

# COVID-19 TESTING SUMMARY



NATIONAL INSTITUTE FOR  
COMMUNICABLE DISEASES

Division of the National Health Laboratory Service

SOUTH AFRICA WEEK 31 2021

## 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 7 August 2021 (Week 31 of 2021).

## HIGHLIGHTS

- In the period 1 March 2020 through 7 August 2021, 15,184,265 (13,416,669 PCR and 1,767, 596 antigen) tests for SARS-CoV-2 have been reported nationally.
- The number of tests reported in week 31 of 2021 (n=325,823) was lower than the weekly number of tests reported in the previous week.
- The testing rate in week 31 was 546 per 100,000 persons; highest in the Western Cape (970 per 100,000 persons) and lowest in Limpopo (160 per 100,000 persons).
- In week 31 the percentage testing positive was 24.3%, which was 1.4% lower than the previous week.
- The percentage testing positive in week 31 was highest in the Western Cape (33.3%) and Mpumalanga (31.6%) provinces. The percentage testing positive was between 20% and 30% in the Eastern Cape, Northern Cape, Free State, KwaZulu-Natal, North West and Limpopo provinces and was less than 20% in Gauteng.
- In week 31, compared to the previous week, the percentage testing positive increased in the Western Cape, Free State and KwaZulu-Natal provinces. The percentage testing positive decreased in the Northern Cape, North West, Gauteng, Mpumalanga and Limpopo and remained unchanged in the Eastern Cape.
- 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 (NMCCSS). 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.

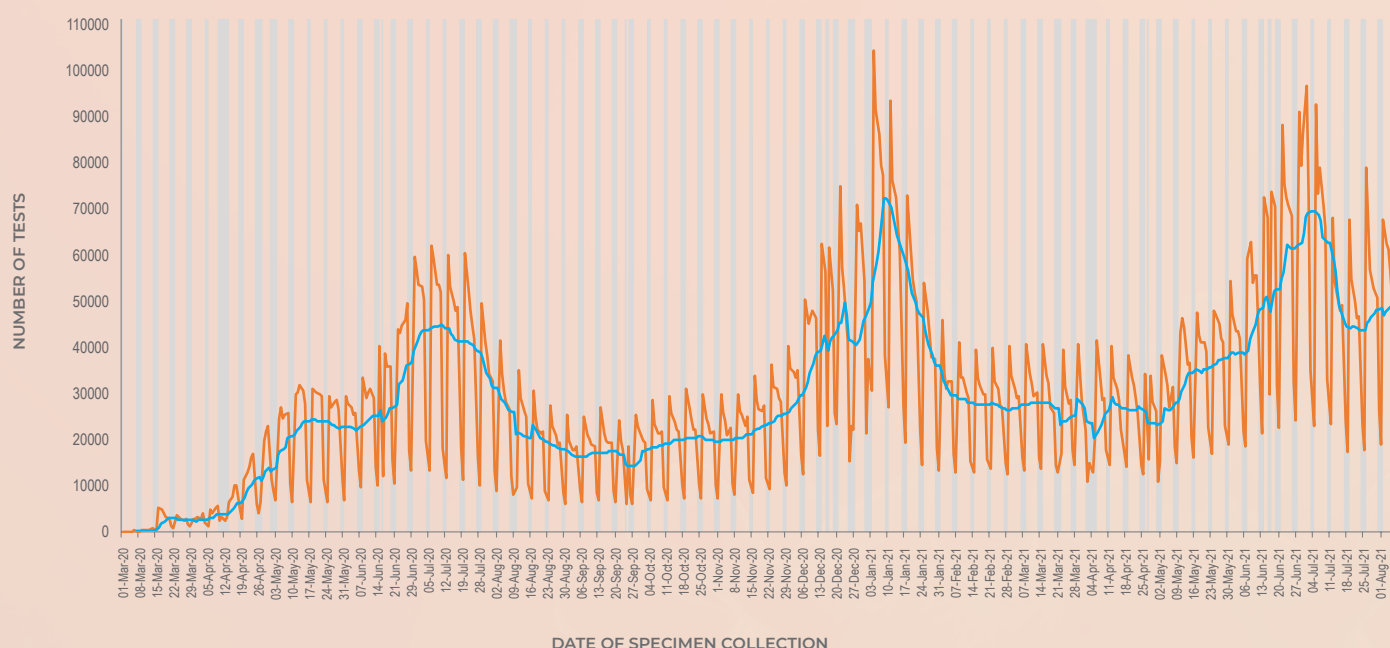
The report includes tests reported between 1 March 2020 (week 10 of 2020), the week when the first case of COVID-19 was confirmed, and 7 August 2021 (week 31 of 2021).

## Testing volumes and proportion testing positive

From 1 March 2020 through 7 August 2021, 15,184,265 SARS-CoV-2 tests were reported; 13,416,669 PCR and 1,767, 596 antigen tests. The highest weekly number of tests reported during the first wave occurred in week 28 of 2020 (beginning 5 July, n=307,916). In the second wave, the highest weekly number of tests were reported in week 1 of 2021 (beginning 3 January, n=501,136). In the third wave, the weekly number of tests started increasing in week 19 of 2021 (beginning 9 May), and increased weekly to a peak in week 26 of 2021 (beginning 27 June, n=480,396). The number of tests reported in week 31 was 325,823 slightly lower than the number reported in the previous week. 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 – 7 August 2021. Blue 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 31 of 2021 was 17.7% (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. In the third wave of infections, the percentage testing positive peaked at 32.0% in week 27 of 2021 (beginning 4 July), and has subsequently decreased weekly. The percentage testing positive in week 31 of 2021 was 24.3%, which was 1.4% lower than the previous week (25.7%,  $P < 0.001$ ) (Figure 2).

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**Table 1.** Weekly number of SARS-CoV-2 tests and positive tests reported, South Africa, 1 March 2020 – 7 August 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
11	08-Mar-20	2380 (0.0)	103	4.3
12	15-Mar-20	21567 (0.1)	897	4.2
13	22-Mar-20	17545 (0.1)	544	3.1
14	29-Mar-20	18251 (0.1)	521	2.9
15	05-Apr-20	26299 (0.2)	796	3.0
16	12-Apr-20	43754 (0.3)	1295	3.0
17	19-Apr-20	79179 (0.5)	2177	2.7
18	26-Apr-20	93818 (0.6)	3209	3.4
19	03-May-20	142713 (0.9)	6018	4.2
20	10-May-20	165377 (1.1)	8092	4.9
21	17-May-20	166544 (1.1)	11379	6.8
22	24-May-20	156139 (1.0)	12967	8.3
23	31-May-20	153571 (1.0)	15079	9.8
24	07-Jun-20	173905 (1.1)	22363	12.9
25	14-Jun-20	186090 (1.2)	32653	17.5
26	21-Jun-20	252100 (1.7)	55049	21.8
27	28-Jun-20	302751 (2.0)	75313	24.9
28	05-Jul-20	307916 (2.0)	86041	27.9
29	12-Jul-20	285603 (1.9)	84927	29.7
30	19-Jul-20	270900 (1.8)	78636	29.0
31	26-Jul-20	216397 (1.4)	58394	27.0
32	02-Aug-20	179575 (1.2)	40996	22.8
33	09-Aug-20	141104 (0.9)	26266	18.6
34	16-Aug-20	135014 (0.9)	21377	15.8
35	23-Aug-20	123333 (0.8)	16331	13.2
36	30-Aug-20	112763 (0.7)	12790	11.3
37	06-Sep-20	116998 (0.8)	11953	10.2
38	13-Sep-20	120716 (0.8)	12012	10.0
39	20-Sep-20	98822 (0.7)	10098	10.2
40	27-Sep-20	123062 (0.8)	11008	8.9
41	04-Oct-20	131045 (0.9)	11779	9.0
42	11-Oct-20	137979 (0.9)	12077	8.8
43	18-Oct-20	142173 (0.9)	12069	8.5
44	25-Oct-20	135853 (0.9)	11479	8.4
45	01-Nov-20	138843 (0.9)	12138	8.7
46	08-Nov-20	147009 (1.0)	14845	10.1
47	15-Nov-20	160649 (1.1)	18765	11.7
48	22-Nov-20	175695 (1.2)	22054	12.6
49	29-Nov-20	203151 (1.3)	30769	15.1
50	06-Dec-20	267927 (1.8)	53314	19.9
51	13-Dec-20	294470 (1.9)	68578	23.3
52	20-Dec-20	284587 (1.9)	81962	28.8
53	27-Dec-20	334399 (2.2)	115738	34.6
1	03-Jan-21	501136 (3.3)	151030	30.1
2	10-Jan-21	417927 (2.8)	104788	25.1



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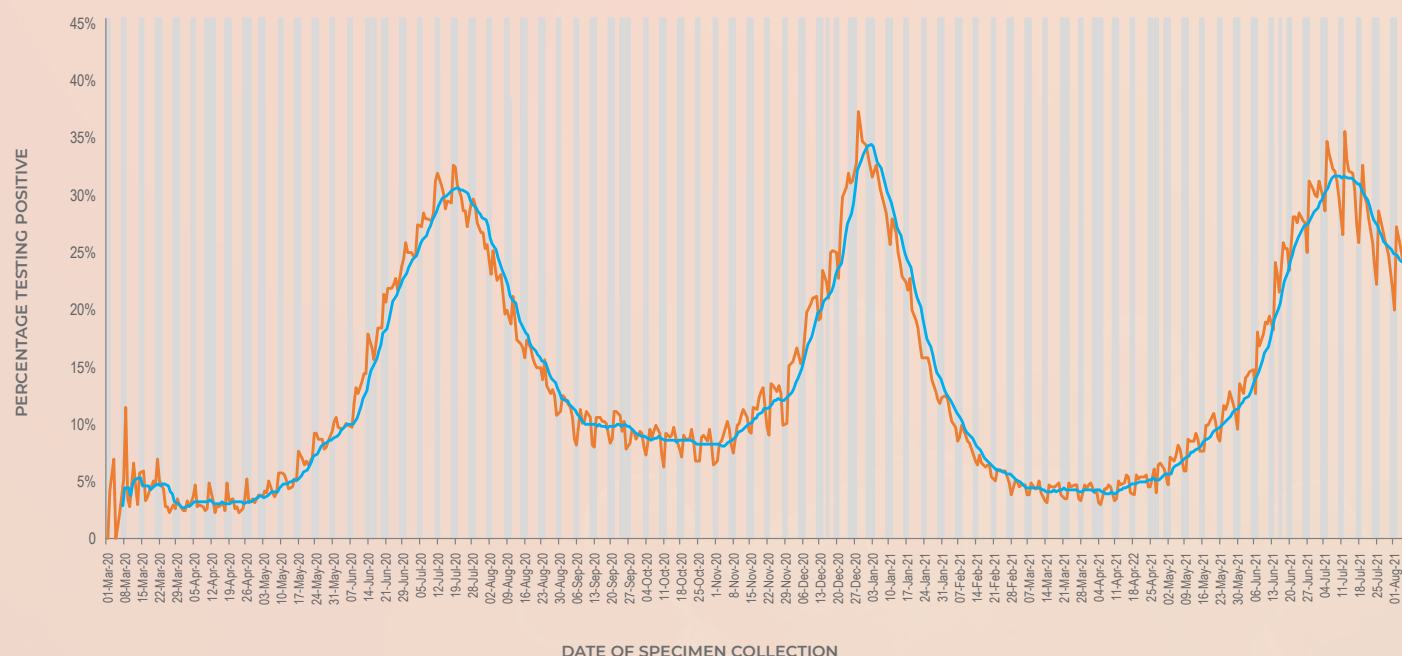
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3	17-Jan-21	327363 (2.2)	63253	19.3
4	24-Jan-21	249469 (1.6)	34636	13.9
5	31-Jan-21	203620 (1.3)	22357	11.0
6	07-Feb-21	193225 (1.3)	16461	8.5
7	14-Feb-21	190382 (1.3)	12169	6.4
8	21-Feb-21	184436 (1.2)	10378	5.6
9	28-Feb-21	189317 (1.2)	8681	4.6
10	07-Mar-21	193199 (1.3)	8319	4.3
11	14-Mar-21	185422 (1.2)	8139	4.4
12	21-Mar-21	172686 (1.1)	7343	4.3
13	28-Mar-21	163557 (1.1)	7059	4.3
14	04-Apr-21	180586 (1.2)	7281	4.0
15	11-Apr-21	184493 (1.2)	8837	4.8
16	18-Apr-21	184722 (1.2)	9458	5.1
17	25-Apr-21	159419 (1.0)	9176	5.8
18	02-May-21	193668 (1.3)	13425	6.9
19	09-May-21	238869 (1.6)	19850	8.3
20	16-May-21	246805 (1.6)	24116	9.8
21	23-May-21	259644 (1.7)	29580	11.4
22	30-May-21	267285 (1.8)	35839	13.4
23	06-Jun-21	332301 (2.2)	58673	17.7
24	13-Jun-21	363024 (2.4)	86370	23.8
25	20-Jun-21	425060 (2.8)	116362	27.4
26	27-Jun-21	480396 (3.2)	143397	29.8
27	04-Jul-21	433178 (2.9)	138808	32.0
28	11-Jul-21	312243 (2.1)	98769	31.6
29	18-Jul-21	302563 (2.0)	86085	28.5
30	25-Jul-21	334025 (2.2)	85963	25.7
31	01-Aug-21	325823 (2.1)	79087	24.3
<b>Total</b>		<b>15,184,265(100.0)</b>	<b>2,690,553</b>	<b>17.7</b>

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**Figure 2.** Percentage of tests positive for SARS-CoV-2 by date of specimen collection South Africa 1 March 2020 – 7 August 2021. Blue 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 7 August 2021 6,741,772 tests were reported in the public sector with 17.8% testing positive. Over this same period the private sector reported 8,442,493 tests with 17.7% testing positive (Table 2). Overall the public sector has reported 44.4% of tests and accounted for 44.6% 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%). In the third wave of infections the peak percentage testing positive was observed in week 28 of 2021 (beginning 11 July) in the public sector (30.6%) and in week 27 of 2021 (beginning 4 July) in the private

sector (33.6%). From week 30 to week 31 of 2021 the percentage testing positive decreased by 1.0% in the public sector (26.1% in week 30 to 25.1% in week 31  $P < 0.001$ ) and decreased by 1.9% in the private sector (25.3% in week 30 to 23.4% in week 31  $P < 0.001$ ). In week 31 the percentage testing positive in the public sector (25.1%) was 1.7% higher than in the private sector (23.4%  $P < 0.001$ ).

The mean turnaround time for PCR tests reported in week 31 of 2021 was 1.2 days; 1.7 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 Eastern Cape and Mpumalanga provinces in week 31 (Figure 4). Increases in turnaround times were observed in the Northern Cape, Eastern Cape and Western Cape provinces in the past week. Twenty-three of the 28 (82.1%) NHLS laboratories performing PCR testing for SARS-CoV-2 had turnaround times  $\leq 2$  days in week 31 (Figure 5).

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**Table 2.** Weekly number of tests and positive tests reported by healthcare sector South Africa 1 March 2020 – 7 August 2021

Week number	Week beginning	Public sector		Private sector		Public sector proportion of		Ratio of PTP <sup>a</sup>
		Tests	Cases n (%)	Tests	Positive tests n (%)	Tests (%)	Positive tests (%)	
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)	14067	395 (2.8)	19.8	27.4	1.526
14	29-Mar-20	5868	194 (3.3)	12383	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)	19587	623 (3.2)	55.2	51.9	0.874
17	19-Apr-20	55110	1595 (2.9)	24069	582 (2.4)	69.6	73.3	1.197
18	26-Apr-20	67469	2453 (3.6)	26349	756 (2.9)	71.9	76.4	1.267
19	03-May-20	94338	4507 (4.8)	48375	1511 (3.1)	66.1	74.9	1.530
20	10-May-20	108001	5443 (5.0)	57376	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)	109250	14324 (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	21-Jun-20	90455	20425 (22.6)	161645	34624 (21.4)	35.9	37.1	1.054
27	28-Jun-20	106374	27245 (25.6)	196377	48068 (24.5)	35.1	36.2	1.046
28	05-Jul-20	117727	32239 (27.4)	190189	53802 (28.3)	38.2	37.5	0.968
29	12-Jul-20	110664	31383 (28.4)	174939	53544 (30.6)	38.7	37.0	0.927
30	19-Jul-20	105218	30319 (28.8)	165682	48317 (29.2)	38.8	38.6	0.988
31	26-Jul-20	81248	22782 (28.0)	135149	35612 (26.4)	37.5	39.0	1.064
32	02-Aug-20	70566	16996 (24.1)	109009	24000 (22.0)	39.3	41.5	1.094
33	09-Aug-20	58661	11172 (19.0)	82443	15094 (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	30-Aug-20	45422	6096 (13.4)	67341	6694 (9.9)	40.3	47.7	1.350
37	06-Sep-20	51055	6421 (12.6)	65943	5532 (8.4)	43.6	53.7	1.499
38	13-Sep-20	53707	6547 (12.2)	67009	5465 (8.2)	44.5	54.5	1.495
39	20-Sep-20	44842	5530 (12.3)	53980	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	6089 (7.6)	38.5	48.3	1.494
42	11-Oct-20	53452	5702 (10.7)	84527	6375 (7.5)	38.7	47.2	1.414
43	18-Oct-20	56123	6045 (10.8)	86050	6024 (7.0)	39.5	50.1	1.539
44	25-Oct-20	51287	5721 (11.2)	84566	5758 (6.8)	37.8	49.8	1.638
45	01-Nov-20	52999	6061 (11.4)	85844	6077 (7.1)	38.2	49.9	1.615
46	08-Nov-20	58914	8097 (13.7)	88095	6748 (7.7)	40.1	54.5	1.794
47	15-Nov-20	67582	10584 (15.7)	93067	8181 (8.8)	42.1	56.4	1.782
48	22-Nov-20	74574	12200 (16.4)	101121	9854 (9.7)	42.4	55.3	1.679
49	29-Nov-20	81269	15730 (19.4)	121882	15039 (12.3)	40.0	51.1	1.569
50	06-Dec-20	107910	24716 (22.9)	160017	28598 (17.9)	40.3	46.4	1.282
51	13-Dec-20	117212	29815 (25.4)	177258	38763 (21.9)	39.8	43.5	1.163
52	20-Dec-20	109913	34128 (31.1)	174674	47834 (27.4)	38.6	41.6	1.134
53	27-Dec-20	151634	52933 (34.9)	182765	62805 (34.4)	45.3	45.7	1.016
1	03-Jan-21	237012	71063 (30.0)	264124	79967 (30.3)	47.3	47.1	0.990
2	10-Jan-21	204020	52958 (26.0)	213907	51830 (24.2)	48.8	50.5	1.071
3	17-Jan-21	165671	34459 (20.8)	161692	28794 (17.8)	50.6	54.5	1.168
4	24-Jan-21	123262	18999 (15.4)	126207	15637 (12.4)	49.4	54.9	1.244
5	31-Jan-21	99785	12065 (12.1)	103835	10292 (9.9)	49.0	54.0	1.220
6	07-Feb-21	91309	8505 (9.3)	101916	7956 (7.8)	47.3	51.7	1.193
7	14-Feb-21	86220	6670 (7.7)	104162	5499 (5.3)	45.3	54.8	1.465
8	21-Feb-21	82508	5795 (7.0)	101928	4583 (4.5)	44.7	55.8	1.562
9	28-Feb-21	87867	4674 (5.3)	101450	4007 (3.9)	46.4	53.8	1.347
10	07-Mar-21	92718	4576 (4.9)	100481	3743 (3.7)	48.0	55.0	1.325
11	14-Mar-21	89882	4437 (4.9)	95540	3702 (3.9)	48.5	54.5	1.274
12	21-Mar-21	77080	3459 (4.5)	95606	3884 (4.1)	44.6	47.1	1.105
13	28-Mar-21	70906	3455 (4.9)	92651	3604 (3.9)	43.4	48.9	1.253
14	04-Apr-21	79368	3355 (4.2)	101218	3926 (3.9)	44.0	46.1	1.090
15	11-Apr-21	85801	4359 (5.1)	98692	4478 (4.5)	46.5	49.3	1.120

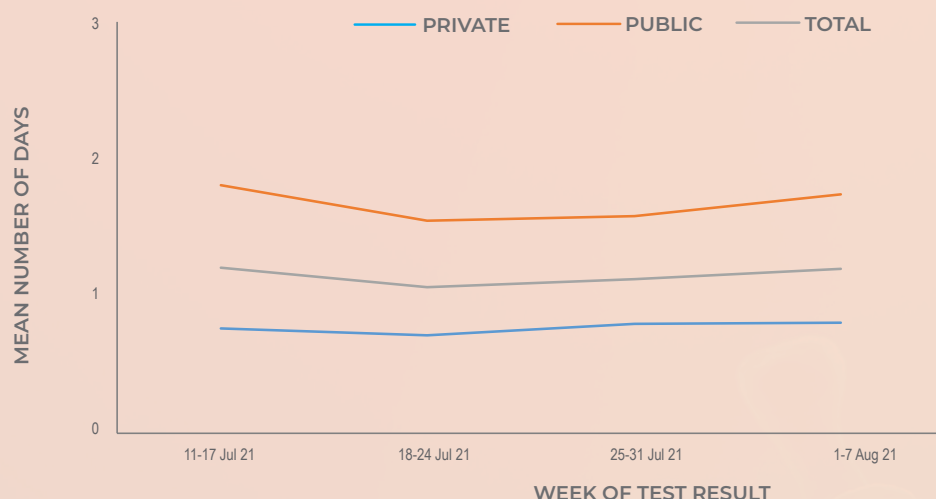


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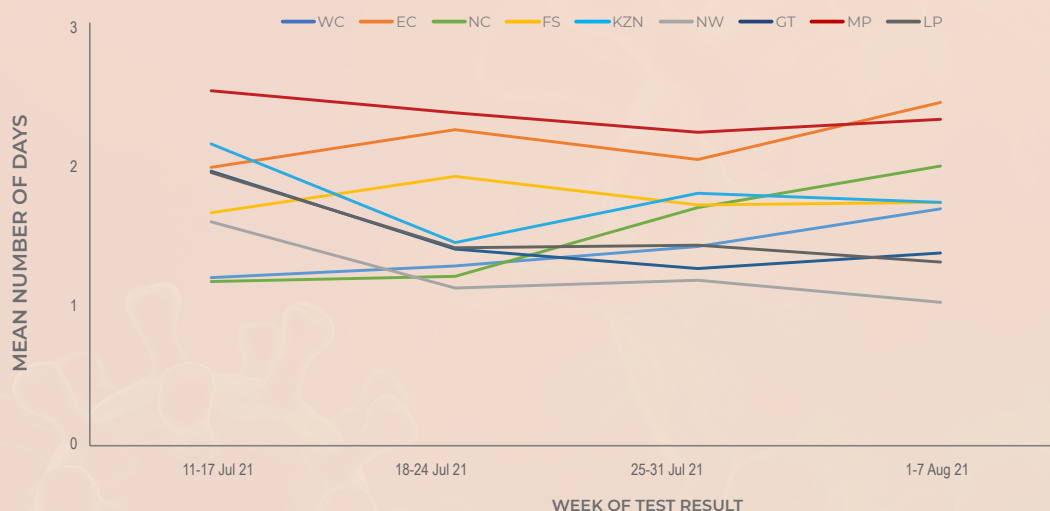
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16	18-Apr-21	80480	4709 (5.9)	104242	4749 (4.6)	43.6	49.8	1.284
17	25-Apr-21	70023	4123 (5.9)	89396	5053 (5.7)	43.9	44.9	1.042
18	02-May-21	81031	5456 (6.7)	112637	7969 (7.1)	41.8	40.6	0.952
19	09-May-21	91144	7307 (8.0)	147725	12543 (8.5)	38.2	36.8	0.944
20	16-May-21	99828	9093 (9.1)	146977	15023 (10.2)	40.4	37.7	0.891
21	23-May-21	119811	11710 (9.8)	139833	17870 (12.8)	46.1	39.6	0.765
22	30-May-21	110399	11753 (10.6)	156886	24086 (15.4)	41.3	32.8	0.693
23	06-Jun-21	145522	19605 (13.5)	186779	39068 (20.9)	43.8	33.4	0.644
24	13-Jun-21	150796	29073 (19.3)	212228	57297 (27.0)	41.5	33.7	0.714
25	20-Jun-21	175466	41911 (23.9)	249594	74451 (29.8)	41.3	36.0	0.801
26	27-Jun-21	230298	62176 (27.0)	250098	81221 (32.5)	47.9	43.4	0.831
27	04-Jul-21	207161	62888 (30.4)	226017	75920 (33.6)	47.8	45.3	0.904
28	11-Jul-21	152042	46488 (30.6)	160201	52281 (32.6)	48.7	47.1	0.937
29	18-Jul-21	151188	43731 (28.9)	151375	42354 (28.0)	50.0	50.8	1.034
30	25-Jul-21	179310	46759 (26.1)	154715	39204 (25.3)	53.7	54.4	1.029
31	01-Aug-21	161238	40516 (25.1)	164585	38571 (23.4)	49.5	51.2	1.072
<b>Total</b>		<b>6,741,772</b>	<b>1,199,320 (17.8)</b>	<b>8,442,493</b>	<b>1,491,233 (17.7)</b>	<b>44.4</b>	<b>44.6</b>	<b>1.007</b>

<sup>a</sup>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 11 July – 7 August 2021



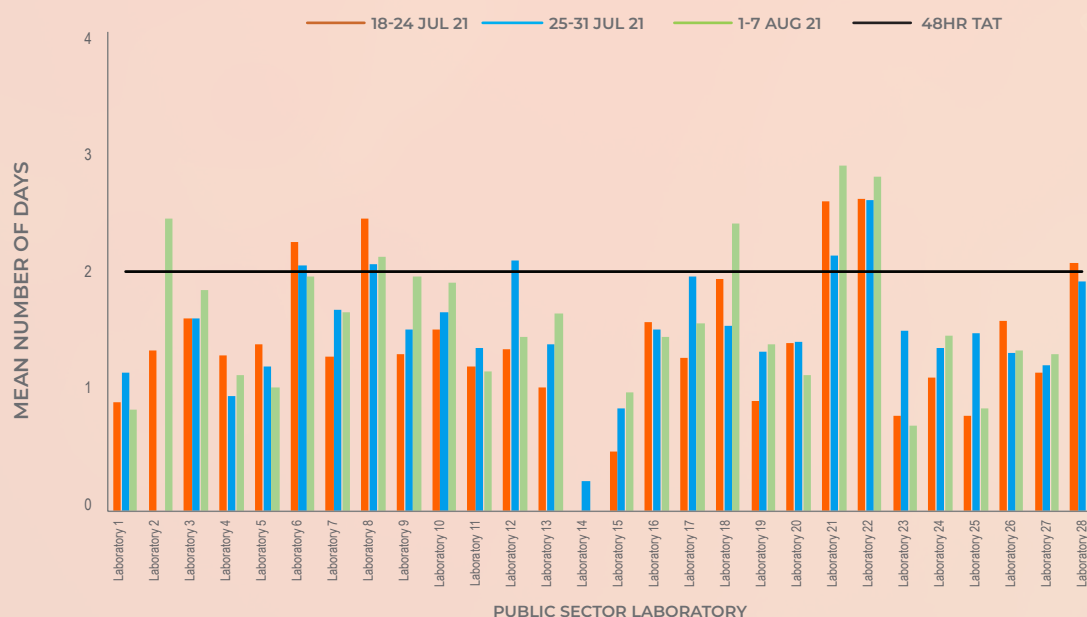
**Figure 4.** Mean number of days between date of specimen collection and date of test result for PCR tests by week of test result and province public sector South Africa 11 July – 7 August 2021. WC Western Cape; EC Eastern Cape; FS Free State; KZN KwaZulu-Natal; GT Gauteng; NC Northern Cape; NW North West; MP Mpumalanga; LP Limpopo



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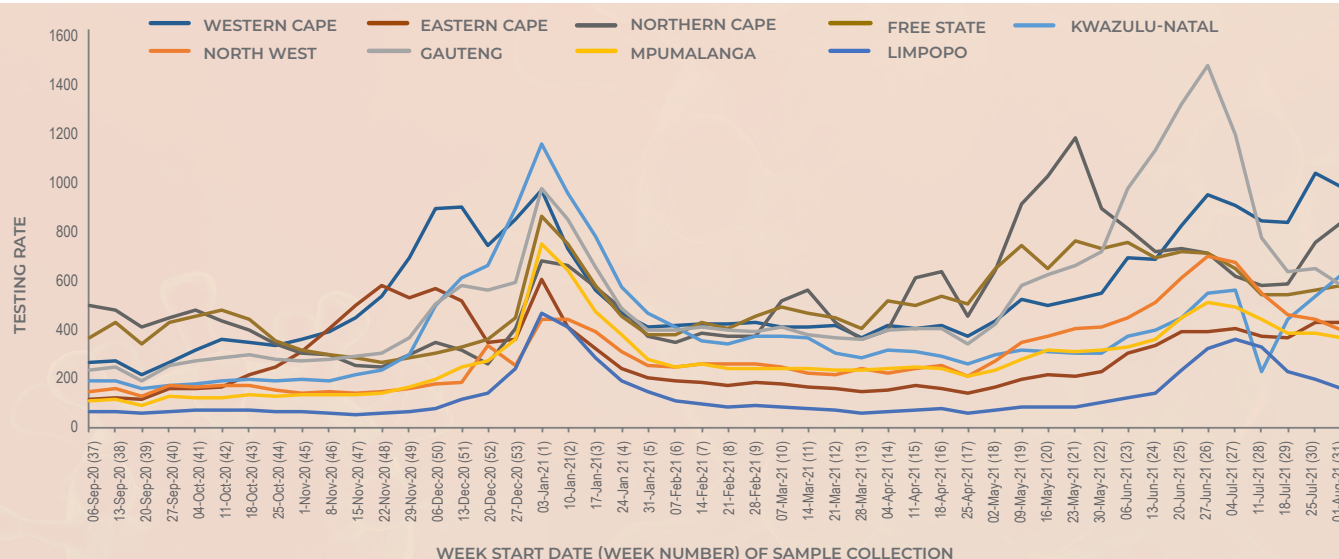
**Figure 5.** Mean number of days between date of specimen collection and date of test result for PCR tests by public sector laboratory 18 July - 7 August 2021. The horizontal black line indicates 48-hour turnaround time (TAT).

## Testing by province

Gauteng reported the largest proportion of tests (27.2%) followed by KwaZulu-Natal (21.8%) and Western Cape (20.8%) in week 31 of 2021 (Table 3). The overall testing rate decreased slightly from 560 per 100000 persons in week 30 to 546 per 100000 in week 31. The testing rate ranged from 970 per 100000 persons in Western Cape to 160 per 100000 persons in Limpopo (Figure 6). In week 31 testing rates increased in KwaZulu-Natal and the Northern Cape and decreased in Gauteng and the Western Cape.

The percentage testing positive in week 31 was highest in the Western Cape (33.3%) and Mpumalanga (31.6%)

provinces. The percentage testing positive was between 20% and 30% in the Eastern Cape, Northern Cape, Free State, KwaZulu-Natal, North West and Limpopo provinces and was less than 20% in Gauteng (Figure 7 and Table 3). Compared to the previous week the percentage testing positive in week 31 increased ( $P < 0.001$ ) in the Western Cape, Free State and KwaZulu-Natal provinces. The percentage testing positive decreased in the Northern Cape ( $P = 0.046$ ), North West ( $P = 0.018$ ), Gauteng ( $P < 0.001$ ), Mpumalanga ( $P < 0.001$ ) and Limpopo ( $P < 0.001$ ) and remained unchanged in the Eastern Cape ( $P = 0.669$ ). The percentage testing positive was higher than the national average not weighted for population size in the Western Cape, Northern Cape, North West, Mpumalanga and Limpopo provinces (Figure 7).



**Figure 6.** Testing rate per 100000 persons by province and week of specimen collection South Africa 6 September 2020 – 7 August 2021

# COVID-19 TESTING SUMMARY

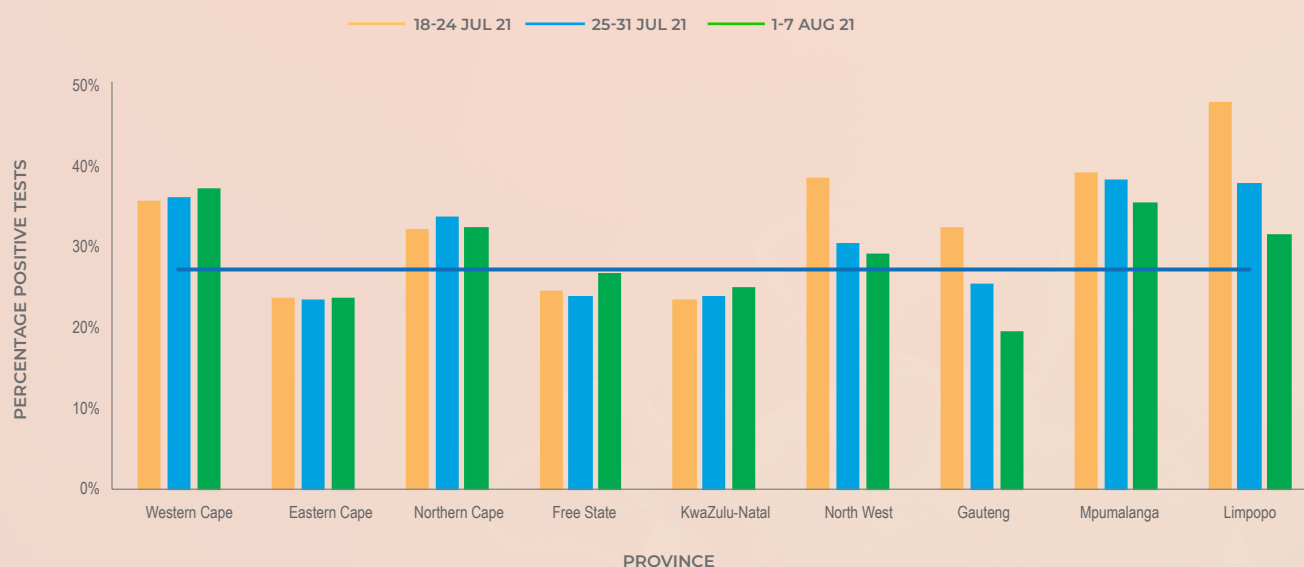
SOUTH AFRICA WEEK 31 2021

**Table 3.** Weekly number of tests and positive tests reported by province South Africa 18 July - 7 August 2021

Province	Population <sup>a</sup>	18-24 Jul 2021		25-31 Jul 2021		1-7 Aug 2021		Tests per 100,000 persons	Change in percentage positive <sup>b</sup>
		No. of tests	No. positive tests (%)	No. of tests	No. positive tests (%)	No. of tests	No. positive tests (%)		
Western Cape	7005741	57692	18372 (31.8)	71769	23163 (32.3)	67934	22589 (33.3)	970	1.0%
Eastern Cape	6734001	24379	5169 (21.2)	28543	5974 (20.9)	28583	6024 (21.1)	424	0.1%
Northern Cape	1292786	7476	2148 (28.7)	9660	2914 (30.2)	10659	3079 (28.9)	824	-1.3%
Free State	2928903	15699	3436 (21.9)	16210	3464 (21.4)	16711	3982 (23.8)	571	2.5%
KwaZulu-Natal	11531628	50341	10551 (21.0)	60923	13037 (21.4)	71027	15839 (22.3)	616	0.9%
North West	4108816	18675	6433 (34.4)	17953	4870 (27.1)	16045	4171 (26.0)	391	-1.1%
Gauteng	15488137	97005	28004 (28.9)	99618	22567 (22.7)	88529	15410 (17.4)	572	-5.2%
Mpumalanga	4679786	17894	6258 (35.0)	17881	6111 (34.2)	16962	5359 (31.6)	362	-2.6%
Limpopo	5852553	13391	5712 (42.7)	11458	3862 (33.7)	9343	2629 (28.1)	160	-5.6%
Unknown		11	2 (18.2)	10	1 (10.0)	30	5 (16.7)		
<b>Total</b>	<b>59622350</b>	<b>302563</b>	<b>86085 (28.5)</b>	<b>334025</b>	<b>85963 (25.7)</b>	<b>325823</b>	<b>79087 (24.3)</b>	<b>546</b>	<b>-1.4%</b>

<sup>a</sup> 2020 Mid-year population Statistics SA

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



**Figure 7.** Weekly percentage testing positive by province South Africa 18 July – 7 August 2021. The horizontal blue line shows the national mean for week 31 beginning 1 August 2021

## Testing in the public sector

In the public sector the percentage testing positive decreased in the past week (26.1% in week 30 to 25.1% in week 31  $P < 0.001$ ) (Table 4). The percentage testing positive in week 31 was highest in the Western Cape

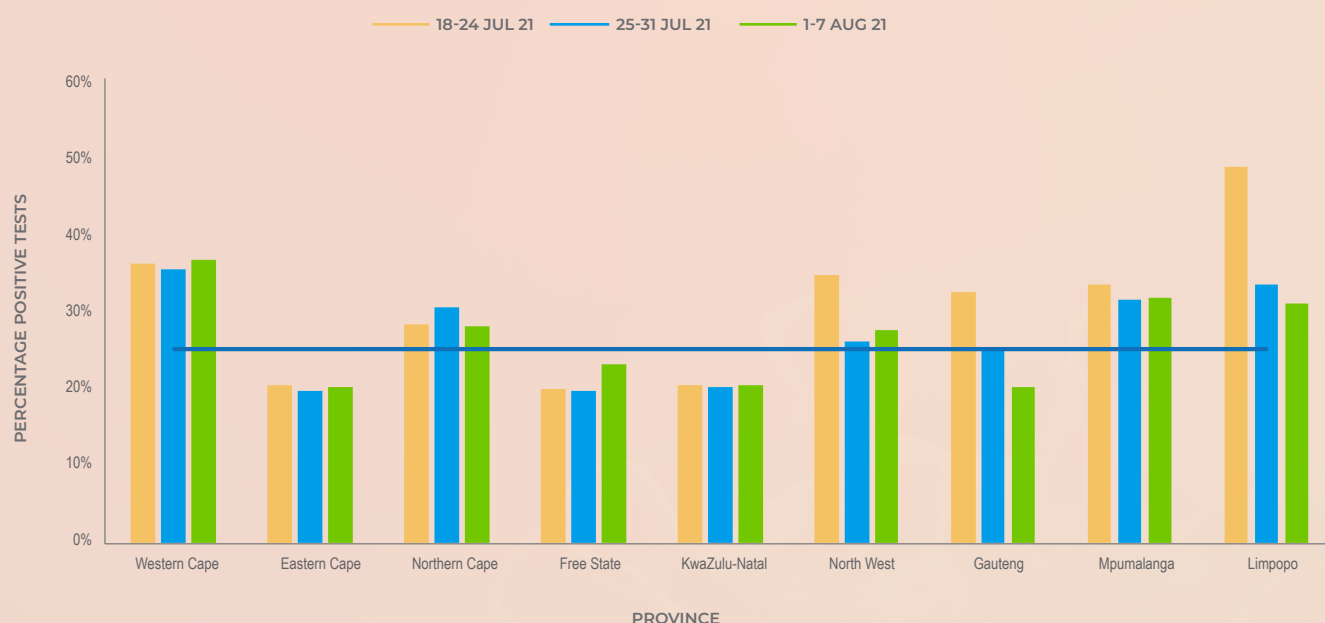
(36.6%), Mpumalanga (31.6%) and Limpopo (31.0%) provinces. The percentage testing positive in the public sector was higher than the national average not weighted for population size in the Western Cape, Northern Cape, North West, Mpumalanga and Limpopo provinces (Figure 8).

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**Table 4.** Weekly number of tests and positive tests reported in the public sector by province South Africa 18 July - 7 August 2021

Province	18-24 Jul 2021		25-31 Jul 2021		1-7 Aug 2021	
	No. of tests	No. positive tests (%)	No. of tests	No. positive tests (%)	No. of tests	No. positive tests (%)
Western Cape	26289	9474 (36.0)	38338	13583 (35.4)	32572	11916 (36.6)
Eastern Cape	17246	3512 (20.4)	20394	4030 (19.8)	19822	3985 (20.1)
Northern Cape	4972	1407 (28.3)	6687	2037 (30.5)	7062	1981 (28.1)
Free State	9620	1911 (19.9)	9578	1886 (19.7)	9474	2183 (23.0)
KwaZulu-Natal	32908	6734 (20.5)	39141	7862 (20.1)	42692	8681 (20.3)
North West	9981	3463 (34.7)	9936	2595 (26.1)	8363	2301 (27.5)
Gauteng	36369	11800 (32.4)	41951	10510 (25.1)	30774	6174 (20.1)
Mpumalanga	8428	2819 (33.4)	8549	2675 (31.3)	7340	2323 (31.6)
Limpopo	5374	2611 (48.6)	4736	1581 (33.4)	3125	969 (31.0)
Unknown	1	0 (0.0)	0	0 (0.0)	14	3 (0.0)
<b>Total</b>	<b>151188</b>	<b>43731 (28.9)</b>	<b>179310</b>	<b>46759 (26.1)</b>	<b>161238</b>	<b>40516 (25.1)</b>



**Figure 8.** Weekly percentage testing positive in the public sector by province, South Africa, 18 July - 7 August 2021. The horizontal blue line shows the national mean for week 31 of 2021 beginning 1 August 2021.

## Facilities with high proportions testing positive

The data on testing at facility level for the public sector for week 31 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 1-7 August 2021. Thirteen of the 25 public facilities showing the highest PTP are in the Western Cape, with four in North West, and two each in Free State and KwaZulu-Natal.



# COVID-19 TESTING SUMMARY

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**Table 5.1** Public sector healthcare facilities with a high proportion testing positive 1-7 August 2021

Facility Name	Province	Tests	PTP (95% CI)
Facility 1	Northern Cape	28	0.786 (0.634;0.938)
Facility 2	KwaZulu-Natal	33	0.758 (0.611;0.904)
Facility 3	North West	49	0.714 (0.588;0.841)
Facility 4	Free State	48	0.688 (0.556;0.819)
Facility 5	Western Cape	51	0.686 (0.559;0.814)
Facility 6	Western Cape	57	0.667 (0.544;0.789)
Facility 7	Limpopo	50	0.660 (0.529;0.791)
Facility 8	Western Cape	101	0.653 (0.561;0.746)
Facility 9	Western Cape	60	0.650 (0.529;0.771)
Facility 10	North West	59	0.644 (0.522;0.766)
Facility 11	Western Cape	56	0.643 (0.517;0.768)
Facility 12	Western Cape	53	0.642 (0.512;0.771)
Facility 13	Western Cape	27	0.630 (0.447;0.812)
Facility 14	North West	35	0.629 (0.468;0.789)
Facility 15	Free State	145	0.628 (0.549;0.706)
Facility 16	KwaZulu-Natal	56	0.625 (0.498;0.752)
Facility 17	Western Cape	29	0.621 (0.444;0.797)
Facility 18	North West	47	0.617 (0.478;0.756)
Facility 19	Western Cape	26	0.615 (0.428;0.802)
Facility 20	Western Cape	31	0.613 (0.441;0.784)
Facility 21	Western Cape	72	0.611 (0.499;0.724)
Facility 22	Gauteng	38	0.605 (0.450;0.761)
Facility 23	Mpumalanga	25	0.600 (0.408;0.792)
Facility 24	Western Cape	222	0.595 (0.530;0.659)
Facility 25	Western Cape	167	0.593 (0.518;0.667)

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 1-7 August 2021 with the highest proportion testing positive nationally. The private-sector facilities with the 25 highest proportions testing positive are mostly in the Western Cape (12), with five in Gauteng, three in KwaZulu-Natal, and two in each of Mpumalanga and North West.



# COVID-19 TESTING SUMMARY

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**Table 5.2** Private sector healthcare facilities with a high proportion testing positive 1-7 August 2021

Facility Name	Province	Tests	PTP (95% CI)
Facility 1	Western Cape	54	0.648 (0.521;0.776)
Facility 2	Mpumalanga	101	0.594 (0.498;0.690)
Facility 3	Western Cape	128	0.578 (0.493;0.664)
Facility 4	Western Cape	84	0.524 (0.417;0.631)
Facility 5	Western Cape	248	0.516 (0.454;0.578)
Facility 6	Western Cape	158	0.500 (0.422;0.578)
Facility 7	Western Cape	746	0.487 (0.451;0.522)
Facility 8	Gauteng	35	0.486 (0.320;0.651)
Facility 9	Western Cape	29	0.483 (0.301;0.665)
Facility 10	KwaZulu-Natal	36	0.472 (0.309;0.635)
Facility 11	Gauteng	53	0.472 (0.337;0.606)
Facility 12	Western Cape	788	0.471 (0.436;0.506)
Facility 13	Western Cape	433	0.469 (0.422;0.516)
Facility 14	Gauteng	45	0.467 (0.321;0.612)
Facility 15	KwaZulu-Natal	58	0.466 (0.337;0.594)
Facility 16	North West	138	0.464 (0.381;0.547)
Facility 17	KwaZulu-Natal	52	0.462 (0.326;0.597)
Facility 18	Western Cape	726	0.459 (0.422;0.495)
Facility 19	North West	48	0.458 (0.317;0.599)
Facility 20	Western Cape	1340	0.458 (0.432;0.485)
Facility 21	Northern Cape	253	0.455 (0.393;0.516)
Facility 22	Western Cape	1429	0.448 (0.422;0.474)
Facility 23	Gauteng	43	0.442 (0.293;0.590)
Facility 24	Mpumalanga	50	0.440 (0.302;0.578)
Facility 25	Gauteng	39	0.436 (0.280;0.592)

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 83% of private testing facilities) in the week from 1-7 August 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. The districts showing high PTP are diffuse: eleven of the 25 districts are in the Western Cape, four in North

West, three in Limpopo, and two in each of KwaZulu-Natal, Mpumalanga, and the Northern Cape.

For the sixth consecutive week, all 25 districts with the highest PTP showed a PTP in the current week in excess of 30%. 21 districts exceeded 40% (25 last week). Only one (Cederberg in the Western Cape) exceeded 50% (last week, 11). PTP exceeded 30% in a further 53 districts (71 last week). Significant increases were observed in three of the 25 districts with the highest PTP (Ikwezi in the Eastern Cape, Maquassi Hills in North West, and Drakenstein in the Western Cape).

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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 of 1-7 August 2021

Health district or sub-district	Province	PTP (95% CI)	Previous week
Greater Taung	North West	0.702 (0.572-0.833)	...
Cederberg	Western Cape	0.528 (0.473-0.583)	0.505 (0.452-0.558)
Langeberg	Western Cape	0.525 (0.483-0.568)	0.461 (0.418-0.504)
Ikwezi	Eastern Cape	0.470 (0.378-0.561)	0.247 (0.139-0.356)
Maquassi Hills	North West	0.468 (0.424-0.512)	0.371 (0.320-0.421)
Tswaing	North West	0.465 (0.378-0.553)	0.449 (0.349-0.550)
Hessequa	Western Cape	0.463 (0.422-0.504)	0.480 (0.438-0.523)
Makhuduthamaga	Limpopo	0.453 (0.347-0.559)	0.284 (0.200-0.367)
Drakenstein	Western Cape	0.448 (0.429-0.467)	0.400 (0.382-0.418)
Emadlangeni	KwaZulu-Natal	0.444 (0.325-0.564)	0.428 (0.313-0.543)
Kannaland	Western Cape	0.444 (0.367-0.522)	0.370 (0.294-0.446)
Umjindi	Mpumalanga	0.440 (0.362-0.518)	0.476 (0.398-0.554)
Greater Letaba	Limpopo	0.437 (0.331-0.543)	0.458 (0.336-0.581)
Theewaterskloof	Western Cape	0.434 (0.398-0.471)	0.417 (0.379-0.454)
Bergvriervier	Western Cape	0.429 (0.390-0.468)	0.365 (0.325-0.405)
Matzikama	Western Cape	0.423 (0.387-0.459)	0.405 (0.364-0.445)
Swartland	Western Cape	0.422 (0.382-0.463)	0.446 (0.408-0.485)
Ratlou	North West	0.414 (0.328-0.500)	0.396 (0.301-0.491)
CT Mitchells Plain	Western Cape	0.413 (0.395-0.432)	0.431 (0.412-0.450)
Karoo Hoogland	Northern Cape	0.410 (0.267-0.552)	0.264 (0.144-0.383)
Kareeberg	Northern Cape	0.404 (0.260-0.549)	0.253 (0.142-0.363)
Saldanha Bay	Western Cape	0.399 (0.372-0.427)	0.415 (0.386-0.444)
Emalahleni (MP)	Mpumalanga	0.397 (0.373-0.421)	0.418 (0.394-0.442)
Mpofana	KwaZulu-Natal	0.394 (0.331-0.457)	0.424 (0.361-0.486)
Blouberg	Limpopo	0.392 (0.264-0.520)	0.399 (0.304-0.495)

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 **blue** have current week proportions testing positive that are **lower** 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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**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 1-7 August 2021.



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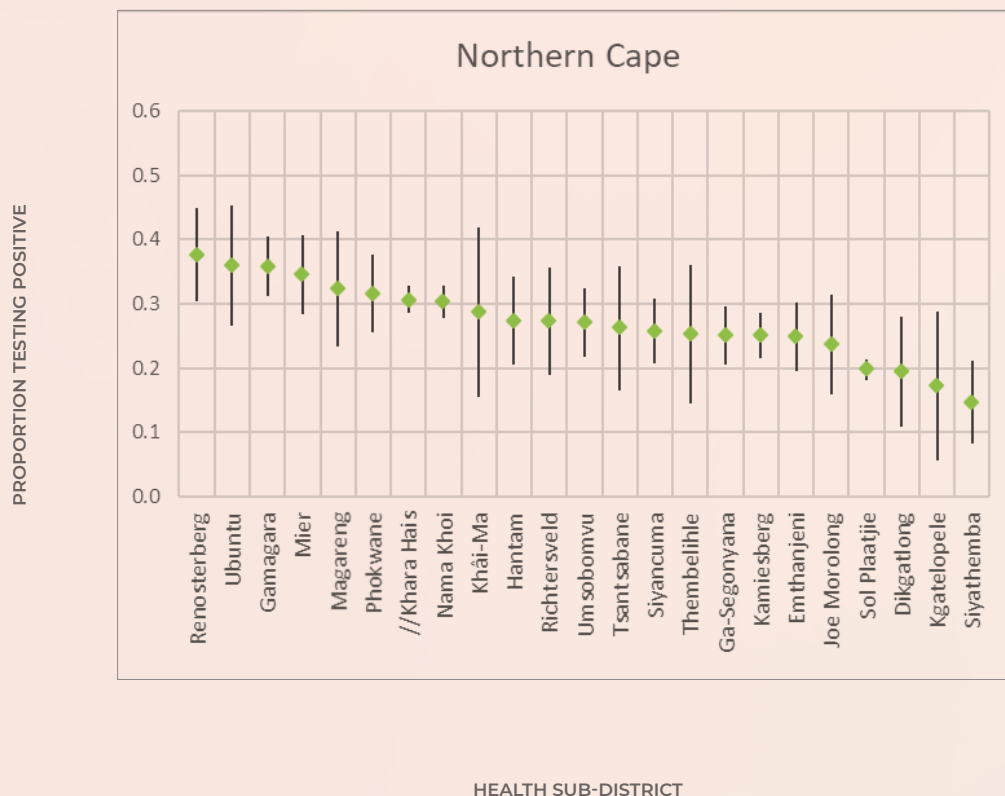


**Figure 9.2** Proportions testing positive by health sub-district in the North West Free State Limpopo and Mpumalanga provinces based on public and private sector data for the week of 1-7 August 2021.



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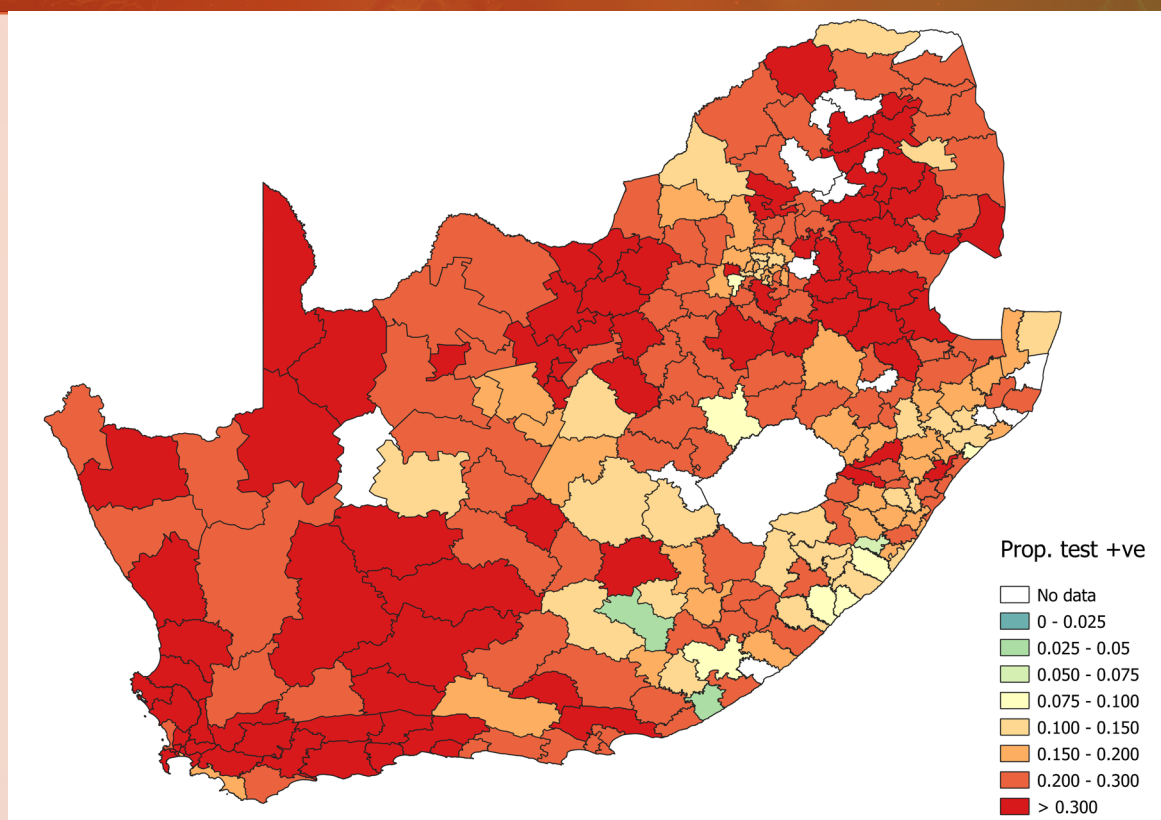


**Figure 9.3** Proportions testing positive by health sub-districts in the Northern Cape Province based on public and private sector data for the week of 1-7 August 2021.

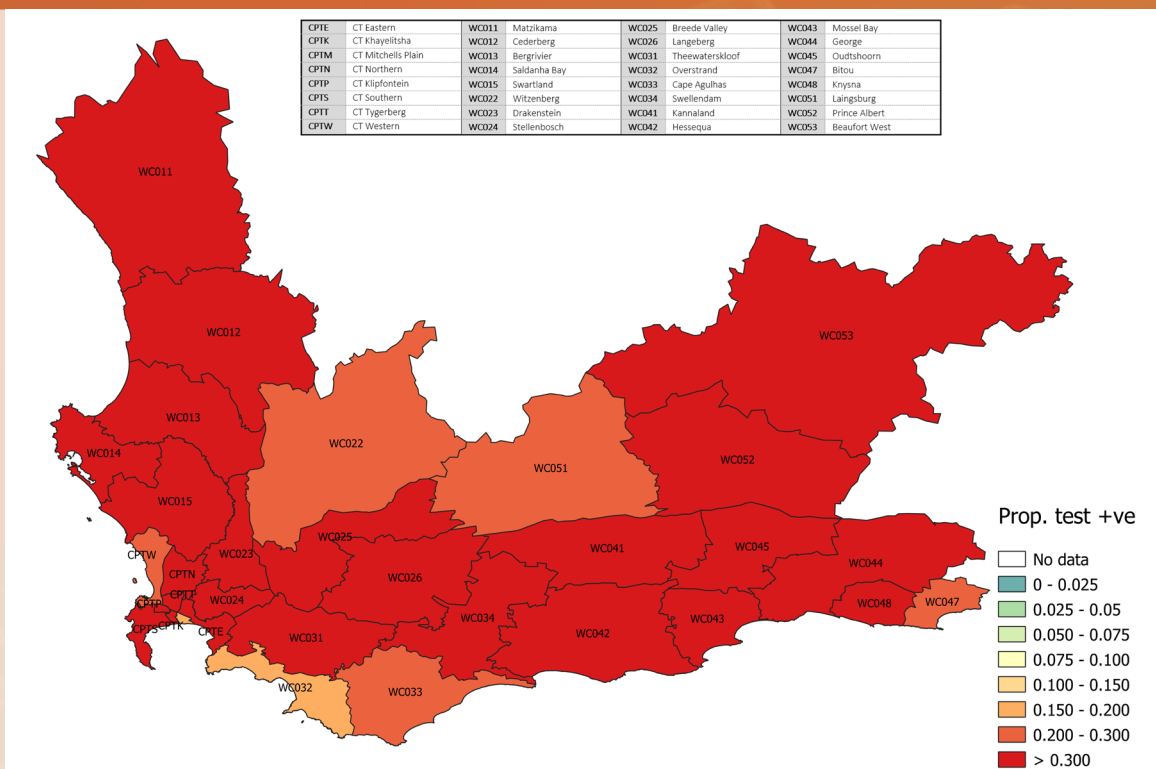
The spatial pattern of adjusted proportions testing positive including both public and private sector data by health district and sub-district are shown for South Africa (Figure 10) Western Cape (Figure 11) Eastern Cape (Figure 12) Northern Cape (Figure 13) Free State (Figure 14) KwaZulu-Natal (Figure 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 1-7 August 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%.



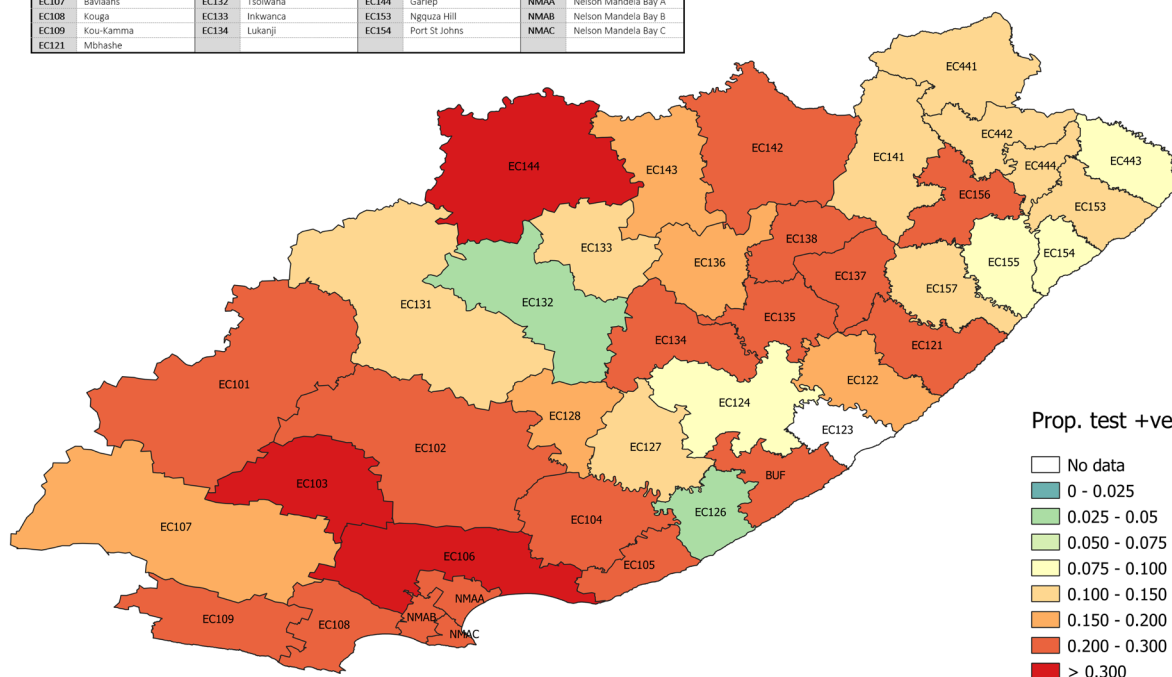
**Figure 11.** Proportion testing positive by health sub-district in the Western Cape Province for the week of 1-7 August 2021. Areas shaded white represent districts in which either (i) no tests were reported (ii) all tests were negative or (iii) the confidence interval exceeded 30%.

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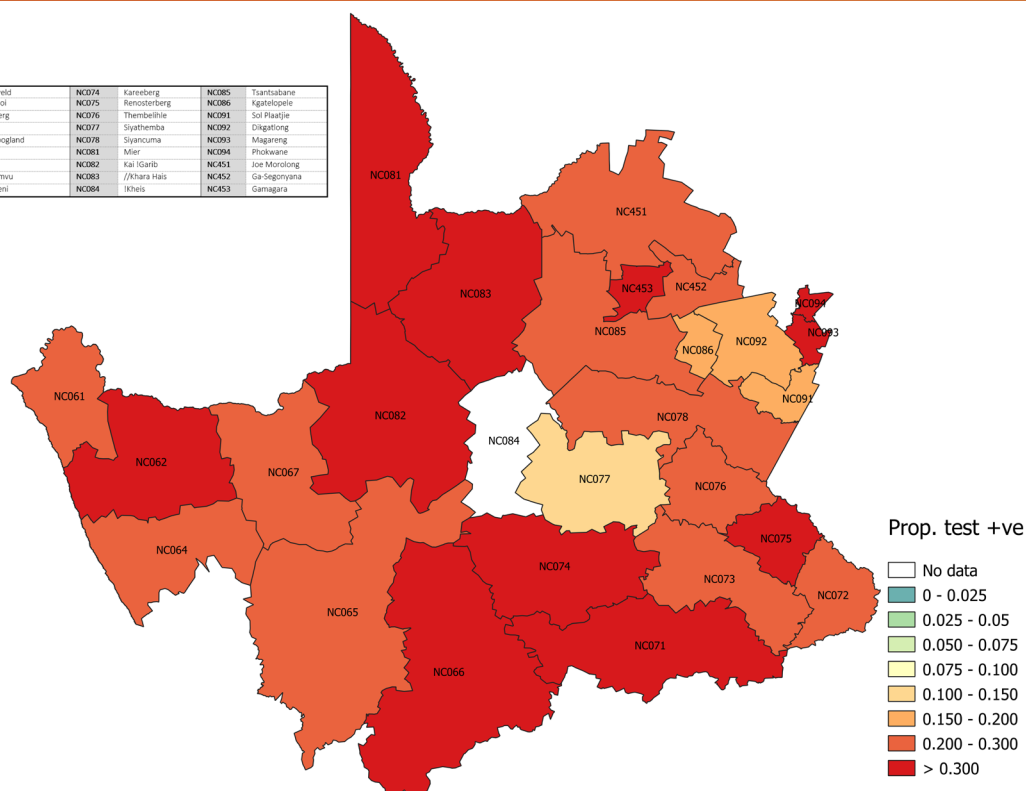
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BUF	Buffalo City	EC122	Mngoma	EC135	Intsika Yethu	EC155	Nyandeni
EC101	Camdeboo	EC123	Great Kei	EC136	Emalahleni	EC156	Mhlontlo
EC102	Blue Crane Route	EC124	Amahlathi	EC137	Engcobo	EC157	King Sabata Dalindyebo
EC103	Ikwezi	EC126	Nqushwa	EC138	Sakhisizwe	EC441	Matatiele
EC104	Makana	EC127	Nkonkobe	EC141	Elundini	EC442	Umtzimvubu
EC105	Ndlambe	EC128	Nxuba	EC142	Senqu	EC443	Mbizana
EC106	Sundays River Valley	EC131	Inxuba Yethemba	EC143	Maletswai	EC444	Ntabankulu
EC107	Baviaans	EC132	Tsolwana	EC144	Gariep	NMAA	Nelson Mandela Bay A
EC108	Kouga	EC133	Inkwanca	EC153	Nqgaza Hill	NMAB	Nelson Mandela Bay B
EC109	Kou-Kamma	EC134	Lukanji	EC154	Port St Johns	NMAC	Nelson Mandela Bay C
EC121	Mbhashe						



**Figure 12.** Proportion testing positive by health sub-district in the Eastern Cape Province for the week of 1-7 August 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%.

NC061	Richtersveld	NC074	Kareeberg	NC085	Tsankabane
NC062	Rama Khul	NC075	Rensosterberg	NC086	Igalekwele
NC064	Kamiesberg	NC076	Thembelille	NC091	Sol Plaatje
NC065	Hantam	NC077	Siyathemba	NC092	Dikgatong
NC066	Karoo Hoogland	NC078	Siyancuma	NC093	Magareng
NC067	Khaji-Ma	NC081	Mier	NC094	Phokwane
NC071	Libertus	NC082	Kai Ikarib	NC451	Joe Morolong
NC072	Umsobomvu	NC083	//kharu Hais	NC452	Ga-Segonyana
NC073	Emtharjeni	NC084	Ikheis	NC453	Gamagara



**Figure 13.** Proportion testing positive by health sub-district in Northern Cape Province for the week of 1-7 August 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%.

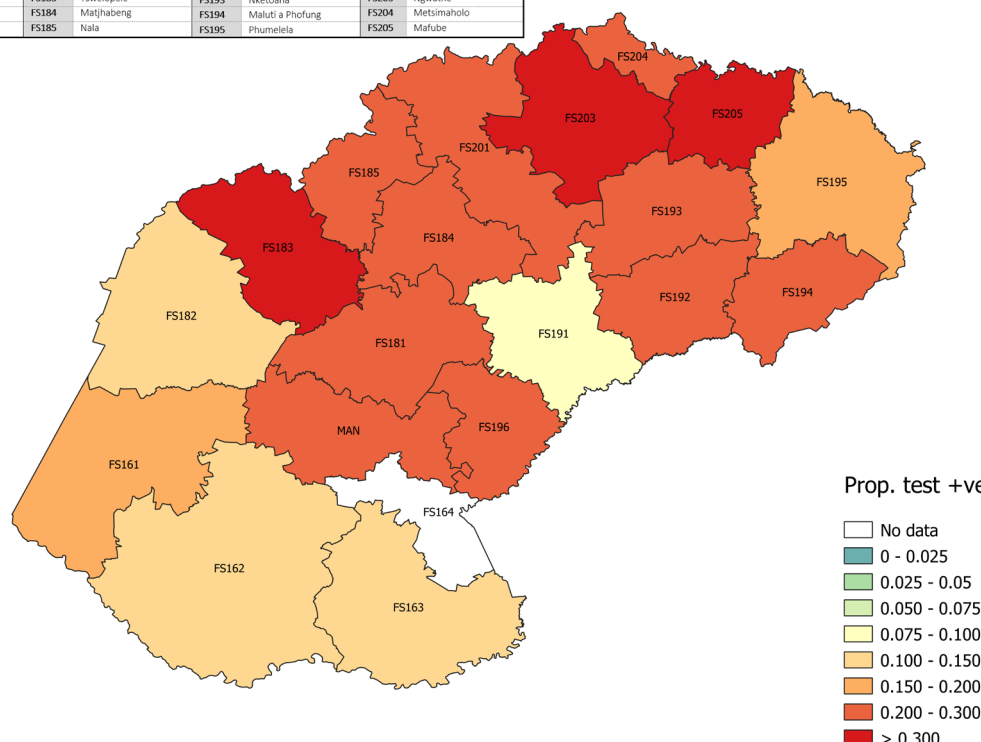


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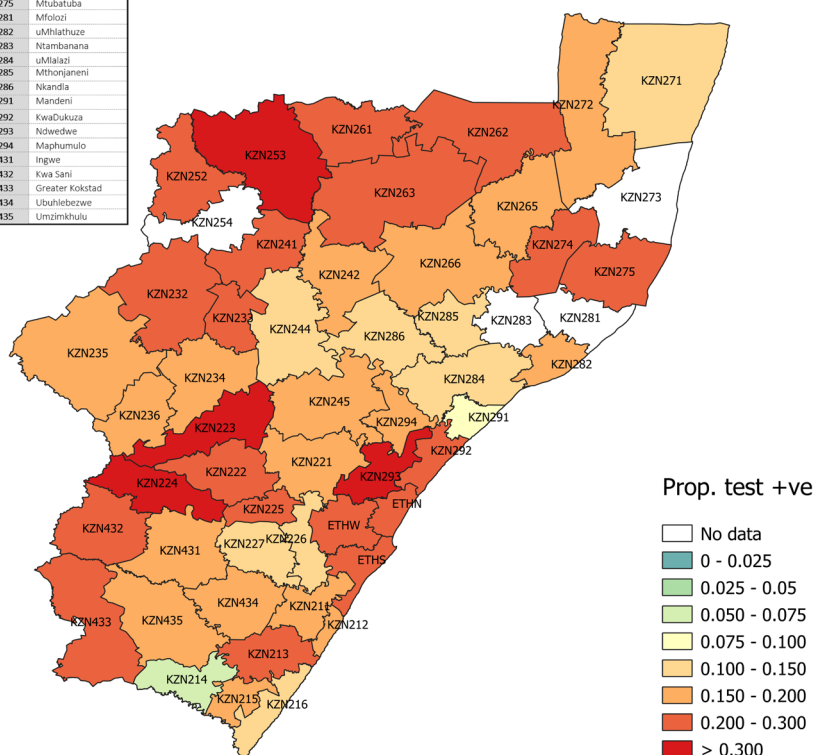
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MAN	Mangaung	FS181	Masilonyana	FS191	Setsoho	FS196	Mantsope
FS161	Letsemeng	FS182	Tokologo	FS192	Dihlabeng	FS201	Moghaka
FS162	Kopanong	FS183	Tswelopele	FS193	Nketoana	FS203	Ngwathe
FS163	Mohokare	FS184	Matjhabeng	FS194	Maluti a Phofung	FS204	Metsimaholo
FS164	Naledi	FS185	Nala	FS195	Phumelela	FS205	Mafube



**Figure 14.** Proportion testing positive by health sub-district in Free State Province for the week of 1-7 August 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%.

ETHN	eThekweni North	KZN233	Indaka	KZN273	The Big 5 False Bay
ETHS	eThekweni South	KZN234	Umtshezi	KZN274	Hiabisa
ETHS	eThekweni South	KZN235	Okhahlamba	KZN275	Mtubatuba
ETHW	eThekweni West	KZN236	Imbabazane	KZN281	Mfolosi
KZN211	Vulamehlo	KZN241	Endumeni	KZN282	uMhlathuze
KZN212	Umdoni	KZN242	Nqutu	KZN283	Ntambanana
KZN213	Umtzombe	KZN244	Misinga	KZN284	uMlalazi
KZN214	uMuziwabantu	KZN245	Umvoti	KZN285	Mthonjaneni
KZN215	Ezingoleni	KZN252	Newcastle	KZN286	Nkandla
KZN216	Hibiscus Coast	KZN253	Emadlangeni	KZN291	Mandeni
KZN221	uMshwathi	KZN254	Dannhauser	KZN292	KwaDukuza
KZN222	uMngeni	KZN261	eDumbe	KZN293	Ndowedwe
KZN223	Mpofana	KZN262	uPhongolo	KZN294	Maphumulo
KZN224	Impendle	KZN263	Abaqulusi	KZN431	Ingwe
KZN225	The Msunduzi	KZN265	Nongoma	KZN432	Kwa Sanj
KZN226	Mkhambathini	KZN266	Ulundi	KZN433	Greater Kokstad
KZN227	Richmond	KZN271	Umlabuyalingana	KZN434	Ubuhlebezwe
KZN232	Emnambithi/Ladysmith	KZN272	Jozini	KZN435	Umkhulu



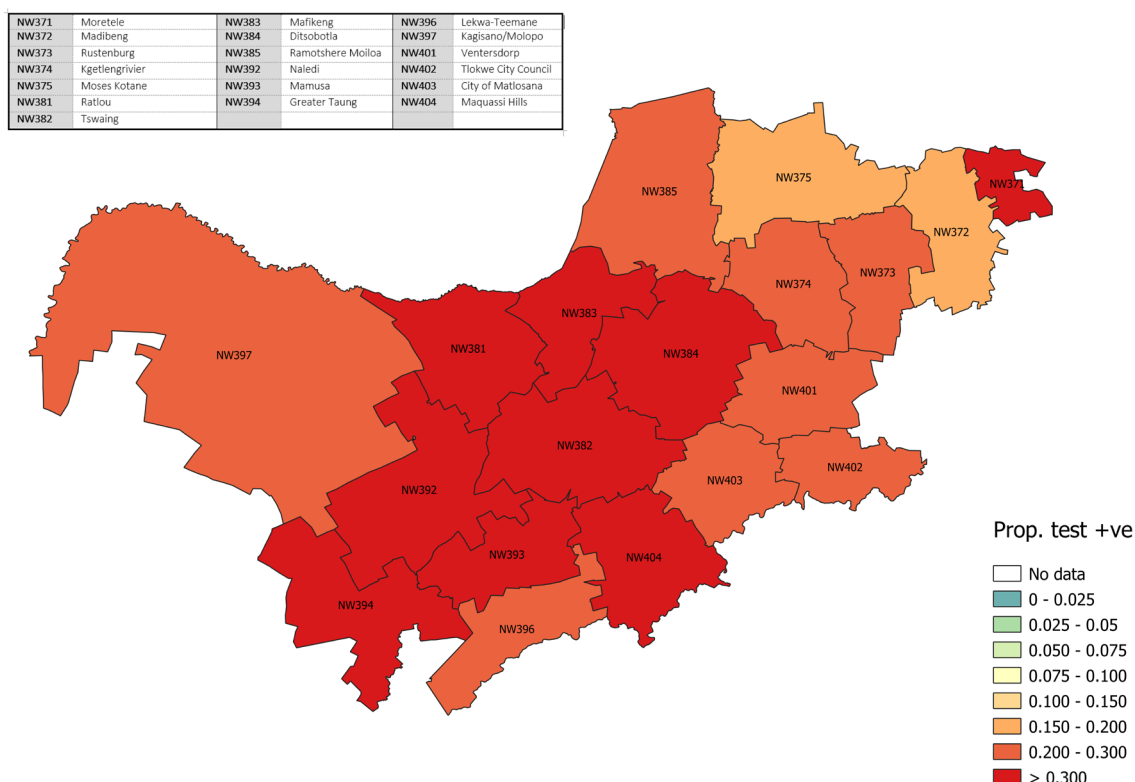
**Figure 15.** Proportion testing positive by health sub-district in KwaZulu-Natal Province for the week of 1-7 August 2021. Areas shaded white represent districts in which either (i) no tests were reported (ii) all tests were negative or (iii) the confidence interval exceeded 30%.



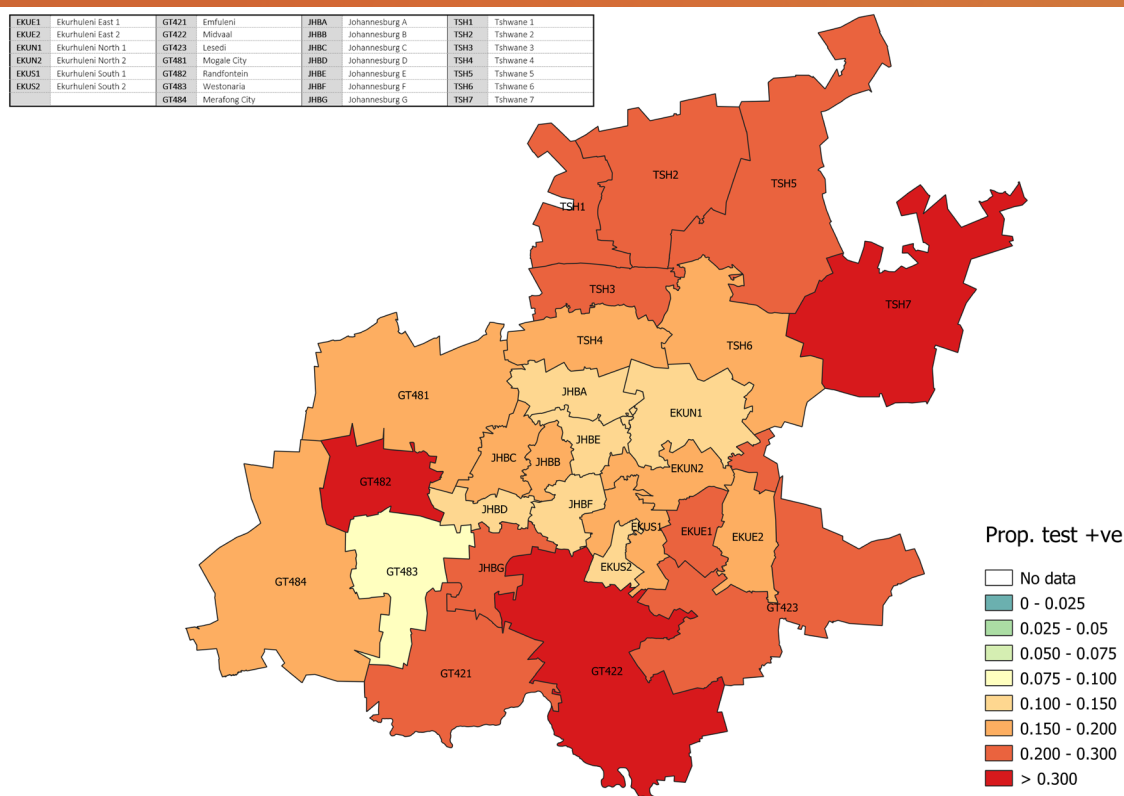
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**Figure 16.** Proportion testing positive by health sub-district in North West Province for the week of 1-7 August 2021. Areas shaded white represent districts in which either (i) no tests were reported (ii) all tests were negative or (iii) the confidence interval exceeded 30%.

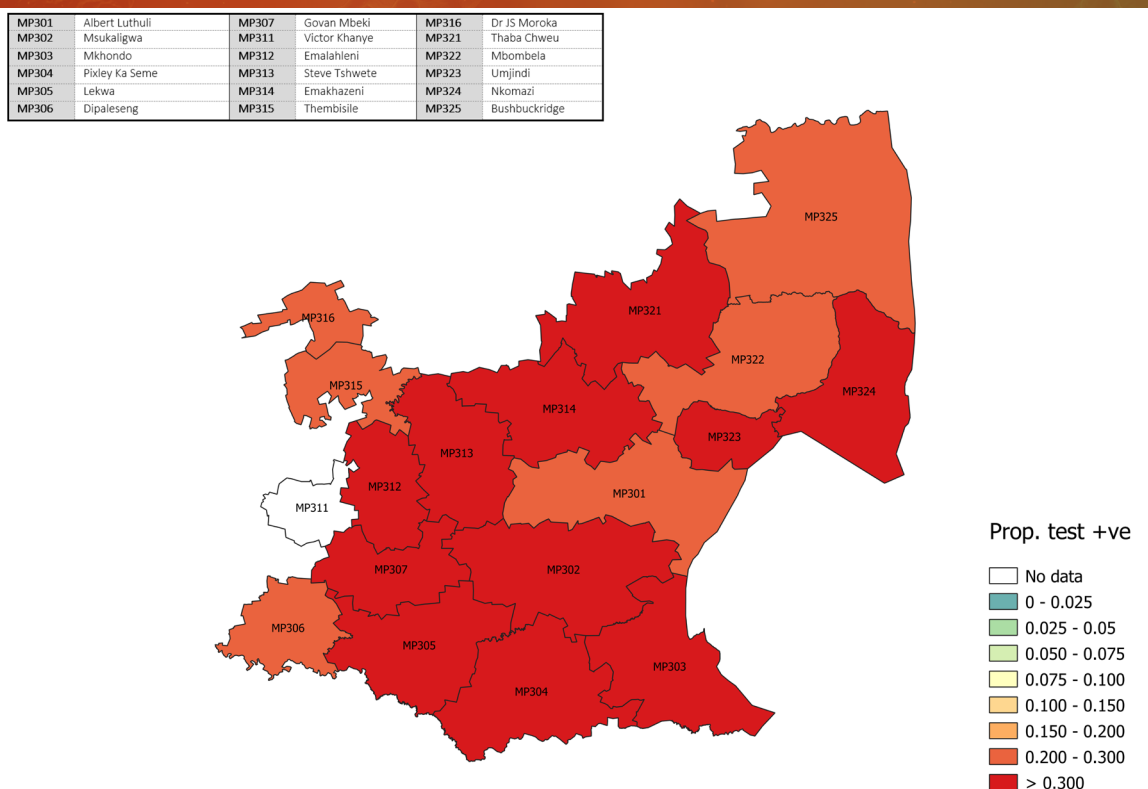


**Figure 17.** Proportion testing positive by health sub-district in Gauteng Province for the week of 1-7 August 2021. Areas shaded white represent districts in which either (i) no tests were reported (ii) all tests were negative or (iii) the confidence interval exceeded 30%.

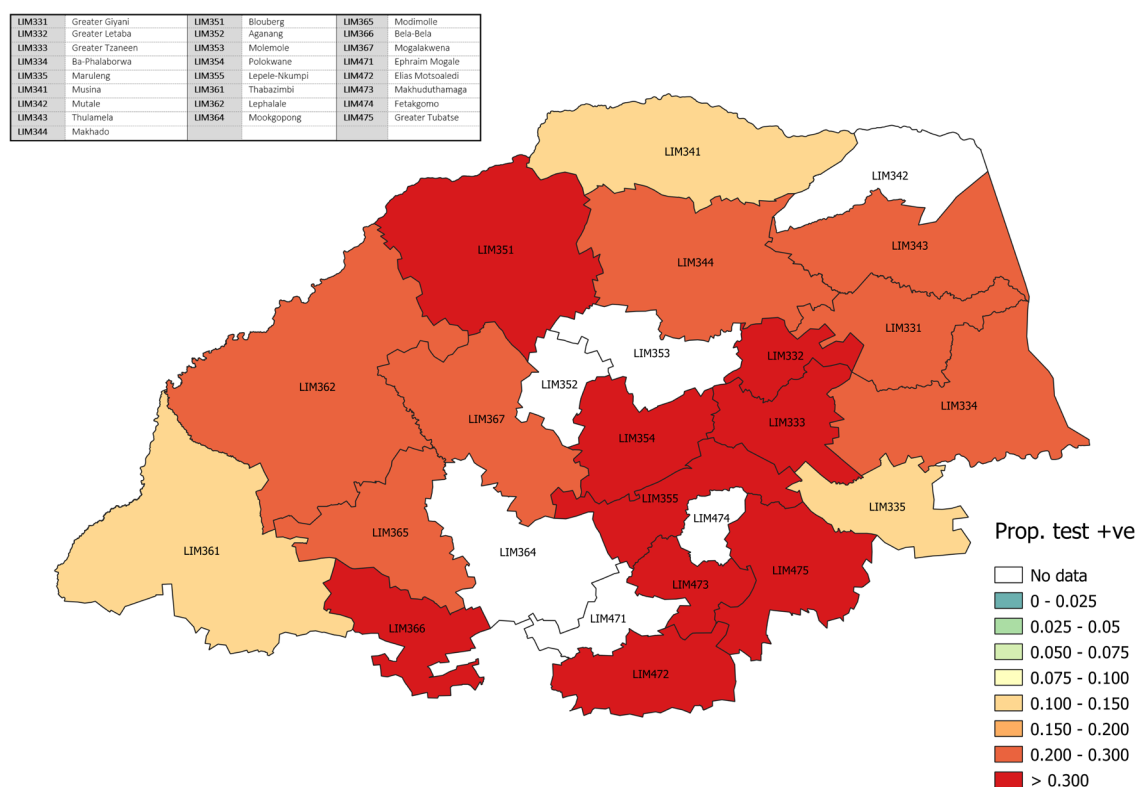
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**Figure 18.** Proportion testing positive by health sub-district in Mpumalanga Province for the week of 1-7 August 2021. Areas shaded white represent districts in which either (i) no tests were reported (ii) all tests were negative or (iii) the confidence interval exceeded 30%.



**Figure 19.** Proportion testing positive by health sub-district in Limpopo Province for the week of 1-7 August 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 31 of 2021 36.3% of reported tests were for hospitalised patients; 44.2% in the public sector and 27.5% in the private sector (Figure 20). The percentage testing positive in week 31 was higher among outpatients (27.0%) compared to inpatients

(20.3%) and have decreased slightly from the previous week in both groups (Figure 21). In week 31 the mean laboratory turnaround time for PCR tests in the public sector was higher among outpatients (2.0 days) compared to inpatients (1.3 days) (Figure 22).

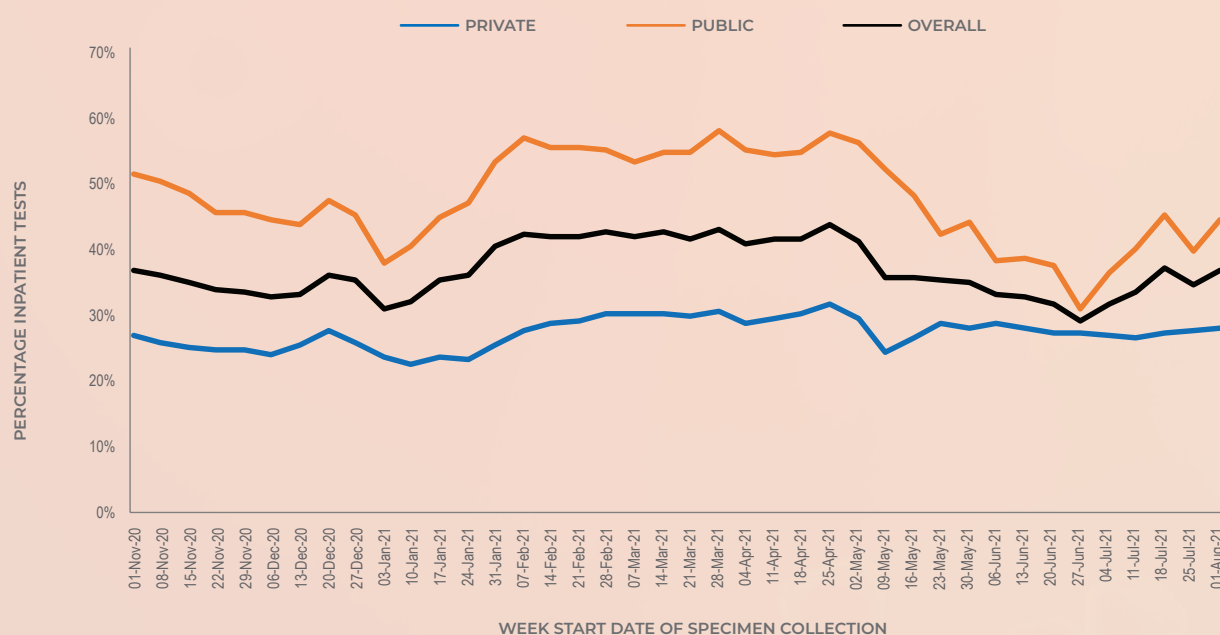


Figure 20. Percentage of inpatient tests reported by health sector, 1 November 2020 – 7 August 2021

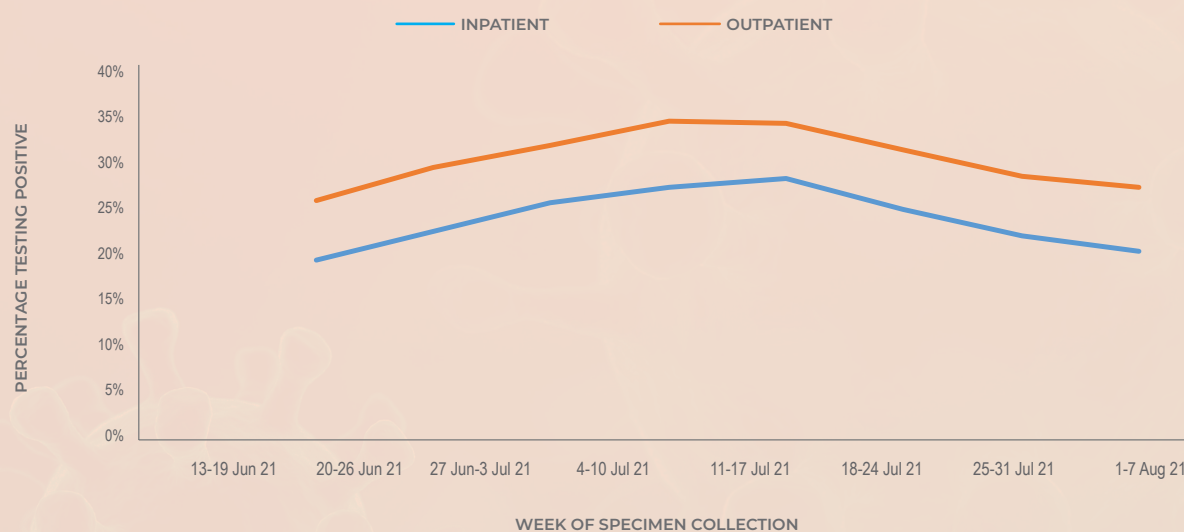
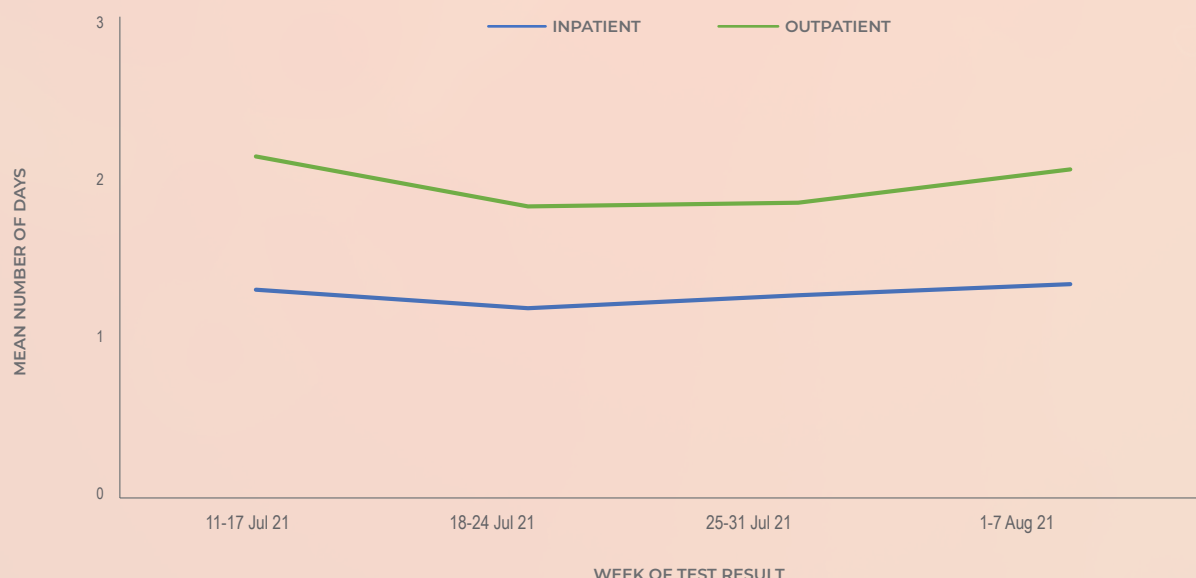


Figure 21. Percentage testing positive by patient admission status, 13 June – 7 August 2021

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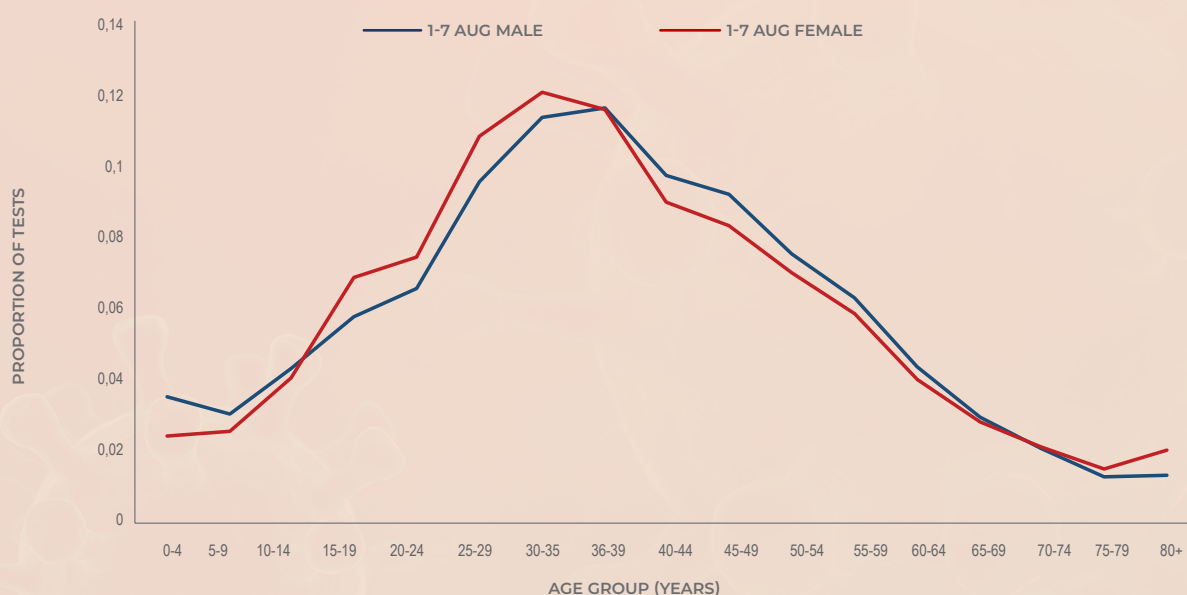


**Figure 22.** Mean number of days between date of specimen collection and date of test result for PCR tests in the public sector by patient admission status, 11 July – 7 August 2021

## Testing by age and sex

The median age of individuals tested in week 31 of 2021 was 37 years (interquartile range (IQR) 25-50) and was similar among males (37 years; IQR 26-50) and females (36 years; IQR 25-50). The majority of reported tests (58.4%) were in individuals in the 20-49 years' age group (Figure 23). In week 31 the testing rate was higher among females (557 per 100000 persons) than males (511 per 100000 persons) (Figure 24). Testing rates in

week 31 were highest in the  $\geq 80$  years age group (936 per 100000 persons). The percentage testing positive was highest in individuals aged 10-14 years (27.4%), 55-59 years (27.3%) and 15-19 years (27.2%). In males, the percentage testing positive was highest in individuals aged 10-14 years (27.4%) and 15-19 (27.5%). In females the highest percentage testing positive was observed in individuals 55-59 years (28.4%).

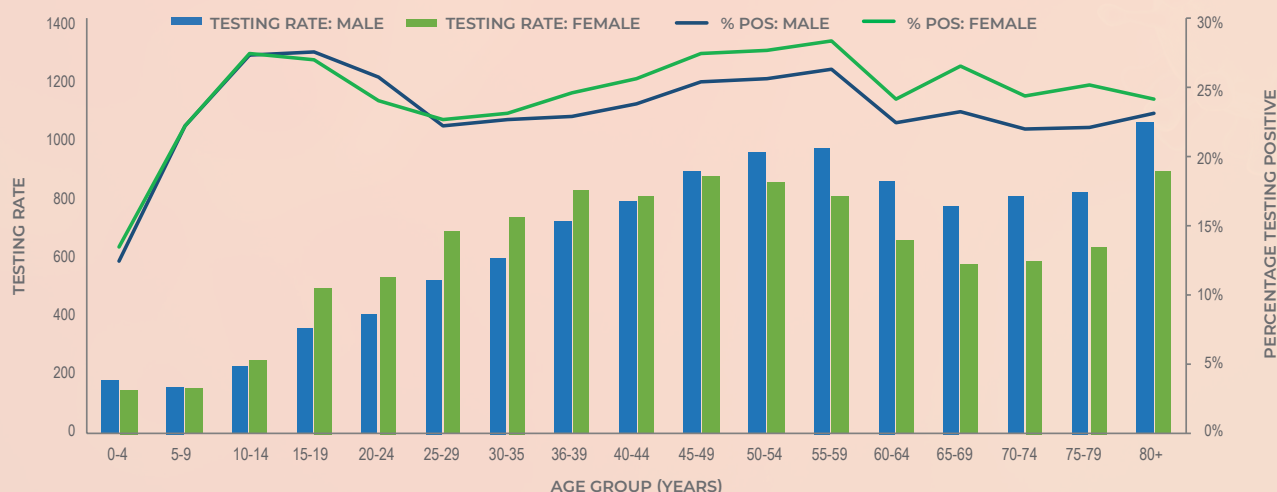


**Figure 23.** Proportion of tests by age group and sex South Africa, week 31, 1-7 August 2021



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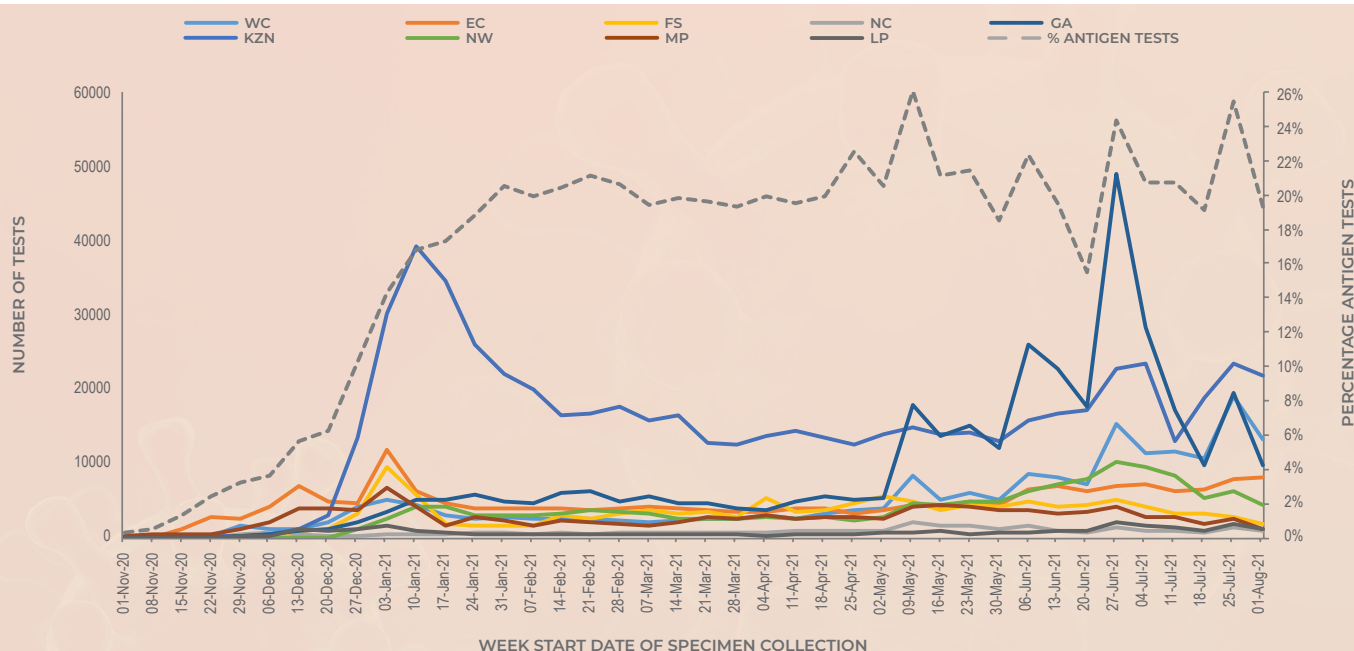


**Figure 24.** Testing rates per 100000 persons and percentage testing positive by age group and sex South Africa, week 31, 1-7 August 2021

## Testing by test type

Up to the end of week 31 of 2021 11.6% (1,767,596/15,184,265) of all reported tests were antigen tests. In week 31 19.3% (62,823/325,823) of reported tests were antigen tests (Figure 25). Overall 81.7% of antigen tests have been performed in the public sector and in week 31 the public sector accounted for 80.5% of antigen tests. Since antigen testing began in November 2020 the majority of antigen tests have been reported from KwaZulu-Natal (33.8%) and Gauteng (20.0%) provinces. In the past few weeks KwaZulu-Natal, Gauteng and Western Cape have performed the highest weekly number of antigen tests although the number of antigen tests

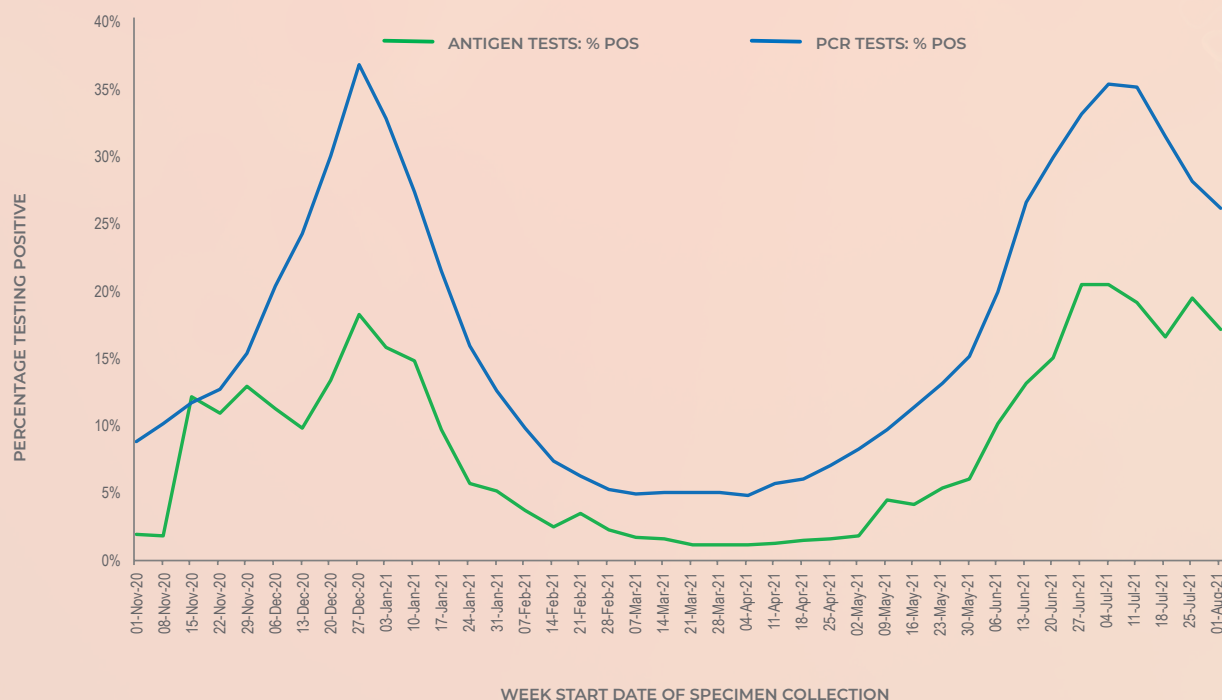
reported from these three provinces has decreased in the past week. The percentage testing positive in week 31 was higher for PCR (26.0%) tests compared to antigen (17.1%) tests (Figure 26). The mean turnaround time for antigen tests reported in week 31 increased to 6.0 days in the public sector and remained low (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.



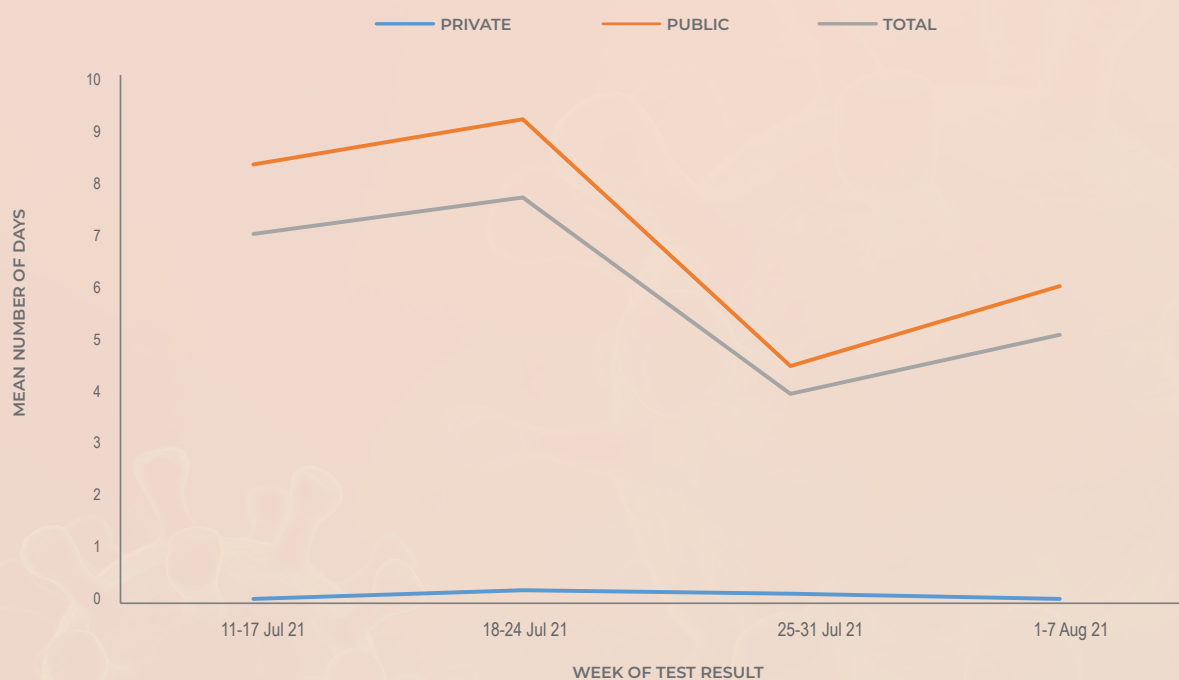
**Figure 25.** Number of antigen tests by province and overall percentage antigen tests South Africa 1 November 2020 – 7 August 2021. WC Western Cape; EC Eastern Cape; FS Free State; KZN KwaZulu-Natal; GA Gauteng; NC Northern Cape; NW North West; MP Mpumalanga; LP Limpopo

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**Figure 26.** Percentage of laboratory tests positive for SARS-CoV-2 by test type and date of specimen collection South Africa 1 November 2020 – 7 August 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 11 July – 7 August 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 31 (n=325,823) was lower than the number of tests reported in the previous week. Gauteng (27.2%), Western Cape (20.8%) and KwaZulu-Natal (21.8%) provinces reported the largest number of tests in week 31. The overall testing rate in week 31 was 546 per 100000 persons; highest in the Western Cape (970 per 100000 persons) and lowest in Limpopo (160 per 100000 persons). Testing rates increased in KwaZulu-Natal and the Northern Cape and decreased in Gauteng and the Western Cape in the past week. Antigen tests accounted for 19.3% (62,823/ 325, 823) of all tests reported in week 31 however, the number of antigen tests is likely underestimated due to under-reporting and delayed reporting of antigen tests. The overall mean laboratory turnaround time for PCR tests was 1.2 days in week 31; 1.7 days in the public sector and 0.8 days in the private sector.

The percentage testing positive in week 31 was 24.3% which was 1.4% lower than the previous week. The percentage testing positive in week 31 was highest in the Western Cape (33.3%) and Mpumalanga (31.6%) provinces. The percentage testing positive was between 20% and 30% in the Eastern Cape, Northern Cape, Free State, KwaZulu-Natal, North West and Limpopo provinces and was less than 20% in Gauteng. Compared to the previous week the percentage testing positive in week 31 increased in the Western Cape, Free State and KwaZulu-Natal provinces. The percentage testing positive decreased in the Northern Cape, North West, Gauteng, Mpumalanga and Limpopo and remained unchanged in the Eastern Cape.