



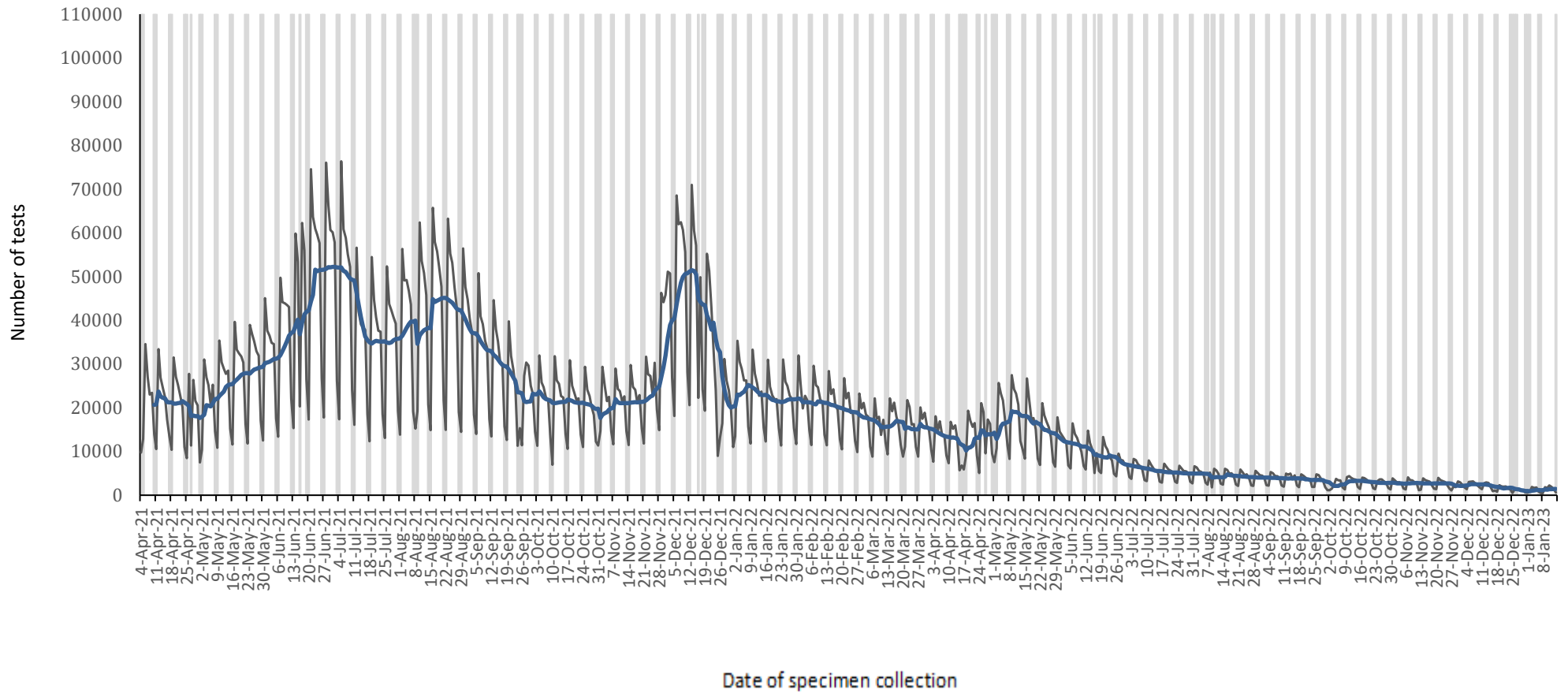
## COVID-19 Weekly Testing Summary

### Week 2 of 2023

This report summarises national laboratory PCR testing for SARS-CoV-2, the virus causing COVID-19, in South Africa. This report is based on data for specimens reported up to 14 January 2023 (week 2 of 2023).

#### Highlights:

- In the period 1 March 2020 through 14 January 2023, 21,435,321 PCR tests for SARS-CoV-2 have been reported nationally. The number of PCR tests reported in week 2 of 2023 (n=10,058) was 22.9% higher than the number of PCR tests reported in the previous week (n= 8,184 in week 1 of 2023).
- In week 2, the PCR testing rate was 17 per 100,000 persons. The overall PCR testing rate increased from the previous week (14 per 100,000 persons in week 1 of 2023).
- The PCR testing rate in week 2 was highest in KwaZulu-Natal (25 per 100,000 persons), followed by Gauteng and the Western Cape (22 per 100,000 persons) and lowest in Limpopo (2 per 100,000 persons).
- In week 2 the percentage testing positive was 9.6%, with a significant increase from the previous week (8.5% in week 1,  $p<0.05$ ).
- The percentage testing positive in week 2 was highest in the Eastern Cape (14.1%), followed by the Free State (12.9%), Western Cape (10.9%), Mpumalanga (10.7%), Northern Cape (10.6%) and KwaZulu-Natal (10.4%). The percentage testing positive was  $<10.0\%$  in all other provinces.
- In week 2, compared to the previous week, the percentage testing positive increased significantly in the Free State and Mpumalanga ( $p<0.05$ ), while all other provinces did not change significantly ( $p\geq 0.05$ ).
- The percentage testing positive in week 2 was highest in the  $\geq 80$  years' age group (17.2%), followed by the 70-74 years' (17.0%) age group.



**Figure 1.** Number of SARS-CoV-2 PCR tests reported by date of specimen collection, South Africa, 4 April 2021 – 14 January 2023. Blue line shows the 7-day moving average of the number of PCR tests reported. Grey bars highlight weekend days and public holiday



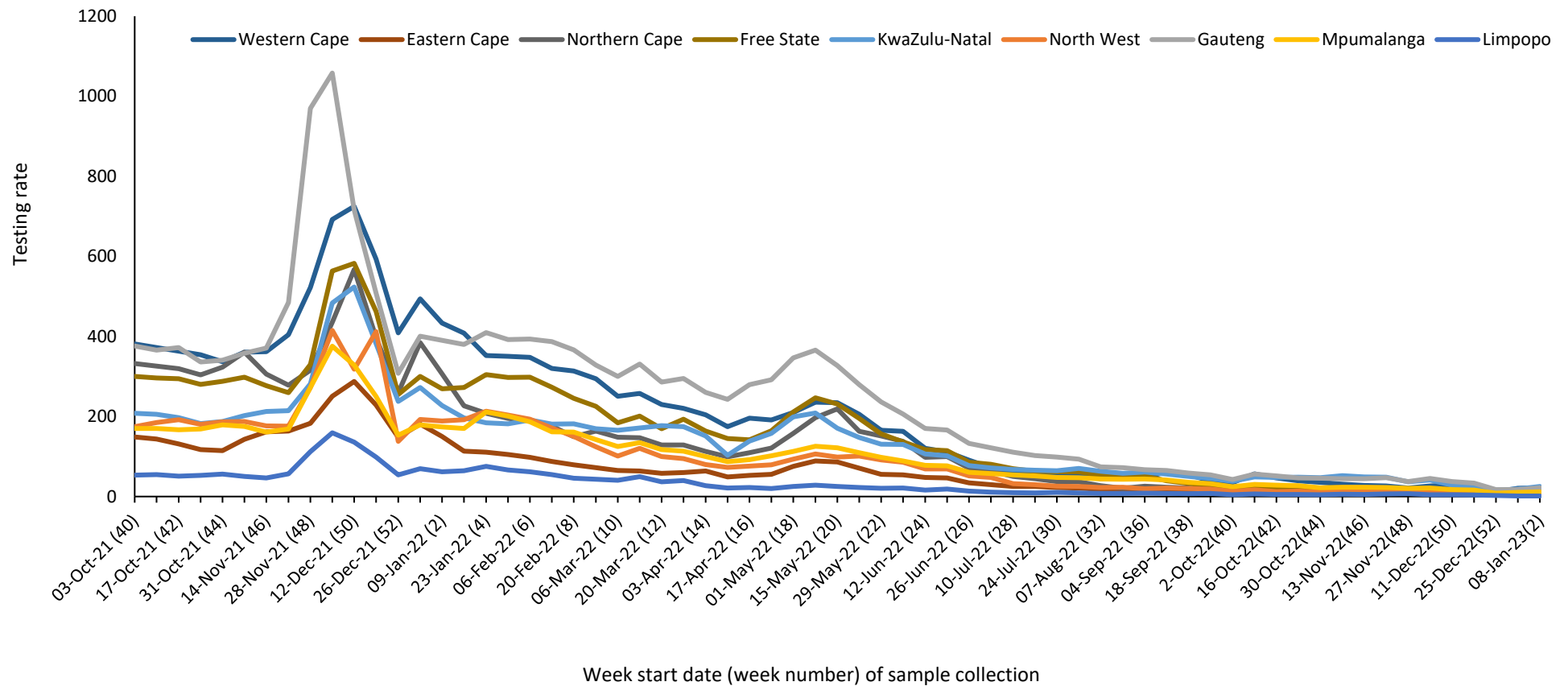
**Table 1.** Weekly number of SARS-CoV-2 PCR tests and positive tests reported, South Africa, 5 June 2022 – 14 January 2023

<b>Week number</b>	<b>Week beginning</b>	<b>No. of PCR tests n (%)</b>	<b>No. of positive PCR tests</b>	<b>Percentage positive (%)</b>	<b>testing</b>
23	5-Jun-22	77910 (0.4)	7498	9.6	
24	12-Jun-22	63279 (0.3)	4488	7.1	
25	19-Jun-22	61551 (0.3)	3358	5.5	
26	26-Jun-22	47987 (0.2)	2166	4.5	
27	3-Jul-22	43163 (0.2)	2017	4.7	
28	10-Jul-22	38538 (0.2)	1882	4.9	
29	17-Jul-22	36468 (0.2)	1678	4.6	
30	24-Jul-22	34807 (0.2)	1574	4.5	
31	31-Jul-22	34400 (0.2)	1369	4.0	
32	7-Aug-22	28662 (0.1)	1177	4.1	
33	14-Aug-22	30924 (0.1)	1256	4.1	
34	21-Aug-22	28855 (0.1)	1200	4.2	
35	28-Aug-22	28154 (0.1)	1150	4.1	
36	4-Sep-22	27329 (0.1)	1268	4.6	
37	11-Sep-22	27062 (0.1)	1354	5.0	
38	12-Sep-22	24294 (0.1)	1331	5.5	
39	25-Sep-22	21370 (0.1)	1423	6.7	
40	2-Oct-22	17165 (0.1)	1318	7.7	
41	9-Oct-22	22956 (0.1)	2243	9.8	
42	16-Oct-22	20898 (0.1)	2135	10.2	
43	23-Oct-22	19535 (0.1)	1956	10.0	
44	30-Oct-22	18648 (0.1)	2174	11.7	
45	6-Nov-22	19260 (0.1)	2512	13.0	
46	13-Nov-22	18731 (0.1)	2336	12.5	
47	20-Nov-22	18946 (0.1)	2256	11.9	
48	27-Nov-22	15229 (0.1)	1495	9.8	
49	4-Dec-22	17376 (0.1)	1640	9.4	
50	11-Dec-22	13800 (0.1)	1088	7.9	
51	18-Dec-22	11916 (0.1)	902	7.6	
52	25-Dec-22	6775 (0.0)	609	9.0	
1	1-Jan-23	8184 (0.0)	696	8.5	
2	8-Jan-23	10058 (0.0)	967	9.6	

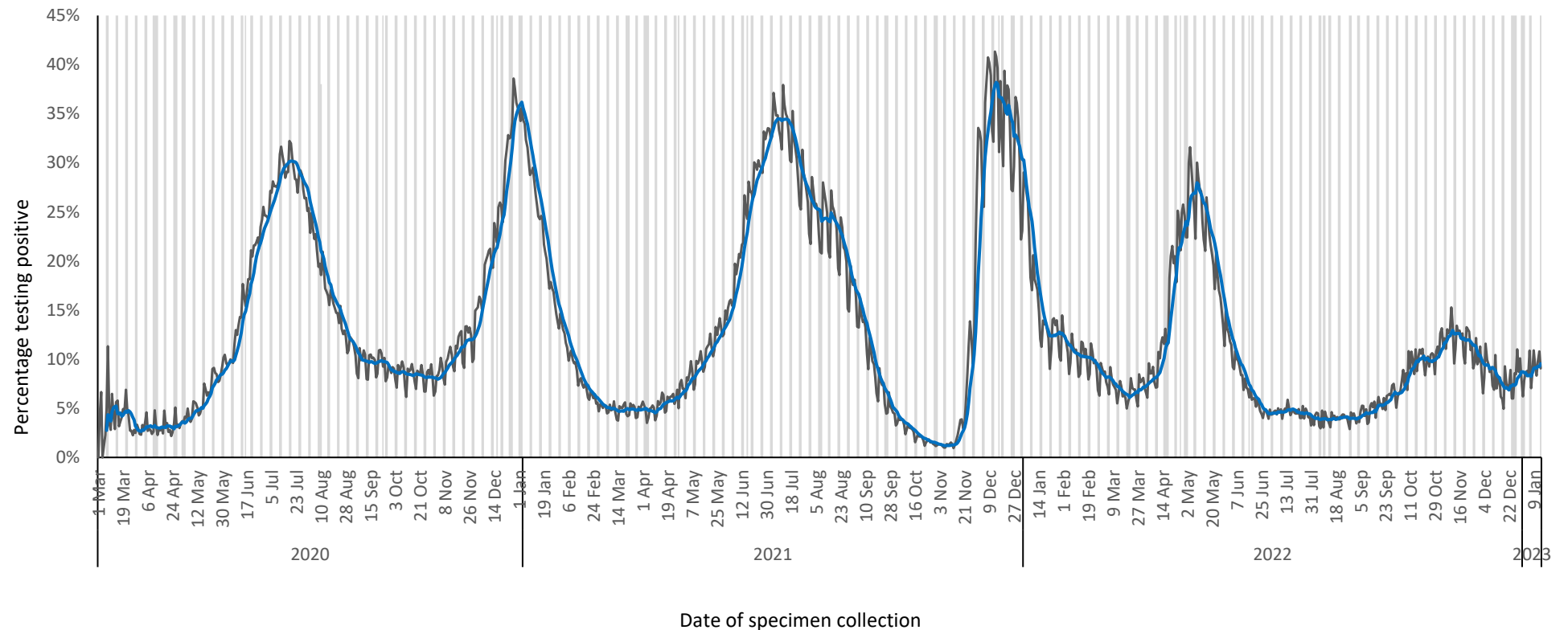


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**Figure 2.** PCR testing rate per 100,000 persons by province and week of specimen collection, South Africa, 3 October 2021 – 14 January 2023



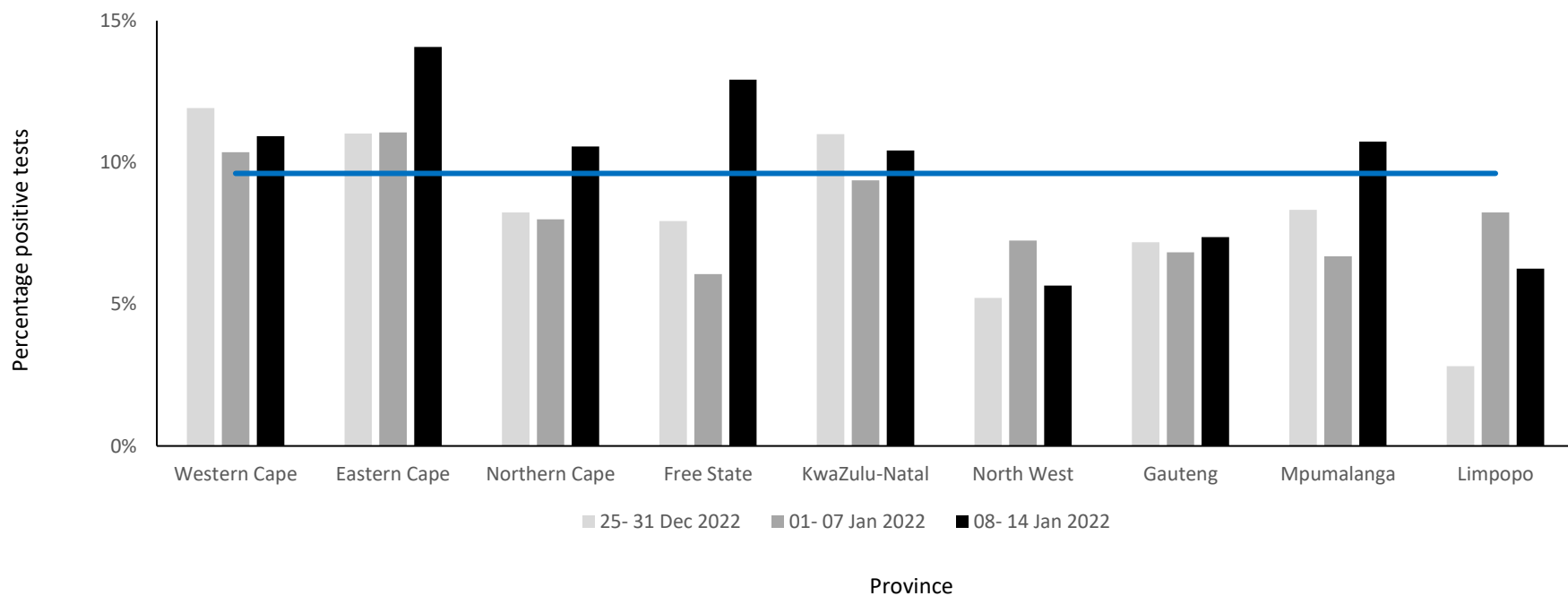
**Figure 3.** Percentage of PCR tests positive for SARS-CoV-2 by date of specimen collection, South Africa, 1 March 2020 – 14 January 2023. Blue line shows the 7-day moving average of the percentage testing positive. Grey bars highlight weekend days and public holidays.

**Table 2.** Weekly number of PCR tests and positive tests reported by province, South Africa, 25 December 2022 – 14 January 2023

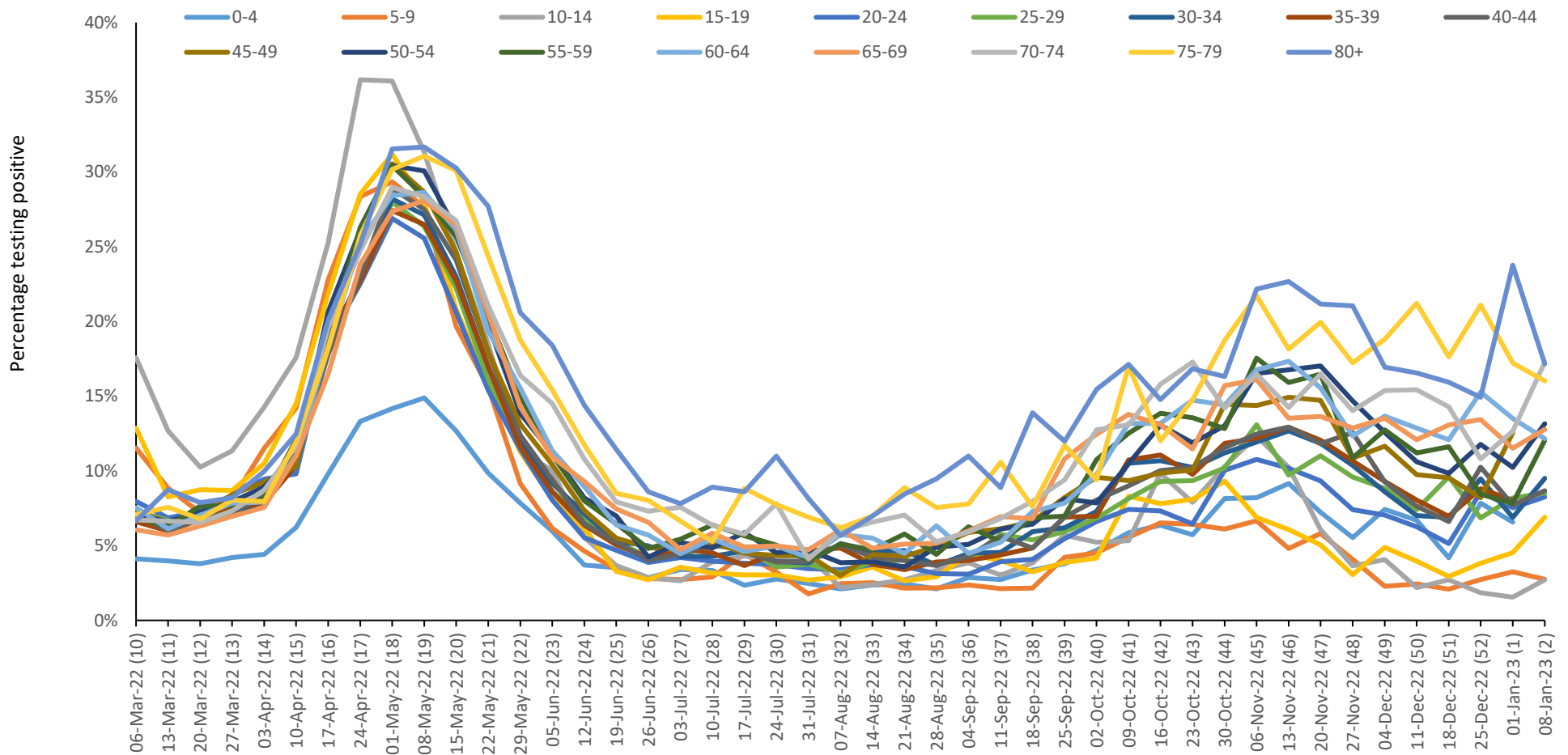
Province	Population <sup>a</sup>	25 - 31 Dec 2022		1 - 7 Jan 2023		8- 14 Jan 2023		Testing rate per 100,000	Change in percentage positive from previous week <sup>b</sup>
		No. of tests	No. positive tests (%)	No. of tests	No. positive tests (%)	No. of tests	No. positive tests (%)		
Western Cape	7113776	839	100 (11.9)	1496	155 (10.4)	1592	174 (10.9)	22	0.6%
Eastern Cape	6676590	381	42 (11.0)	642	71 (11.1)	796	112 (14.1)	12	3.0%
Northern Cape	1303047	85	7 (8.2)	100	8 (8.0)	142	15 (10.6)	11	2.6%
Free State	2932441	227	18 (7.9)	165	10 (6.1)	209	27 (12.9)	7	6.9%
KwaZulu-Natal	11513575	1828	201 (11.0)	2198	206 (9.4)	2877	300 (10.4)	25	1.1%
North West	4122854	134	7 (5.2)	207	15 (7.2)	283	16 (5.7)	7	-1.6%
Gauteng	15810388	2740	197 (7.2)	2797	191 (6.8)	3517	259 (7.4)	22	0.5%
Mpumalanga	4743584	396	33 (8.3)	493	33 (6.7)	540	58 (10.7)	11	4.0%
Limpopo	5926724	142	4 (2.8)	85	7 (8.2)	96	6 (6.3)	2	-2.0%
Unknown		3	0 (0.0)	1	0 (0.0)	6	0(0.0)		
<b>Total</b>	<b>60142978</b>	<b>6775</b>	<b>609 (9.0)</b>	<b>8184</b>	<b>696 (8.5)</b>	<b>10058</b>	<b>967 (9.6)</b>	<b>17</b>	<b>1.1%</b>

<sup>a</sup> 2022 Mid-year population Statistics SA

<sup>b</sup> Current week compared to previous week



**Figure 4.** Weekly percentage testing positive (PCR tests only) by province, South Africa, 25 December 2022 – 14 January 2023. The horizontal blue line shows the national mean for week 2, beginning 8 January 2023



**Figure 5.** Percentage testing positive (PCR tests only) by age group and week of specimen collection, South Africa, 6 March 2022 – 14 January 2023



## Methods

Testing for SARS-CoV-2 began on 28 January 2020 at the NICD and after the first case was confirmed on 5th March 2020, testing was expanded to a larger network of private and NHLS laboratories. Laboratory testing was conducted for people meeting the case definition for persons under investigation (PUI). This definition was updated several times over the reporting period but at different times included (i) symptomatic individuals seeking testing, (ii) hospitalised individuals for whom testing was done, (iii) individuals in high-risk occupations, (iv) individuals in outbreak settings, and (v) individuals identified through community screening and testing (CST) programmes which were implemented in April 2020 and was discontinued from the week beginning 17<sup>th</sup> May. CST was implemented differently in different provinces, and ranged from mass screening approaches (including asymptomatic individuals) to screening of individuals in contact with a confirmed case to targeted testing of clusters of cases. Respiratory specimens were submitted to testing laboratories. Testing was performed using reverse transcriptase real-time PCR, which detects SARS-CoV-2 viral genetic material. 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 2023). However, as of the week 28 report (week starting 10 July 2023), this report was updated to only include reported PCR tests due to incomplete and delayed reporting of antigen-based tests.

Test results were automatically fed into a data warehouse after result authorisation. We excluded specimens collected outside South Africa and duplicate entries of the same test for an individual. From week 49 of 2020 onwards, test data were reported from the Notifiable Medical Conditions Surveillance System (NMCSS). Date of specimen receipt in the laboratory was used when date of specimen collection was missing. Proportion testing positive (PTP) was calculated as the number of positive tests/total number of tests and presented as percentage by multiplying with 100. Testing rates were calculated using mid-year population estimates from Statistics South Africa and expressed as tests per 100,000 (2019 estimates were used from week 10 of 2020 to week 40 of 2021, 2020 estimates were used from week 41 of 2021 to week 1 of 2023, 2021 estimates were used from week 2 of 2023 to week 52 of 2023 and 2023 estimates were used from week 1 of 2023 onwards). Categorical variables were compared using the chi-squared test, with a P-value<0.05 considered statistically significant.

## Limitations

- A backlog in testing of samples by laboratories affects the reported number of tests. As a result, numbers tested during this period may change in subsequent reports.
- If higher-priority specimens were tested preferentially this would likely result in an inflated proportion testing positive.
- Different and changing testing strategies (targeted vs. mass testing, PCR vs. antigen-based tests or prioritisation of severe or at-risk cases during epidemic waves) used by different provinces and testing practices over holidays makes percentage testing positive and number of reported tests difficult to interpret and compare.