

CORONAVIRUS DISEASE (COVID-19) PANDEMIC**COVID-19 update in South Africa – focus on Northern Cape and Free State provinces**

From 2 March 2020 through 21 August 2021 (week 33 of 2021), there were 2 690 973 cases of COVID-19 reported from South Africa. To date, there have been three periods of increased transmission (waves). A wave was defined as the period from weekly incidence of 30 cases per 100 000 persons to weekly incidence below 30 cases per 100 000 persons. This report describes the upward trend of the three waves in the Northern Cape and Free State provinces, from the weekly incidence of 30 cases per 100 000 persons to the peak of the wave. In the Northern Cape Province, the upward-trend of the first wave was from week 27 of 2020 and peaked at week 38 of 2020, the second wave from week 51 of 2020 and peaked at week 1 of 2021, and third wave from week 10 of 2021 and peaked at week 32 of 2021. In the Free State Province, the upward-trend of the first wave was from week 27 of 2021 and peaked at week 30 of 2020, the second wave from week 52 of 2020 and peaked at week 1 of 2021, and the third wave from week 14 of 2021 and has not yet reached peak as of week 33 of 2021 (as at 21 August 2021).

The Northern Cape and Free State provinces were the first provinces to enter the latest surge (third wave) of cases in South Africa, followed by North West Province nine weeks later. The third wave curves of the two provinces appeared different compared to other provinces, Northern Cape showing two peaks and Free State showing a steady increase for 20 weeks (Figure 1).

In week 33 of 2021, compared to other provinces, the Northern Cape and Free State provinces reported the second and fourth highest cumulative incidence risk of 5 935 and 4 852 cases per 100 000 persons, respectively, which was above the national incidence (4 513.4 cases per 100 000 persons). In the Northern Cape, since the start of the SARS-CoV-2 epidemic the highest weekly incidence risk was reported in week 32 of 2021 (250.7 cases per 100 000 persons), higher than the peak rate reported in the first and second waves. Although the Northern Cape and Free State provinces were the first and second provinces to enter the third wave, in week 33 they continued to report high incidences, second and third highest weekly incidence risk 187.8 and 151.0 cases per 100 000 persons, respectively (Figure 1).

In week 32 of 2021, in the Northern Cape Province all the districts reported the highest weekly incidence risk since the start of the pandemic. In the current surge of cases, the Northern Cape Province had two peaks, first in week 20 of 2021 (236.4 cases per 100 000 persons) and the second in week 32 of 2021 (250.7 cases per 100 000 persons). In the first peak of the current wave, two districts reported the highest weekly incidence risk,

Frances Baard (275.0 cases per 100 000 persons) and Pixley ka Seme (343.3 cases per 100 000 persons), whereas in the second peak, the ZF Mgcau (293.0 cases per 100 000 persons) and the Namakwa districts (412.6 cases per 100 000 persons) reported the highest weekly incidence. For more information see link below: <https://www.nicd.ac.za/wp-content/uploads/2021/08/COVID-19-Weekly-Epidemiology-Brief-week-33-2021.pdf>

In the Free State Province, three districts have reported weekly incidence risk higher than that reported in the first or second wave peaks, Lejweleputswa (135.7 vs 125.9 cases per 100 000 persons), Mangaung Metro (184.5 vs 103.3 cases per 100 000 persons) and Xhariep (197.8 vs 147.6 cases per 100 000 persons) districts. For more information see link below: <https://www.nicd.ac.za/wp-content/uploads/2021/08/COVID-19-Weekly-Epidemiology-Brief-week-33-2021.pdf>

In the Northern Cape Province, the majority of cases during the first wave (5 435/14 811, 36.7%), second wave (1 574/4 421, 35.6%), and third wave (12 201/39 892, 30.6%) were in the age group 20-39-years. In the Free State Province, the majority of cases during the first wave (6 487/17 202, 37.7%) and third wave (18 780/58 304, 32.2%) were in the age group 40-59 years, and in the second wave in the 20-39-year age group (2 756/7 739, 35.6%). The majority of cases were female in all the provinces and the three waves (Table 1).

In both provinces, on multivariable analysis when comparing characteristics of cases during the first and second waves to the third wave of infections, individuals in the younger age groups (<20 years) compared to individuals aged 20-39 years had increased odds of being diagnosed with COVID-19 in the third wave (Table 1), possibly in part due to an immunity gap in these age groups as adults were more affected in the first two waves. In the Northern Cape Province, compared to the first wave, cases were more likely to be from ZF Mgcau and Namakwa districts during the third wave. In the Free State Province, cases were more likely to be from Xhariep district during the third wave compared to the first wave (Table 1).

Despite low numbers of samples sequenced in some weeks, data from genomic surveillance suggest that in both Northern Cape and Free State provinces during the first part of the third wave the Beta variant was predominant. This variant was subsequently replaced by the Delta variant during the wave, which could in part have contributed to the long wave duration observed (<https://www.nicd.ac.za/wp-content/uploads/2021/08/Update-of-SA-sequencing-data-from-GISAID-19-August-2021.pdf>). Additional factors such as mixing patterns and immunity gaps could have contributed to the observed pattern.

CORONAVIRUS DISEASE (COVID-19) PANDEMIC

This summary highlights the shift in the age group of cases with laboratory confirmed COVID-19 to younger age groups during the third wave of infections compared to earlier waves of infection in the two provinces in South Africa. In the Northern Cape Province, different districts were responsible for the unique curve (two peaks) in the third wave. The weekly incidence risk reported in the Northern Cape Province exceeds that reported in the first and second wave peaks, while the Free State

Province reported weekly incidence higher than that reported in the second wave. Cases diagnosed in the third wave were more likely to be in the younger age groups. This may be due to school clusters or outbreaks at schools, or increased immunity in the older age group. Recommendations are adherence to non-pharmaceutical interventions at work, school, and public space such as shopping centers, and if possible avoid public spaces.

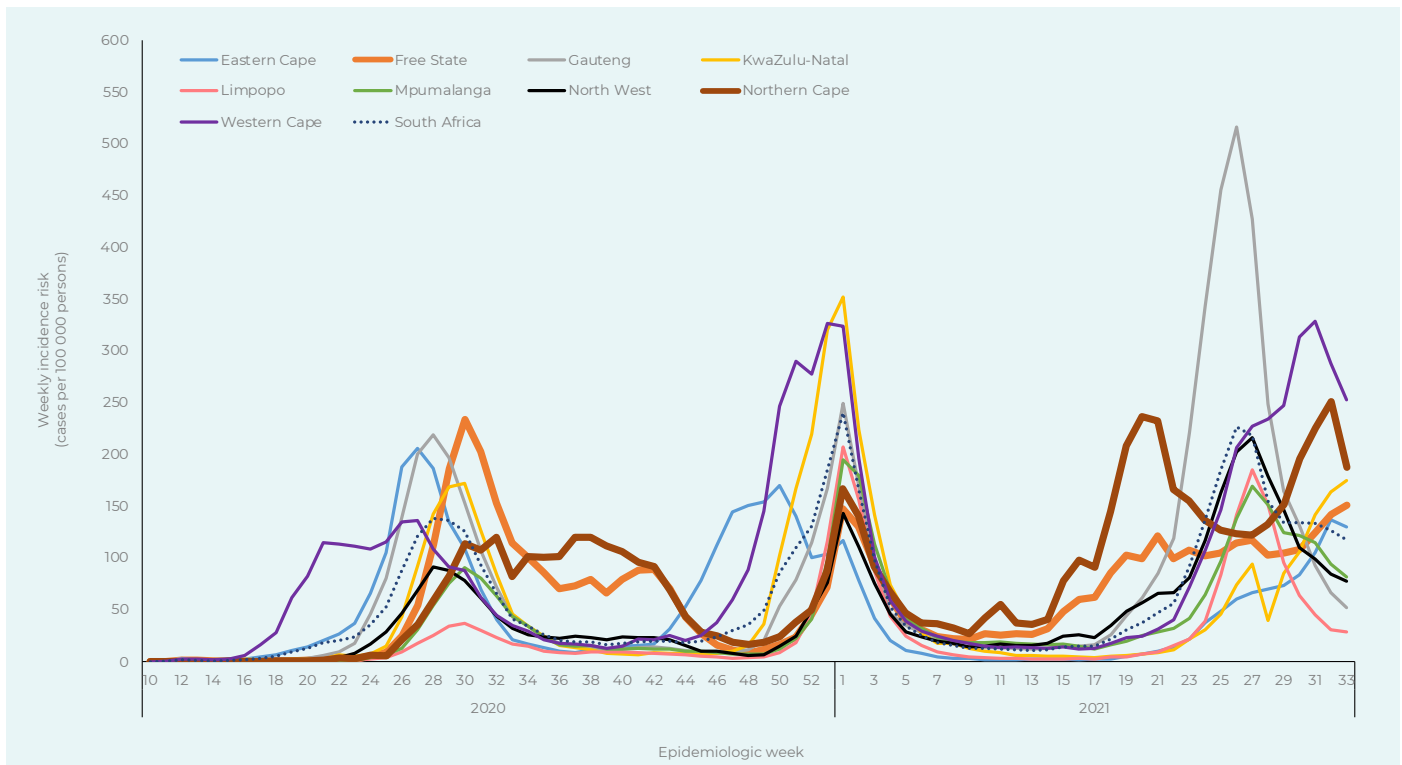


Figure 1. Weekly incidence risk of laboratory-confirmed cases of COVID-19 by province and epidemiologic week, South Africa, 2 March 2020 –21 August 2021 (n=2 690 973).

CORONAVIRUS DISEASE (COVID-19) PANDEMIC

Table 1: Comparison of characteristics of new COVID-19 cases between first wave and third wave, and second and third wave in Northern Cape and Free State provinces, N=142 369

Characteristics	Northern Cape Province (NCP)					Free State Province (FSP)				
	Wave 1	Wave 2	Wave 3	Multivariate 1st wave vs 3rd wave	Multivariate 2nd wave vs 3rd wave	Wave 1	Wave 2	Wave 3	Multivariate 1st wave vs 3rd wave	Multivariate 2nd wave vs 3rd wave
(n/%)	14 811	4 421	39 892	adjusted OR (95% CI)	adjusted OR (95% CI)	17 202	7 739	58 304	adjusted OR (95% CI)	adjusted OR (95% CI)
Age group										
0-4	194 (1.3)	55 (1.2)	512 (1.3)	1.1 (0.9-1.3)	1.1 (0.8-1.5)	203 (1.2)	71 (0.9)	683 (1.2)	1.2 (1.0-1.4)	1.3 (1.0-1.7)
5-9	358 (2.4)	83 (1.9)	1 516 (3.8)	1.5 (1.3-1.8)	2.6 (2.0-3.3)	273 (1.6)	105 (1.4)	1 431 (2.5)	1.9 (1.6-2.1)	1.9 (1.6-2.3)
10-14	538 (3.6)	167 (3.8)	2 854 (7.2)	2.1 (1.9-2.4)	2.5 (2.1-3.0)	578 (3.4)	199 (2.6)	2 853 (4.9)	1.8 (1.6-2.0)	2.0 (1.7-2.3)
15-19	865 (5.8)	223 (5.0)	3 327 (8.3)	1.5 (1.4-1.7)	1.9 (1.6-2.2)	954 (5.6)	261 (3.4)	4 452 (7.6)	1.6 (1.5-1.8)	2.4 (2.1-2.7)
20-39	5 435 (36.7)	1 574 (35.6)	12 201 (30.6)	1	1	6 324 (36.8)	2 756 (35.6)	17 757 (30.5)	1	1
40-59	4 989 (33.7)	1 467 (33.2)	12 119 (30.4)	1.1 (1.1-1.2)	1.0 (1.0-1.1)	6 487 (37.7)	2 680 (34.6)	18 780 (32.2)	1.0 (1.0-1.1)	1.1 (1.0-1.1)
60-69	1 016 (6.9)	396 (9.0)	3 127 (7.8)	1.4 (1.3-1.5)	1.0 (0.9-1.2)	1 043 (6.1)	664 (8.6)	5 282 (9.1)	1.8 (1.7-2.0)	1.1 (1.0-1.3)
>=70	657 (4.4)	249 (5.6)	2 551 (6.4)	1.7 (1.6-1.9)	1.2 (1.1-1.4)	578 (3.4)	556 (7.2)	4 599 (7.9)	2.8 (2.5-3.0)	1.1 (1.0-1.3)
Unknown	759 (5.1)	207 (4.7)	1 685 (4.2)	1.1 (0.1-1.2)	1.0 (0.8-1.1)	762 (4.4)	447 (5.8)	2 467 (4.2)	1.1 (1.0-1.2)	1.0 (0.9-1.2)
Sex, (n, %)										
Female	8 547 (57.7)	2 541 (57.5)	22 119 (55.5)	1		10 285 (59.8)	4 400 (56.9)	33 086 (56.8)	1	
Male	6 041 (40.8)	1 847 (41.8)	17 099 (42.9)	1.1 (1.1-1.1)		6 790 (39.5)	3 257 (42.1)	24 857 (42.6)	1.2 (1.1-1.2)	
Unknown	223 (1.5)	33 (0.8)	674 (1.7)	1.1 (0.9-1.3)		127 (0.7)	82 (1.1)	361 (0.6)	0.8 (0.7-1.0)	
Laboratory type (n, %)										
Public	8 668 (58.5)	2 939 (66.5)	26 940 (67.5)	1.2 (1.2-1.3)		8 113 (47.2)	4 392 (56.8)	28 851 (49.5)	1.0 (0.9-1.0)	0.8 (0.8-0.9)
Private	6 143 (41.5)	1 482 (33.5)	12 952 (32.5)	1		9 089 (52.8)	3 347 (43.3)	29 453 (50.5)	1	1
District (n, %) NCP FSP										
Frances Baard Fezile Dabi	5 292 (41.2)	741 (19.8)	11 261 (33.7)	1.2 (1.1-1.2)	0.9 (0.8-1.1)	2 513 (15.6)	1 370 (21.5)	9 843 (18.0)	1.6 (1.5-1.7)	0.8 (0.8-0.9)
John Taolo Gaetsewe Lejweleputswa	2 295 (17.9)	251 (6.7)	4 113 (12.3)	1	1	4 878 (30.3)	1 370 (21.5)	11 846 (21.6)	1	1
Namakwa Mangaung	434 (3.4)	944 (25.2)	3 783 (11.3)	4.3 (3.9-4.9)	0.2 (0.2-0.3)	5 581 (34.7)	1 714 (26.9)	19 933 (36.4)	1.5 (1.4-1.6)	1.4 (1.3-1.5)
Pixley ka Seme Thabo Mofutsanyane	3 064 (23.8)	1 088 (29.0)	6 945 (20.8)	1.1 (1.0-1.2)	0.4 (0.3-0.4)	2 695 (16.7)	1 589 (25.0)	10 731 (19.6)	1.6 (1.5-1.7)	0.8 (0.7-0.9)
ZF Mgcawu Xhariep	1 773 (13.8)	727 (19.4)	7 326 (21.9)	2.2 (2.0-2.4)	0.6 (0.5-0.7)	440 (2.7)	323 (5.1)	2 403 (4.0)	2.2 (2.0-2.4)	0.9 (0.8-1.0)