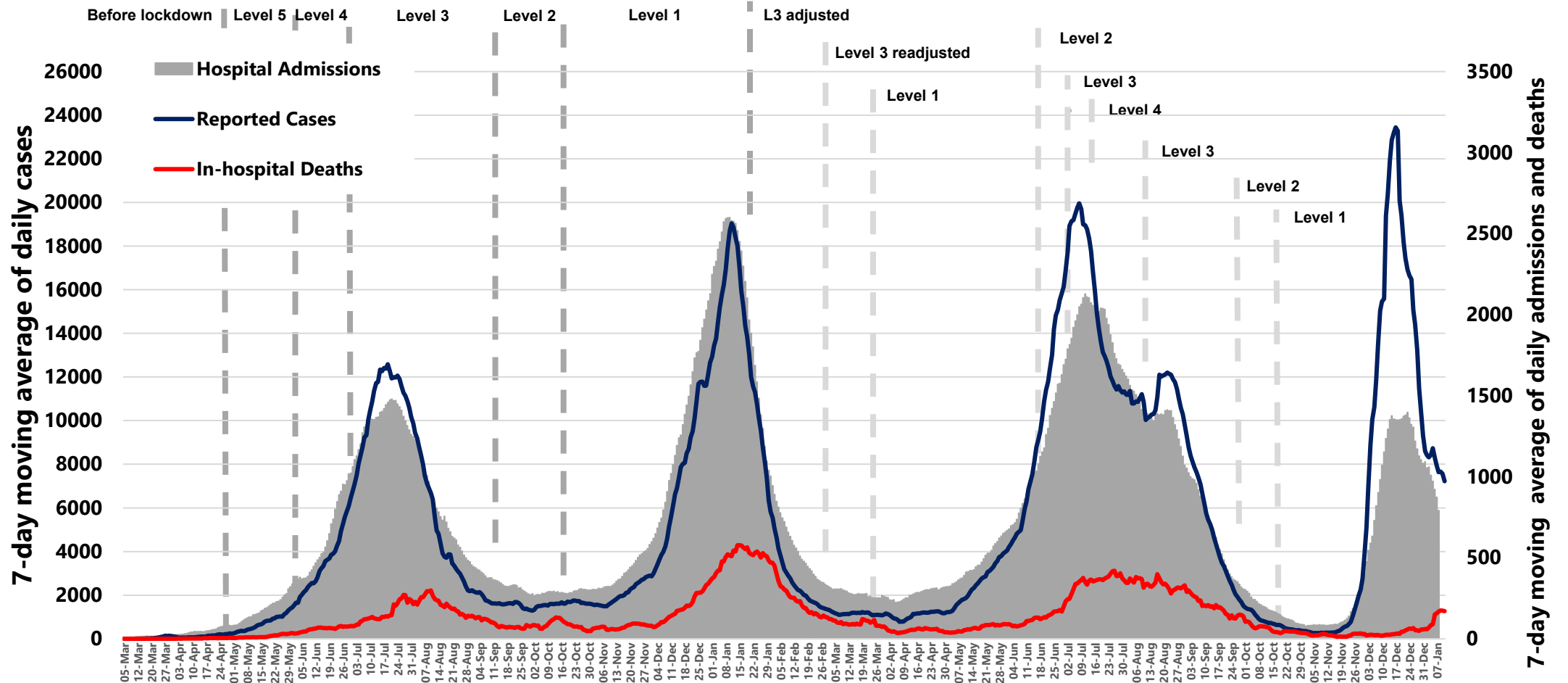


Covid-19 in South Africa

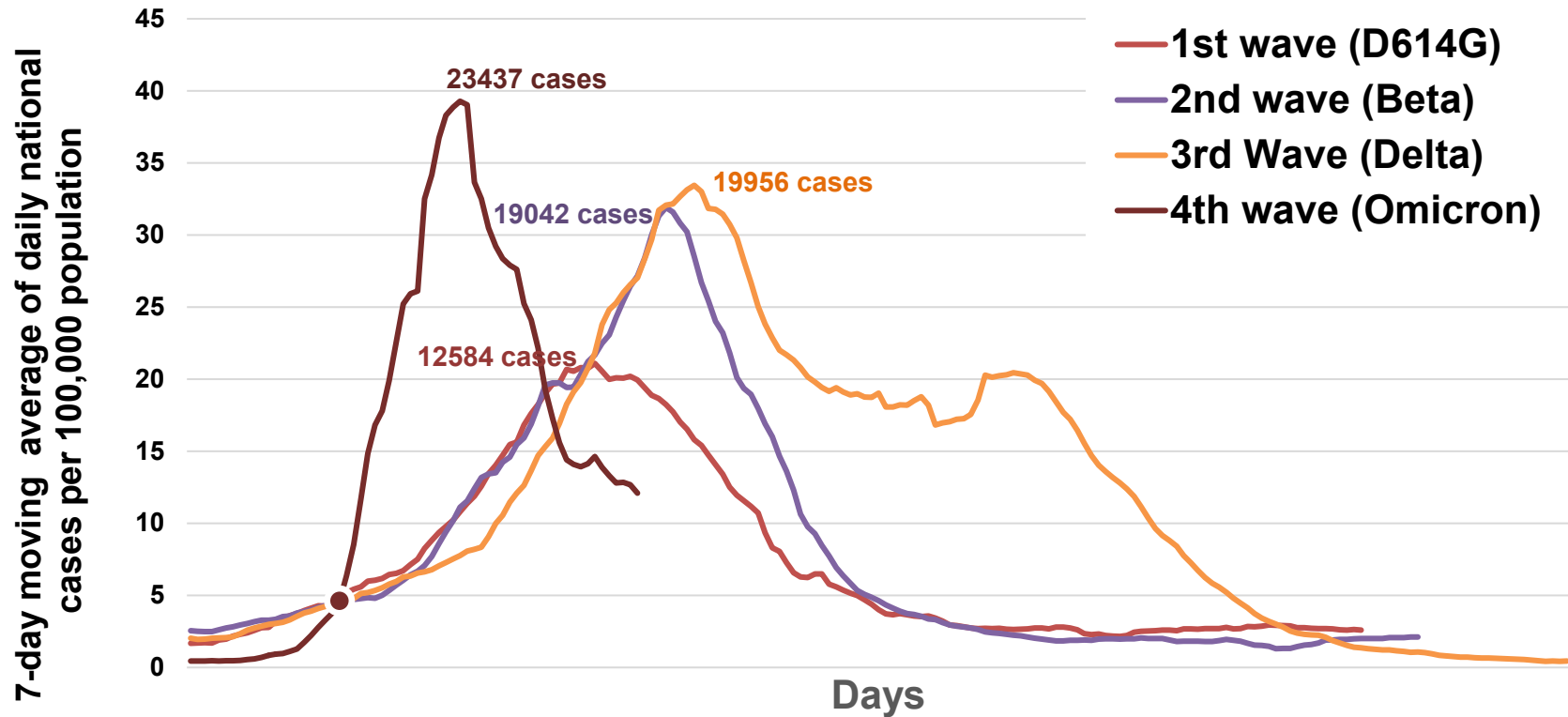
7-day moving average of new cases, hospital admissions and in-hospital Covid-19 deaths up to - 11 January 2022



Source of hospital admissions data: Lucille Blumberg, Richard Welch and Waasila Jassat – DATCOV, NICD

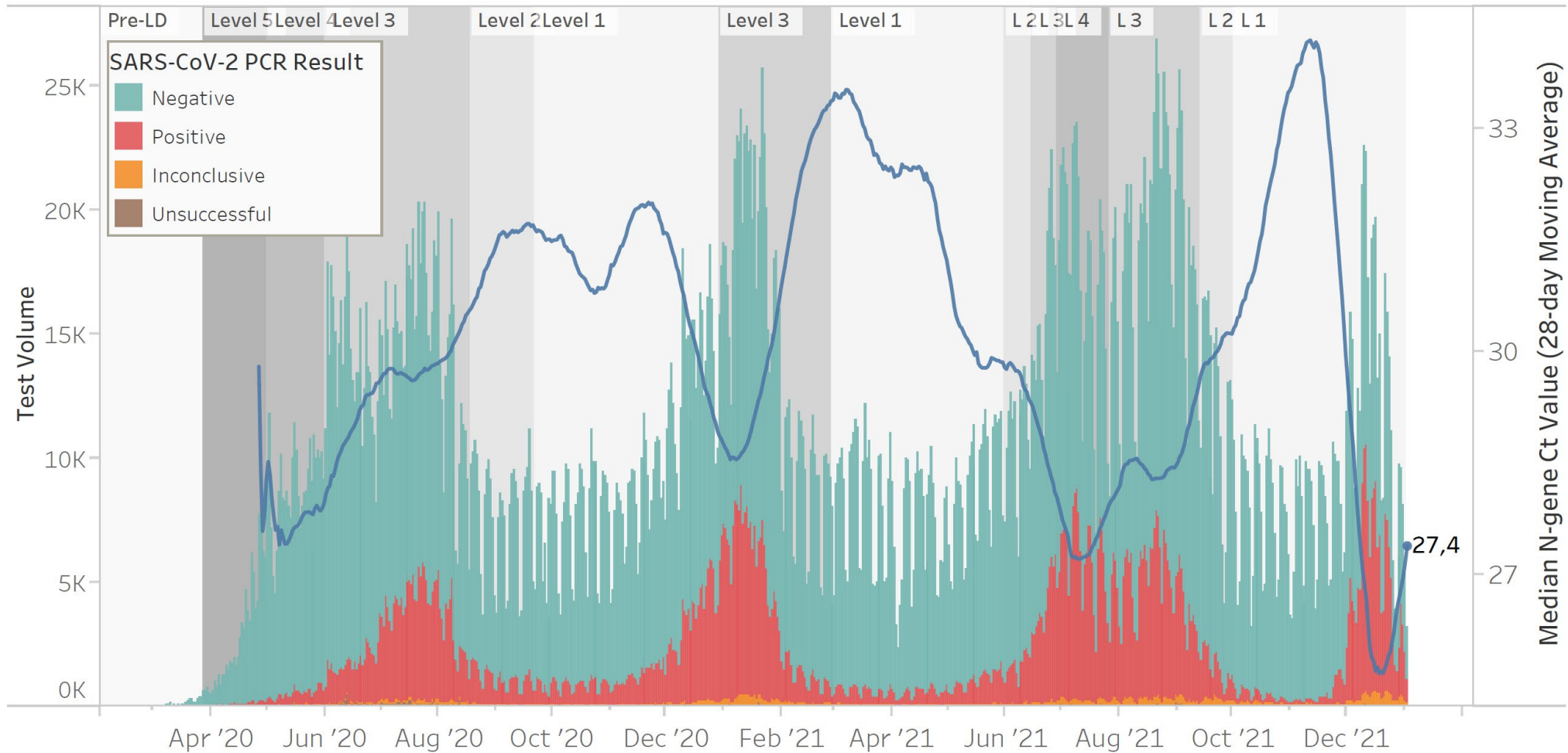
SARS-Cov-2 cases in 1st, 2nd & 3rd and 4th waves: South Africa

7-day moving average cases per 100,000 population up to – 11 January 2022



Data source: Department of Health; Analysis: Marothi LETSOALO; Ande MCHUNU

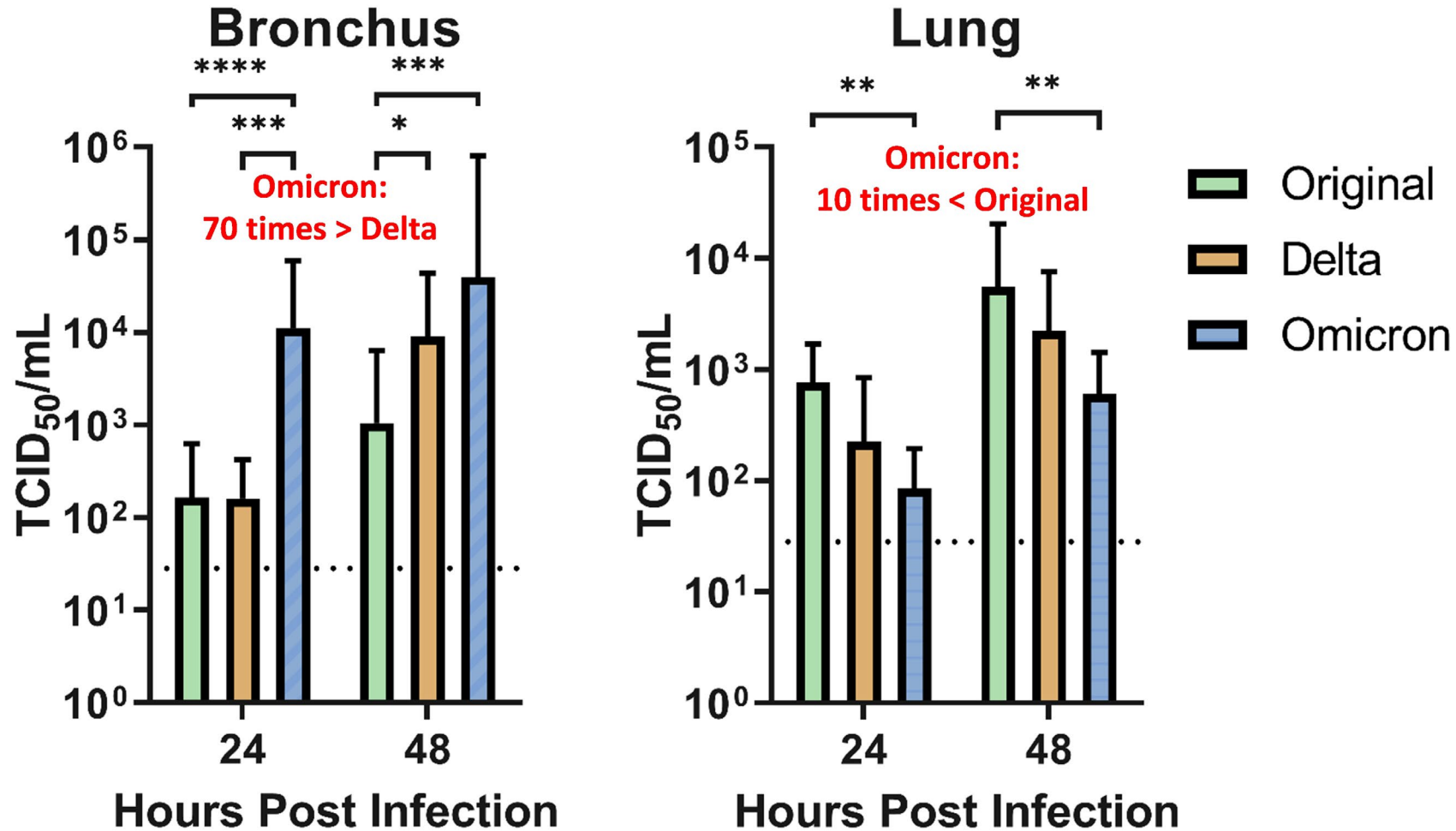
Omicron in SA – Higher viral loads (± 10 -fold \downarrow Ct)



Source: Scott L. National Health Laboratory Service – Covid-19 Lab diagnostics Cycle Threshold (Ct) Update: 2 January 2022

Omicron infects bronchus faster but lung slower than Delta – may explain less severe disease

HKUMed
preprint

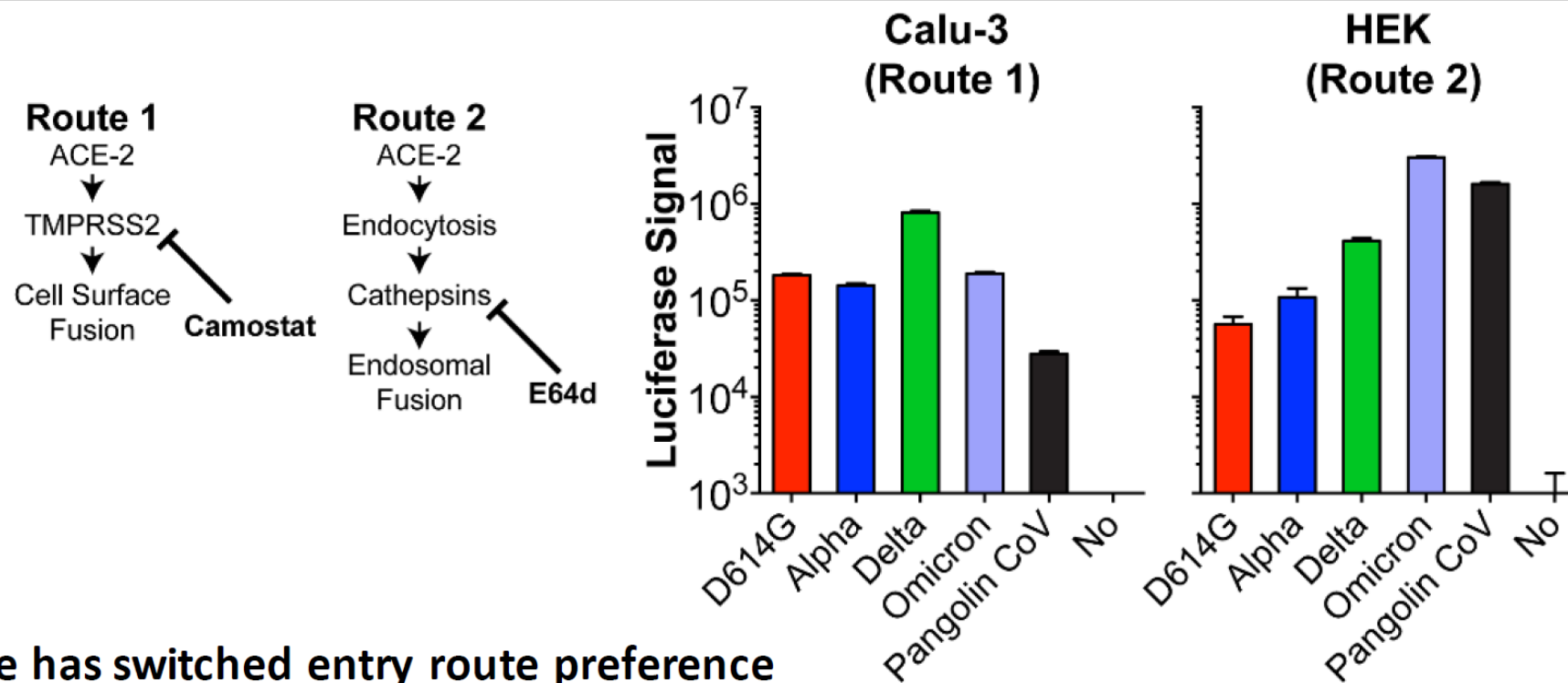


Enhanced replication by 2 cell entry mechanisms

medRxiv
THE PREPRINT SERVER FOR HEALTH SCIENCES

The hyper-transmissible SARS-CoV-2 Omicron variant exhibits significant antigenic change, vaccine escape and a switch in cell entry mechanism

Brian J. Willett*¹, Joe Grove*¹, Oscar A MacLean*¹, Craig Wilkie*², Nicola Logan*¹, Giuditta De Lorenzo*¹, Wilhelm Furber*¹, Sam Scott*¹, Maria Manali*¹, Agnieszka Szemiel¹, Shirin Ashraf¹



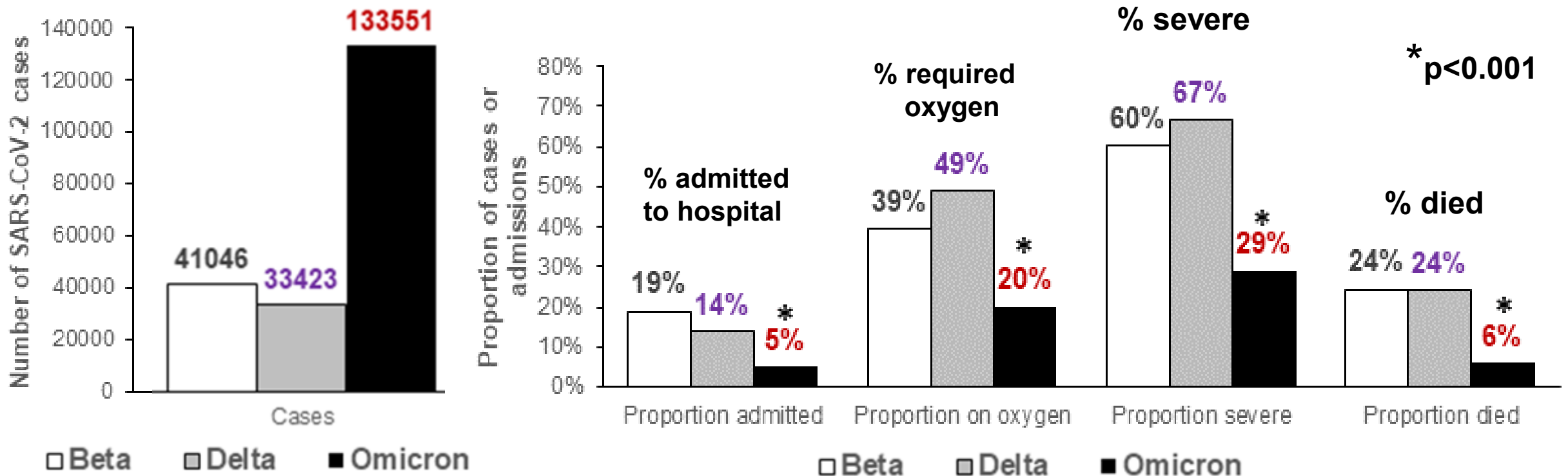
Omicron spike has switched entry route preference

Is Omicron more severe? **NO!**

Preprints with THE LANCET

Clinical severity of Covid-19 patients admitted to hospitals in Gauteng, South Africa during the Omicron-dominant fourth wave

Waasila Jassat¹, Salim S Abdool Karim^{2,3}, Caroline Mudara¹, Richard Welch¹, Lovelyn Ozougwu¹, Michelle J. Groome^{1,4}, Nevashan Govender¹, Anne von Gottberg^{1,4}, Nicole Wolter^{1,4}, DATCOV author group, Lucille Blumberg¹, Cheryl Cohen^{1,5*}



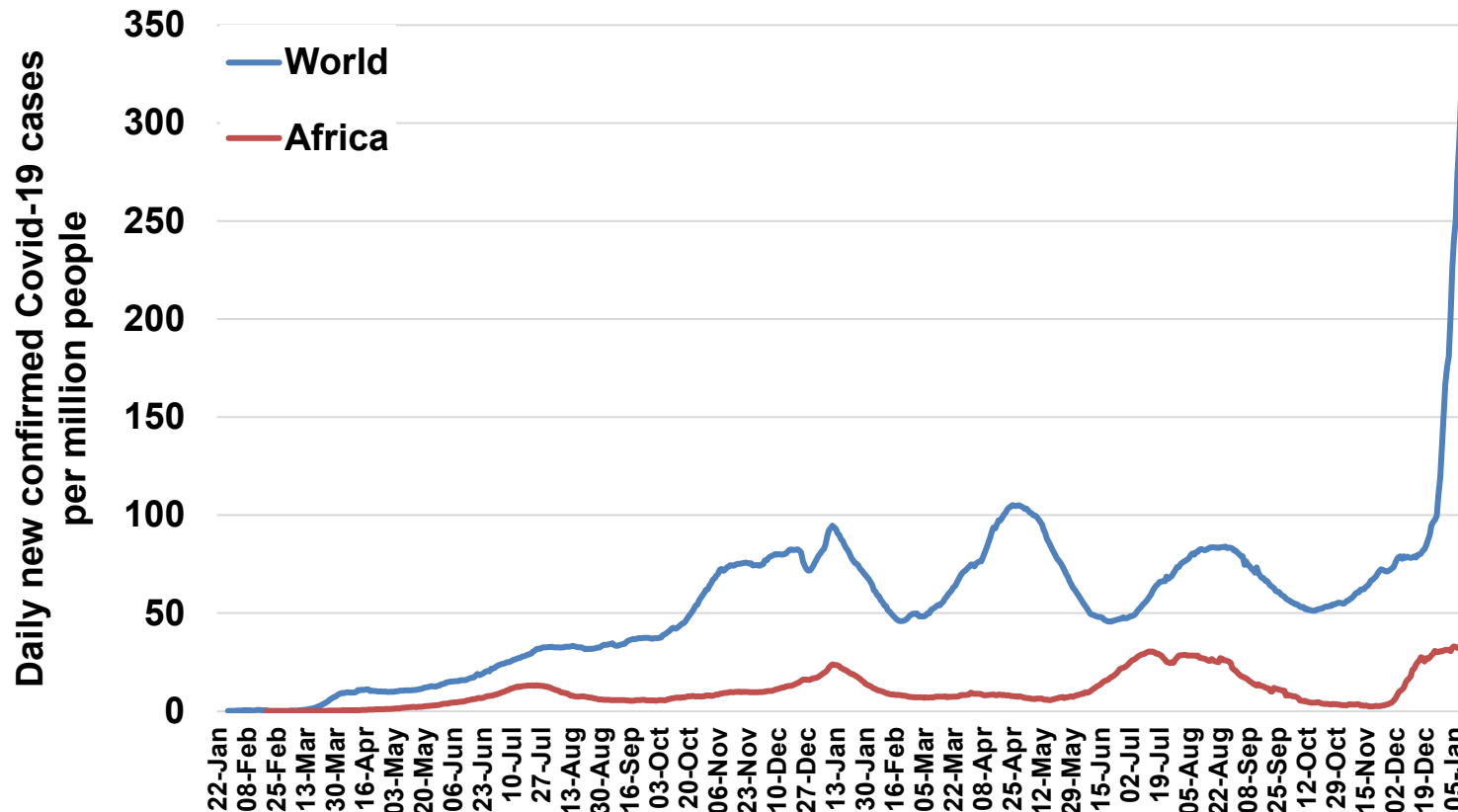
"Severe" defined as respiratory distress, oxygen, mechanical ventilation, high care / ICU care or death

Note: Gauteng data from the first 4 weeks of each wave – later data may change this picture

Covid-19 in Africa

Omicron variant drives 4th wave

up to – 11 January 2022



WORLD

* 275 million cumulative global case and 5.4 million deaths

AFRICA

* 9.2 million cumulative cases (3.3 % of global cases - 22 January 2020 up to 11 January 2022

* 225329 deaths (CFR: 2.5%; ~4.2% of global deaths in 15% of world's

Estimated effective reproduction rate (R) of Covid-19 in South Africa

up to – 11 January 2022

Estimate of the effective reproduction rate (R) of COVID-19

The reproduction rate represents the average number of new infections caused by a single infected individual. If the rate is greater than 1, the infection is able to spread in the population. If it is below 1, the number of cases occurring in the population will gradually decrease to zero.



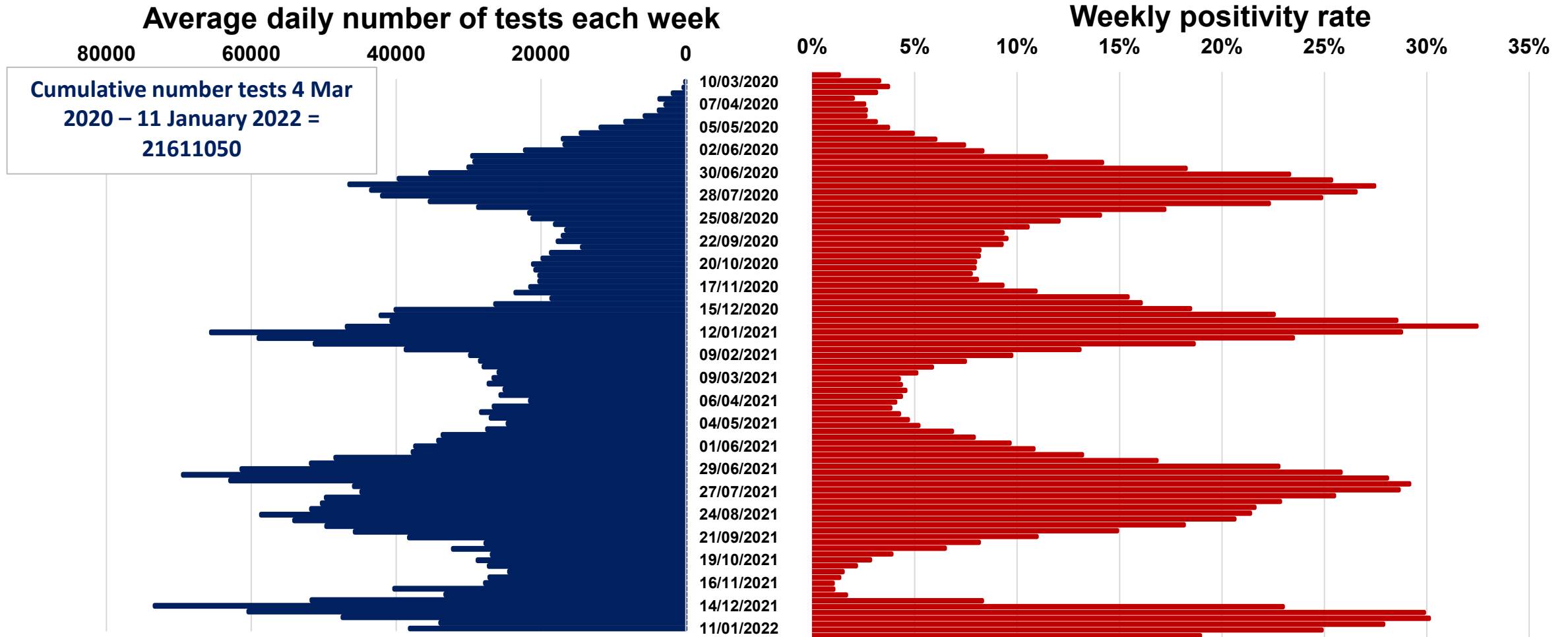
Source: Arroyo-Marioli F, Bullano F, Kucinskas S, Rondón-Moreno C (2021) Tracking R of COVID-19: A new real-time estimation using the Kalman filter. CC BY

Source: Our World in Data; data explorer; Johns Hopkins University [COVID-19 Dashboard](#)



Average daily tests and proportion of positive tests

up to – 11 January 2022

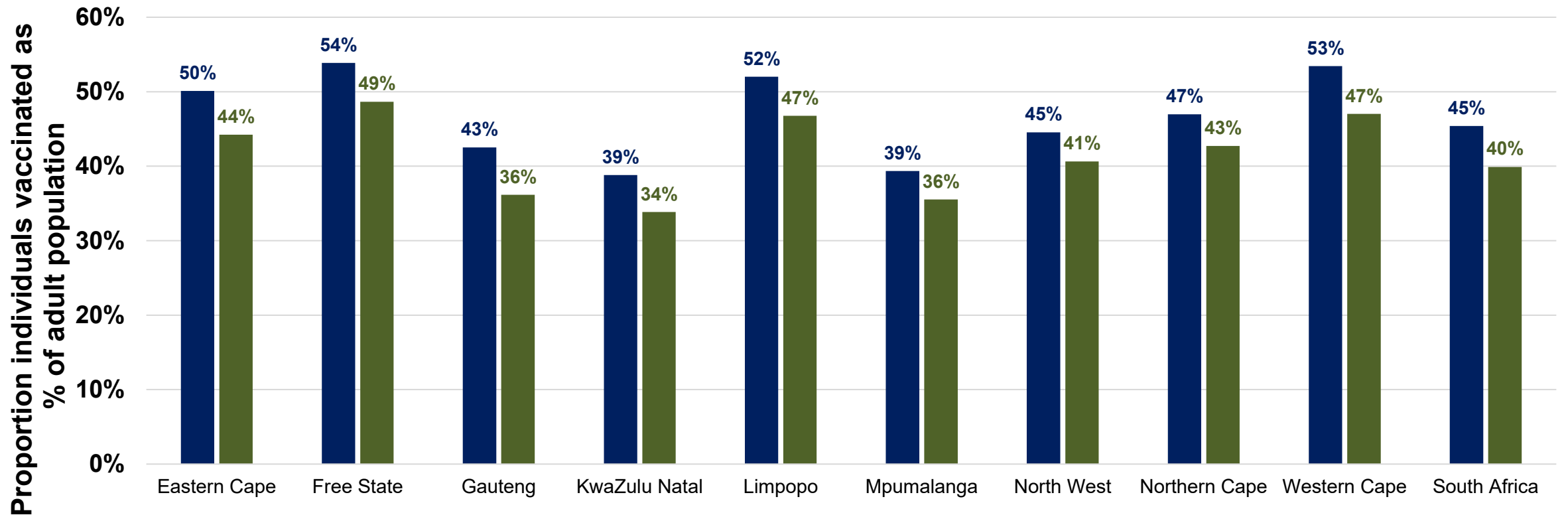


Data source: Department of Health

Proportion of individuals vaccinated as % of adult population

up to – 11 January 2022

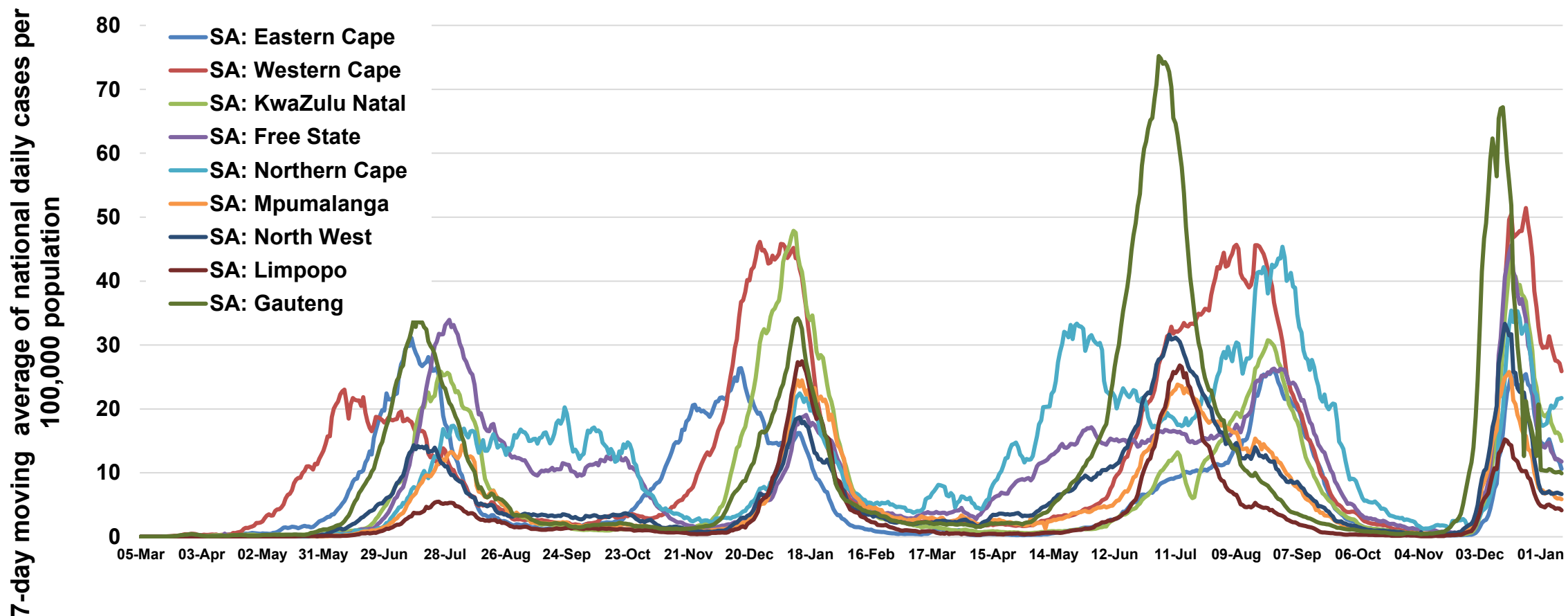
■ Vaccinated (%) ■ Fully vaccinated (%)



Source: Department of Health. <https://sacoronavirus.co.za/latest-vaccine-statistics/>

Confirmed SARS-Cov-2 cases by province

7-day moving average cases per 100,000 population
up to – 11 January 2022

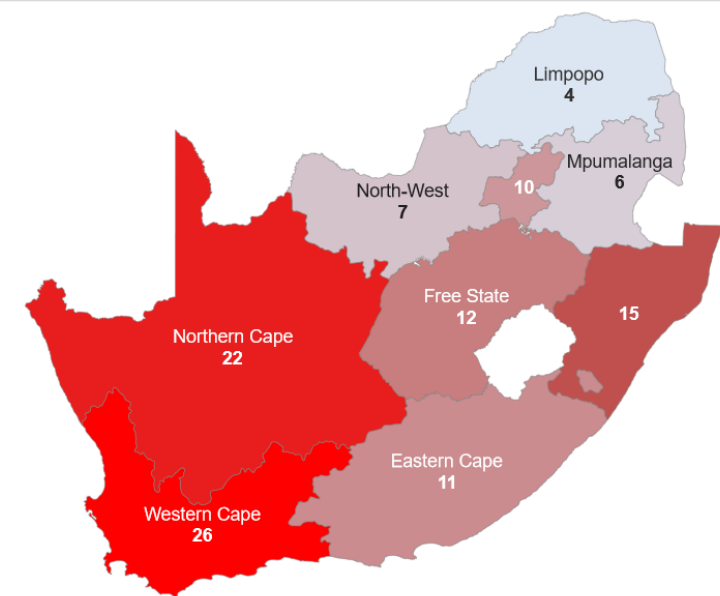


Data source: Department of Health; Analysis

Daily new cases over last 7 days/100,000

up to – 02 January 2022

Province	Population per 100,000	7 Days Moving Average			Increase / Decrease	
		at 7 days back	Per 100K at 7 days back	at a day back		
Eastern Cape	67	1029	15	715	11	-30%
Free State	29	430	15	344	12	-20%
Gauteng	155	1638	11	1537	10	-6%
KwaZulu Natal	115	2258	20	1727	15	-24%
Limpopo	59	296	5	241	4	-18%
Mpumalanga	47	328	7	275	6	-16%
North West	41	288	7	274	7	-5%
Northern Cape	13	252	20	281	22	11%
Western Cape	71	2215	31	1826	26	-18%
South Africa	597	8735	15	7220	12	-17%
Africa	13410	45355	3	43216	3	-5%
World	77952	1888826	24	2601867	33	38%



7 days moving average per 100K population

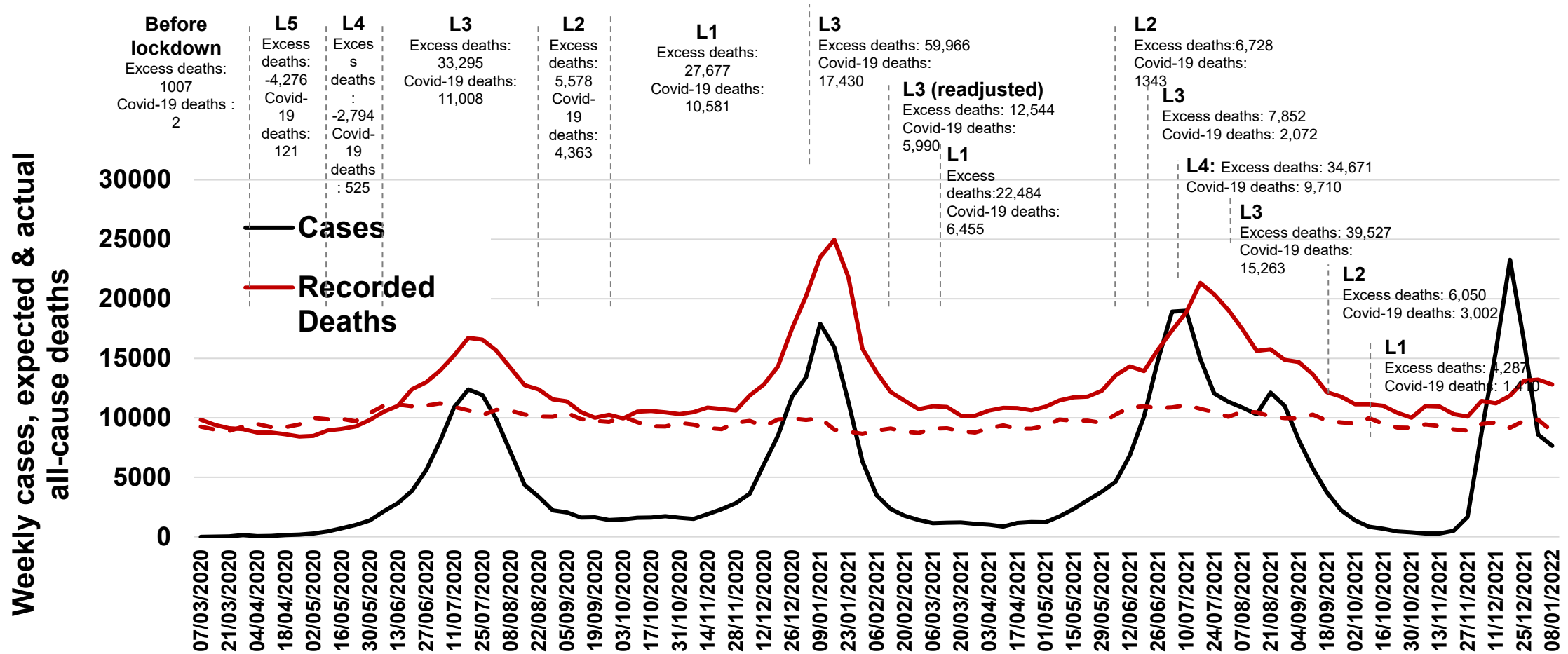
4 15 26

Powered by Bing
© GeoNames, Microsoft, TomTom

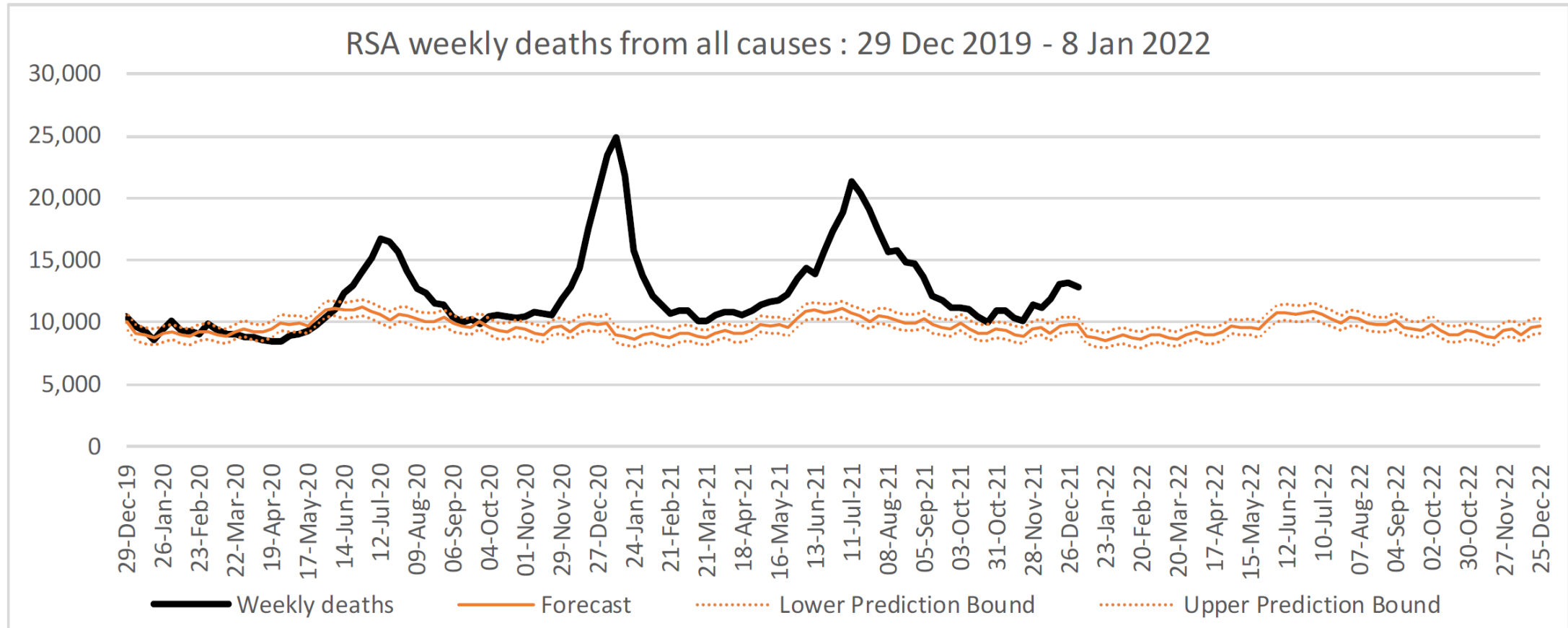
Data source: Department of Health

Expected & actual all-cause deaths during Covid-19

up to – 08 January 2022

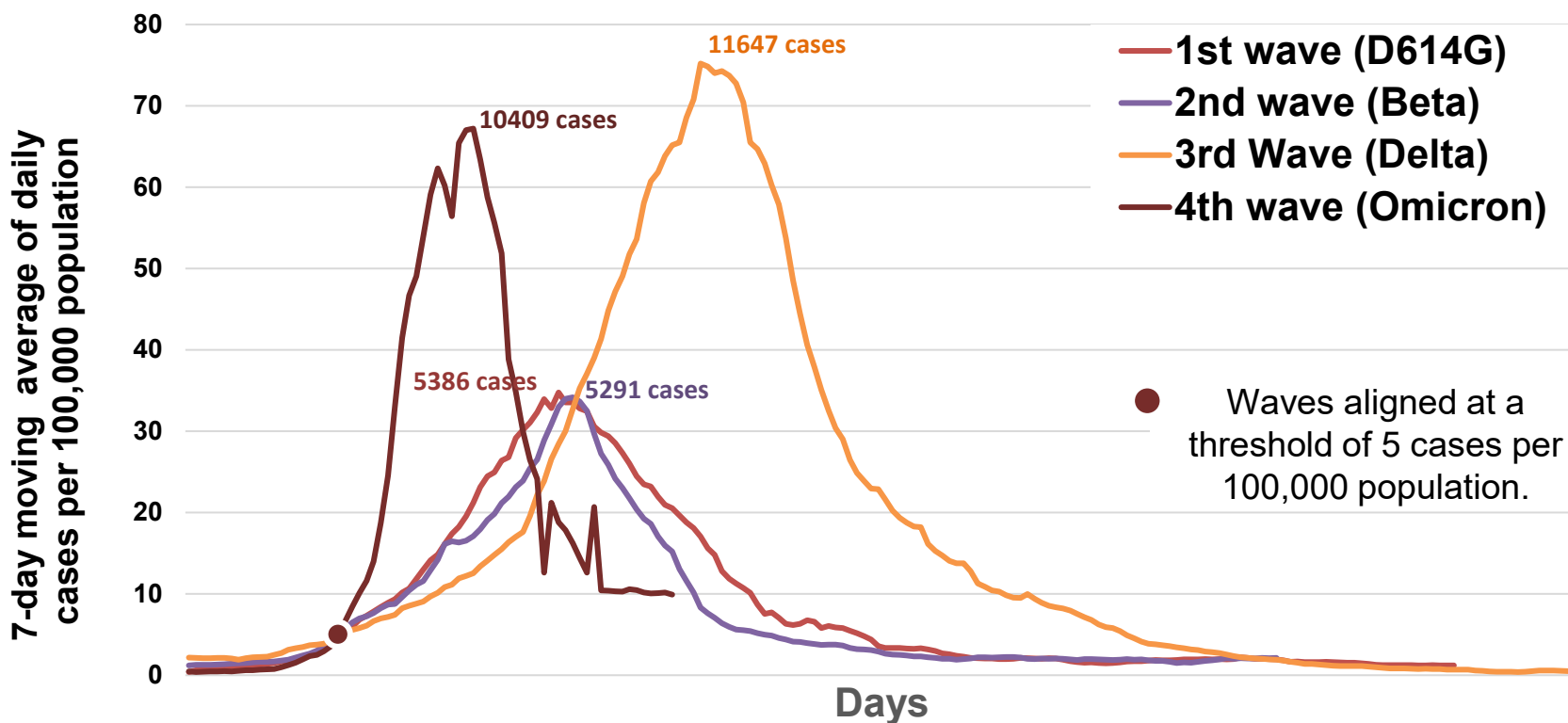


Weekly excess all cause deaths & reported Covid-19 deaths



SARS-Cov-2 cases in 1st, 2nd & 3rd and 4th waves: Gauteng

7-day moving average cases per 100,000 population
up to – 11 January 2022

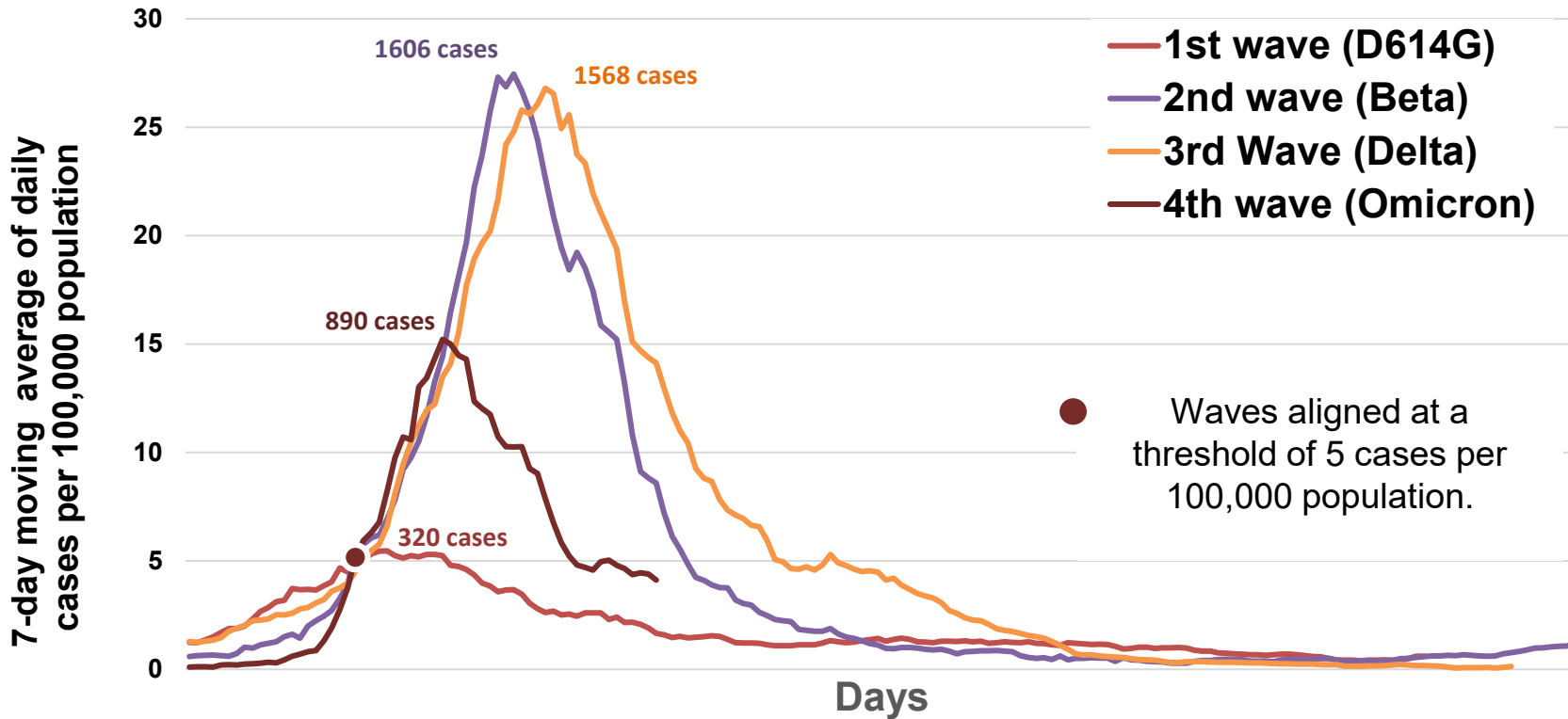


Data source: Department of Health; Analysis: Marothi Letsoalo; Ande Mchunu

SARS-Cov-2 cases in 1st, 2nd & 3rd and 4th waves: Limpopo

7-day moving average cases per 100,000 population

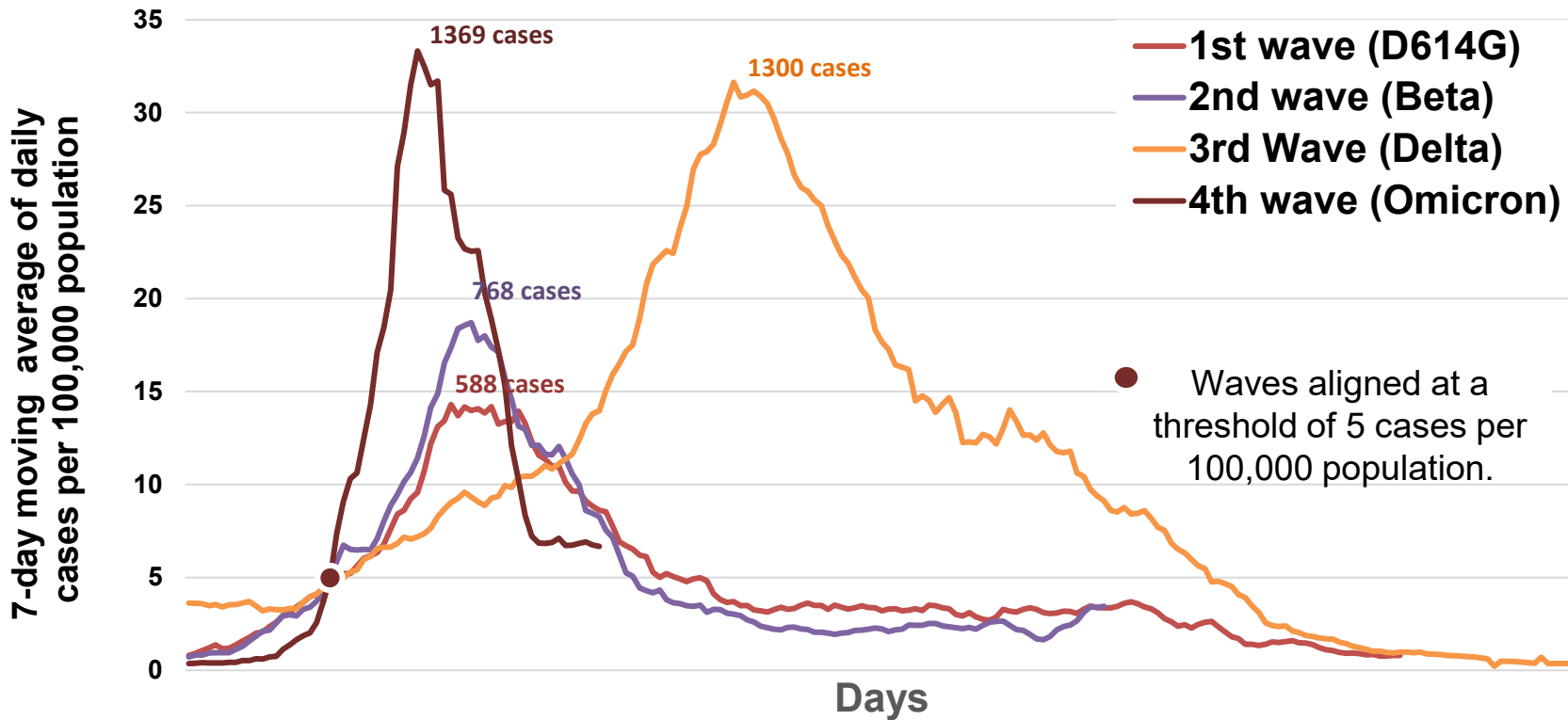
up to – 11 January 2022



Data source: Department of Health; Analysis: Marothi Letsoalo; Ande Mchunu

SARS-Cov-2 cases in 1st, 2nd & 3rd and 4th waves: North West

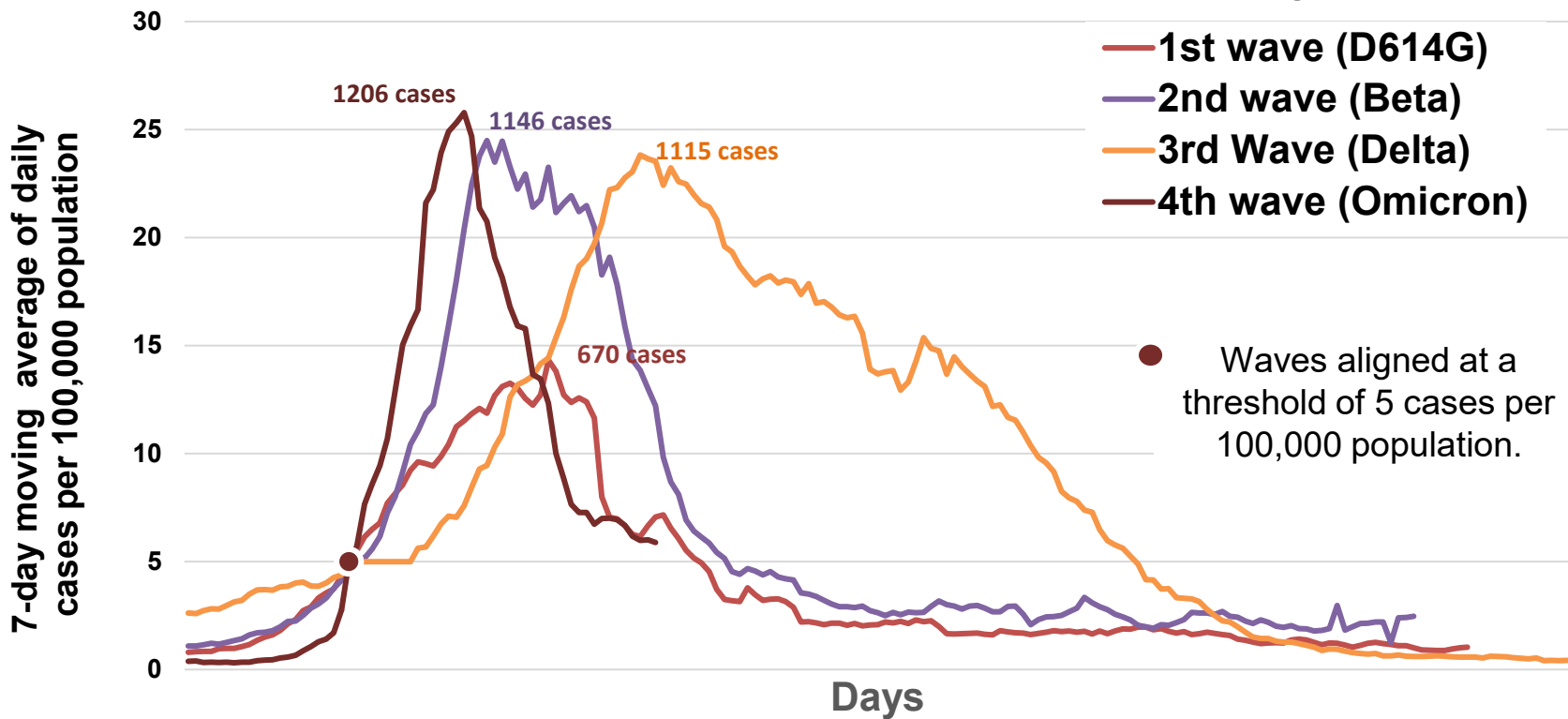
7-day moving average cases per 100,000 population
up to – 11 January 2022



Data source: Department of Health; Analysis: Marothi Letsoalo; Ande Mchunu

SARS-Cov-2 cases in 1st, 2nd & 3rd and 4th waves: Mpumalanga

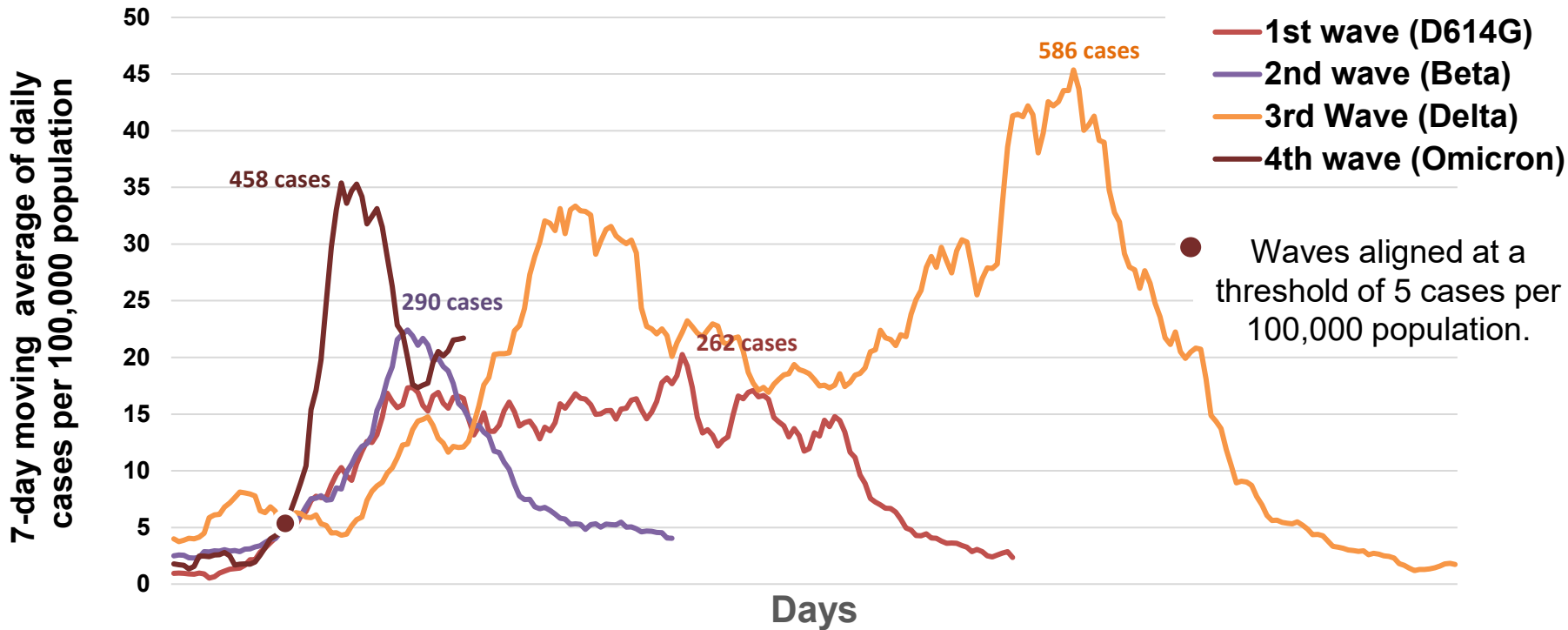
7-day moving average cases per 100,000 population
up to – 11 January 2022



Data source: Department of Health; Analysis: Marothi Letsoalo; Ande Mchunu

SARS-Cov-2 cases in 1st, 2nd & 3rd and 4th waves: Northern Cape

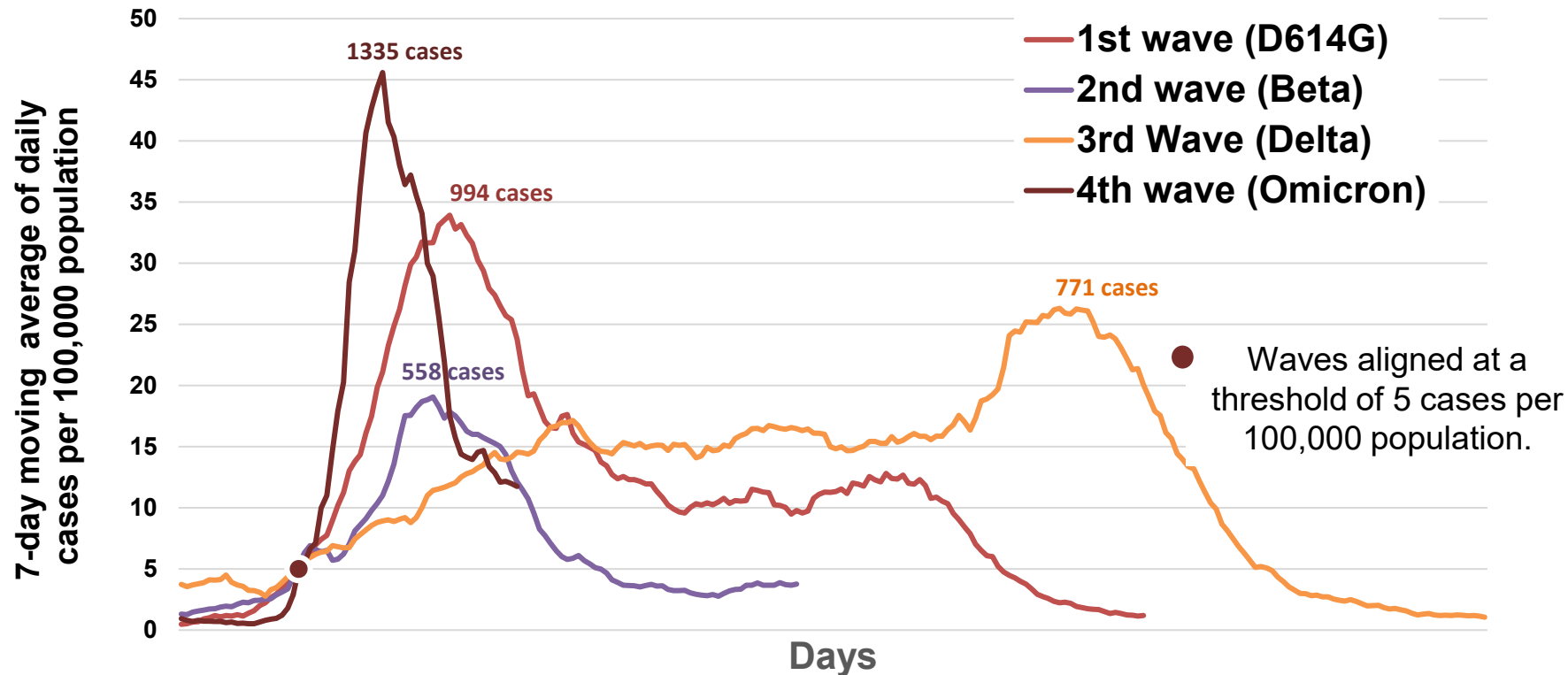
7-day moving average cases per 100,000 population
up to – 11 January 2022



Data source: Department of Health; Analysis: Marothi Letsoalo; Ande Mchunu

SARS-Cov-2 cases in 1st, 2nd & 3rd and 4th waves: Free State

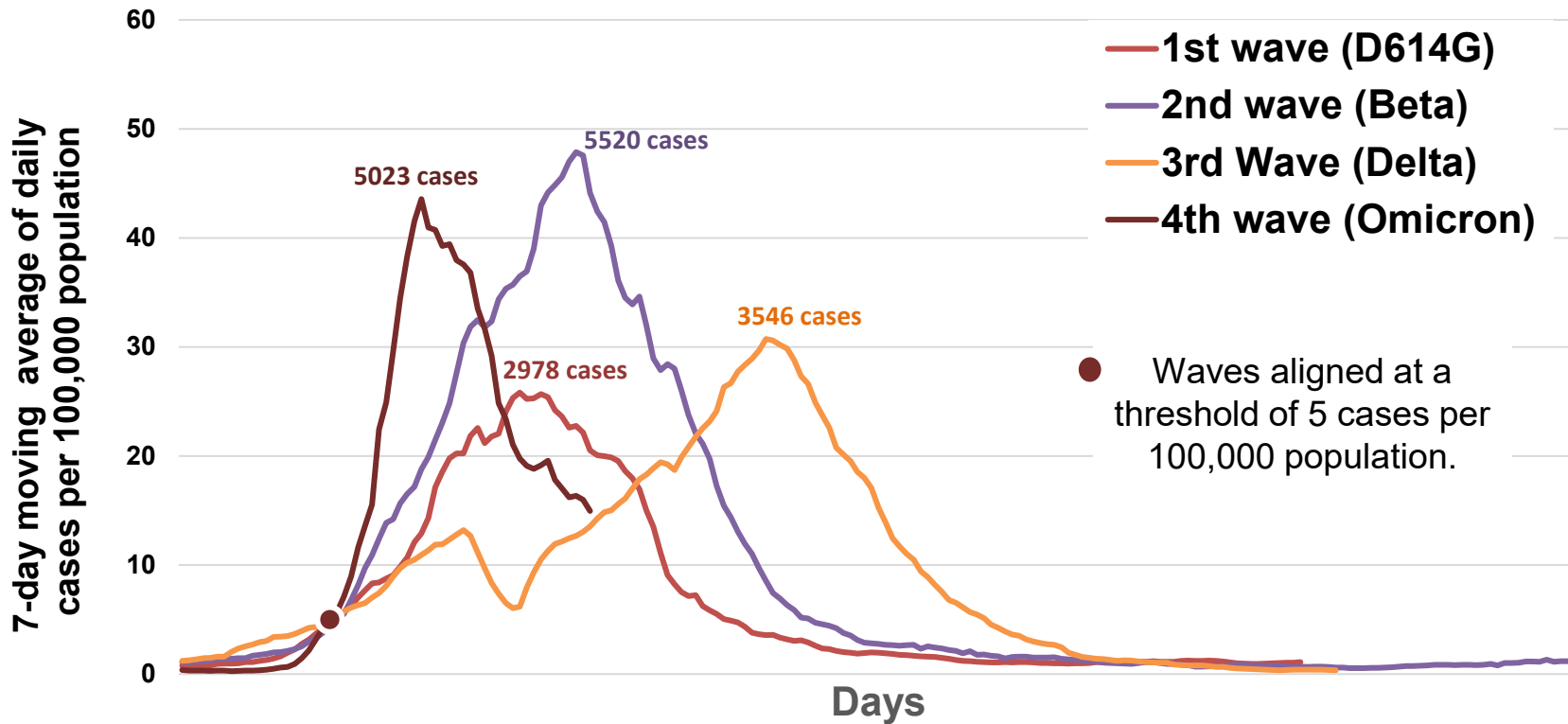
7-day moving average cases per 100,000 population
up to – 11 January 2022



Data source: Department of Health; Analysis: Marothi Letsoalo; Ande Mchunu

SARS-Cov-2 cases in 1st, 2nd & 3rd and 4th waves: KwaZulu Natal

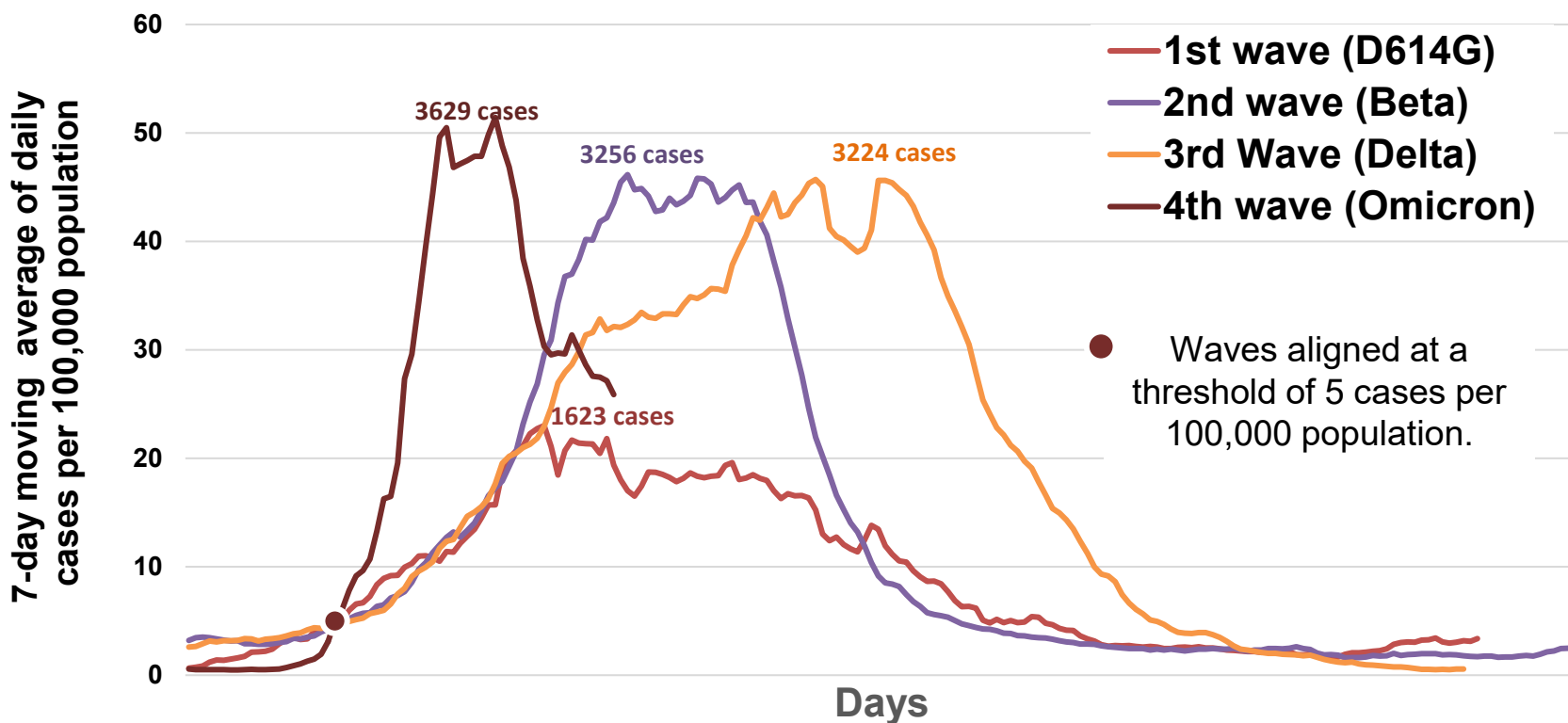
7-day moving average cases per 100,000 population
up to – 11 January 2022



Data source: Department of Health; Analysis: Marothi Letsoalo; Ande Mchunu

SARS-Cov-2 cases in 1st, 2nd & 3rd and 4th waves: Western Cape

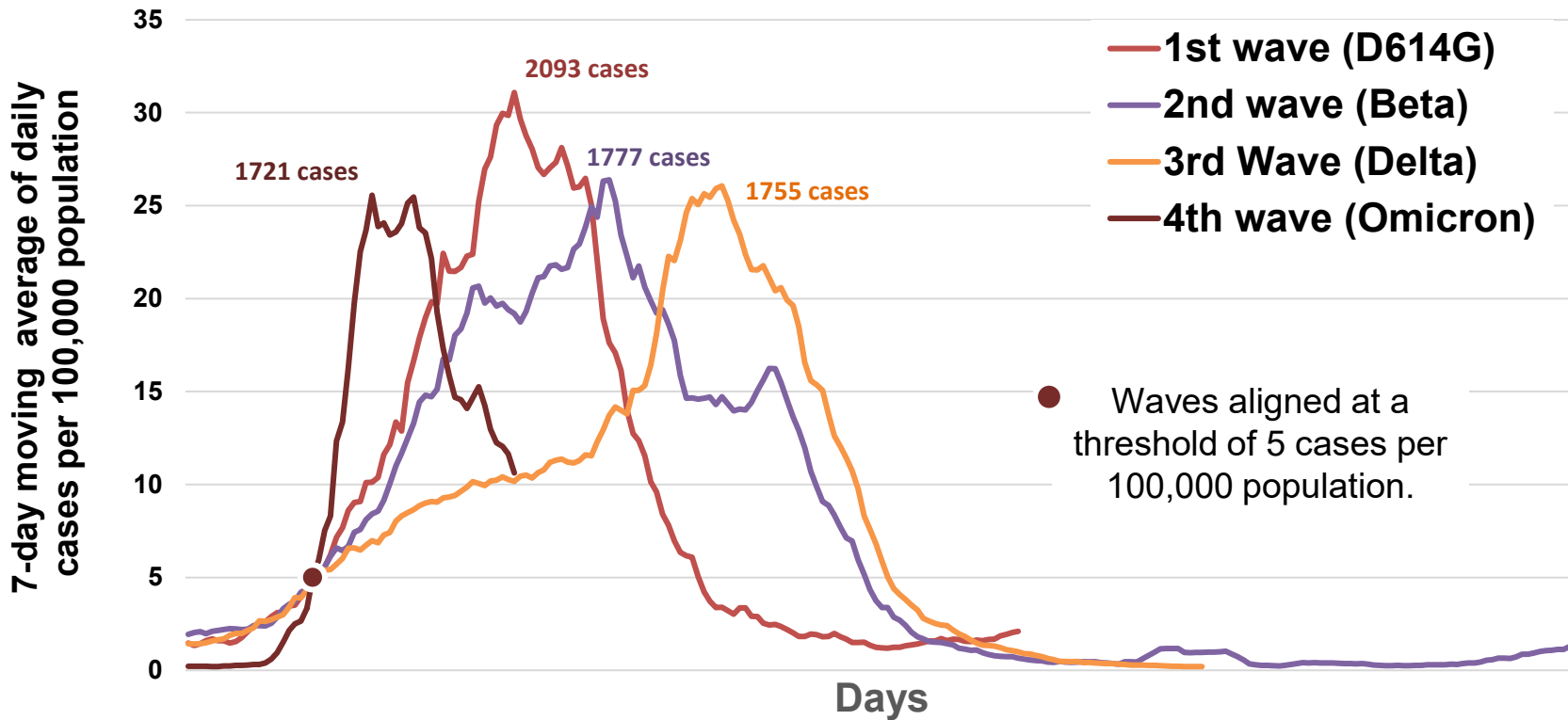
7-day moving average cases per 100,000 population
up to – 11 January 2022



Data source: Department of Health; Analysis: Marothi Letsoalo; Ande Mchunu

SARS-Cov-2 cases in 1st, 2nd & 3rd and 4th waves: Eastern Cape

7-day moving average cases per 100,000 population
up to – 11 January 2022



Data source: Department of Health; Analysis: Marothi Letsoalo; Ande Mchunu