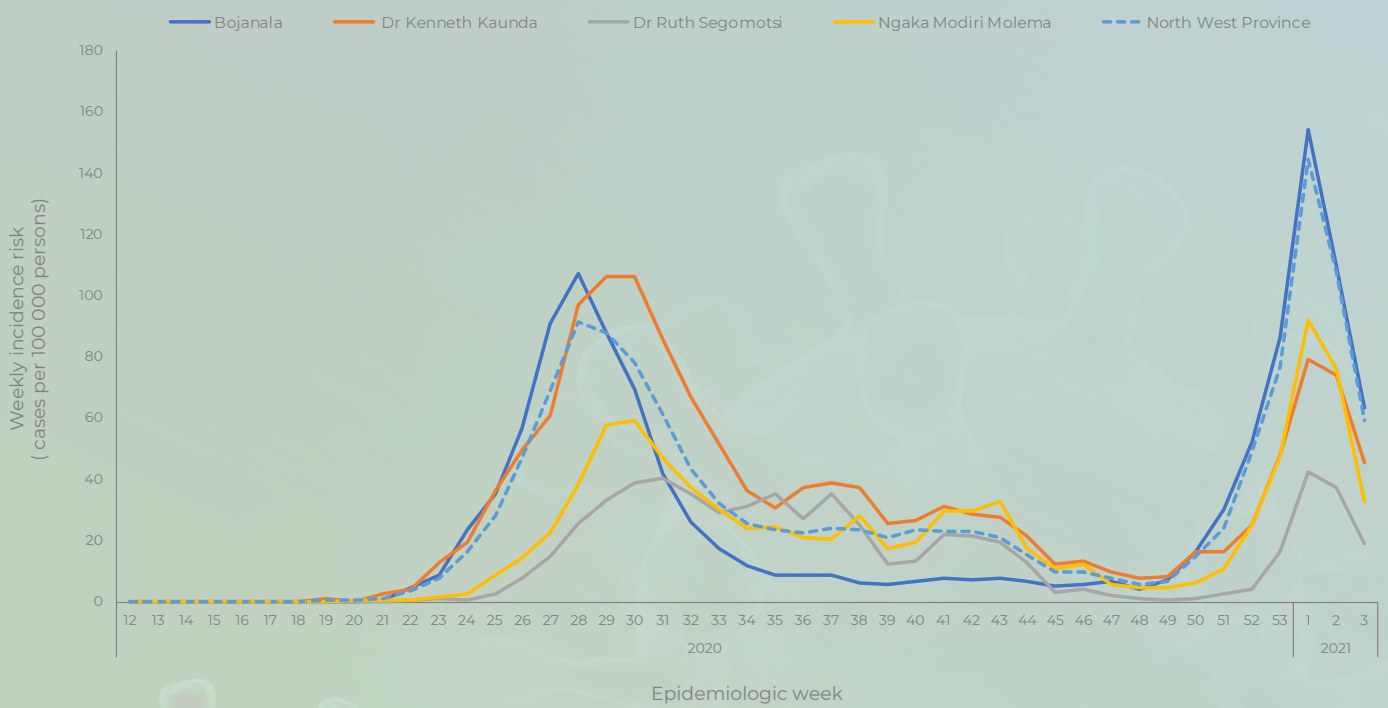


Figure 25. Weekly incidence risk of laboratory-confirmed cases of COVID-19 by district and epidemiologic week, North West Province, 3 March 2020-23 January 2021 (n= 45 597, 9 127 missing district)

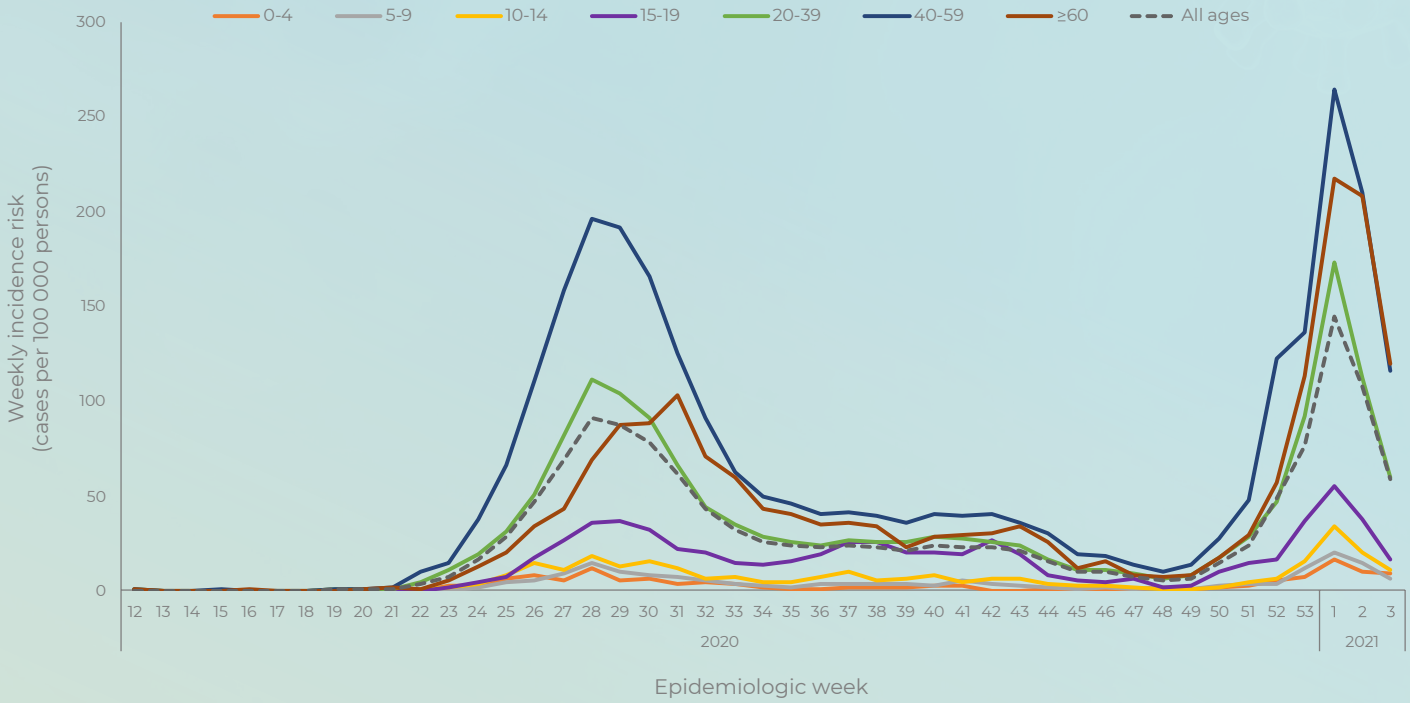


Figure 26. Weekly incidence risk of laboratory-confirmed cases of COVID-19 by age group in years and epidemiologic week, North West Province, 3 March 2020- 23 January 2021 (n= 54 184, 540 missing age)

Northern Cape Province

Of the 30 959 cases reported from the Northern Cape Province, 25 979 (83.9%) had allocation by district. The Frances Baard (9 182/25 979, 35.3%), followed by the Pixley ka Seme (6 700/25 979, 25.8%) districts contributed the majority of cases, all other districts contributed below 20% each. In week 3, the Namakwa (116.8 cases per 100 000 persons), followed by Pixley ka Seme (75.4 cases per 100 000 persons) districts reported the highest weekly incidence risk. All the districts reported a gradual increase in number of new cases and weekly incidence risk from week 50 to week 1, with the Namakwa District showing a sharp increase from week 51 to week 1. The increase in numbers and incidence risk reported recently from all the districts was higher than those reported during the first peak, except the Frances Baard and John Taolo Gaetsewe districts which continued to report weekly incidence risk below that reported during the first peak (Figure 27).

The majority of cases from Northern Cape Province were in the 20-39-year-age group (12 006/30 689, 39.1%), followed by 40-59-year-age group (10 505/30 689, 34.2%). In the past week, all age groups reported a decrease in weekly incidence risk. In week 1, all age groups reported the weekly incidence risks higher than those reported in the first wave peak (Figure 28).

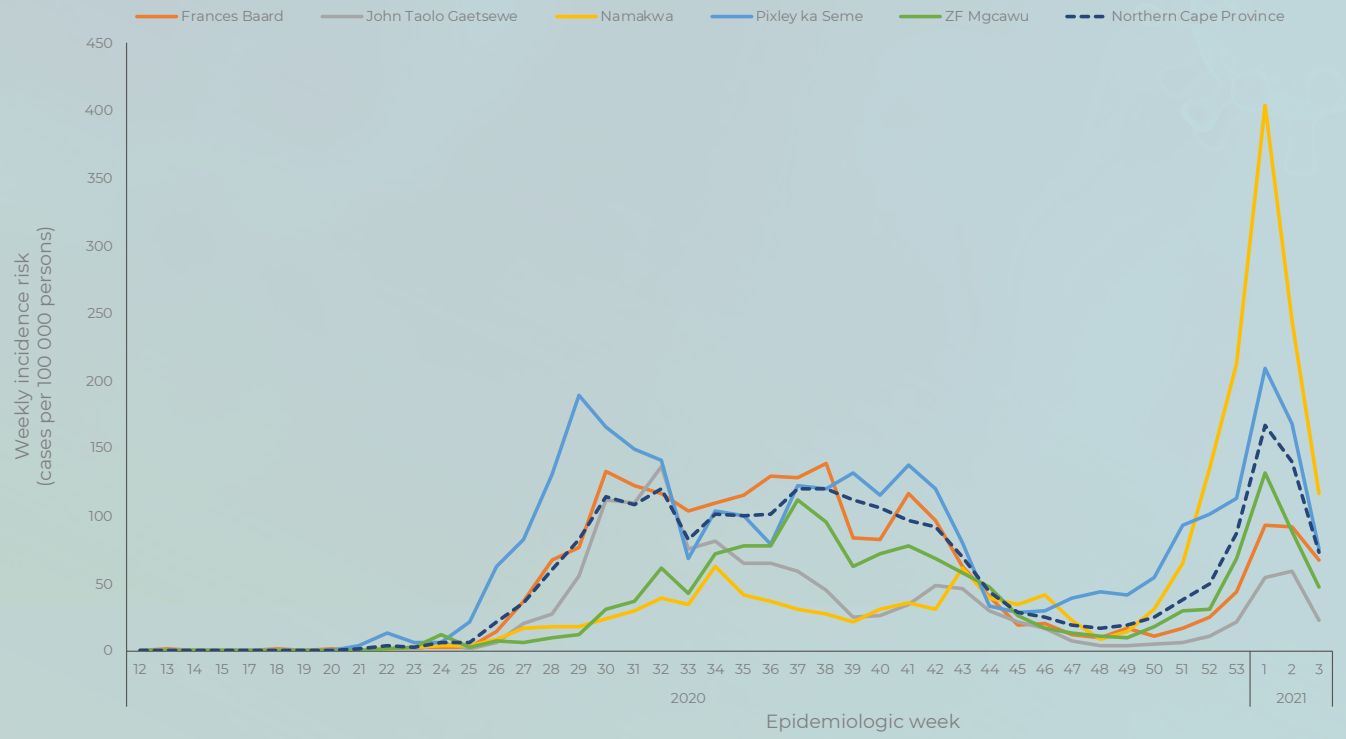


Figure 27. Weekly incidence risk of laboratory-confirmed cases of COVID-19 by district and epidemiologic week, Northern Cape Province, 3 March 2020- 23 January 2021 (n= 25 979, 4 980 missing district)

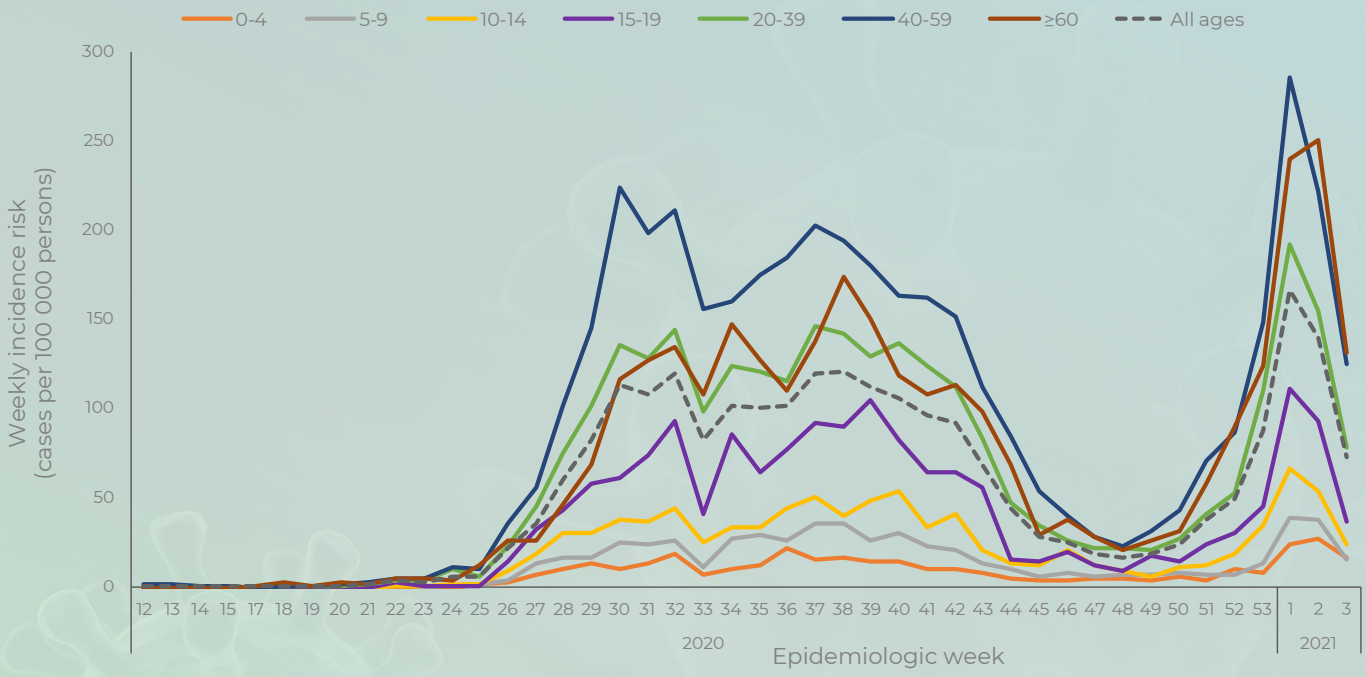


Figure 28. Weekly incidence risk of laboratory-confirmed cases of COVID-19 by age group in years and epidemiologic week, Northern Cape Province, 3 March 2020- 23 January 2021 (n= 30 689, 270 missing age)

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. The crude CFR reported here is subject to numerous limitations: it is likely to be an underestimation as reporting of deaths may be delayed and deaths which occurred outside health facilities may be missed. Differences in health-seeking behaviour by age group and sex could also contribute to observed differences in case numbers between groups. The reported doubling time estimates are affected by the number of tests conducted; if fewer tests are performed, this will also increase the doubling time estimate. Delays in reporting may result in incomplete data for recent weeks, leading to an apparent reduction in number of cases.

Conclusions

To date, 1 412 986 cases, including 40 874 deaths have been reported. A second wave, increase in cases initially reported from the Eastern Cape Province, continues in all provinces. However, in the past two weeks, the number of cases reported from all provinces has started to decrease. Demographic trends have remained unchanged this reporting period, children aged <10 years had the lowest incidence risk and individuals aged 40-59 years had the highest incidence. The decreasing trends in numbers of new cases may be as a result of delay in reporting or changes in testing practices in the different provinces. In addition, number of confirmed cases diagnosed on antigen tests may be underestimated as they are used in a number of different settings and results may not be fully reported yet. Antigen tests should be reported.