



## COVID-19 Weekly Testing Summary

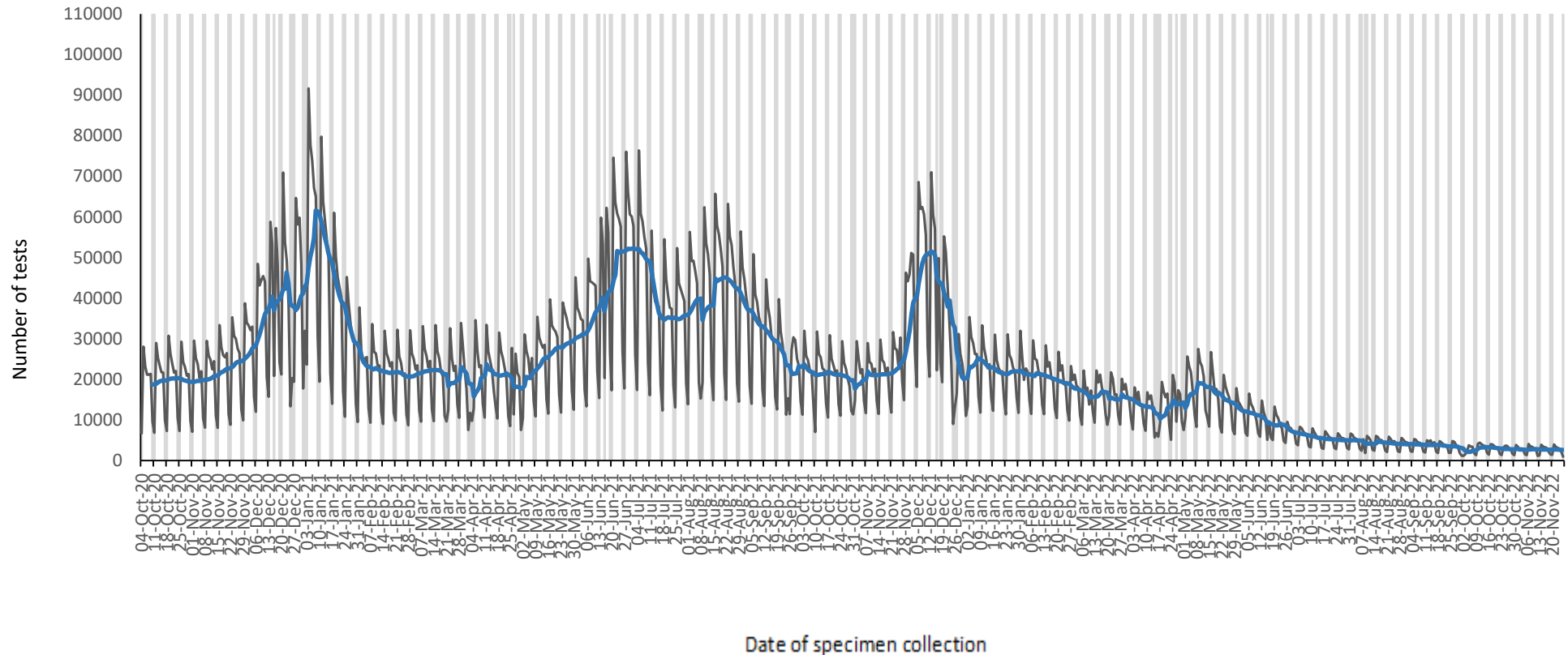
### Week 47 of 2022

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 26 November 2022 (week 47 of 2022).

NOTE: From week 28 onwards, only PCR tests are included in the report (i.e. excluding antigen tests).

#### Highlights:

- In the period 1 March 2020 through 26 November 2022, 21,350,425 PCR tests for SARS-CoV-2 have been reported nationally. The number of PCR tests reported in week 47 of 2022 (n=17,804) was 4.6% lower than the number of PCR tests reported in the previous week (n= 18,658 in week 46).
- In week 47 the PCR testing rate was 30 per 100,000 persons. The overall PCR testing rate decreased from the previous week (31 per 100,000 persons in week 46).
- The PCR testing rate in week 47 was highest in KwaZulu-Natal and Gauteng (45 per 100,000 persons), followed by Western Cape (24 per 100,000 persons) and lowest in Limpopo (6 per 100,000 persons).
- In week 47 the percentage testing positive was 12.1%, which did not significantly change from the previous week (12.5% in week 46,  $p \geq 0.05$ ).
- The percentage testing positive in week 47 was highest in Gauteng (13.6%), followed by the Free State (13.2%), Western Cape (12.7%), KwaZulu-Natal (11.9%), Limpopo (11.5%), Mpumalanga and North West (11.3%). The percentage testing positive was <10.0% in all other provinces.
- In week 47, compared to the previous week, the percentage testing positive did not significantly change in all provinces ( $p \geq 0.05$ ).
- The percentage testing positive in week 47 was highest in the  $\geq 80$  years' age group (21.6%), followed by the 75 – 79 years' (20.1%) and 50 -54 years' (17.6%) age groups.



**Figure 1.** Number of SARS-CoV-2 PCR tests reported by date of specimen collection, South Africa, 4 October 2020 – 26 November 2022. 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, 2 January – 26 November 2022

<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>
1	02-Jan-22	176323 (0.8)	45454	25.8	
2	09-Jan-22	160321 (0.8)	27666	17.3	
3	16-Jan-22	150053 (0.7)	19106	12.7	
4	23-Jan-22	153465 (0.7)	20128	13.1	
5	24-Jan-22	148528 (0.7)	17695	11.9	
6	06-Feb-22	147890 (0.7)	16071	10.9	
7	13-Feb-22	140054 (0.7)	14762	10.5	
8	14-Feb-22	132987 (0.6)	13026	9.8	
9	27-Feb-22	121531 (0.6)	10269	8.4	
10	06-Mar-22	109458 (0.5)	8171	7.5	
11	13-Mar-22	117609 (0.6)	7722	6.6	
12	20-Mar-22	105319 (0.5)	7261	6.9	
13	27-Mar-22	106361 (0.5)	7988	7.5	
14	03-Apr-22	93780 (0.4)	7864	8.4	
15	10-Apr-22	80640 (0.4)	8850	11.0	
16	17-Apr-22	92538 (0.4)	17228	18.6	
17	24-Apr-22	97823 (0.5)	23648	24.2	
18	01-May-22	117063 (0.5)	32991	28.2	
19	08-May-22	126890 (0.6)	34323	27.0	
20	15-May-22	115233 (0.5)	26650	23.1	
21	22-May-22	99452 (0.5)	17374	17.5	
22	29-May-22	84468 (0.4)	10606	12.6	
23	05-Jun-22	77908 (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	47984 (0.2)	2165	4.5	
27	03-Jul-22	43162 (0.2)	2017	4.7	
28	10-Jul-22	38533 (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	34399 (0.2)	1369	4.0	
32	07-Aug-22	28662 (0.1)	1177	4.1	
33	14-Aug-22	30921 (0.1)	1256	4.1	
34	21-Aug-22	28854 (0.1)	1200	4.2	
35	28-Aug-22	28153 (0.1)	1150	4.1	
36	04-Sep-22	27328 (0.1)	1268	4.6	
37	11-Sep-22	27059 (0.1)	1354	5.0	
38	12-Sep-22	24292 (0.1)	1331	5.5	
39	25-Sep-22	21365 (0.1)	1422	6.7	
40	02-Oct-22	17139 (0.1)	1316	7.7	
41	09-Oct-22	22910 (0.1)	2241	9.8	
42	16-Oct-22	20862 (0.1)	2133	10.2	
43	23-Oct-22	19470 (0.1)	1954	10.0	
44	30-Oct-22	18604 (0.1)	2170	11.7	
45	06-Nov-22	19205 (0.1)	2504	13.0	
46	13-Nov-22	18658 (0.1)	2325	12.5	
47	20-Nov-22	17804 (0.1)	2150	12.1	

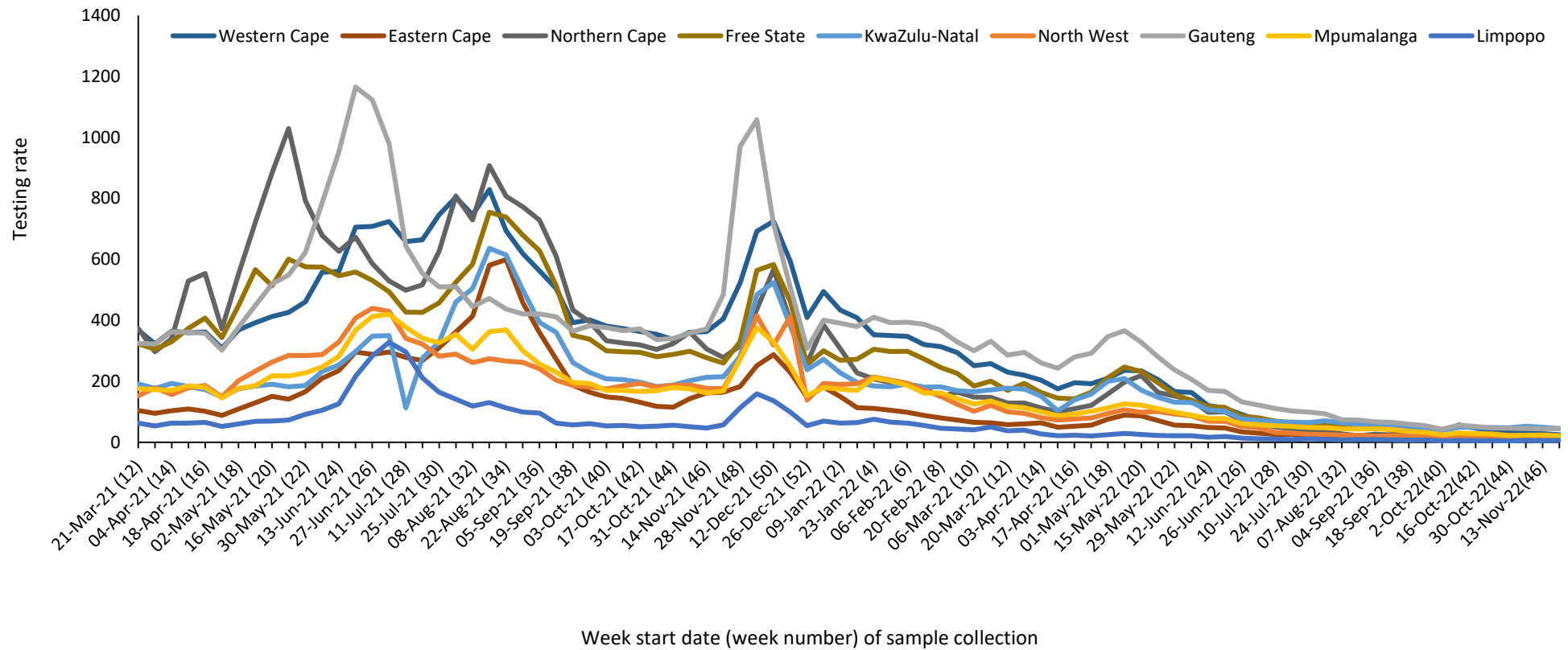
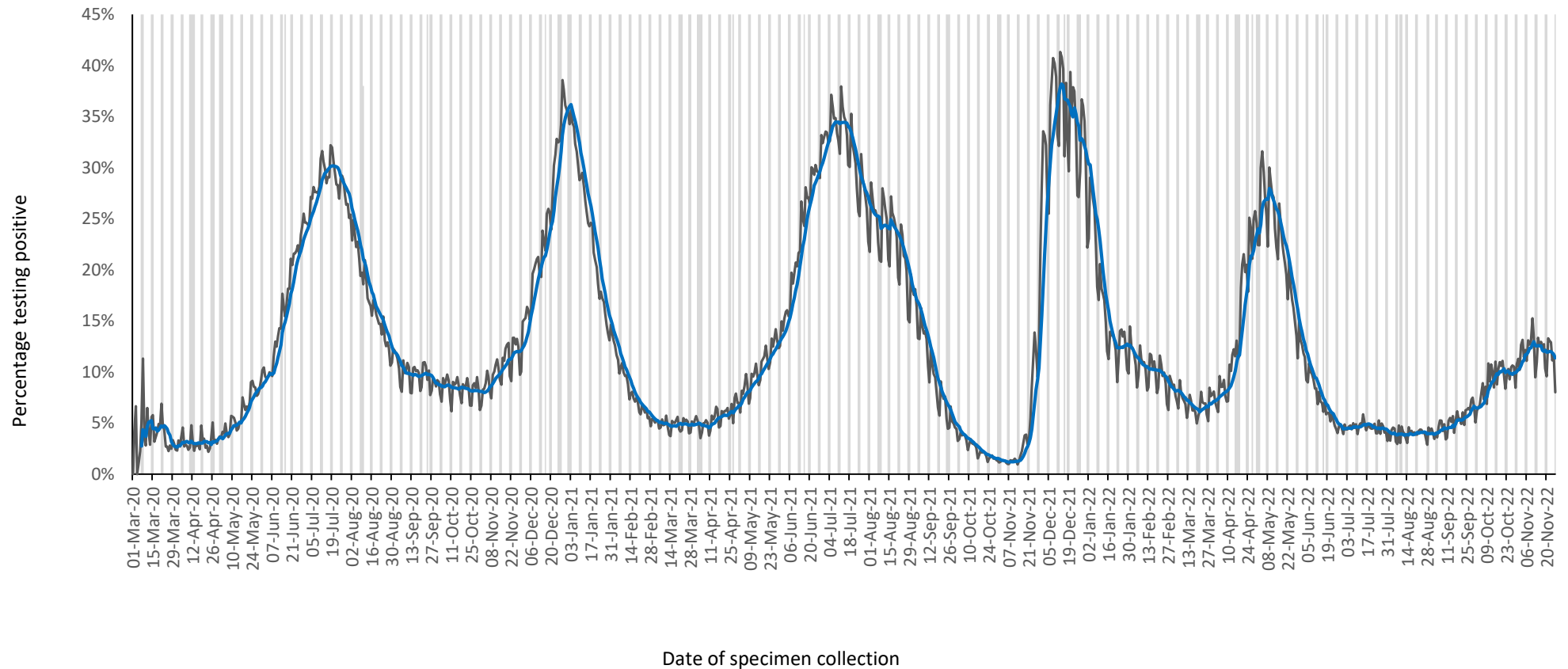


Figure 2. PCR testing rate per 100,000 persons by province and week of specimen collection, South Africa, 21 March 2021 – 26 November 2022



**Figure 3.** Percentage of PCR tests positive for SARS-CoV-2 by date of specimen collection, South Africa, 1 March 2020 – 26 November 2022. Blue line shows the 7-day moving average of the percentage testing positive. Grey bars highlight weekend days and public holidays.

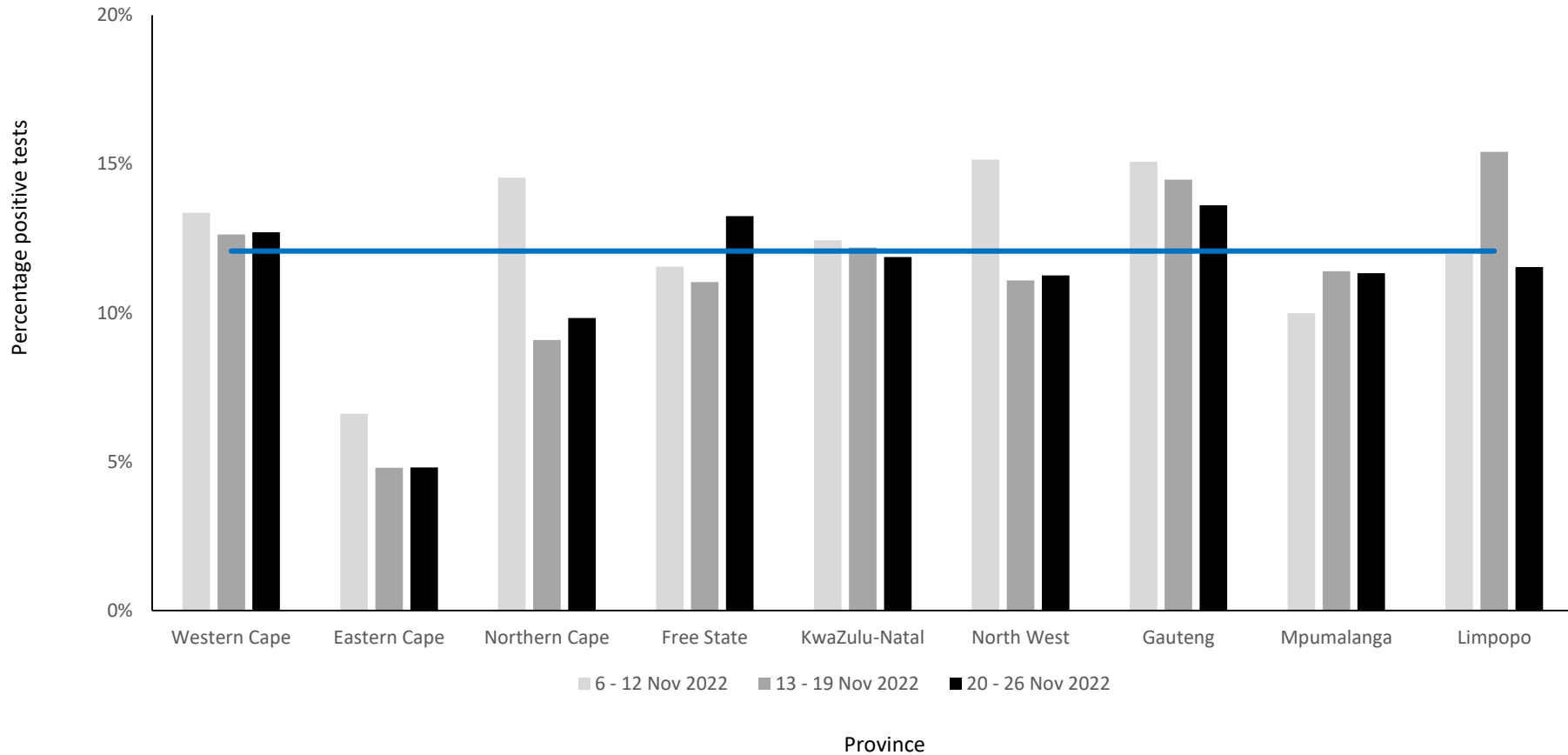


**Table 2.** Weekly number of PCR tests and positive tests reported by province, South Africa, 6 – 26 November 2022

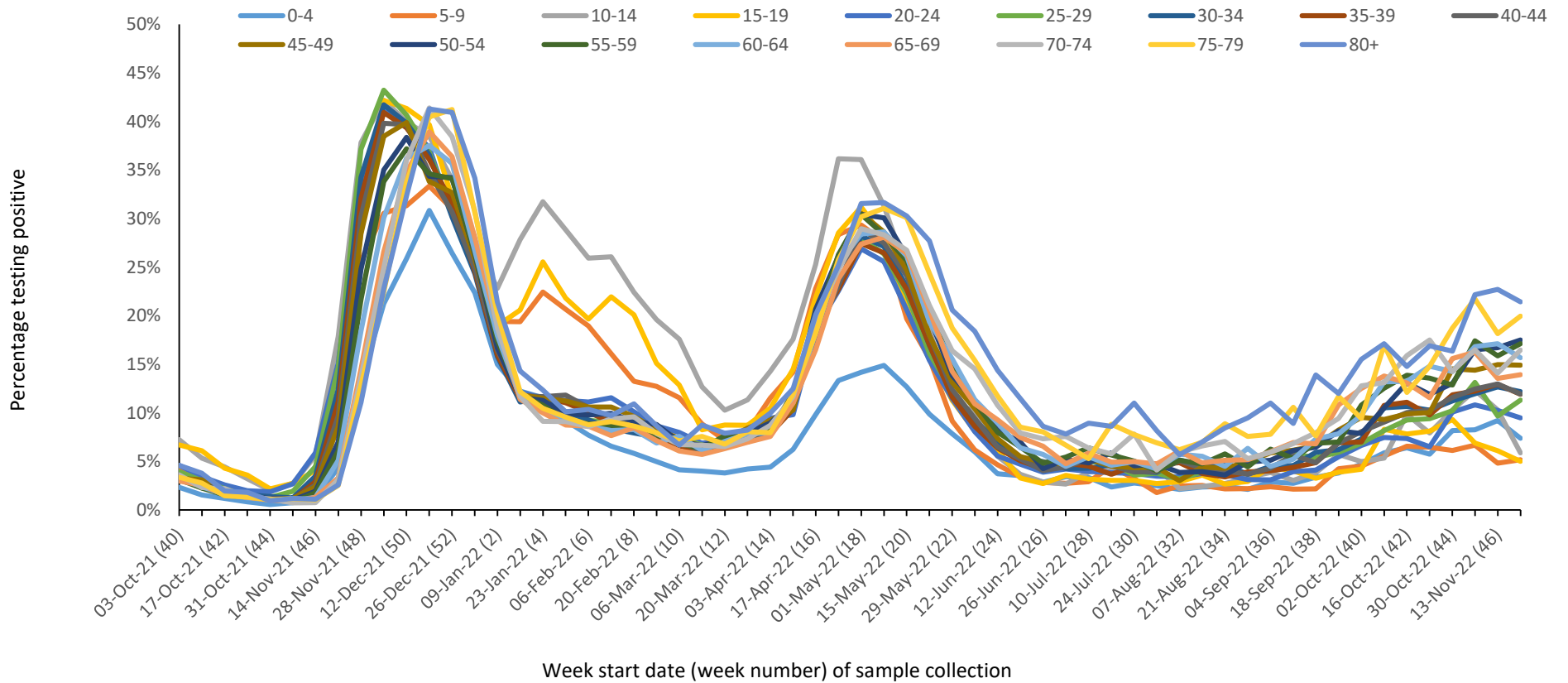
Province	Population <sup>a</sup>	6 - 12 Nov 2022		13 - 19 Nov 2022		20 - 26 Nov 2022		Testing rate per 100,000	Change in percentage positive from previous week <sup>b</sup>
		No. of tests	No. positive tests (%)	No. of tests	No. positive tests (%)	No. of tests	No. positive tests (%)		
<b>Western Cape</b>	7113776	2200	294 (13.4)	1964	248 (12.6)	1732	220 (12.7)	24	0.1%
<b>Eastern Cape</b>	6676590	1302	86 (6.6)	1354	65 (4.8)	1352	65 (4.8)	20	0.0%
<b>Northern Cape</b>	1303047	227	33 (14.5)	220	20 (9.1)	173	17 (9.8)	13	0.7%
<b>Free State</b>	2932441	459	53 (11.5)	535	59 (11.0)	468	62 (13.2)	16	2.2%
<b>KwaZulu-Natal</b>	11513575	6000	746 (12.4)	5652	689 (12.2)	5161	613 (11.9)	45	-0.3%
<b>North West</b>	4122854	515	78 (15.1)	514	57 (11.1)	462	52 (11.3)	11	0.2%
<b>Gauteng</b>	15810388	7062	1064 (15.1)	7013	1015 (14.5)	7118	969 (13.6)	45	-0.9%
<b>Mpumalanga</b>	4743584	1102	110 (10.0)	1114	127 (11.4)	997	113 (11.3)	21	-0.1%
<b>Limpopo</b>	5926724	334	40 (12.0)	292	45 (15.4)	338	39 (11.5)	6	-3.9%
<b>Unknown</b>		4	(0.0)	0	(0.0)	3	0(0.0)		
<b>Total</b>	60142978	19205	2504 (13.0)	18658	2325 (12.5)	17804	2150 (12.1)	30	-0.4%

<sup>a</sup> 2021 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, 6 – 26 November 2022. The horizontal blue line shows the national mean for week 47, beginning 20 November 2022



**Figure 5.** Percentage testing positive (PCR tests only) by age group and week of specimen collection, South Africa, 3 October 2021 – 26 November 2022



## 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 2022). However, as of the week 28 report (week starting 10 July 2022), 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 2022, and 2021 estimates were used from week 2 of 2022 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 makes percentage testing positive and number of reported tests difficult to interpret and compare.