

COVID-19 Epidemiology Update Dr Michelle Groome – 17 December 2021

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# COVID-19 epidemiology Update

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17 December 2021



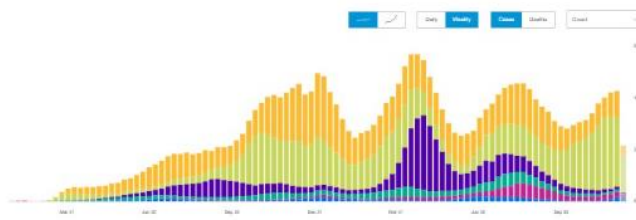
**NATIONAL INSTITUTE FOR  
COMMUNICABLE DISEASES**  
Division of the National Health Laboratory Service

# Omicron global prevalence – 14 December 2021

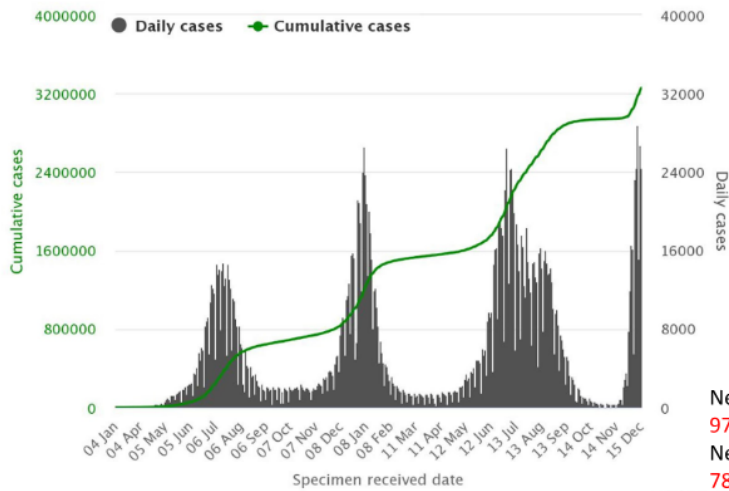


<https://covid19.who.int/>

Situation by WHO Region



# Laboratory-confirmed COVID-19 cases



Total = 3 255 816

7-day moving average

- 16 Nov 2021 = 332
- 23 Nov 2021 = 1 010
- 01 Dec 2021 = 4 814
- 08 Dec 2021 = 13 237

New cases reported on 15 Dec 2021 = 26

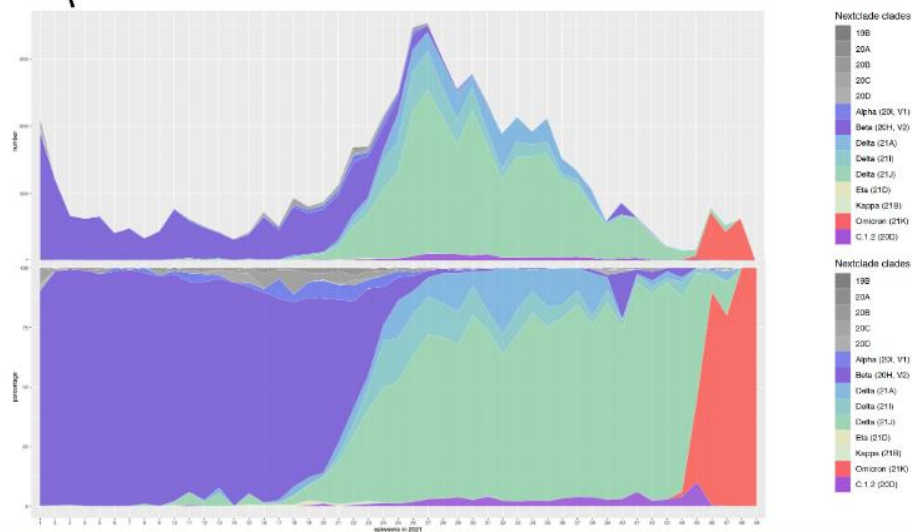
976

755

New cases reported on 16 Dec 2021 = 24

785

## Proportion and number of clades by epiweek in South Africa, 2021 (N= 18 383)



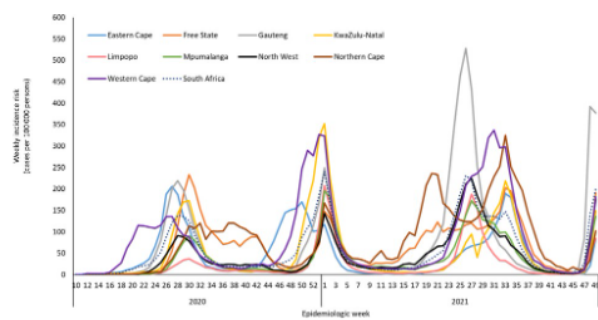
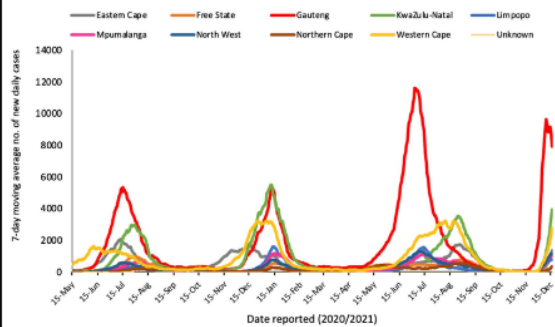
Sequencing data ending epi week 48 (ending 4 December 2021)

Currently in epi week 49 (ending 11 December 2021)

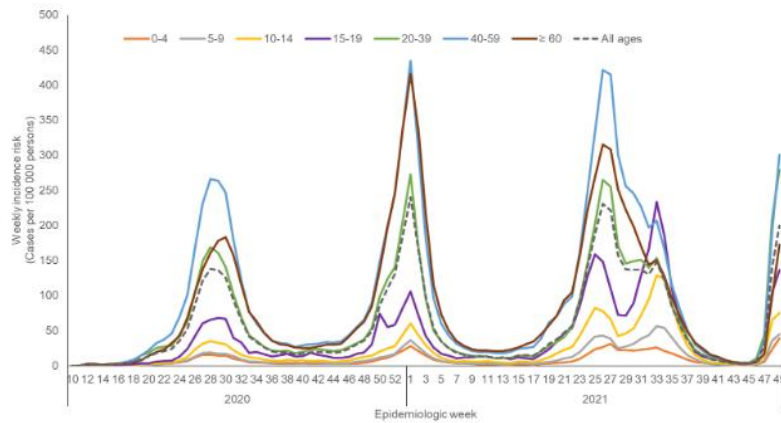
Delta dominated South Africa's third wave with >80% frequency in October, with C.1.2 detection remaining <4%. Omicron appears to dominate November sequencing data but sequencing is ongoing to determine its prevalence.



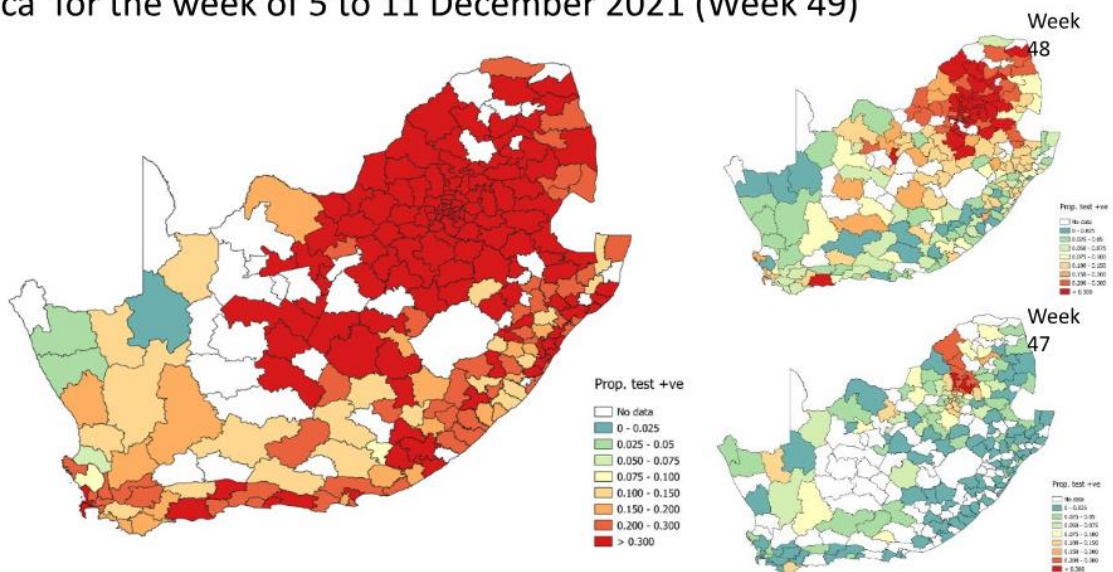
## 7-day moving average number and incidence of new cases by province



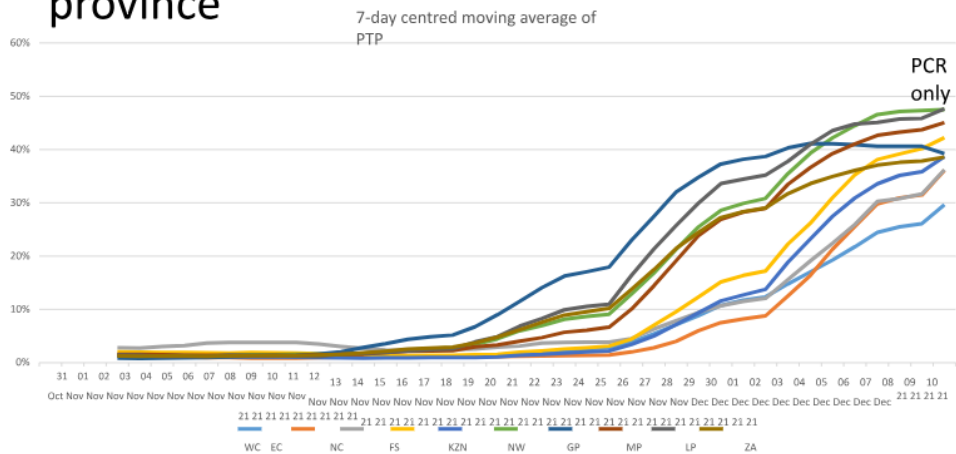
## Weekly case incidence by age group



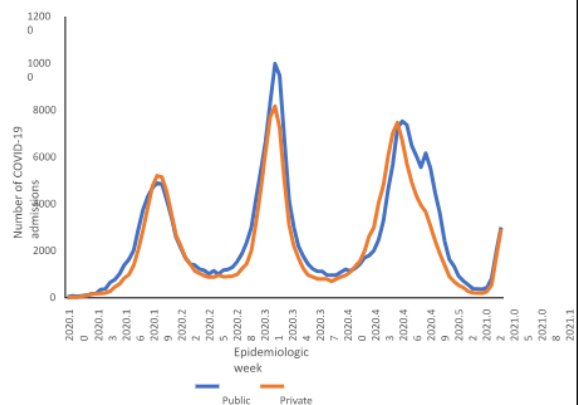
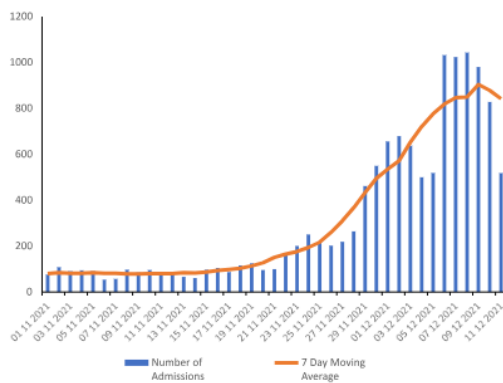
## Proportion testing positive by health sub-district in South Africa for the week of 5 to 11 December 2021 (Week 49)



# Weekly percentage testing positive by province

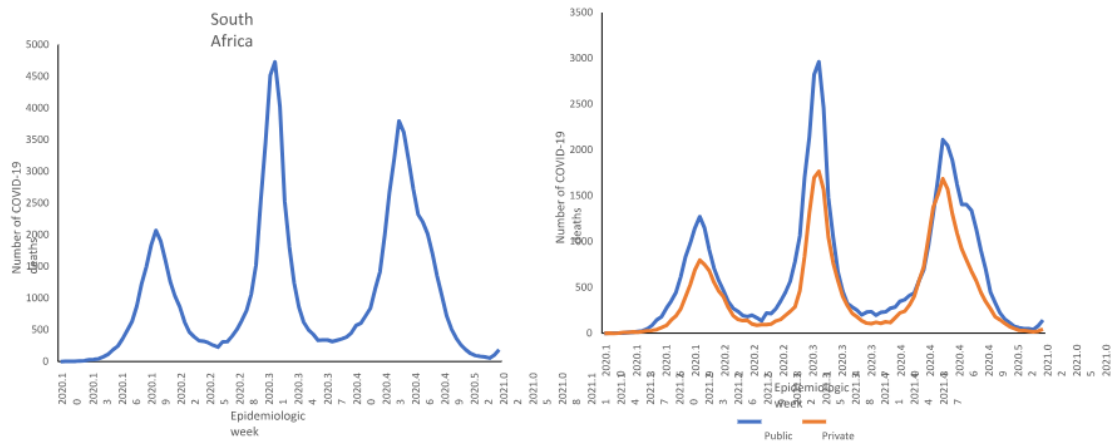


Number of reported COVID-19 admissions, South Africa, 7DMA, 1 April-11 December 2021 (left); and by epidemiologic week and health sector, 5 March 2020-11 December 2021 (right)



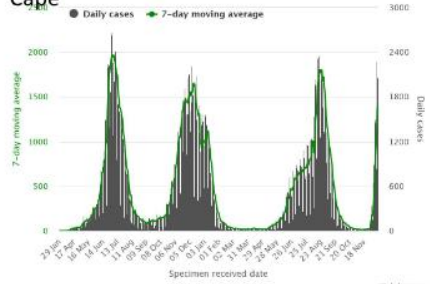
- Increasing number of admissions, increase in 7 Day Moving Average nationally (most recent week data lags)
- Increased admissions in both sectors in the past four weeks

Number of reported COVID-19 deaths, by epidemiologic week and health sector (left) and province (right), South Africa, 5 March 2020-11 December 2021

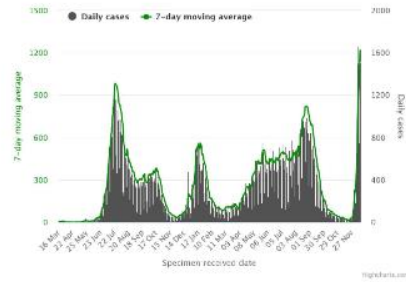


- Increased deaths nationally, public and private sector

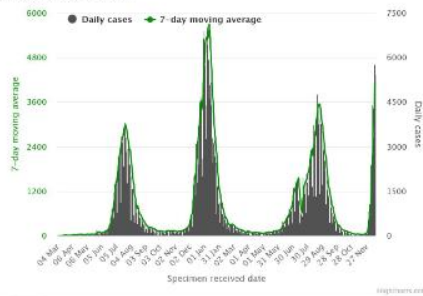
Eastern Cape



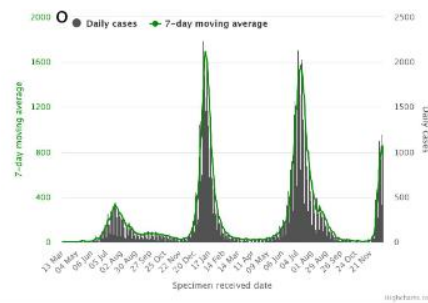
Free



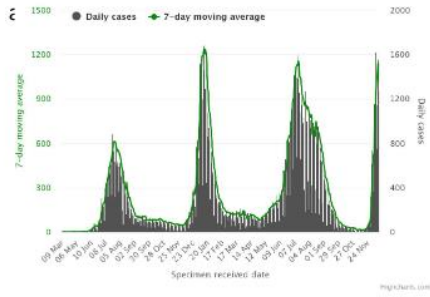
KwaZulu-Nata



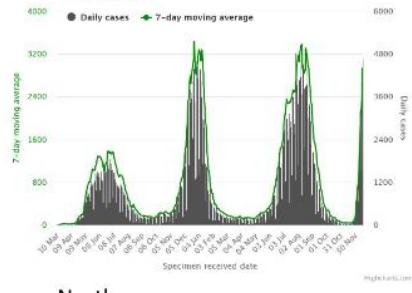
Limpop



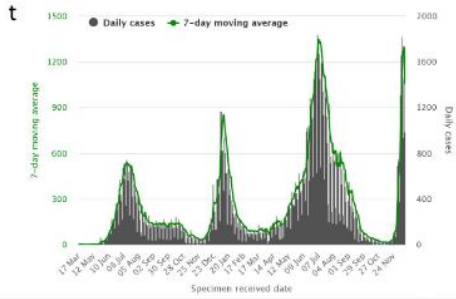
### Mpumalang



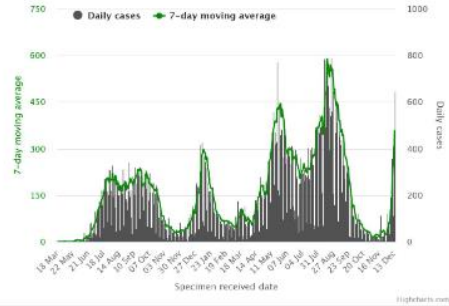
### Western



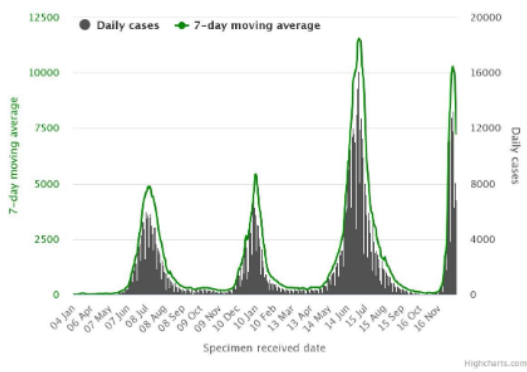
### North-West



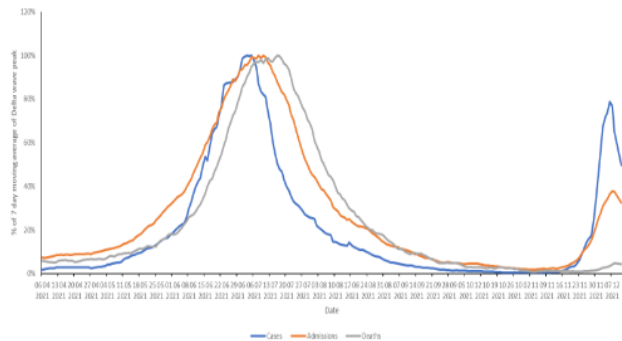
### Northern



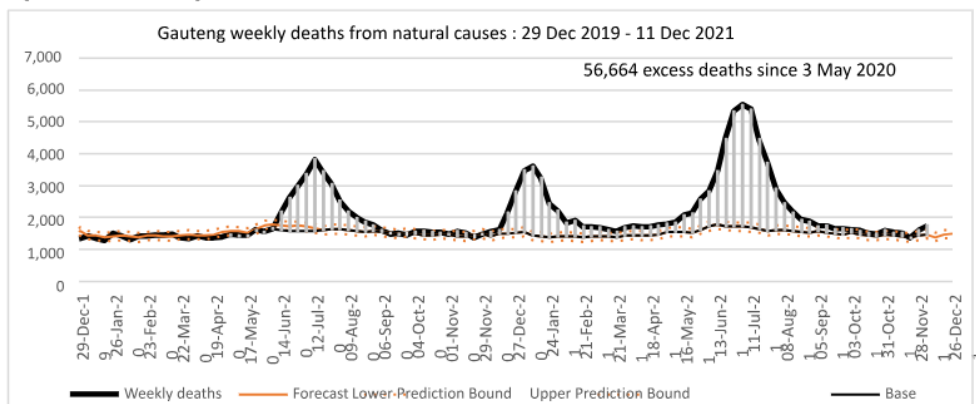
### Gauteng



### Decoupling cases, admissions, deaths



## Excess deaths – Gauteng (SAMRC)



## Summary

- Increasing number of new daily cases and percent positivity in all provinces, except Gauteng
- Omicron dominates November sequencing data at 78% of genomes (n=493/630).
- Increases in hospitalisations in all provinces: early indications of decoupling of cases and hospitalisations in Gauteng
- Increases in deaths in all provinces, except NC and WC
- Awaiting more data on:
  - disease severity in adults and children
  - transmissibility and degree of immune escape
  - vaccine effectiveness against Omicron infection and severe disease
- Regardless of the variant - vaccination, mask-wearing, social distancing,

# Acknowledgements



NHLS (including institutes & subsidiaries)  
NICD COVID-19 response



team SA COVID Modeling



NDOH IMT epi team  
Consortium

NDOH IMT epi

team DATCOV