



## COVID-19 Weekly Testing Summary

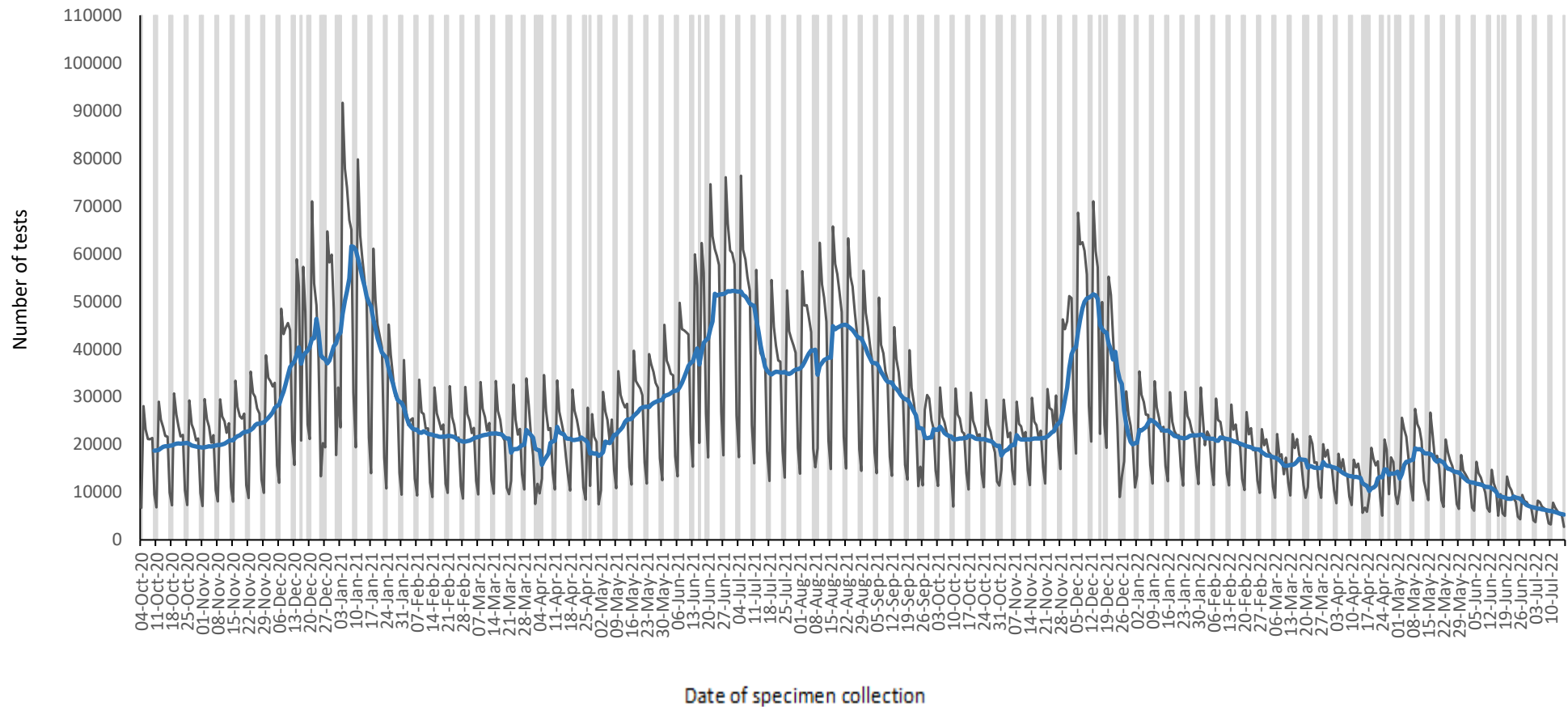
### Week 28 of 2022

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 16 July 2022 (Week 28 of 2022).

NOTE: This report differs from previous reports in that only PCR tests are included (ie. excluding antigen tests).

#### Highlights:

- In the period 1 March 2020 through 16 July 2022, 20,869,258 PCR tests for SARS-CoV-2 have been reported nationally. The number of PCR tests reported in week 28 of 2022 (n=37,074) was 13.4% lower than the number of PCR tests reported in the previous week (n=42,788 in week 27).
- In week 28, the PCR testing rate was 62 per 100,000 persons. The overall PCR testing rate decreased from the previous week (71 per 100,000 persons in week 27).
- The PCR testing rate in week 28 was highest in Gauteng (109 per 100,000 persons) and lowest in Limpopo (10 per 100,000 persons).
- In week 28, the percentage testing positive was 4.9%, which was slightly higher than the previous week (4.6% in week 27,  $P=0.072$ ).
- The percentage testing positive in week 28 was highest in the Eastern Cape (6.9%), followed by Western Cape (6.3%) and North West (6.2%). The percentage testing positive was <6.0% in all other provinces.
- In week 28, compared to the previous week, the percentage testing positive increased in the Western Cape and Northern Cape, and was unchanged in all other provinces.
- In week 28, the percentage testing positive was highest in the ≥80 years age group (9.1%).

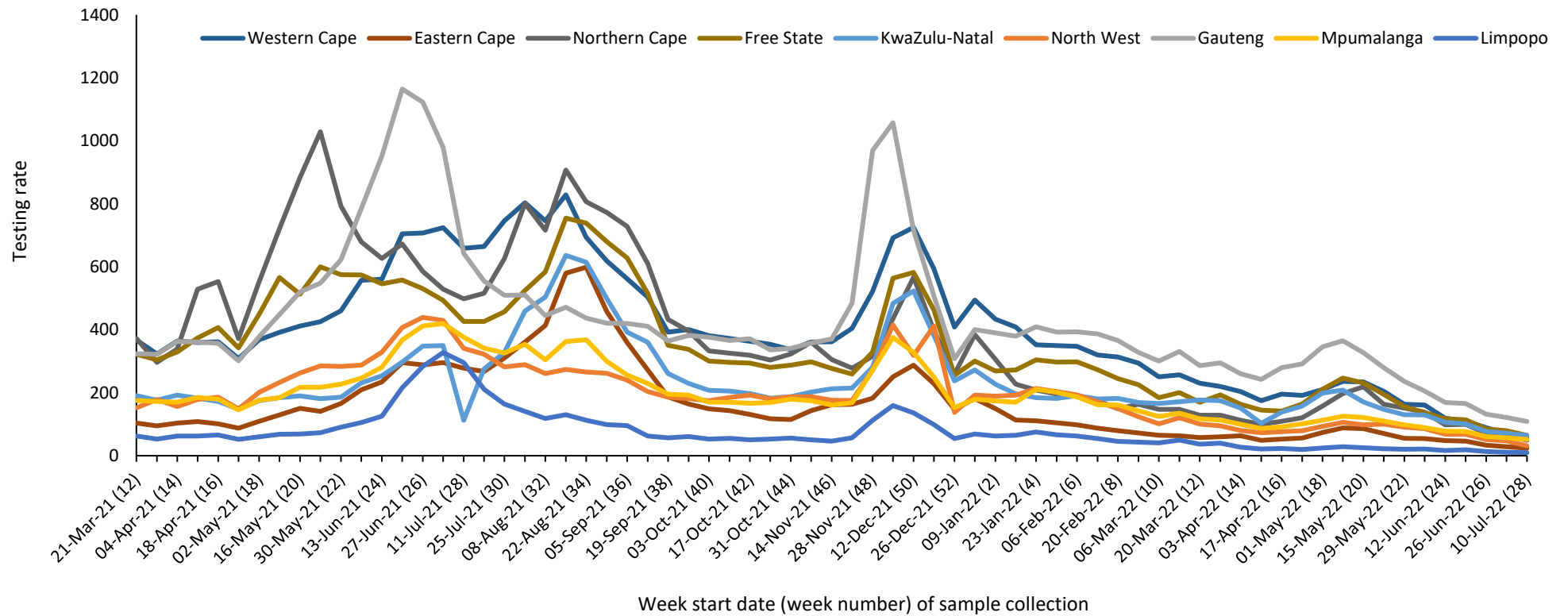


**Figure 1.** Number of SARS-CoV-2 PCR tests reported by date of specimen collection, South Africa, 4 October 2020 – 16 July 2022. Blue line shows the 7-day moving average of the number of PCR tests reported. Grey bars highlight weekend days and public holidays.

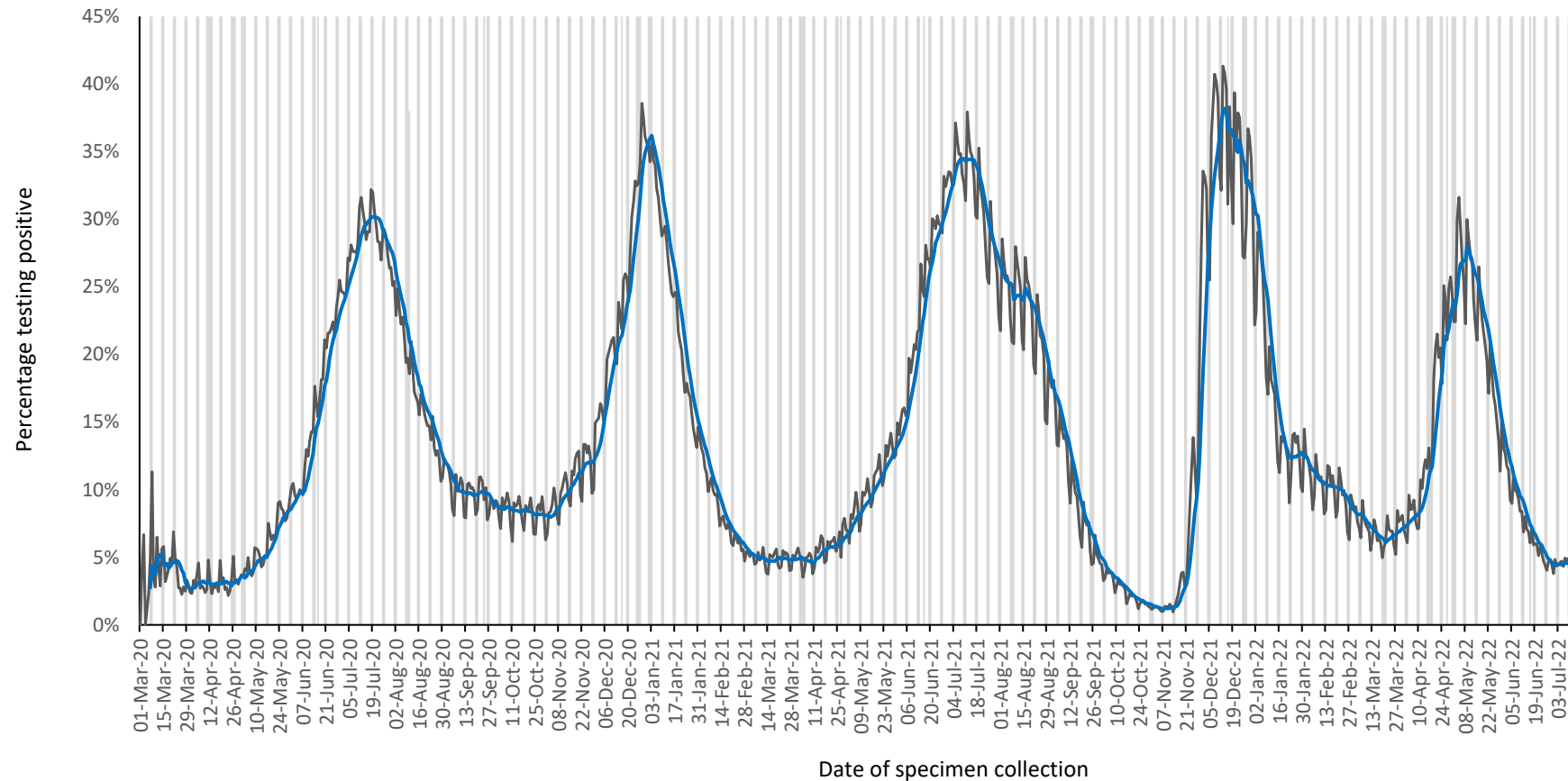


**Table 1.** Weekly number of SARS-CoV-2 PCR tests and positive tests reported, South Africa, 2 January – 16 July 2022

Week number	Week beginning	No. of PCR tests	No. of positive PCR tests	Percentage testing positive (%)
		n (%)		
1	02-Jan-22	176304 (0.8)	45446	25.8
2	09-Jan-22	160304 (0.8)	27660	17.3
3	16-Jan-22	150034 (0.7)	19102	12.7
4	23-Jan-22	153458 (0.7)	20128	13.1
5	24-Jan-22	148514 (0.7)	17692	11.9
6	06-Feb-22	147882 (0.7)	16069	10.9
7	13-Feb-22	140043 (0.7)	14758	10.5
8	14-Feb-22	132977 (0.6)	13023	9.8
9	27-Feb-22	121515 (0.6)	10265	8.4
10	06-Mar-22	109445 (0.5)	8171	7.5
11	13-Mar-22	117601 (0.6)	7721	6.6
12	20-Mar-22	105310 (0.5)	7259	6.9
13	27-Mar-22	106345 (0.5)	7985	7.5
14	03-Apr-22	93767 (0.4)	7858	8.4
15	10-Apr-22	80630 (0.4)	8845	11.0
16	17-Apr-22	92523 (0.4)	17218	18.6
17	24-Apr-22	97783 (0.5)	23625	24.2
18	01-May-22	116917 (0.6)	32972	28.2
19	08-May-22	126802 (0.6)	34275	27.0
20	15-May-22	115129 (0.6)	26597	23.1
21	22-May-22	99282 (0.5)	17323	17.4
22	29-May-22	84207 (0.4)	10546	12.5
23	05-Jun-22	77656 (0.4)	7462	9.6
24	12-Jun-22	63094 (0.3)	4459	7.1
25	19-Jun-22	61365 (0.3)	3330	5.4
26	26-Jun-22	47718 (0.2)	2129	4.5
27	03-Jul-22	42788 (0.2)	1983	4.6
28	10-Jul-22	37074 (0.2)	1819	4.9



**Figure 2.** PCR testing rate per 100,000 persons by province and week of specimen collection, South Africa, 21 March 2021 – 16 July 2022



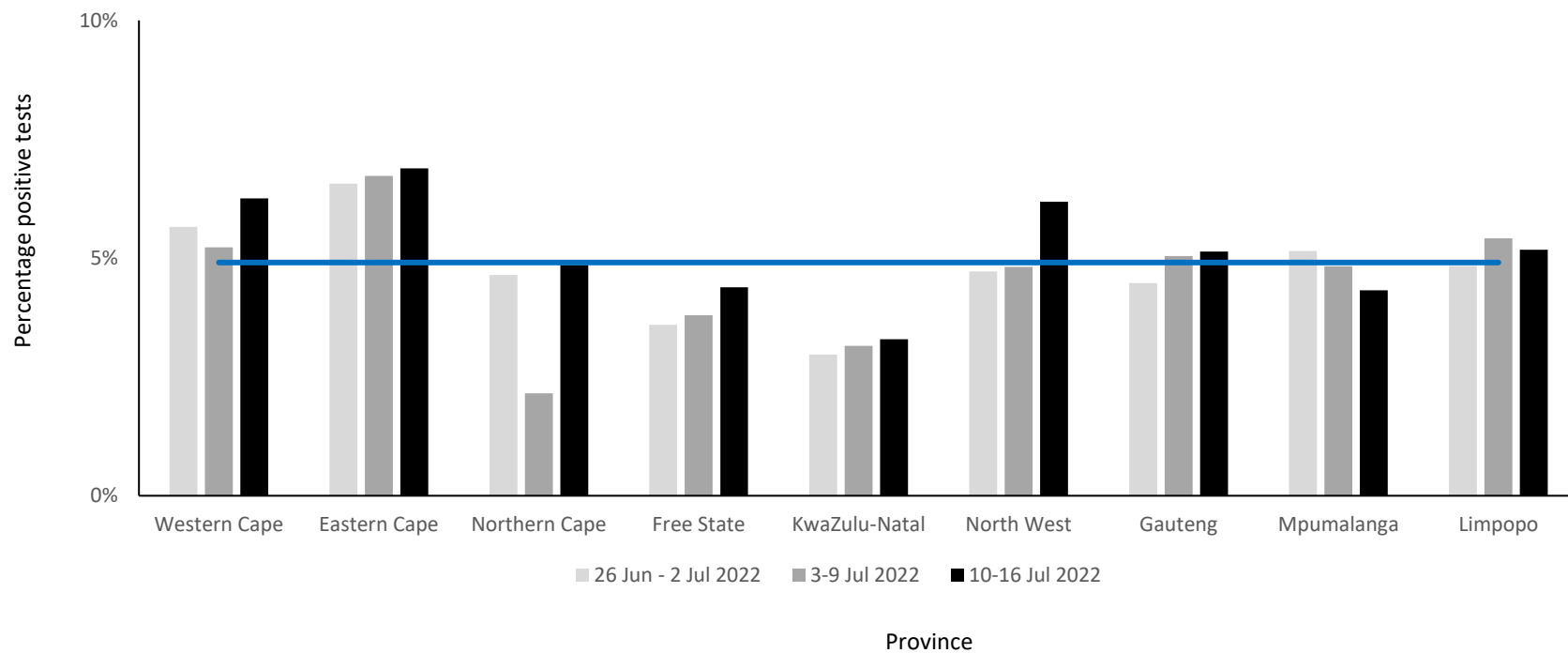
**Figure 3.** Percentage of PCR tests positive for SARS-CoV-2 by date of specimen collection, South Africa, 1 March 2020 – 16 July 2022. Blue line shows the 7-day moving average of the percentage testing positive. Grey bars highlight weekend days and public holidays.

**Table 2.** Weekly number of PCR tests and positive tests reported by province, South Africa, 26 June – 16 July 2022

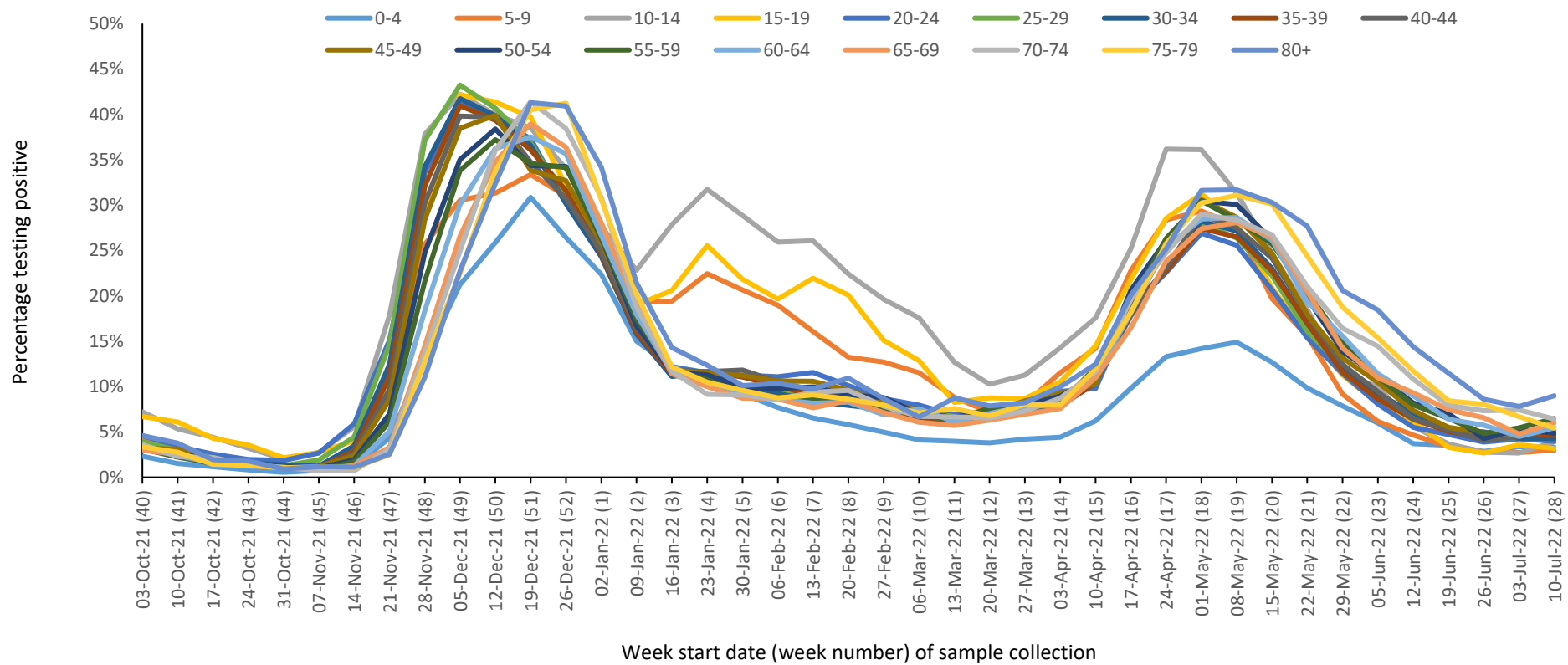
Province	Population <sup>a</sup>	26 Jun - 2 Jul 2022		3-9 Jul 2022		10-16 Jul 2022		Testing rate per 100,000	Change in percentage positive from previous week <sup>b</sup>
		No. of tests	No. positive tests (%)	No. of tests	No. positive tests (%)	No. of tests	No. positive tests (%)		
Western Cape	7113776	6368	360 (5.7)	4959	259 (5.2)	3980	249 (6.3)	56	1.0%
Eastern Cape	6676590	2224	146 (6.6)	1888	127 (6.7)	1597	110 (6.9)	24	0.2%
Northern Cape	1303047	926	43 (4.6)	835	18 (2.2)	639	31 (4.9)	49	2.7%
Free State	2932441	2503	90 (3.6)	2342	89 (3.8)	1894	83 (4.4)	65	0.6%
KwaZulu-Natal	11513575	8897	264 (3.0)	8242	260 (3.2)	7413	244 (3.3)	64	0.1%
North West	4122854	2119	100 (4.7)	1952	94 (4.8)	1293	80 (6.2)	31	1.4%
Gauteng	15810388	20918	936 (4.5)	19145	965 (5.0)	17199	884 (5.1)	109	0.1%
Mpumalanga	4743584	2873	148 (5.2)	2714	131 (4.8)	2451	106 (4.3)	52	-0.5%
Limpopo	5926724	786	38 (4.8)	665	36 (5.4)	580	30 (5.2)	10	-0.2%
Unknown		104	4 (3.8)	46	4 (8.7)	28	2 (7.1)		
<b>Total</b>	<b>60142978</b>	<b>47718</b>	<b>2129 (4.5)</b>	<b>42788</b>	<b>1983 (4.6)</b>	<b>37074</b>	<b>1819 (4.9)</b>	<b>62</b>	<b>0.3%</b>

<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, 26 June – 16 July 2022. The horizontal blue line shows the national mean for week 28, beginning 10 July 2022



**Figure 5.** Percentage testing positive (PCR tests only) by age group and week of specimen collection, South Africa, 3 October 2021 – 16 July 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.