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

COVID-19 Weekly Epidemiology Brief: Week ending 28 January 2023 (Week 4 of 2023)

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 28 January 2023 (week 4 of 2023). 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 28 January 2023, a total of 4 055 656 laboratory-confirmed COVID-19 cases had been detected in South Africa. Of these, 1 450 were cases reported since the last report (week 3 of 2023). There was a 13.4% decrease in the number of new cases detected in week 4 of 2023 (1 358) compared to the number of new cases detected in week 3 of 2023 (1 569).
- In the past week, Western Cape Province reported the highest weekly incidence risk (5.3 cases per 100 000 persons), followed by Free State Province (2.7 cases per 100 000 persons) and KwaZulu-Natal Province (2.6 cases per 100 000 persons). The other provinces reported weekly incidences below 2.6 cases per 100 000 persons.
- In the past week, five provinces reported an increase in weekly incidence risk, ranging from 0.1 cases per 100 000 persons (12.0%) in Limpopo Province to 0.9 cases per 100 000 persons (21.5%) in Western Cape Province. The remaining provinces reported a decrease ranging from 0.3 cases per 100 000 persons (12.1%) in Eastern Cape Province to 1.3 cases per 100 000 persons (33.7%) in KwaZulu-Natal Province.
- The highest weekly incidence risk among cases detected in week 4 of 2023 was reported in the ≥80-year age group (9.8 cases per 100 000 persons), and the lowest weekly incidence risk was in the 5-9-year age group (0.4 cases per 100 000 persons).

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

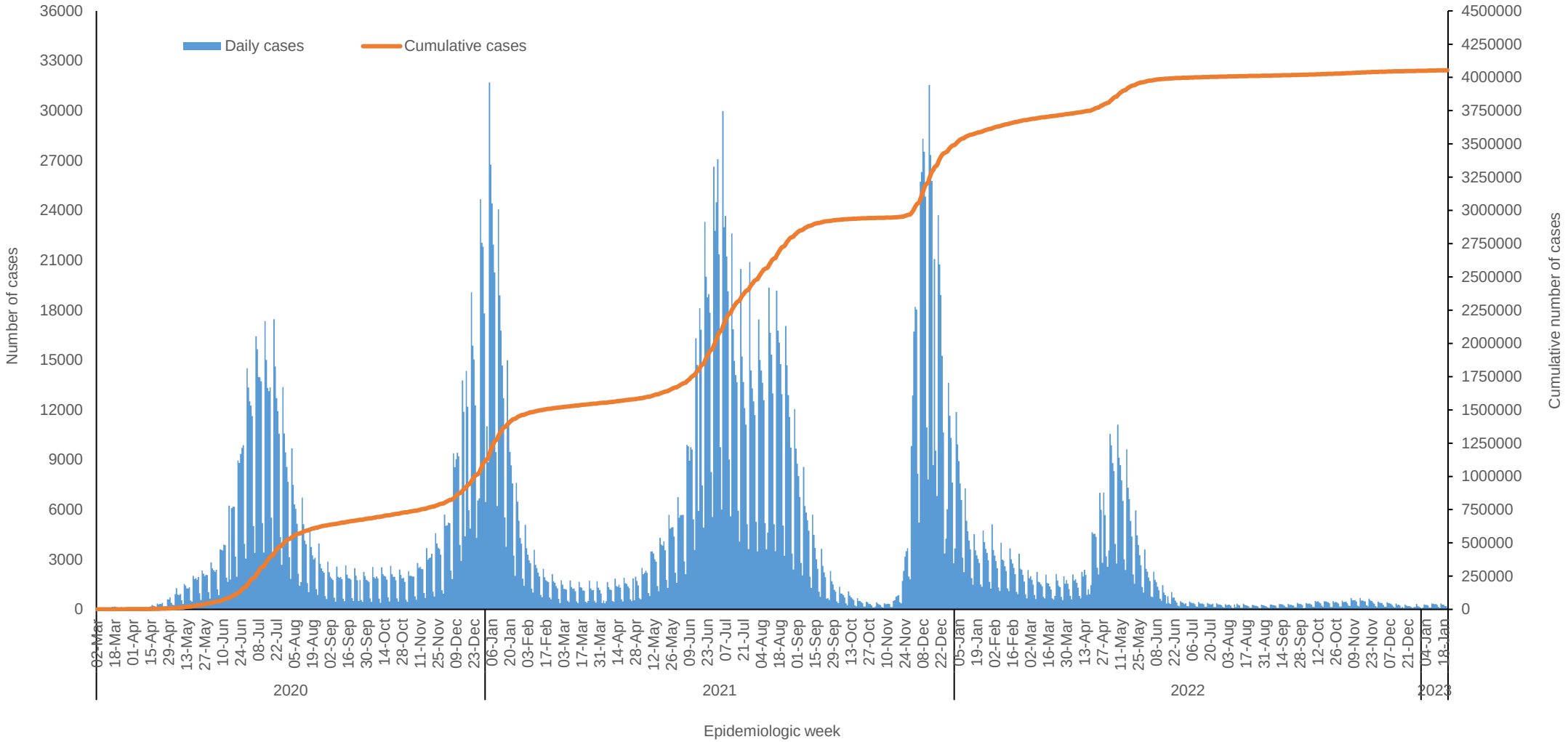

Figure 1. Number and cumulative number of laboratory-confirmed cases of COVID-19 by date of specimen collection, South Africa, 3 March 2020 – 28 January 2023 (n= 4 055 656)

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 – 28 January 2023 (n = 4 055 656)

Province	Cumulative cases (n) (percentage, n/total cases in South Africa)	New cases[1] detected in week 4 of 2023 (22 - 28 January 2023), n (percentage[2], n/total)	Population in mid-2022[3], n	Cumulative incidence risk (cases per 100 000 persons)	Incidence risk of new cases detected in week 4 of 2023 (cases/100 000 persons)	Tests[4] per 100 000 persons, 22 - 28 January 2023
Eastern Cape	366 907 (9.0)	131 (9.6)	6 676 691	5 495.3	2.0	11.1
Free State	217 666 (5.4)	78 (5.7)	2 921 611	7 450.2	2.7	13.1
Gauteng	1 346 712 (33.2)	313 (23.0)	16 098 571	8 365.4	1.9	26.7
KwaZulu-Natal	728 670 (18.0)	305 (22.5)	11 538 325	6 315.2	2.6	27.6
Limpopo	160 853 (4.0)	28 (2.1)	5 941 439	2 707.3	0.5	3.4
Mpumalanga	204 367 (5.0)	63 (4.6)	4 720 497	4 329.4	1.3	18.1
North West	203 844 (5.0)	38 (2.8)	4 186 984	4 868.5	0.9	3.9
Northern Cape	115 882 (2.9)	18 (1.3)	1 308 734	8 854.5	1.4	30.6
Western Cape	710 754 (17.5)	384 (28.3)	7 212 142	9 855.0	5.3	24.1
Unknown	1	0				
Total	**4 055 656**	**1 358**	**60 604 992**	**6 692.0**	**2.2**	**19.8**

[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]2022 Mid-year population Statistics South Africa [4]Data on number of tests conducted sourced from COVID-19 weekly testing report of the same reporting week

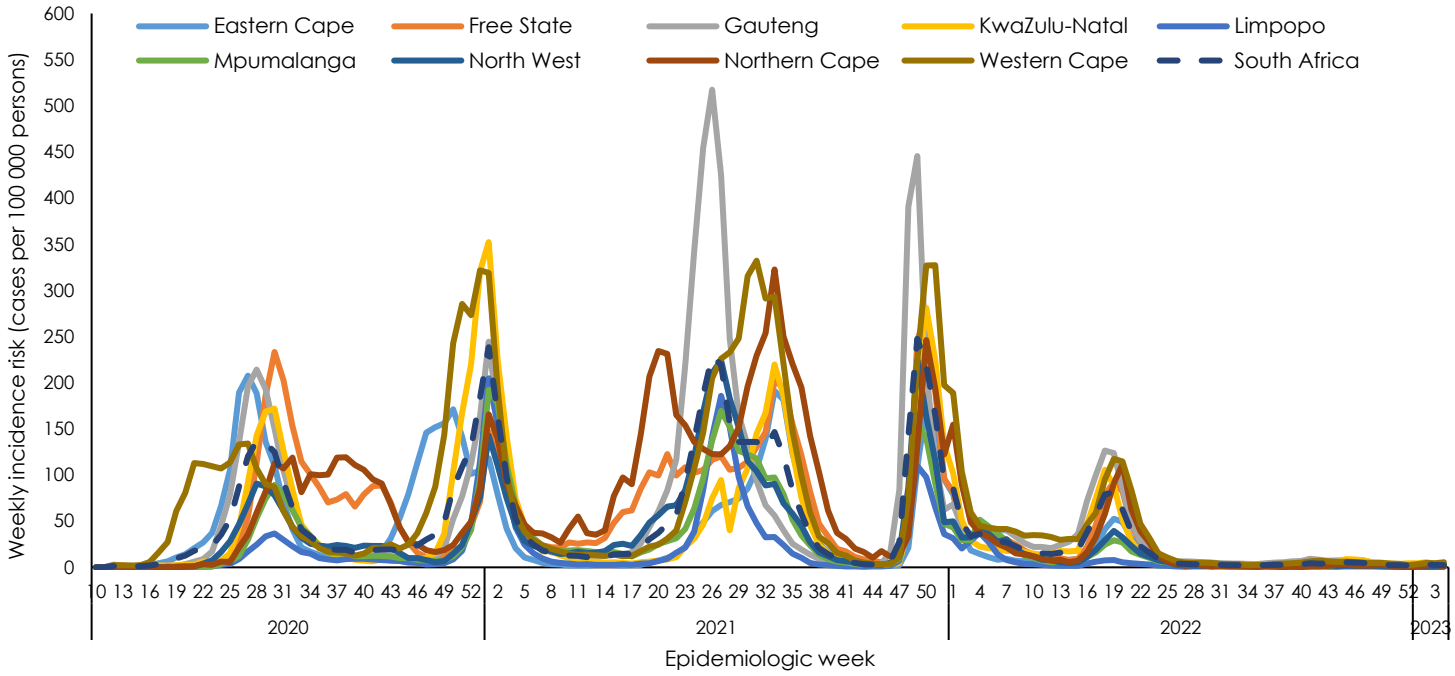

Figure 2: Weekly incidence risk of laboratory-confirmed cases of COVID-19 by province and epidemiologic week South Africa 3 March 2020 – 28 January 2023 (n = 4 055 656)

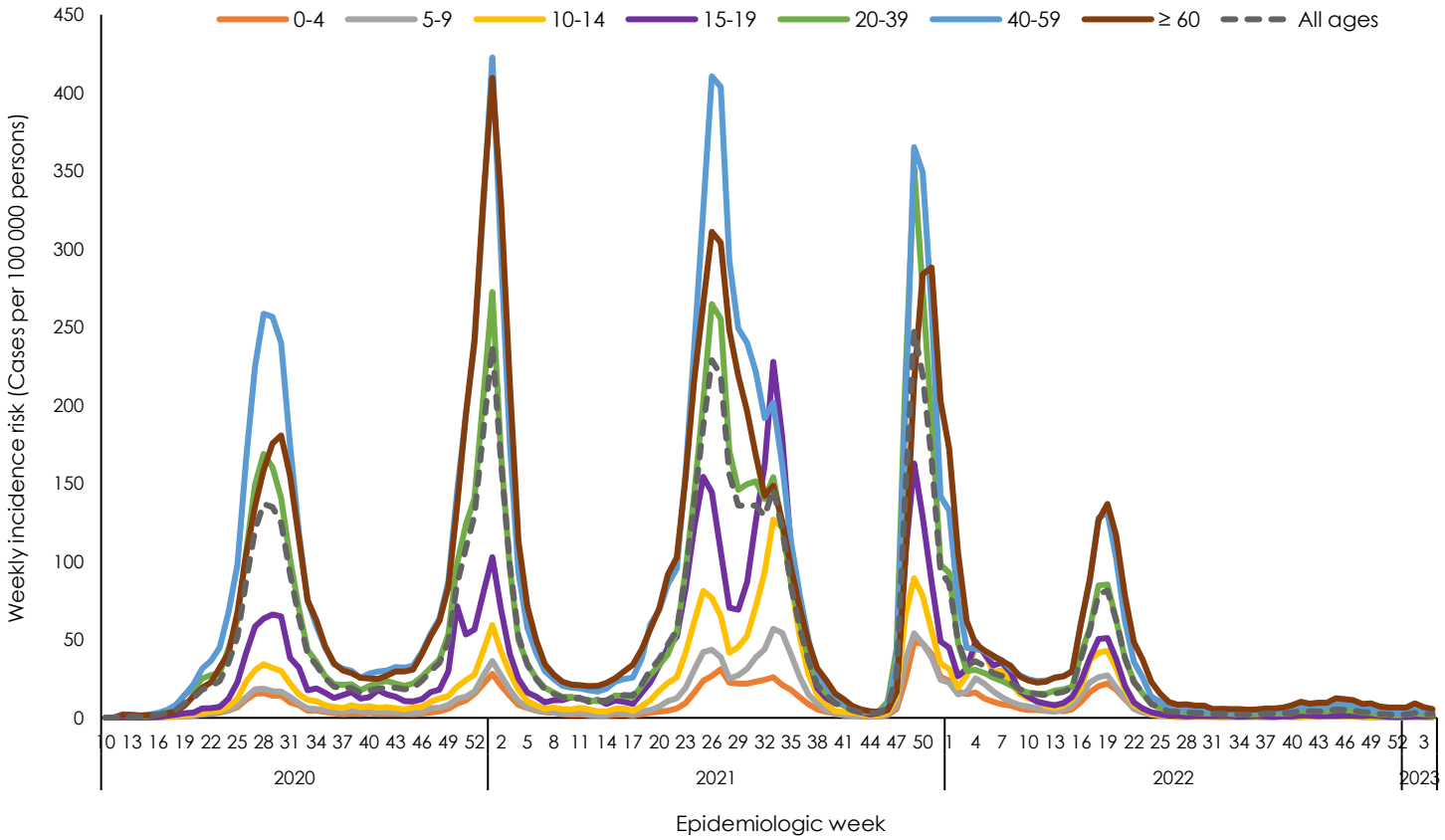

Figure 3: Weekly incidence risk of laboratory-confirmed cases of COVID-19 by age group in years and epidemiologic week South Africa 3 March 2020 – 28 January 2023 (n = 4 018 298, 37 358 missing age)

Table 2. Number of laboratory-confirmed cases of COVID-19 and cumulative/weekly incidence risk by age group South Africa 3 March 2020 – 28 January 2023 n = 4 018 298, 37 358 missing age)

Age group (years)	Cumulative cases (n) (percentage n/total cases in South Africa)	New cases[1] detected in week 4 of 2023 (22 - 28 January 2023) n (percentage[2] n/total)	Population in mid-2022[3] n	Cumulative incidence risk (cases per 100 000 persons)	Incidence risk of new cases detected in week 4 of 2023 (cases/100 000 persons)
0-4	68 106 (1.7)	47 (3.5)	5 694 522	1 196.0	0.8
5-9	88 330 (2.2)	21 (1.6)	5 603 870	1 576.2	0.4
10-14	156 998 (3.9)	39 (2.9)	5 714 377	2 747.4	0.7
15-19	221 951 (5.5)	54 (4.0)	5 101 675	4 350.6	1.1
20-24	263 957 (6.6)	54 (4.0)	4 679 025	5 641.3	1.2
25-29	388 346 (9.7)	88 (6.5)	5 204 107	7 462.3	1.7
30-34	449 132 (11.2)	141 (10.4)	5 595 776	8 026.3	2.5
35-39	454 862 (11.3)	129 (9.6)	5 129 983	8 866.7	2.5
40-44	385 757 (9.6)	112 (8.3)	4 033 287	9 564.3	2.8
45-49	367 190 (9.1)	116 (8.6)	3 306 756	11 104.2	3.5
50-54	330 883 (8.2)	120 (8.9)	2 682 241	12 336.1	4.5
55-59	274 758 (6.8)	122 (9.0)	2 260 113	12 156.8	5.4
60-64	194 159 (4.8)	81 (6.0)	1 846 146	10 517.0	4.4
65-69	134 238 (3.3)	70 (5.2)	1 437 026	9 341.4	4.9
70-74	98 839 (2.5)	57 (4.2)	1 044 343	9 464.2	5.5
75-79	65 031 (1.6)	39 (2.9)	662 487	9 816.2	5.9
≥80	75 761 (1.9)	60 (4.4)	609 258	12 435.0	9.8
Unknown	37 358	8			
Total	**4 055 656**	**1 358**	**60 604 992**	**6 692.0**	**2.2**

[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]2022 Mid-year population Statistics South Africa

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 towards the end of October 2020 and results of reported rapid antigen-based tests were included in this report until the week 27 report (week starting 3 July 2022). However, as of the week 28 report (week starting 10 July 2022), this report was updated to only include reported PCR tests due to incomplete and delayed reporting of antigen-based tests and a case of COVID-19 was defined as any person, resident in South Africa, with a single positive SARS-CoV-2 PCR. We excluded specimens collected outside South Africa. Date of specimen receipt in the laboratory was used when date of specimen collection was missing. For reports published from week 1 of 2023 onwards, we used 2022 mid-year population estimates to calculate incidence risk (cumulative and weekly incidence). For historical reports published from week 2 of 2022 to week 52 of 2022, 2021 mid-year population estimates were used, week 42 of 2020 to week 1 of 2022, 2020 mid-year population estimates were used, and reports published from epidemiologic week 10 (during the start of COVID-19 epidemic in South Africa) to week 41 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. Until the week 29 of 2020 report, new cases were defined as all cases reported since the last report, irrespective of when the sample was collected. Subsequent to the week 29 of 2020 report, new cases are now defined as cases detected in the past epidemiologic week based on date of sample collection or sample receipt. It is therefore possible for numbers reported as new cases for the current reporting week not to tally with total additional cases reported since the last report. This will be the case when there was a delay in reporting of cases.

Limitations

This report is based on laboratory-based surveillance of laboratory-confirmed cases. The number of reported cases is heavily dependent on testing practices. Although trends over time and comparisons by geographic area are presented in this report, changes in testing practices over time or differences by region may partially explain the results. Differences in health-seeking behaviour by age group 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.