SOUTH AFRICA WEEK 26 2021

NATIONAL INSTITUTE FOR COMMUNICABLE DISEASES

Division of the National Health Laboratory Service

OVERVIEW OF REPORT

This report summarises national laboratory testing for SARS-CoV-2, the virus causing COVID-19, in South Africa. This report is based on data for specimens reported up to 3 July 2021 (Week 26 of 2021).

HIGHLIGHTS

- In the period 1 March 2020 through 3 July 2021, 13,398,426 (12,052,883 PCR and 1,345,543 antigen) tests for SARS-CoV-2 have been reported nationally.
- The number of tests reported in week 26 of 2021 (n=441,615) was higher than the weekly number of tests reported since early January 2021.
- The testing rate in week 26 was 741 per 100,000 persons; highest in Gauteng (1334 per 100,000 persons) and lowest in Limpopo (304 per 100,000 persons).
- In week 26 the percentage testing positive was 30.2%, which was 2.3% higher than the previous week.
- The percentage testing positive in week 26 was highest in Limpopo (44.2%), Gauteng (37.6%), North West (34.8%) and Mpumalanga (31.1%) provinces. The percentage testing positive was between 20% and 30% in the Western Cape and Free State, and was <20% in the Northern Cape, Eastern Cape, and KwaZulu-Natal provinces.
- In week 26, compared to the previous week, the percentage testing positive increased in 8 of the 9 provinces (Western Cape, Eastern Cape, Free State, KwaZulu-Natal, Gauteng, North West, Mpumalanga and Limpopo), and remained the same in the Northern Cape province
- The number of tests reported is likely underestimated as antigen tests are increasingly being used outside of laboratory settings and reporting may be delayed or results may not be reported.

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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 17th 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. Results of reported rapid antigen-based tests are included in this report, however data are incomplete and efforts are ongoing to improve data completeness.

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 48 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. We used 2020 mid-year population estimates from Statistics South Africa to calculate the testing rate, expressed as tests per 100,000 persons. Patient admission status for

public and private sector tests was determined based on the reported patient facility. Laboratory turnaround times were calculated as the mean number of days between specimen collection and reporting of the result. Categorical variables were compared using the chi-squared test, and continuous variables with the students t-test, with a P-value<0.05 considered statistically significant.

Health district and sub-district (in the metros) level results were mapped based on geo-locatable public and private sector testing facilities. Estimates of overall prevalence were derived using regression techniques. Estimates were adjusted to produce district-specific positive test prevalences based on the national average age and sex profile of testing for that week. This adjustment allows more accurate comparison of the proportion testing positive across districts.

The report includes tests reported between 1 March 2020 (week 10 of 2020), the week when the first case of COVID-19 was confirmed, and 3 July 2021 (week 26 of 2021).

Testing volumes and proportion testing positive

From 1 March 2020 through 3 July 2021, 13,398,426 SARS-CoV-2 tests were reported; 12,052,883 PCR and 1,345,543 antigen tests. The highest number of tests reported during the first wave occurred in week 28 of 2020 (beginning 5 July, n=307,913). In the second wave, weekly testing volumes increased from week 48 of 2020 (beginning 22 November), with the highest weekly number of tests since the start of the pandemic reported in week 1 of 2021 (beginning 3 January, n=501,073). In the third wave, the weekly number of tests started increasing in week 19 of 2021 (beginning 9 May), and have increased weekly to 441,615 tests reported in week 26 of 2021. The number of tests reported in week 26 were the highest observed since week 1 of 2021 (beginning 3 January). All tests for samples collected in the previous week may not yet be reflected. Reduced testing volumes were observed over weekends and public holidays (Figure 1).

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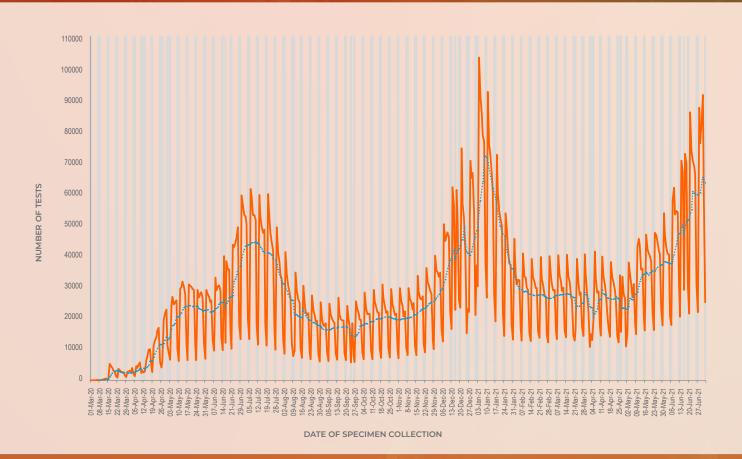


Figure 1. Number of SARS-CoV-2 tests reported by date of specimen collection, South Africa, 1 March 2020 – 3 July 2021. Blue dotted line shows the 7-day moving average of the number of tests reported. Grey bars highlight weekend days and public holidays.

The overall percentage testing positive from week 10 of 2020 through week 26 of 2021 was 16.3% (Table 1). During the first wave of infections, the percentage testing positive peaked at 29.7% in week 29 of 2020, and subsequently decreased to 8.4% in week 44 of 2020. During the second wave of infections the percentage testing positive increased to a peak of 34.6% in week 53 of 2020, and subsequently decreased to 4.0% in week 14 of 2021. The percentage testing positive in week 26 of 2021 was 30.2%, 2.3% higher than observed in the previous week (27.9%, P<0.001), and higher than observed since week 1 of 2021 (beginning 3 January) (Figure 2).

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 Table 1. Weekly number of SARS-CoV-2 tests and positive tests reported, South Africa, 1 March 2020 – 3 July 2021

Week number	Week beginning	No. of tests n (%)	No. of positive tests	Percentage testing positive (%)
10	01-Mar-20	456 (0.0)	13	2.9
	08-Mar-20	2380 (0.0)	103	4.3
12	15-Mar-20	21567 (0.2)	897	4.2
<u> </u>	22-Mar-20	17544 (0.1)	544	3.1
14	29-Mar-20	18249 (0.1)	521	2.9
15	05-Apr-20	26299 (0.2)	796	3.0
16	12-Apr-20	43753 (0.3)	1295	3.0
17	19-Apr-20	79176 (0.6)	2177	2.7
18	26-Apr-20	93815 (0.7)	3208	3.4
19	03-May-20	142711 (1.1)	6018	4.2
20	10-May-20	165376 (1.2)	8092	4.9
21	17-May-20	166544 (1.2)	11379	6.8
22	24-May-20	156139 (1.2)	12967	8.3
23	31-May-20	153571 (1.1)	15079	9.8
2324	07-Jun-20	173903 (1.3)	22362	12.9
2425	14-Jun-20	186090 (1.4)	32653	17.5
2526	21-Jun-20	252100 (1.9)	55049	21.8
2027	21-Jun-20	302747 (2.3)	75311	21.0
2728		307913 (2.3)	86039	24.9 27.9
	12-Jul-20			
		285600 (2.1)	84927	29.7
	<u>19-Jul-20</u>	270898 (2.0)	78636	29.0
31	<u> </u>	216394 (1.6)	58393	27.0
32	02-Aug-20	179573 (1.3)	40996	22.8
33	09-Aug-20	141103 (1.1)	26265	18.6
34	16-Aug-20	135014 (1.0)	21377	15.8
35	23-Aug-20	123333 (0.9)	16331	13.2
36	30-Aug-20	112762 (0.8)	12790	11.3
37	06-Sep-20	116997 (0.9)	11953	10.2
38	13-Sep-20	120715 (0.9)	12012	10.0
39	20-Sep-20	98819 (0.7)	10098	10.2
40	27-Sep-20	123062 (0.9)	11008	8.9
41	04-Oct-20	131045 (1.0)	11779	9.0
42	11-Oct-20	137974 (1.0)	12077	8.8
43	18-Oct-20	142171 (1.1)	12069	8.5
44	25-Oct-20	135850 (1.0)	11479	8.4
45	01-Nov-20	138820 (1.0)	12135	8.7
46	08-Nov-20	147008 (1.1)	14845	10.1
47	15-Nov-20	160646 (1.2)	18763	11.7
48	22-Nov-20	175688 (1.3)	22052	12.6
<u></u>	29-Nov-20	203147 (1.5)	30767	15.1
<u>+5</u> 50	06-Dec-20	267922 (2.0)	53312	19.9
51	06-Dec-20 13-Dec-20	294461 (2.2)	68577	23.3
5152		· · · · · · · · · · · · · · · · · · ·		
<u>52</u> 53	20-Dec-20 27-Dec-20	284556 (2.1)	81959 115734	28.8 34.6
		334387 (2.5)		
<u> </u>	03-Jan-21	501073 (3.7)	151016	30.1
2	10-Jan-21	417879 (3.1)	104774	25.1

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	Total	13,398,426 (100.0)	2,190,060	16.3
26	27-Jun-21	441615 (3.3)	133348	30.2
25	20-Jun-21	415023 (3.1)	115601	27.9
24	13-Jun-21	358060 (2.7)	86067	24.0
23	06-Jun-21	327105 (2.4)	58524	17.9
22	30-May-21	261181 (1.9)	35709	13.7
21	23-May-21	257569 (1.9)	29537	11.5
20	16-May-21	244394 (1.8)	24080	9.9
19	09-May-21	236977 (1.8)	19817	8.4
18	02-May-21	193087 (1.4)	13388	6.9
17	25-Apr-21	158771 (1.2)	9161	5.8
16	18-Apr-21	183937 (1.4)	9443	5.1
15	11-Apr-21	183375 (1.4)	8815	4.8
14	04-Apr-21	180082 (1.3)	7263	4.0
13	28-Mar-21	163090 (1.2)	7056	4.3
12	21-Mar-21	171823 (1.3)	7339	4.3
11	14-Mar-21	185266 (1.4)	8133	4.4
10	07-Mar-21	192607 (1.4)	8314	4.3
9	28-Feb-21	189226 (1.4)	8670	4.6
8	21-Feb-21	184321 (1.4)	10365	5.6
7	14-Feb-21	190273 (1.4)	12138	6.4
6	07-Feb-21	193160 (1.4)	16451	8.5
5	31-Jan-21	203530 (1.5)	22343	11.0
4	24-Jan-21	249415 (1.9)	34628	13.9
3	17-Jan-21	327309 (2.4)	63243	19.3

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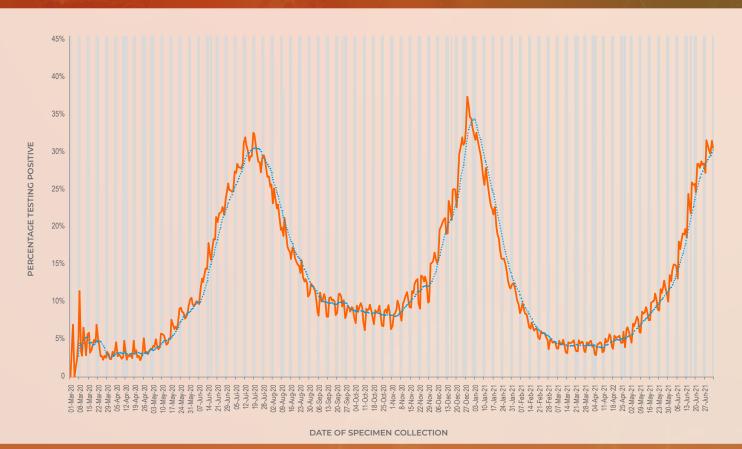


Figure 2. Percentage of tests positive for SARS-CoV-2 by date of specimen collection, South Africa, 1 March 2020 – 3 July 2021. Blue dotted line shows the 7-day moving average of the percentage testing positive. Grey bars highlight weekend days and public holidays.

Testing in private and public sectors

From 1 March 2020 through 3 July 2021, 5,818,528 tests were reported in the public sector, with 16.3% testing positive. Over this same period, the private sector reported 7,579,898 tests, with 16.4% testing positive (Table 2). Overall, the public sector has reported 43.7% of tests and accounted for 43.3% of positive tests. In the first wave of infections the peak percentage testing positive was observed in week 30 of 2020 in the public sector (28.8%), and in week 29 of 2020 in the private sector (30.6%). In the second wave of infections the highest percentage testing positive was observed in week 53 of 2020 in both the public sector (34.9%) and private sector (34.4%). From week 25 to week 26 of 2021, the percentage testing positive increased by 2.5% in the public sector (24.9% in week 25 to 27.4% in week 26, P<0.001) and by 2.6% in the

private sector (29.8% in week 25 to 32.4% in week 26, P<0.001). In week 26 the percentage testing positive in the private sector (32.4%) was 5.0% higher than in the public sector (27.4%, P<0.001). The private sector reported 59.9% of positive tests in week 26.

The mean turnaround time for PCR tests reported in week 26 of 2021 was 1.2 days; 2.0 days in the public sector and 0.8 days in the private sector (Figure 3). Turnaround times for public sector PCR tests were >2 days in the North West, Gauteng and Mpumalanga provinces in week 26 (Figure 4). Increases in turnaround times were observed in the Eastern Cape, North West and Limpopo provinces in the past week, while a decrease was observed in the Free State. Twenty of the 28 (71.4%) NHLS laboratories performing PCR testing for SARS-CoV-2 had turnaround times ≤2 days in week 26 (Figure 5).

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		Public sector		Priva	Private sector		r percentage of	Ratio
Week number	Week beginning	Tests	Cases n (%)	Tests	Positive tests n (%)	Tests (%)	Positive tests (%)	of PTP
10	01-Mar-20	294	10 (3.4)	162	3 (1.9)	64.5	76.9	1.837
11	08-Mar-20	401	27 (6.7)	1979	76 (3.8)	16.8	26.2	1.753
12	15-Mar-20	1442	81 (5.6)	20125	816 (4.1)	6.7	9.0	1.385
13	22-Mar-20	3478	149 (4.3)	14066	395 (2.8)	19.8	27.4	1.526
14	29-Mar-20	5868	194 (3.3)	12381	327 (2.6)	32.2	37.2	1.252
15	05-Apr-20	11735	417 (3.6)	14564	379 (2.6)	44.6	52.4	1.366
16	12-Apr-20	24167	672 (2.8)	19586	623 (3.2)	55.2	51.9	0.874
17	19-Apr-20	55110	1595 (2.9)	24066	582 (2.4)	69.6	73.3	1.197
18	26-Apr-20	67469	2453 (3.6)	26346	755 (2.9)	71.9	76.5	1.269
19	03-May-20	94338	4507 (4.8)	48373	1511 (3.1)	66.1	74.9	1.529
20	10-May-20	108001	5443 (5.0)	57375	2649 (4.6)	65.3	67.3	1.092
21	17-May-20	98648	7031 (7.1)	67896	4348 (6.4)	59.2	61.8	1.113
22	24-May-20	77597	6411 (8.3)	78542	6556 (8.3)	49.7	49.4	0.990
23	31-May-20	63945	6626 (10.4)	89626	8453 (9.4)	41.6	43.9	1.099
24	07-Jun-20	64655	8039 (12.4)	109248	14323 (13.1)	37.2	35.9	0.948
25	14-Jun-20	61149	11982 (19.6)	124941	20671 (16.5)	32.9	36.7	1.184
26	<u>21-Jun-20</u>	90455	20425 (22.6)	161645	34624 (21.4)	35.9	37.1	1.054
27	<u>28-Jun-20</u>	106371	27244 (25.6)	196376	48067 (24.5)	35.1	36.2	1.046
28	05-Jul-20	117727	32239 (27.4)	190186	53800 (28.3)		37.5	0.968
29	<u>12-Jul-20</u>	110664	31383 (28.4)	174936	53544 (30.6)		37.0	0.927
30	19-Jul-20	105217	30319 (28.8)	165681	48317 (29.2)	38.8	38.6	0.988
31	26-Jul-20	81248	22782 (28.0)	135146	35611 (26.4)	37.5	39.0	1.064
32	02-Aug-20	70566	16996 (24.1)	109007	24000 (22.0)	39.3	41.5	1.094
33	09-Aug-20	58661	11172 (19.0)	82442	15093 (18.3)	41.6	42.5	1.040
34	16-Aug-20	56138	9621 (17.1)	78876	11756 (14.9)	41.6	45.0	1.150
35	23-Aug-20	50319	7790 (15.5)	73014	8541 (11.7)	40.8	47.7	1.323
36	<u>30-Aug-20</u>	45422	6096 (13.4)	67340	6694 (9.9)	40.3	47.7	1.350
37	06-Sep-20	51055	6421 (12.6)	65942	5532 (8.4)	43.6	53.7	1.499
38	13-Sep-20	53707	6547 (12.2)	67008	5465 (8.2)	44.5	54.5	1.495
<u> </u>	20-Sep-20	44841	5530 (12.3)	53978	4568 (8.5)	45.4	54.8	1.457
40	27-Sep-20	48629	5568 (11.4)	74433	5440 (7.3)	39.5	50.6	1.567
41	04-Oct-20	50435	5690 (11.3)	80610	<u>6089 (7.6)</u>	38.5	48.3	1.494
42	11-Oct-20	53451	5702 (10.7)	<u>84523</u> 86048	6375 (7.5)	<u>38.7</u>	47.2	1.414
43	18-Oct-20	56123	6045 (10.8)		6024 (7.0)	39.5	50.1	1.539
44	25-Oct-20	51287	5721 (11.2)	84563	5758 (6.8)	37.8	49.8	1.638
45	01-Nov-20	52999	6061 (11.4)	85821	6074 (7.1)	38.2	49.9	1.616
46	08-Nov-20	58913	8097 (13.7)	88095	6748 (7.7)	40.1	54.5	1.794
47	<u>15-Nov-20</u>	67582	10584 (15.7)	93064	8179 (8.8)	42.1	56.4	1.782
48	22-Nov-20	74574	12200 (16.4)	101114	9852 (9.7)	42.4	55.3	1.679
49	29-Nov-20	81269	15730 (19.4)	121878	15037 (12.3)	40.0	51.1	1.569
50	06-Dec-20	107910	24716 (22.9)	160012	28596 (17.9)	40.3	46.4	1.282
51	<u>13-Dec-20</u>	117212	29815 (25.4)	177249	38762 (21.9)	39.8	43.5	1.163
52	20-Dec-20	109913	34128 (31.1)	174643	47831 (27.4)		41.6	1.134
53	27-Dec-20	151630	52932 (34.9)	182757	62802 (34.4)	45.3	45.7	1.016
	03-Jan-21	236964	71053 (30.0)	264109	79963 (30.3)	47.3	47.0	0.990
2_	10-Jan-21	203986	52950 (26.0)	213893	51824 (24.2)	48.8	50.5	1.071
3	17-Jan-21	165629	34452 (20.8)	161680	28791 (17.8)	50.6	54.5	1.168
4	24-Jan-21	123217	18991 (15.4)	126198	15637 (12.4)	49.4	54.8	1.244
5	31-Jan-21	99708	12053 (12.1)	103822	10290 (9.9)	49.0	53.9	1.220
6	07-Feb-21	91254	8496 (9.3)	101906	7955 (7.8)	47.2	51.6	1.193
7	14-Feb-21	86115	6640 (7.7)	104158	5498 (5.3)	45.3	54.7	1.461
8	21-Feb-21	82395	5782 (7.0)	101926	4583 (4.5)	44.7	55.8	1.561
9	28-Feb-21	87782	4665 (5.3)	101444	4005 (3.9)	46.4	53.8	1.346
10	07-Mar-21	92153	4573 (5.0)	100454	3741 (3.7)	47.8	55.0	1.333
11	14-Mar-21	89731	4432 (4.9)	95535	3701 (3.9)	48.4	54.5	1.275
12	21-Mar-21	76228	3456 (4.5)	95595	3883 (4.1)	44.4	47.1	1.116
13	28-Mar-21	70662	3452 (4.9)	92428	3604 (3.9)	43.3	48.9	1.253
14	04-Apr-21	78897	3342 (4.2)	101185	3921 (3.9)	43.8	46.0	1.093

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15	11-Apr-21	84740	4345 (5.1)	98635	4470 (4.5)	46.2	49.3	1.131
16	18-Apr-21	79763	4696 (5.9)	104174	4747 (4.6)	43.4	49.7	1.292
17	25-Apr-21	69448	4110 (5.9)	89323	5051 (5.7)	43.7	44.9	1.047
18	02-May-21	80551	5428 (6.7)	112536	7960 (7.1)	41.7	40.5	0.953
19	09-May-21	89318	7280 (8.2)	147659	12537 (8.5)	37.7	36.7	0.960
20	16-May-21	97477	9066 (9.3)	146917	15014 (10.2)	39.9	37.6	0.910
21	23-May-21	117847	11686 (9.9)	139722	17851 (12.8)	45.8	39.6	0.776
22	30-May-21	104680	11668 (11.1)	156501	24041 (15.4)	40.1	32.7	0.726
23	06-Jun-21	140514	19504 (13.9)	186591	39020 (20.9)	43.0	33.3	0.664
24	13-Jun-21	146111	28847 (19.7)	211949	57220 (27.0)	40.8	33.5	0.731
25	20-Jun-21	165926	41321 (24.9)	249097	74280 (29.8)	40.0	35.7	0.835
26	27-Jun-21	194817	53442 (27.4)	246798	79906 (32.4)	44.1	40.1	0.847
	Total	5,818,528	948,921 (16.3)	7,579,898	1,241,139 (16.4)	43.4	43.3	0.996

'Ratio of percentage testing positive (PTP) in the public sector to the private sector calculated as (no. of cases/total tests in public sector)/ (no. of cases/total tests in private sector)



Figure 3. Mean number of days between date of specimen collection and date of test result for PCR tests, by week of test result, South Africa, 6 June – 3 July 2021

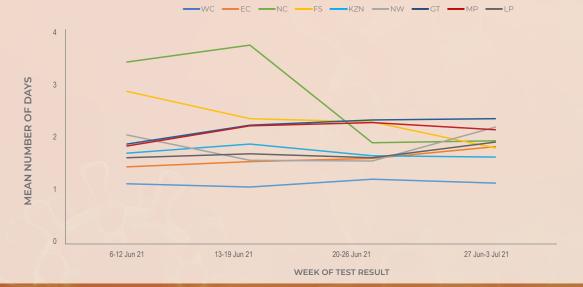
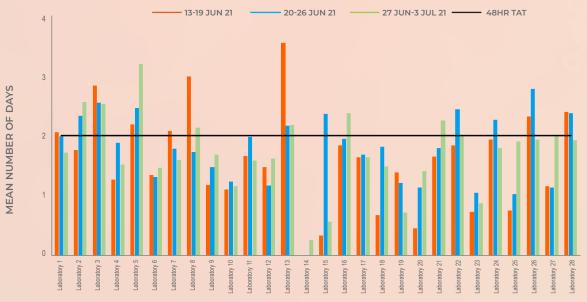


Figure 4. Mean number of days between date of specimen collection and date of test result for PCR tests, by week of test result and province, public sector, South Africa, 6 June – 3 July 2021. WC, Western Cape; EC, Eastern Cape; FS, Free State; KZN, KwaZulu-Natal; CT, Gauteng; NC, Northern Cape; NW, North West; MP, Mpumalanga; LP, Limpopo

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PUBLIC SECTOR LABORATORY

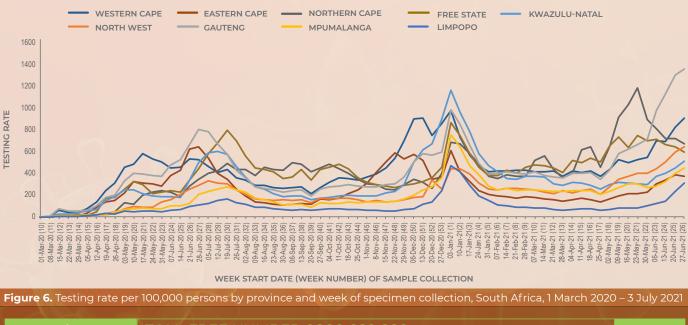
Figure 5. Mean number of days between date of specimen collection and date of test result for PCR tests, by public sector laboratory, 13 June – 3 July 2021. The horizontal black line indicates 48-hour turnaround time (TAT).

Testing by province

Gauteng reported the largest number of tests (46.8%), followed by Western Cape (14.1%) and KwaZulu-Natal (13.1%) provinces in week 26 of 2021 (Table 3). The overall testing rate increased from 696 per 100,000 persons in week 25 to 741 per 100,000 in week 26. The testing rate ranged from 1334 per 100,000 persons in Gauteng to 304 per 100,000 persons in Limpopo (Figure 6). Testing rates have increased in all provinces over recent weeks, except for Northern Cape and Free State where testing rates have decreased.

The percentage testing positive in week 26 was highest in Limpopo (44.2%), Gauteng (37.6%), North West (34.8%) and

Mpumalanga (31.1%) provinces. The percentage testing positive was between 20% and 30% in the Western Cape and Free State, and was <20% in the Northern Cape, Eastern Cape, and KwaZulu-Natal provinces (Figure 7 and Table 3). Compared to the previous week, the percentage testing positive in week 26 increased (P \leq 0.001) in 8 of the 9 provinces (Western Cape, Eastern Cape, Free State, KwaZulu-Natal, Gauteng, North West, Mpumalanga and Limpopo), with increases of \geq 5% compared to the previous week in Limpopo and Mpumalanga. The percentage testing positive remained the same in the Northern Cape province (P=0.451). The percentage testing positive was higher than the national average, not weighted for population size, in the North West, Gauteng, Mpumalanga and Limpopo provinces (Figure 7).



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Table 3. Weekly number of tests and positive tests reported, by province, South Africa, 13 June – 3 July 2021

		13-19) Jun 2021	20-26	5 Jun 2021	27 Ju	n-3 Jul 2021		
Province	Population ^a	No. of tests	No. positive tests (%)	No. of tests	No. positive tests (%)	No. of tests	No. positive tests (%)	Tests per 100,000 persons	Change in percentage positive ^b
Western Cape	7005741	47424	8035 (16.9)	56534	10954 (19.4)	62199	14687 (23.6)	888	4.2%
Eastern Cape	6734001	22419	2575 (11.5)	25804	3355 (13.0)	24582	3881 (15.8)	365	2.8%
Northern Cape	1292786	9157	1847 (20.2)	9128	1728 (18.9)	8541	1655 (19.4)	661	0.4%
Free State	2928903	19022	3228 (17.0)	18520	3307 (17.9)	17025	3560 (20.9)	581	3.1%
KwaZulu-Natal	11531628	45110	3745 (8.3)	50593	5557 (11.0)	57693	8363 (14.5)	500	3.5%
North West	4108816	20383	5537 (27.2)	23944	7489 (31.3)	25920	9014 (34.8)	631	3.5%
Gauteng	15488137	171052	55621 (32.5)	198301	73565 (37.1)	206630	77711 (37.6)	1334	0.5%
Mpumalanga	4679786	14836	3193 (21.5)	18299	4780 (26.1)	20539	6386 (31.1)	439	5.0%
Limpopo	5852553	8246	2206 (26.8)	13467	4799 (35.6)	17786	7861 (44.2)	304	8.6%
Unknown		411	80 (19.5)	433	67 (15.5)	700	230 (32.9)		
Total	59622350	358060	86067 (24.0)	415023	115601 (27.9)	441615	133348 (30.2)	741	2.3%

a 2020 Mid-year population Statistics SA

^b Current week compared to previous week



Figure 7. Weekly percentage testing positive, by province, South Africa, 13 June – 3 July 2021. The horizontal blue line shows the national mean for week 26, beginning 27 June 2021

Testing in the public sector

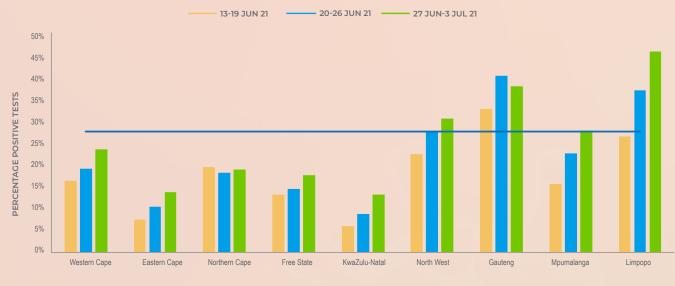
In the public sector, the percentage testing positive continued to increase in the past week (24.9% in week 25 to 27.4% in week 26, P<0.001) (Table 4). The percentage testing positive in week 26 was highest in Limpopo (45.7%), Gauteng (37.8%) and North West

(30.4%) provinces. The percentage testing positive in the public sector remains higher than the national average, not weighted for population size, in the North West, Gauteng, Mpumalanga and Limpopo provinces (Figure 8).

SOUTH AFRICA WEEK 26 2021

Table 4. Weekly number of tests and positive tests reported in the public sector, by province, South Africa, 13 June - 3 July 2021

	13-19 Jun 2021		20-26 J	un 2021	27 Jun-3 Jul 2021		
Province	No. of tests	No. positive tests (%)	No. of tests	No. positive tests (%)	No. of tests	No. positive tests (%)	
Western Cape	17994	2924 (16.2)	21433	4084 (19.1)	27311	6392 (23.4)	
Eastern Cape	14323	1058 (7.4)	16498	1717 (10.4)	15697	2132 (13.6)	
Northern Cape	6438	1246 (19.4)	6436	1163 (18.1)	5797	1089 (18.8)	
Free State	10386	1363 (13.1)	9779	1410 (14.4)	8314	1452 (17.5)	
KwaZulu-Natal	26870	1596 (5.9)	29366	2567 (8.7)	34470	4489 (13.0)	
North West	9773	2178 (22.3)	11177	3078 (27.5)	12193	3712 (30.4)	
Gauteng	51942	16908 (32.6)	60172	24168 (40.2)	77252	29222 (37.8)	
Mpumalanga	5838	902 (15.5)	6531	1468 (22.5)	7418	2045 (27.6)	
Limpopo	2546	671 (26.4)	4534	1666 (36.7)	6361	2907 (45.7)	
Unknown	1	1 (100.0)	0	0 (0.0)		2 (50.0)	
Total	146111	28847 (19.7)	165926	41321 (24.9)	194817	53442 (27.4)	



PROVINCE

Figure 8. Weekly percentage testing positive in the public sector, by province, South Africa, 13 June – 3 July 2021. The horizontal blue line shows the national mean for week 26 of 2021, beginning 27 June 2021.

Facilities with high proportions testing positive

The data on testing at facility level for the public sector for week 26 includes only PCR test results due to the failure of some facilities to report on negative antigen test results which, if included, would result in an overestimate of the positive test proportion (PTP). All tests (PCR and antigen) conducted in the private sector are included. Table 5.1 shows the 25 public sector clinics, hospitals and testing laboratories (where specimens were not tied to a particular facility), that had 25 or more specimens tested by PCR and at least five positive results in the week of 27 June-3 July 2021. Fourteen of the 25 public facilities showing the highest PTP are in Gauteng, and nine in Limpopo, and one each in Mpumalanga and North West.

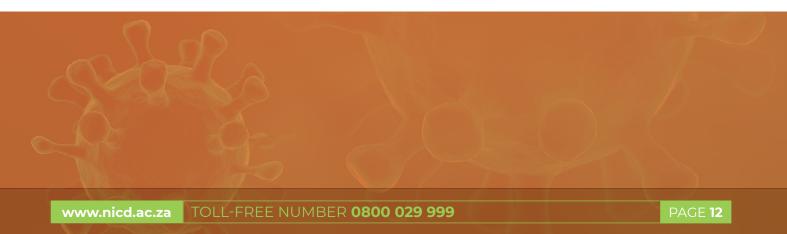
SOUTH AFRICA WEEK 26 2021

Table 5.1 Public sector healthcare facilities with a high proportion testing positive, 27 June-3 July 2021

Facility Name	Province	Tests	PTP (95% CI)
Facility 1	Gauteng	30	1.000 (1.000;1.000)
Facility 2	Limpopo	25	0.960 (0.883;1.037)
Facility 3	Gauteng	46	0.935 (0.863;1.006)
Facility 4	Limpopo	32	0.875 (0.760;0.990)
Facility 5	Gauteng	30	0.867 (0.745;0.988)
Facility 6	Limpopo	33	0.848 (0.726;0.971)
Facility 7	North West	25	0.800 (0.643;0.957)
Facility 8	Gauteng	36	0.778 (0.642;0.914)
Facility 9	Gauteng	29	0.759 (0.603;0.914)
Facility 10	Mpumalanga	33	0.727 (0.575;0.879)
Facility 11	Limpopo	91	0.714 (0.621;0.807)
Facility 12	Limpopo	59	0.712 (0.596;0.827)
Facility 13	Limpopo	34	0.706 (0.553;0.859)
Facility 14	Limpopo	36	0.694 (0.544;0.845)
Facility 15	Gauteng	39	0.692 (0.547;0.837)
Facility 16	Gauteng	35	0.686 (0.532;0.840)
Facility 17	Gauteng	50	0.680 (0.551;0.809)
Facility 18	Gauteng	125	0.680 (0.598;0.762)
Facility 19	Gauteng	53	0.679 (0.554;0.805)
Facility 20	Gauteng	351	0.678 (0.629;0.727)
Facility 21	Gauteng	65	0.677 (0.563;0.791)
Facility 22	Gauteng	34	0.676 (0.519;0.834)
Facility 23	Limpopo	40	0.675 (0.530;0.820)
Facility 24	Gauteng	36	0.667 (0.513;0.821)
Facility 25	Limpopo	42	0.667 (0.524;0.809)

95% CI: 95% confidence interval; PTP: positive test proportion

Table 5.2 shows the 25 private sector clinics, hospitals and testing laboratories (where specimens were not tied to a particular facility), that had 25 or more specimens tested and at least five positive results in the week of 27 June-3 July 2021, with the highest proportion testing positive nationally. The private-sector facilities with the 25 highest proportions testing positive are concentrated almost exclusively in Gauteng (21), with three in Limpopo and one in Mpumalanga.



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Table 5.2 Private sector healthcare facilities with a high proportion testing positive, 27 June-3 July 2021

Facility Name	Province	Tests	PTP (95% CI)
Facility 1	Limpopo	40	0.725 (0.587;0.863)
Facility 2	Gauteng	76	0.671 (0.565;0.777)
Facility 3	Gauteng	37	0.649 (0.495;0.802)
Facility 4	Limpopo	65	0.646 (0.530;0.762)
Facility 5	Gauteng	90	0.644 (0.546;0.743)
Facility 6	Gauteng	84	0.643 (0.540;0.745)
Facility 7	Gauteng	121	0.636 (0.551;0.722)
Facility 8	Limpopo	409	0.636 (0.589;0.682)
Facility 9	Gauteng	69	0.609 (0.494;0.724)
Facility 10	Gauteng	143	0.608 (0.528;0.688)
Facility 11	Gauteng	153	0.608 (0.530;0.685)
Facility 12	Gauteng	251	0.598 (0.537;0.658)
Facility 13	Mpumalanga	121	0.595 (0.508;0.683)
Facility 14	Gauteng	229	0.594 (0.530;0.657)
Facility 15	Gauteng	76	0.592 (0.482;0.703)
Facility 16	Gauteng	271	0.590 (0.532;0.649)
Facility 17	Gauteng	29	0.586 (0.407;0.765)
Facility 18	Gauteng	106	0.585 (0.491;0.679)
Facility 19	Gauteng	555	0.578 (0.537;0.619)
Facility 20	Gauteng	122	0.574 (0.486;0.662)
Facility 21	Gauteng	669	0.571 (0.533;0.609)
Facility 22	Gauteng	265	0.566 (0.506;0.626)
Facility 23	Gauteng	158	0.563 (0.486;0.641)
Facility 24	Gauteng	89	0.562 (0.459;0.665)
Facility 25	Gauteng	73	0.562 (0.448;0.675)

95% CI: 95% confidence interval; PTP: positive test proportion

Health district-level results

The data from geolocatable public testing (almost every public sector facility in the country) and private testing (approximately 81% of private testing facilities) in the week from 27 June-3 July 2021 have been located within the spatial framework of the health districts and health sub-districts (in the metros). Districts with fewer than 20 tests reported during the week have been excluded from the analysis.

The results, for the 25 municipalities and metropolitan health sub-districts showing the greatest proportions testing positive (PTP) are shown in the table below. Ten of the 25 districts are in Gauteng, with nine in Limpopo. For the third week, all 25 districts with the highest PTP showed a PTP in the current week in excess of 30%. This week, all districts exceeded 40% (last week, 23 districts), and 14 exceeded 50% (last week, 6 districts). PTP exceeded 30% in a further 57 districts (33 last week). Significant increases were observed in 11 of the 25 districts with the highest PTP (8 in Limpopo, two in North West, and one in Gauteng). There was a statistically significant reduction in PTP in Randfontein, Gauteng.

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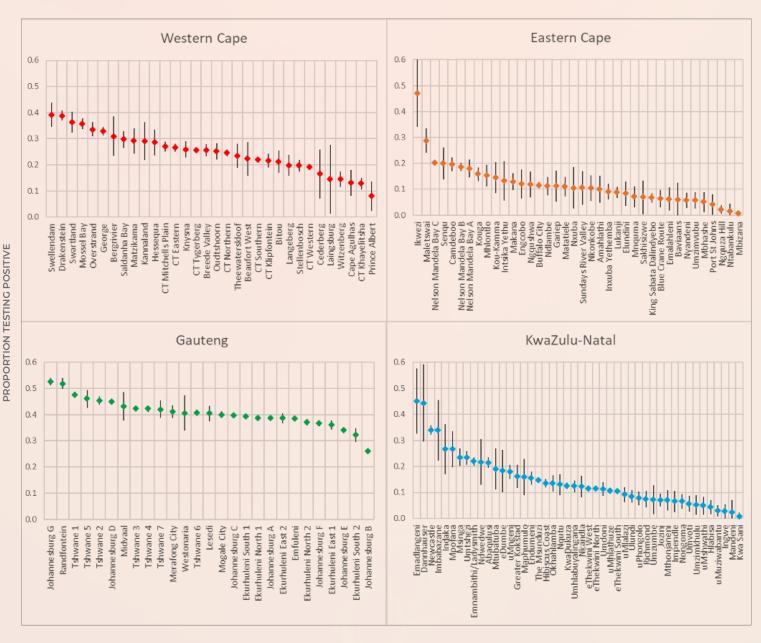
Table 6. Health sub-districts with the highest proportion testing positive based on public and private sector data for the week of27 June-3 July 2021

Health district or sub-district	Province	PTP (95% CI)	Previous week
Makhuduthamaga	Limpopo	0.607 (0.550-0.664)	0.554 (0.497-0.611)
Bela-Bela	Limpopo	0.607 (0.523-0.690)	0.498 (0.419-0.578)
Blouberg	Limpopo	0.590 (0.490-0.690)	0.289 (0.176-0.402)
Moretele	North West	0.574 (0.515-0.633)	0.468 (0.422-0.514)
Makhado	Limpopo	0.570 (0.543-0.597)	0.494 (0.460-0.527)
Ephraim Mogale	Limpopo	0.564 (0.468-0.660)	0.376 (0.279-0.473)
Mogalakwena	Limpopo	0.531 (0.491-0.571)	0.381 (0.346-0.415)
Johannesburg G	Gauteng	0.527 (0.512-0.541)	0.524 (0.510-0.538)
Ventersdorp	North West	0.526 (0.401-0.651)	0.650 (0.503-0.797)
Randfontein	Gauteng	0.519 (0.499-0.540)	0.610 (0.594-0.626)
Thabazimbi	Limpopo	0.517 (0.487-0.546)	0.491 (0.459-0.522)
Ba-Phalaborwa	Limpopo	0.507 (0.464-0.550)	0.289 (0.247-0.330)
Mookgopong	Limpopo	0.504 (0.423-0.585)	0.326 (0.233-0.419)
Lephalale	Limpopo	0.501 (0.477-0.526)	0.379 (0.349-0.408)
Thulamela	Limpopo	0.493 (0.465-0.521)	0.398 (0.362-0.434)
Dr JS Moroka	Mpumalanga	0.489 (0.446-0.532)	0.443 (0.402-0.483)
Mamusa	North West	0.486 (0.346-0.626)	0.125 (0.078-0.172)
Tshwane 1	Gauteng	0.476 (0.464-0.488)	0.444 (0.433-0.456)
Greater Tubatse	Limpopo	0.475 (0.437-0.513)	0.405 (0.356-0.453)
Greater Giyani	Limpopo	0.473 (0.400-0.545)	0.313 (0.243-0.383)
Ikwezi	Eastern Cape	0.472 (0.340-0.603)	
Lepele-Nkumpi	Limpopo	0.469 (0.420-0.517)	0.415 (0.373-0.458)
Tshwane 5	Gauteng	0.460 (0.426-0.494)	0.416 (0.384-0.448)
Elias Motsoaledi	Limpopo	0.460 (0.413-0.506)	0.397 (0.341-0.453)
Modimolle	Limpopo	0.459 (0.389-0.530)	0.487 (0.418-0.556)

95% CI: 95% confidence interval; PTP: adjusted positive test proportion; Elements marked in **red** have current week proportions testing positive that are **higher** than, and CIs that do not overlap with, the previous week proportions and CIs. Elements marked in **New** have current week proportions testing positive that are **hower** than, and CIs that do not overlap with, the previous week proportions and CIs.

The data for the current week for every district with a non-zero proportion testing positive or where the range of confidence interval is not more than 30% (15% either side of the point estimate), and where more than 20 tests were conducted in the present week, is presented graphically below.

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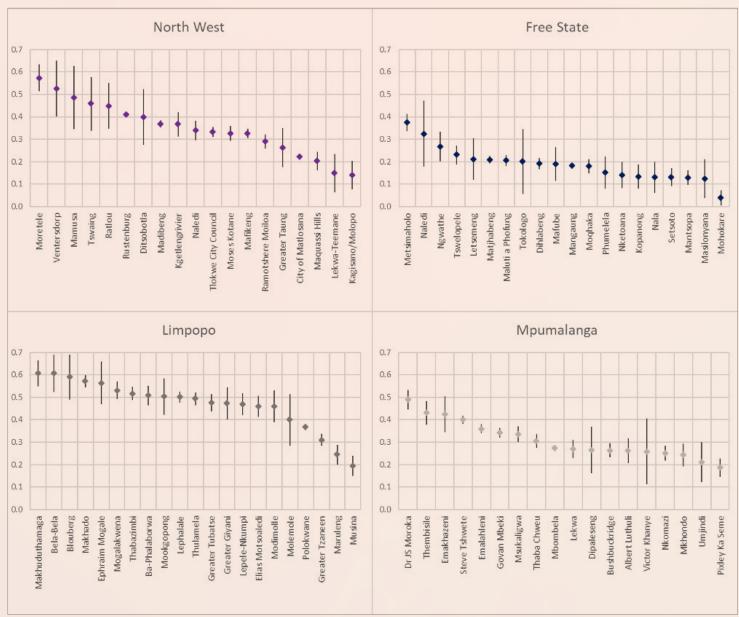
HEALTH SUB-DISTRICT

Figure 9.1 Proportions testing positive by health sub-district in the Western Cape, Eastern Cape, Gauteng and KwaZulu-Natal provinces based on public and private sector data for the week of 27 June-3 July 2021.



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HEALTH SUB-DISTRICT

Figure 9.2 Proportions testing positive by health sub-district in the North West, Free State, Limpopo and Mpumalanga provinces based on public and private sector data for the week of 27 June-3 July 2021.

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PROPORTION TESTING POSITIVE

Northern Cape 0.6 0.5 0.4 0.3 0.2 ł 0.1 0.0 //Khara Hais Hantam Joe Morolong Magareng Ubuntu Kai !Garib Thembelihle Ga-Segonyana Phokwane Khâi-Ma Dikgatlong Kareeberg Siyancuma Jm sobomvu Sol Plaatjie Richtersveld Tsantsabane Emthanjeni Karoo Hoogland Siyathemba Kamiesberg Nama Khoi

HEALTH SUB-DISTRICT

Figure 9.3 Proportions testing positive by health sub-districts in the Northern Cape Province based on public and private sector data for the week of 27 June-3 July 2021.

The spatial pattern of adjusted proportions testing positive, including both public and private sector data, by health district and sub-district are shown for South Africa (Figure 10), Western Cape (Figure 11), Eastern Cape (Figure 12), Northern Cape (Figure 13), Free State (Figure 14), KwaZulu-Natal (Figure 15), North West (Figure 16), Gauteng (Figure 17), Mpumalanga (Figure 18) and Limpopo (Figure 19).



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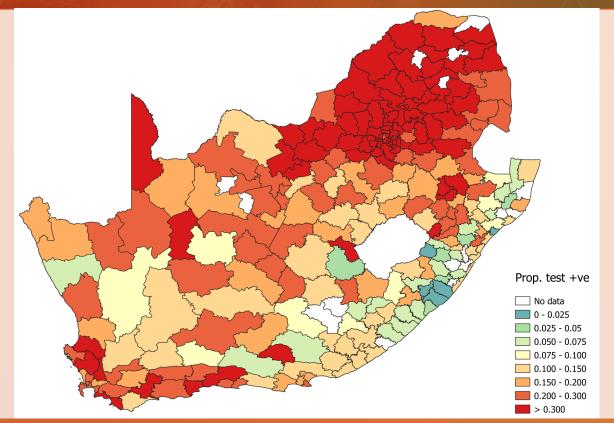


Figure 10. Proportion testing positive by health sub-district in South Africa for the week of 27 June-3 July 2021. Areas shaded white represent districts in which either (i) no tests were reported, (ii) all tests were negative, or (iii) the confidence interval exceeded 30%.

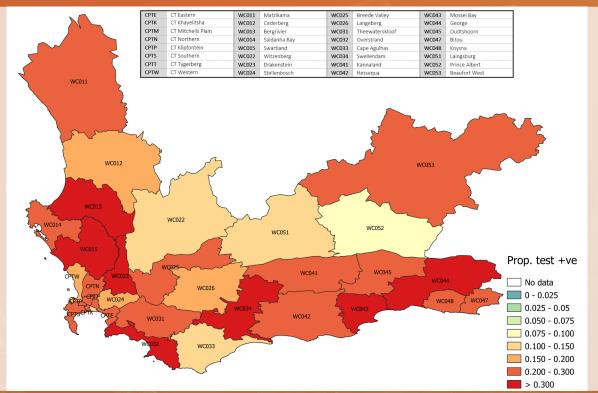


Figure 11. Proportion testing positive by health sub-district in the Western Cape Province for the week of 27 June-3 July 2021. Areas shaded white represent districts in which either (i) no tests were reported, (ii) all tests were negative, or (iii) the confidence interval exceeded 30%

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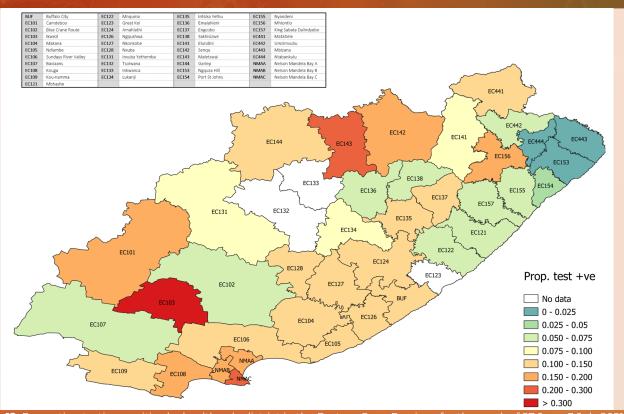


Figure 12. Proportion testing positive by health sub-district in the Eastern Cape Province for the week of 27 June-3 July 2021. Areas shaded white represent districts in which either (i) no tests were reported, (ii) all tests were negative, or (iii) the confidence interval exceeded 30%.

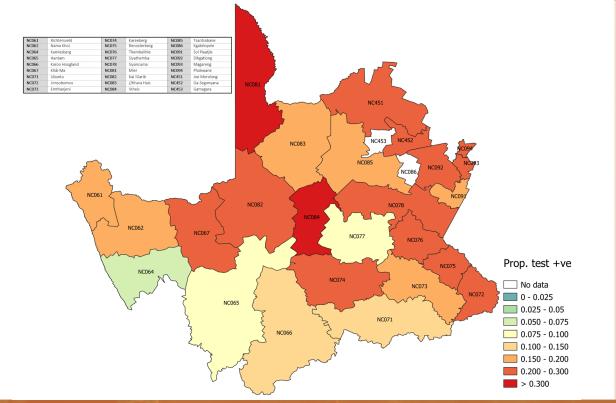


Figure 13. Proportion testing positive by health sub-district in Northern Cape Province for the week of 27 June-3 July 2021. Areas shaded white represent districts in which either (i) no tests were reported, (ii) all tests were negative, or (iii) the confidence interval exceeded 30%.

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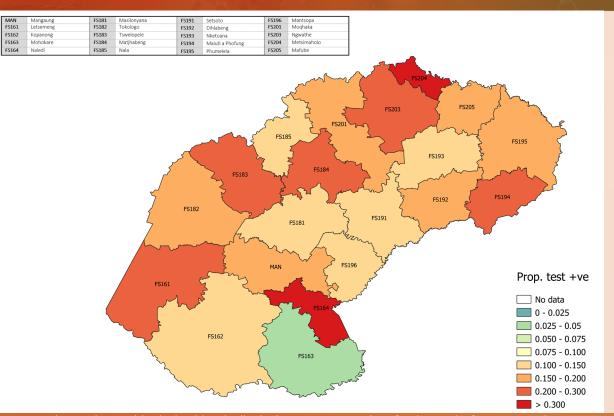


Figure 14. Proportion testing positive by health sub-district in Free State Province for the week of 27 June-3 July 2021. Areas shaded white represent districts in which either (i) no tests were reported, (ii) all tests were negative, or (iii) the confidence interval exceeded 30%.

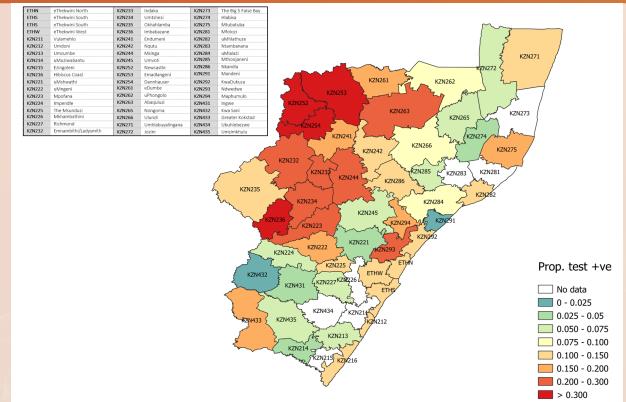


Figure 15. Proportion testing positive by health sub-district in KwaZulu-Natal Province for the week of 27 June-3 July 2021. Areas shaded white represent districts in which either (i) no tests were reported, (ii) all tests were negative, or (iii) the confidence interval exceeded 30%.

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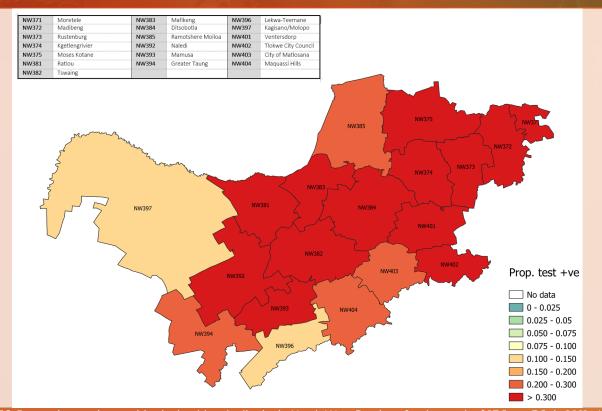


Figure 16. Proportion testing positive by health sub-district in North West Province for the week of 27 June-3 July 2021. Areas shaded white represent districts in which either (i) no tests were reported, (ii) all tests were negative, or (iii) the confidence interval exceeded 30%.

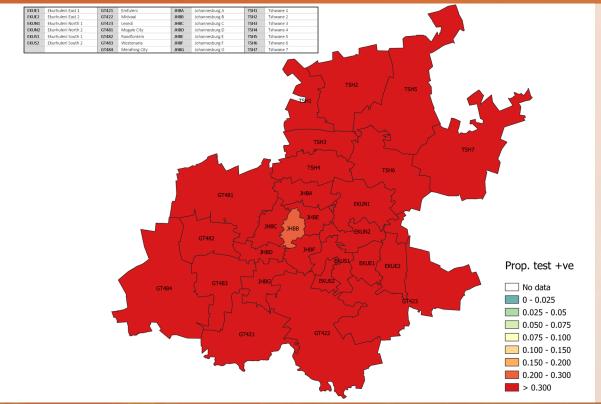


Figure 17. Proportion testing positive by health sub-district in Gauteng Province for the week of 27 June-3 July 2021. Areas shaded white represent districts in which either (i) no tests were reported, (ii) all tests were negative, or (iii) the confidence interval exceeded 30%.

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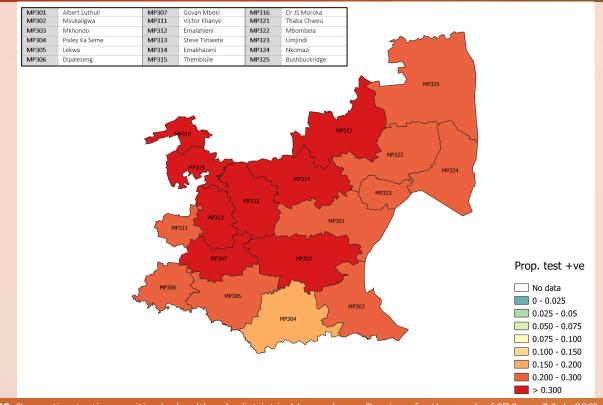


Figure 18. Proportion testing positive by health sub-district in Mpumalanga Province for the week of 27 June-3 July 2021. Areas shaded white represent districts in which either (i) no tests were reported, (ii) all tests were negative, or (iii) the confidence interval exceeded 30%.

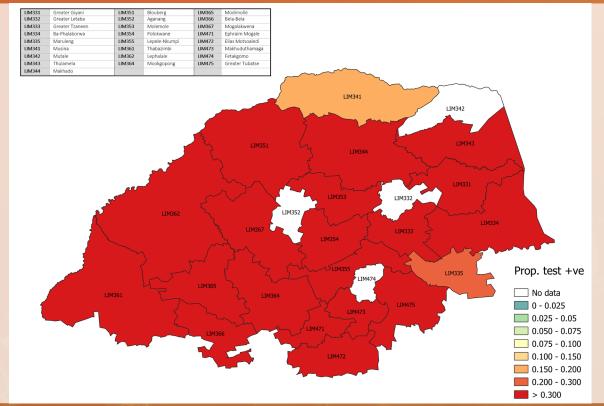


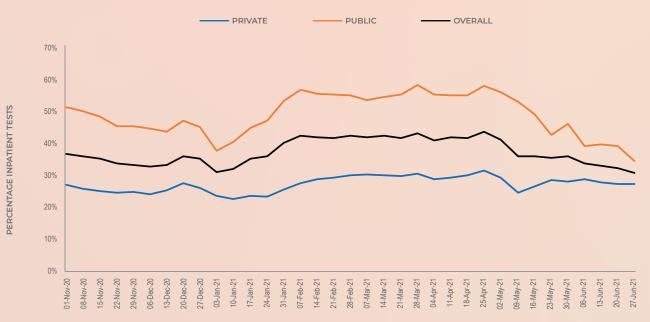
Figure 19. Proportion testing positive by health sub-district in Limpopo Province for the week of 27 June-3 July 2021. Areas shaded white represent districts in which either (i) no tests were reported, (ii) all tests were negative, or (iii) the confidence interval exceeded 30%.

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Testing by patient admission status

In week 26 of 2021, 30.4% of reported tests were for hospitalised patients; 34.2% in the public sector and 27.0% in the private sector (Figure 20). The percentage testing positive in week 26 was higher among outpatients (32.0%) compared to inpatients (25.6%), with increases continuing to be observed in both groups (Figure 21). In week 26 the mean laboratory turnaround time for PCR tests in the public sector was higher among outpatients (2.3 days) compared to inpatients (1.4 days) (Figure 22).



WEEK START DATE OF SPECIMEN COLLECTION

Figure 20. Percentage of inpatient tests reported by health sector, 1 November 2020 – 3 July 2021



Figure 21. Percentage testing positive by patient admission status, 9 May – 3 July 2021

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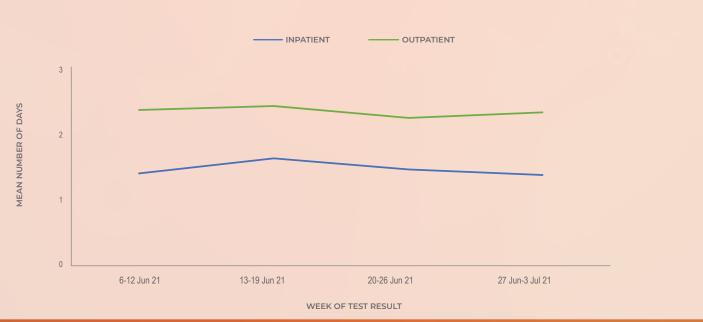


Figure 22. Mean number of days between date of specimen collection and date of test result for PCR tests in the public sector by patient admission status, 6 June – 3 July 2021

Testing by age and sex

The median age of individuals tested in week 26 of 2021 was 37 years (interquartile range (IQR) 27-50): 38 years (IQR 27-50) in males and 37 years (IQR 27-50) in females. The majority of reported tests (61.8%) were in individuals in the 20-49 years' age group (Figure 23). In week 26, the testing rate was higher in females (765 per 100,000 persons) than in males (689 per 100,000 persons) (Figure 24). Testing rates in week 26 were

highest in the 50-54 years age group (1322 per 100,000 persons). The percentage testing positive was highest in individuals aged 55-59 years (34.8%). In males (34.0%) and females (35.5%) the percentage testing positive was highest in individuals aged 55-59 years.

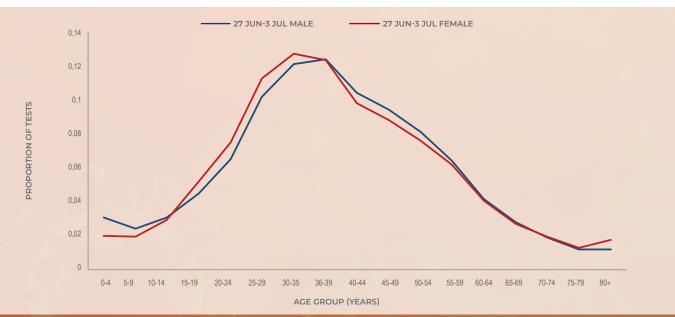


Figure 23. Proportion of tests by age group and sex, South Africa, week 26, 27 June – 3 July 2021

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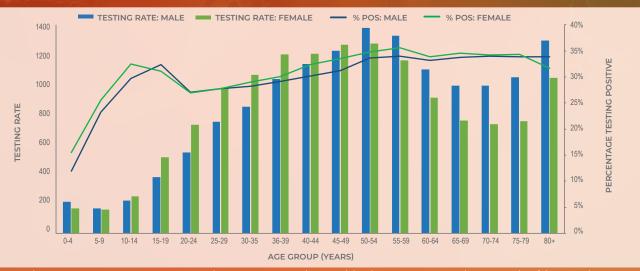


Figure 24. Testing rates per 100,000 persons and percentage testing positive by age group and sex, South Africa, week 26, 27 June – 3 July 2021

Testing by test type

Up to the end of week 26 of 2021, 10.0% (1,345,543/13,398,426) of all reported tests were antigen tests. In week 26, 20.7% (91,363/441,615) of reported tests were antigen tests (Figure 25). Overall, 80.5% of antigen tests have been performed in the public sector, and in week 26 the public sector accounted for 84.7% (77,402/91,363) of antigen tests. Since antigen testing began in November 2020, the majority of antigen tests have been reported from KwaZulu-Natal (36.7%), Gauteng (18.4%) and Eastern Cape (11.2%) provinces. In the past few weeks, KwaZulu-Natal and Gauteng have performed the highest weekly number of antigen tests, with a large increase in the

number of antigen tests reported in Gauteng in week 26. The percentage testing positive was higher for PCR tests compared to antigen tests, and in week 26 it was 32.6% for PCR tests and 20.9% for antigen tests (Figure 26). The mean turnaround time for antigen tests reported in week 26 decreased to 3.4 days in the public sector and remained at 0.1 days in the private sector (Figure 27). The number of antigen tests reported is likely underestimated as antigen tests are increasingly being used outside of laboratory settings and results may not be reported or reporting may be delayed. In addition, if only positive antigen tests were reported, this would have resulted in an overestimation of percentage testing positive.

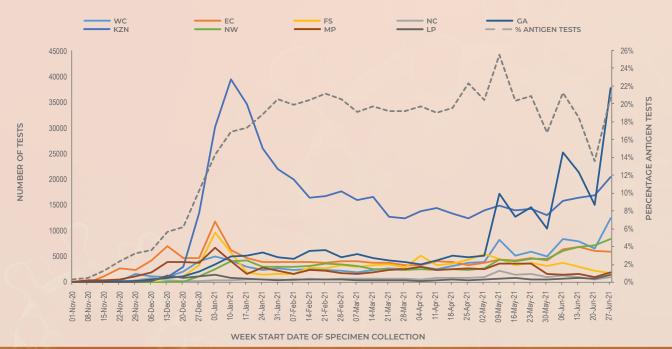
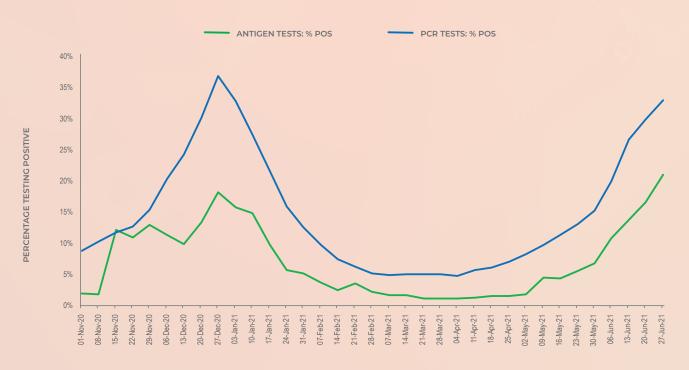


Figure 25. Number of antigen tests by province, and overall percentage antigen tests, South Africa, 1 November 2020 – 3 July 2021. WC, Western Cape; EC, Eastern Cape; FS, Free State; KZN, KwaZulu-Natal; GT, Gauteng; NC, Northern Cape; NW, North West; MP, Mpumalanga; LP, Limpopo

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WEEK START DATE OF SPECIMEN COLLECTION

Figure 26. Percentage of laboratory tests positive for SARS-CoV-2 by test type and date of specimen collection, South Africa, 1 November 2020 – 3 July 2021

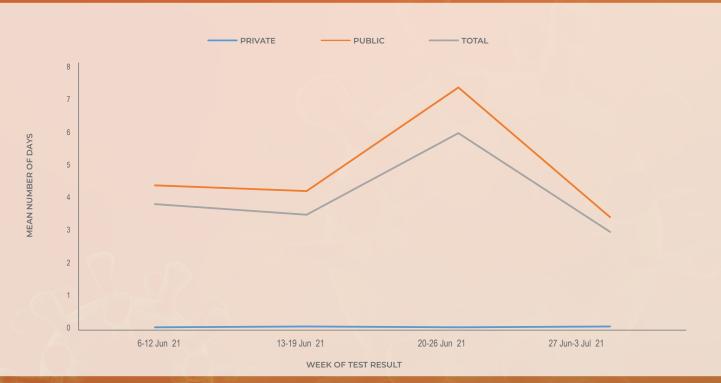


Figure 27. Mean number of days between date of specimen collection and date of test result for antigen tests, by week of test result, South Africa, 6 June - 3 July 2021

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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 and PCR vs. antigen-based tests) used by different provinces makes percentage testing positive and number of reported tests difficult to interpret and compare.
- Health district and sub-district level were mapped based on the testing facility and not place of residence.
- Patient admission status was categorised based on the reported patient facility and may not reflect whether the patient was actually admitted to hospital.
- Antigen tests may be underestimated as they are used in a number of different settings and results may not be reported.

CONCLUSIONS

The number of tests reported in week 26 (n=441,615) was higher than the weekly number of tests reported since early January 2021. Gauteng (46.8%), Western Cape (14.1%) and KwaZulu-Natal (13.1%) provinces reported the largest number of tests in week 26. The overall testing rate in week 26 was 741 per 100,000 persons; highest in Gauteng (1334 per 100,000 persons) and lowest in Limpopo (304 per 100,000 persons). Testing rates have increased in all provinces in recent weeks, except the Northern Cape and Free State where testing rates have decreased. Antigen tests accounted for 20.7% (91,363/441,615) of all tests reported in week 26, however the number of antigen tests is likely underestimated due to underreporting and delayed reporting of antigen tests. The overall mean laboratory turnaround time for PCR tests was 1.2 days in week 26; 2.0 days in the public sector and 0.8 days in the private sector.

The percentage testing positive continued to increase and in week 26 the percentage testing positive was 30.2%, which increased by 2.3% compared to the previous week. The percentage testing positive in week 26 was highest in Limpopo (44.2%), Gauteng (37.6%), North West (34.8%) and Mpumalanga (31.1%) provinces. The percentage testing positive was between 20% and 30% in the Western Cape and Free State, and was <20% in the Northern Cape, Eastern Cape, and KwaZulu-Natal provinces. Compared to the previous week, the percentage testing positive in week 26 increased in 8 of the 9 provinces (Western Cape, Eastern Cape, Free State, KwaZulu-Natal, Gauteng, North West, Mpumalanga and Limpopo), and remained the same in the Northern Cape province.