

COVID-19 Epidemiology Update 2nd December 2021

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COVID-19 Epidemiology Update

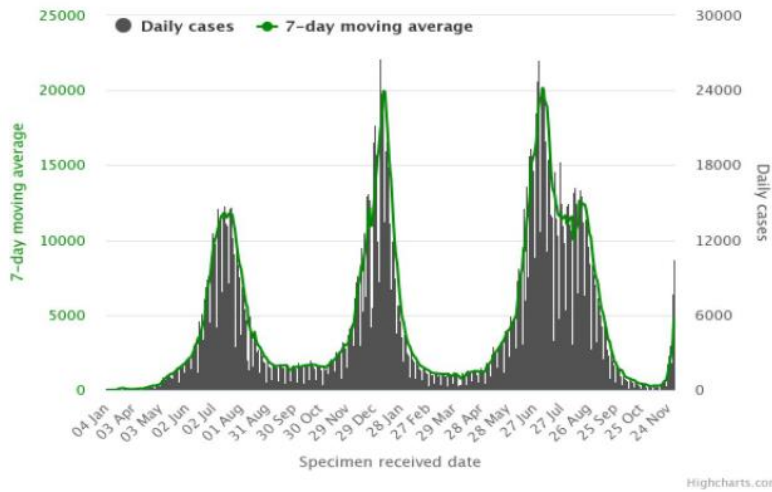
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*Division of Public Health Surveillance and Response
National Institute for Communicable Diseases*

2 December 2021



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

Laboratory-confirmed COVID-19 cases

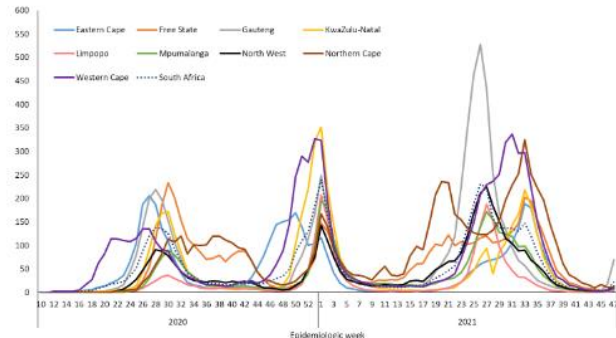
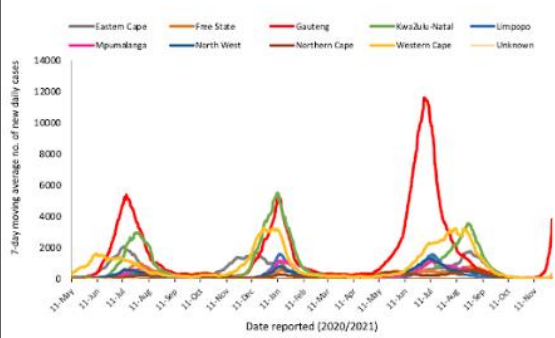


Total = **2 988 148**

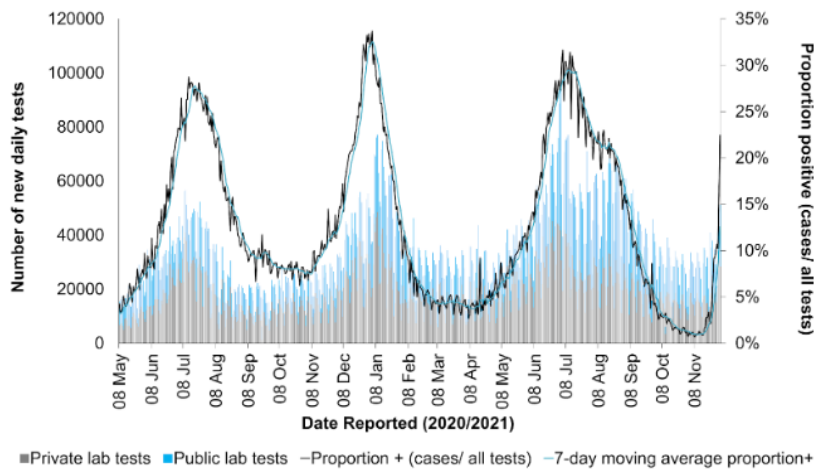
7-day moving average increasing rapidly
 - 16 Nov 2021 = 332
 - 23 Nov 2021 = 1010
 - 01 Dec 2021 = 4814

New cases on 02 Dec 2021 = **11 535**

7-day moving average number and incidence of new cases by province



Daily SARS-CoV-2 tests and proportion positive

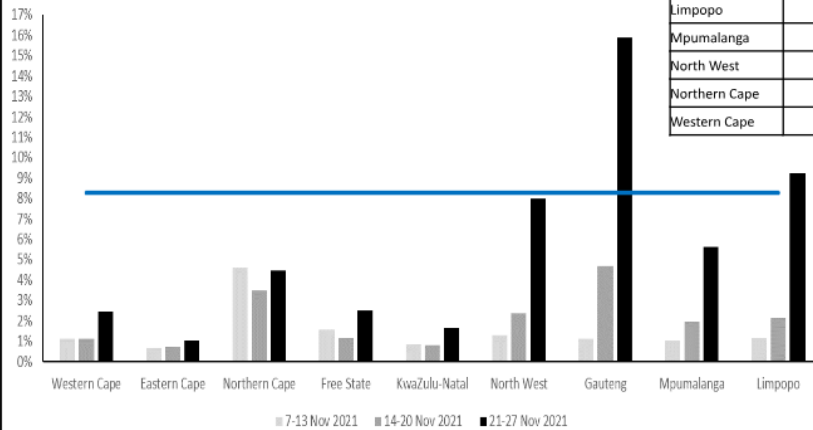


Week number	Week beginning	Percentage testing positive (%)
14	04-Apr-21	4.0
15	11-Apr-21	4.8
16	18-Apr-21	5.1
17	25-Apr-21	5.7
18	02-May-21	6.9
19	09-May-21	8.3
20	16-May-21	9.7
21	23-May-21	11.3
22	30-May-21	13.4
23	06-Jun-21	17.6
24	13-Jun-21	23.7
25	20-Jun-21	27.4
26	27-Jun-21	29.9
27	04-Jul-21	31.9
28	11-Jul-21	31.5
29	18-Jul-21	28.2
30	25-Jul-21	25.2
31	01-Aug-21	23.7
32	08-Aug-21	23.3
33	15-Aug-21	22.7
34	22-Aug-21	20.0
35	29-Aug-21	16.0
36	05-Sep-21	13.0
37	12-Sep-21	9.3
38	19-Sep-21	6.8
39	26-Sep-21	4.6
40	03-Oct-21	3.3
41	10-Oct-21	2.7
42	17-Oct-21	1.8
43	24-Oct-21	1.5
44	31-Oct-21	1.1
45	07-Nov-21	1.2
46	14-Nov-21	2.4
47	21-Nov-21	8.3

30 Nov 2021 = 10.2% 01 Dec 2021 = 16.5% 02 Dec 2021 = 22.4%

Percentage testing positive

Past 3 weeks

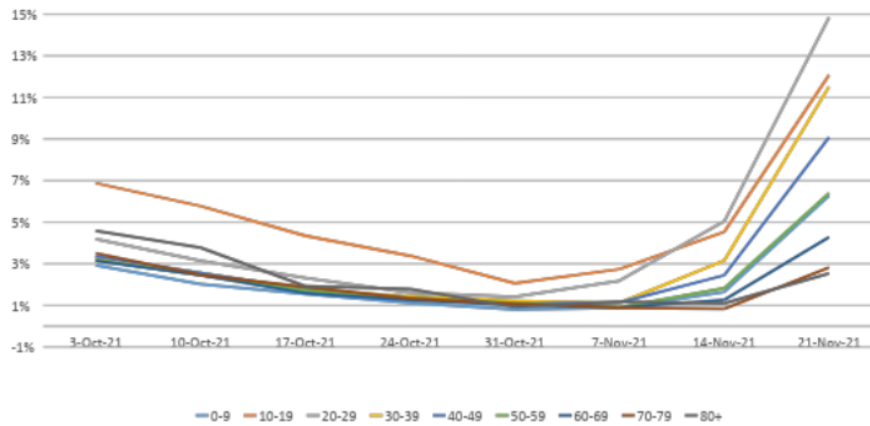


Province	New cases yesterday	New cases today	New tests reported today	Proportion positive (cases/tests)
Eastern Cape	115	194	4 042	5%
Free State	138	251	2 111	12%
Gauteng	6168	8280	24 616	34%
KwaZulu-Natal	476	630	6 445	10%
Limpopo	271	421	1514	28%
Mpumalanga	375	454	2 081	22%
North West	356	497	2 180	23%
Northern Cape	36	81	941	9%
Western Cape	626	727	6 508	11%

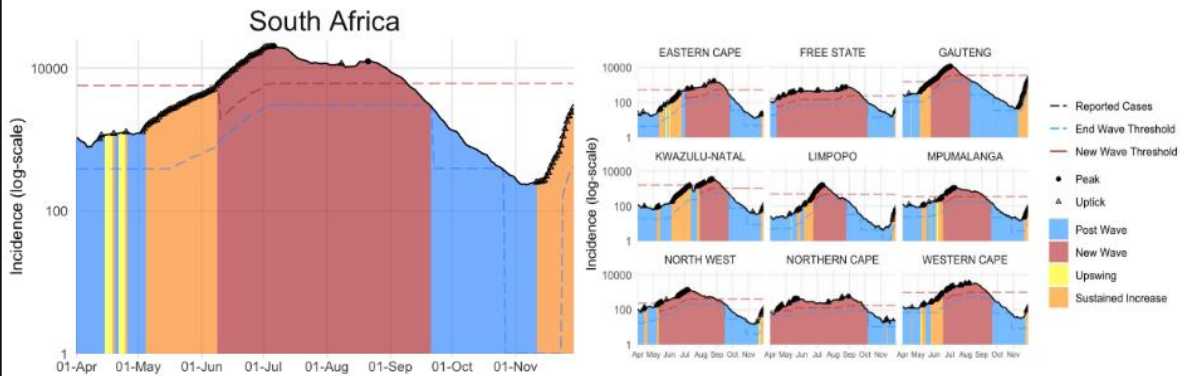
02 Dec 2021

Percent testing positive by age group (PCR only)

Proportion testing positive by age and week beginning: SOUTH AFRICA

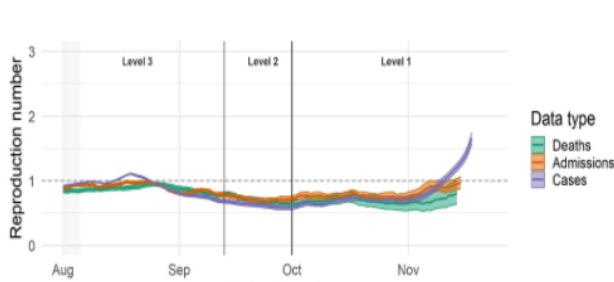


Sustained increase monitoring - provinces



The **new wave threshold** is 30% of the maximum incidence seen in the most recent wave. A new wave starts when incidence exceeds this threshold.

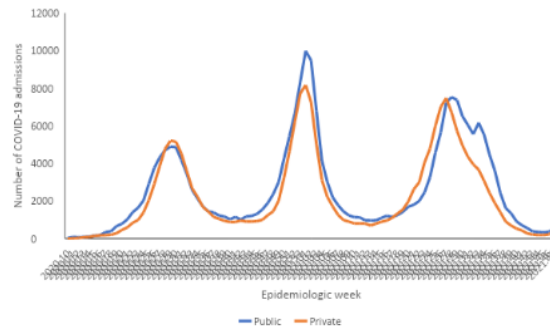
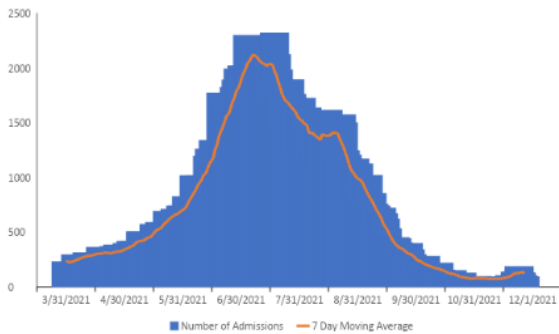
Daily Effective Reproductive Number (R)



	Cases	Cases	Admissions
	18 November 2021	11 November 2021	11 November 2021
National	1.66 (1.56, 1.74)	1.03 (0.98, 1.09)	0.89 (0.81, 0.98)
Western Cape	1.44 (1.31, 1.60)	0.99 (0.89, 1.12)	0.81 (0.66, 0.98)
Gauteng	2.33 (2.09, 2.60)	1.11 (0.99, 1.24)	1.09 (0.91, 1.28)
Eastern Cape	1.42 (1.26, 1.59)	1.03 (0.90, 1.19)	0.71 (0.48, 0.99)
KwaZulu-Natal	1.41 (1.29, 1.54)	1.08 (0.98, 1.20)	1.03 (0.81, 1.29)
Free State	1.52 (1.32, 1.75)	1.04 (0.87, 1.24)	0.79 (0.59, 1.03)
Northern Cape	1.38 (1.18, 1.59)	0.97 (0.81, 1.17)	0.91 (0.58, 1.31)
North West	1.41 (1.17, 1.68)	0.91 (0.72, 1.12)	0.72 (0.47, 1.07)
Mpumalanga	1.65 (1.39, 1.95)	0.93 (0.74, 1.16)	1.22 (0.84, 1.71)
Limpopo	1.59 (1.22, 2.01)	1.26 (0.89, 1.70)	0.69 (0.38, 1.14)

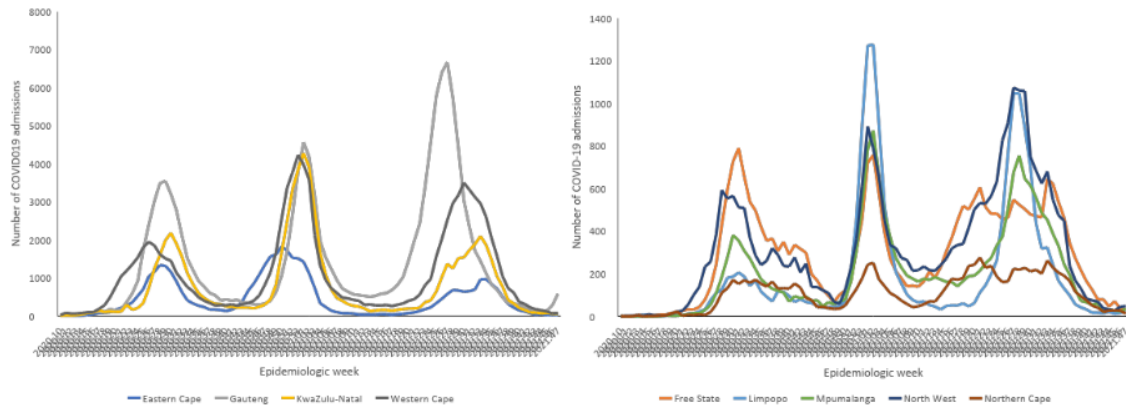
Following a period of relatively stable R estimates, R has increased substantially during November; above 1 in all provinces and above 2 in Gauteng

DATCOV: Hospital surveillance – 7 day moving average of admissions



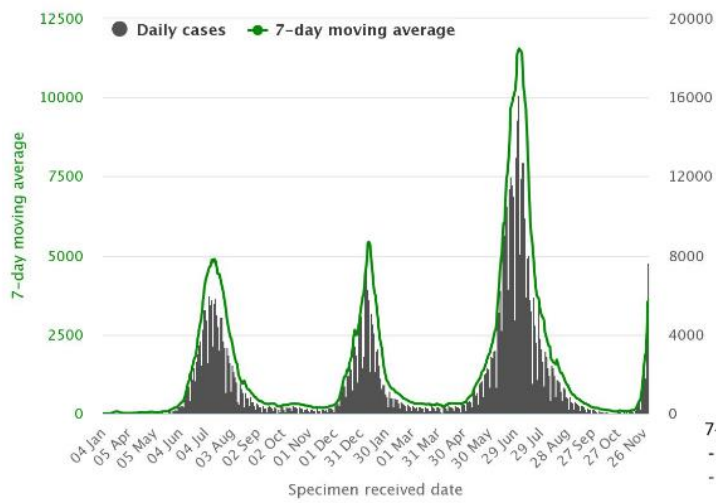
- Increasing number of admissions, increase in 7 DMA nationally
- Increased admissions in both sectors in the past two weeks

COVID-19 admissions, by epidemiologic week and province



- Increased admissions in Gauteng in the past two weeks
- Small increase in admissions in Limpopo and North West

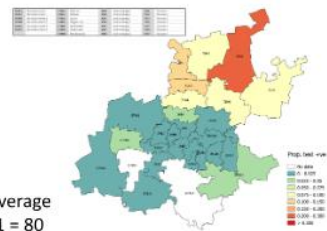
Gauteng



Week 47



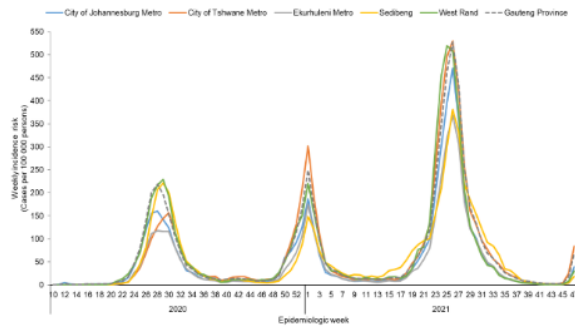
Week 46



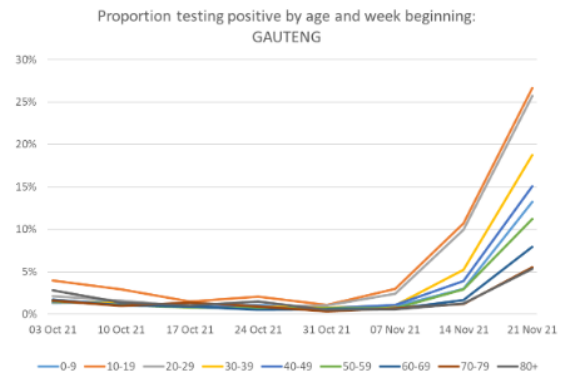
7-day moving average
 - 01 Nov 2021 = 80
 - 01 Dec 2021 = 3579

highcharts.com

Gauteng

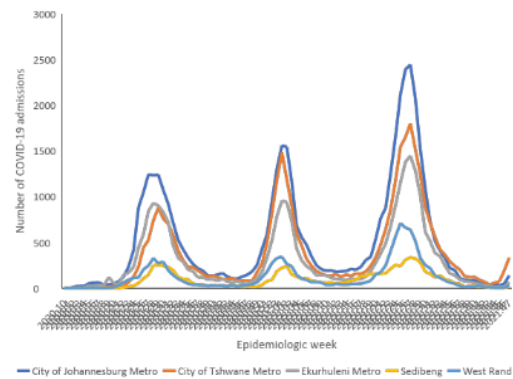
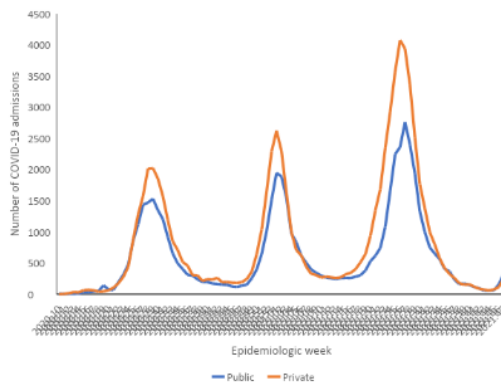


Case incidence increases in all districts



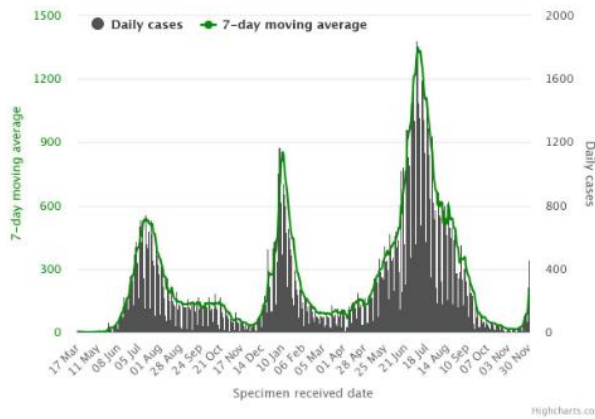
Proportion testing positive highest in 10-29 year olds but extending to older age groups

COVID-19 admissions, by epidemiologic week and health sector and province in Gauteng

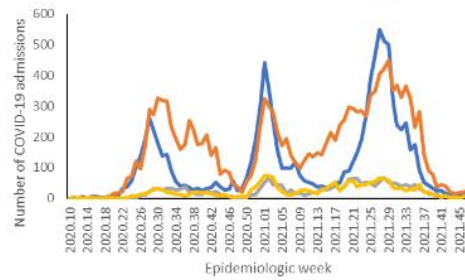


- Increase in admissions both sectors past two weeks
- Increased admissions all districts

North West

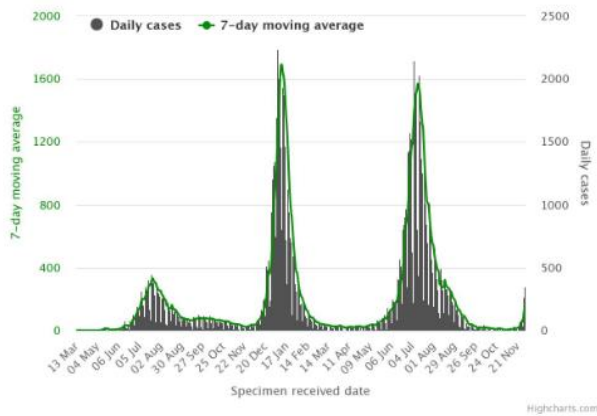


Province	Population	Area (km²)	Density (per km²)
Free State	3,000,000	122,910	24
North West	2,100,000	116,700	18
Western Cape	6,000,000	168,900	35
Eastern Cape	6,000,000	168,900	35
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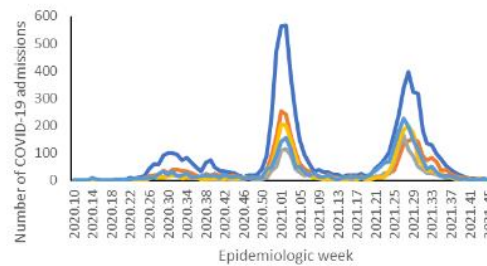


- Increasing case numbers and percent testing positive
- Increase in admissions all districts

Limpopo

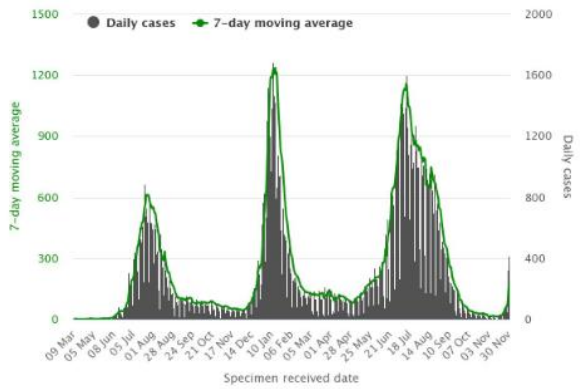


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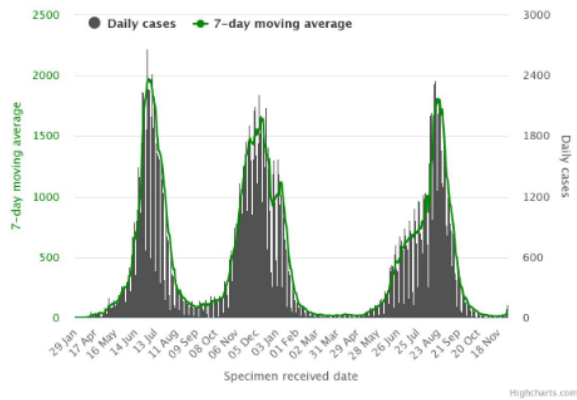


- Increasing case numbers and percent testing positive
- Small increase in hospitalisations

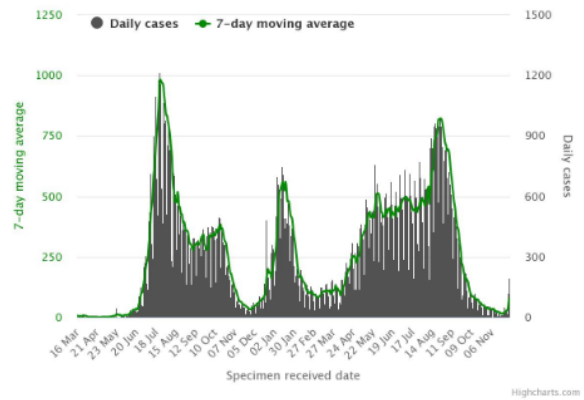
Mpumalanga



Eastern Cape



Free State



- Starting to see increasing case numbers and percent testing positive

Summary

- Rapidly increasing number of new daily cases, percent positivity and testing rate
- Younger age groups but moving into older age groups
- Increases mainly in Gauteng – initially clusters in Tshwane but all districts now seeing increases
- Increased case numbers and positivity in Limpopo, North West, and Mpumalanga over the past week with most provinces now also showing increases
- Increase in hospitalisations in Gauteng, North West, Mpumalanga
- Need additional data on disease severity, transmissibility and possible immune escape of the Omicron variant
- Regardless of the variant - vaccination, mask-wearing, social distancing, limit large gatherings

Acknowledgements



NHLS (including institutes & subsidiaries)



NICD COVID-19 response team

SA COVID Modeling Consortium



NDOH IMT epi team

DATCOV team NICD