

# COVID-19 TESTING SUMMARY



NATIONAL INSTITUTE FOR  
COMMUNICABLE DISEASES

Division of the National Health Laboratory Service

SOUTH AFRICA WEEK 33 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 21 August 2021 (Week 33 of 2021).

## HIGHLIGHTS

- In the period 1 March 2020 through 21 August 2021, 15,930,304 (13,985,381 PCR and 1,944,923 antigen) tests for SARS-CoV-2 have been reported nationally.
- The number of tests reported in week 33 of 2021 (n=361,983) was similar to the weekly number of tests reported in the previous three weeks.
- The testing rate in week 33 was 607 per 100,000 persons; highest in the Western Cape (976 per 100,000 persons) and lowest in Limpopo (149 per 100,000 persons).
- In week 33 the percentage testing positive was 22.8%, which was 1.0% lower than the previous week.
- The percentage testing positive in week 33 was highest in the Northern Cape (32.5%). The percentage testing positive was between 20% and 30% in the Western Cape, Eastern Cape, Free State, KwaZulu-Natal, North West, Mpumalanga and Limpopo provinces, and was less than 20% in Gauteng
- In week 33, compared to the previous week, the percentage testing positive increased in the Eastern Cape, Free State and KwaZulu-Natal provinces. The percentage testing positive decreased in the Western Cape, Gauteng, Mpumalanga and Limpopo provinces and remained unchanged in the North West.
- 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.

# COVID-19 TESTING SUMMARY

SOUTH AFRICA | WEEK 33 2021

## 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.

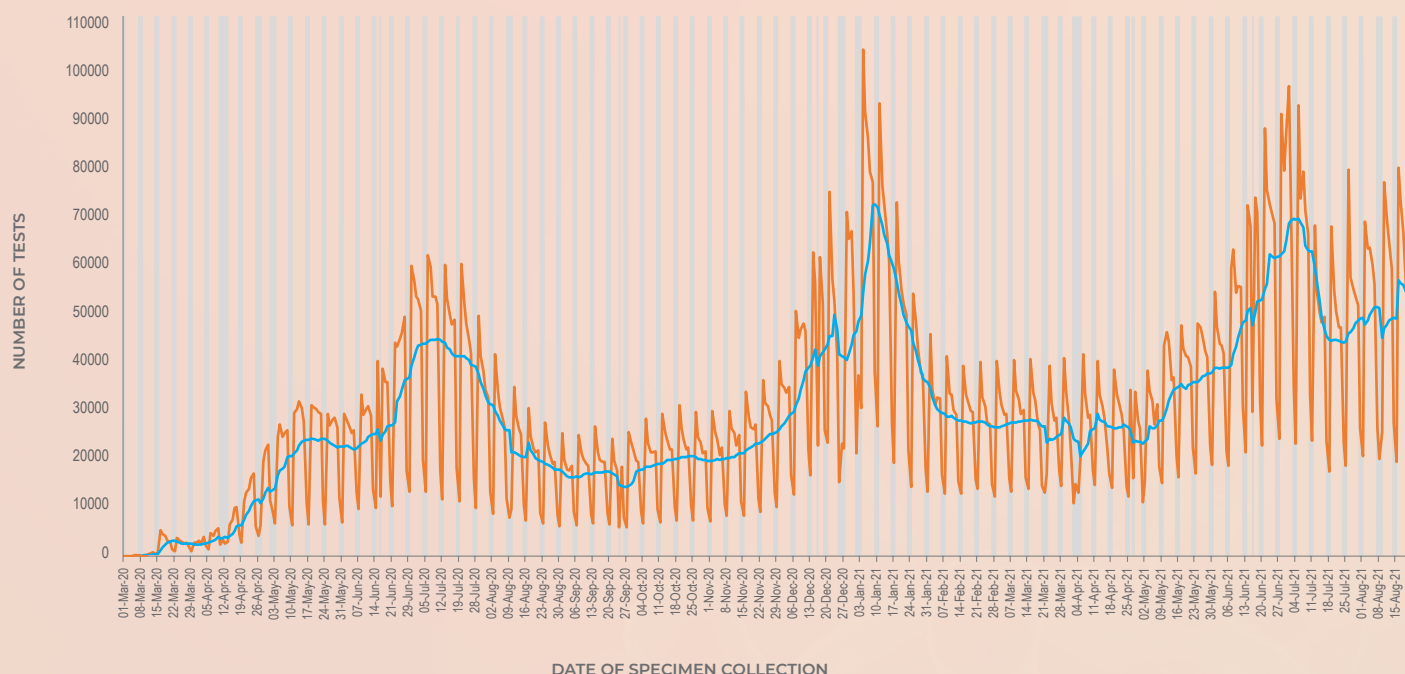
The report includes tests reported between 1 March 2020 (week 10 of 2020), the week when the first case of COVID-19 was confirmed, and 21 August 2021 (week 33 of 2021).

## Testing volumes and proportion testing positive

From 1 March 2020 through 21 August 2021, 15,930,304 SARS-CoV-2 tests were reported; 13,985,381 PCR and 1,944,923 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=501,140). 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=480,910). The number of tests reported in week 33 was 361,983, similar to the previous three weeks. 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).

# COVID-19 TESTING SUMMARY

SOUTH AFRICA WEEK 33 2021



**Figure 1.** Number of SARS-CoV-2 tests reported by date of specimen collection, South Africa, 1 March 2020 – 21 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 33 of 2021 was 18.0% (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. The percentage testing positive in week 33 of 2021 was 22.8%, which was 1.0% lower than the previous week (23.8%,  $P < 0.001$ ) (Figure 2).

# COVID-19 TESTING SUMMARY

SOUTH AFRICA | WEEK 33 2021

**Table 1.** Weekly number of SARS-CoV-2 tests and positive tests reported, South Africa, 1 March 2020 – 21 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	165379 (1.0)	8092	4.9
21	17-May-20	166544 (1.0)	11379	6.8
22	24-May-20	156140 (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	186091 (1.2)	32653	17.5
26	21-Jun-20	252100 (1.6)	55049	21.8
27	28-Jun-20	302751 (1.9)	75313	24.9
28	05-Jul-20	307916 (1.9)	86041	27.9
29	12-Jul-20	285603 (1.8)	84927	29.7
30	19-Jul-20	270900 (1.7)	78636	29.0
31	26-Jul-20	216397 (1.4)	58394	27.0
32	02-Aug-20	179576 (1.1)	40996	22.8
33	09-Aug-20	141106 (0.9)	26266	18.6
34	16-Aug-20	135019 (0.8)	21377	15.8
35	23-Aug-20	123333 (0.8)	16331	13.2
36	30-Aug-20	112764 (0.7)	12790	11.3
37	06-Sep-20	116998 (0.7)	11953	10.2
38	13-Sep-20	120716 (0.8)	12012	10.0
39	20-Sep-20	98822 (0.6)	10098	10.2
40	27-Sep-20	123062 (0.8)	11008	8.9
41	04-Oct-20	131046 (0.8)	11779	9.0
42	11-Oct-20	137981 (0.9)	12078	8.8
43	18-Oct-20	142174 (0.9)	12069	8.5
44	25-Oct-20	135853 (0.9)	11479	8.4
45	01-Nov-20	138844 (0.9)	12138	8.7
46	08-Nov-20	147009 (0.9)	14845	10.1
47	15-Nov-20	160649 (1.0)	18765	11.7
48	22-Nov-20	175695 (1.1)	22054	12.6
49	29-Nov-20	203153 (1.3)	30769	15.1
50	06-Dec-20	267929 (1.7)	53314	19.9
51	13-Dec-20	294511 (1.8)	68578	23.3
52	20-Dec-20	284615 (1.8)	81963	28.8
53	27-Dec-20	334402 (2.1)	115739	34.6
1	03-Jan-21	501140 (3.1)	151031	30.1
2	10-Jan-21	417930 (2.6)	104788	25.1



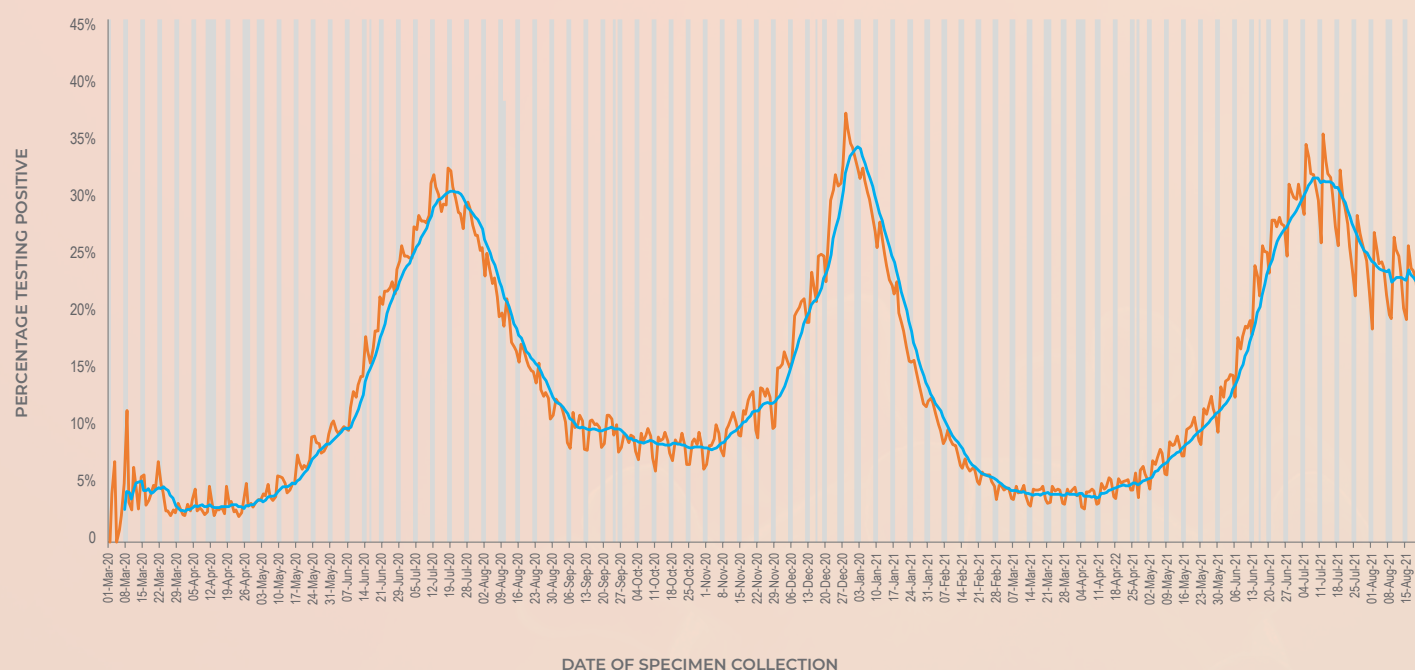
# COVID-19 TESTING SUMMARY

SOUTH AFRICA | WEEK 33 2021

3	17-Jan-21	327368 (2.1)	63256	19.3
4	24-Jan-21	249471 (1.6)	34636	13.9
5	31-Jan-21	203622 (1.3)	22358	11.0
6	07-Feb-21	193245 (1.2)	16466	8.5
7	14-Feb-21	190431 (1.2)	12181	6.4
8	21-Feb-21	184438 (1.2)	10379	5.6
9	28-Feb-21	189347 (1.2)	8685	4.6
10	07-Mar-21	193235 (1.2)	8324	4.3
11	14-Mar-21	185457 (1.2)	8151	4.4
12	21-Mar-21	172732 (1.1)	7343	4.3
13	28-Mar-21	163828 (1.0)	7059	4.3
14	04-Apr-21	180595 (1.1)	7282	4.0
15	11-Apr-21	184533 (1.2)	8842	4.8
16	18-Apr-21	184776 (1.2)	9459	5.1
17	25-Apr-21	159867 (1.0)	9177	5.7
18	02-May-21	193709 (1.2)	13438	6.9
19	09-May-21	239340 (1.5)	19877	8.3
20	16-May-21	247335 (1.6)	24137	9.8
21	23-May-21	260488 (1.6)	29584	11.4
22	30-May-21	268004 (1.7)	35851	13.4
23	06-Jun-21	333335 (2.1)	58678	17.6
24	13-Jun-21	363909 (2.3)	86393	23.7
25	20-Jun-21	425711 (2.7)	116382	27.3
26	27-Jun-21	480910 (3.0)	143452	29.8
27	04-Jul-21	434336 (2.7)	138905	32.0
28	11-Jul-21	313836 (2.0)	98892	31.5
29	18-Jul-21	304612 (1.9)	86306	28.3
30	25-Jul-21	338285 (2.1)	86287	25.5
31	01-Aug-21	354561 (2.2)	85571	24.1
32	08-Aug-21	339419 (2.1)	80765	23.8
33	15-Aug-21	361983 (2.3)	82474	22.8
<b>Total</b>		<b>15,930,304 (100.0)</b>	<b>2,861,276</b>	<b>18.0</b>

# COVID-19 TESTING SUMMARY

SOUTH AFRICA WEEK 33 2021



**Figure 2.** Percentage of tests positive for SARS-CoV-2 by date of specimen collection, South Africa, 1 March 2020 – 21 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 21 August 2021 7,156,722 tests were reported in the public sector with 18.2% testing positive. Over this same period the private sector reported 8,773,582 tests with 17.8% testing positive (Table 2). Overall the public sector has reported 44.9% of tests and accounted for 45.4% 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 (30.4%) and in week 27 of 2021 (beginning 4 July) in the private sector (33.6%). From week 32 to week 33 of 2021 the

percentage testing positive decreased by 0.4% in the public sector (25.3% in week 32 to 24.9% week 33,  $P=0.001$ ) and by 1.5% in the private sector (22.0% in week 32 to 20.5% in week 33,  $P<0.001$ ). In week 33 the percentage testing positive in the public sector (24.9%) was 4.4% higher than in the private sector (20.5%,  $P<0.001$ ).

The mean turnaround time for PCR tests reported in week 33 of 2021 was 1.4 days; 2.1 days in the public sector and 0.7 days in the private sector (Figure 3). Turnaround times for public sector PCR tests increased in the North West and were  $>2$  days in the Eastern Cape, Northern Cape and Free State provinces in the past week (Figure 4). A decrease in turnaround time was observed in Limpopo and Mpumalanga provinces. Sixteen of the 28 (57.1%) NHLS laboratories performing PCR testing for SARS-CoV-2 had turnaround times  $\leq 2$  days in week 33 (Figure 5).

# COVID-19 TESTING SUMMARY

SOUTH AFRICA WEEK 33 2021

**Table 2.** Weekly number of tests and positive tests reported by healthcare sector South Africa 1 March 2020 – 21 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	108002	5443 (5.0)	57377	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)	78543	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)	124942	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)	109010	24000 (22.0)	39.3	41.5	1.094
33	09-Aug-20	58661	11172 (19.0)	82445	15094 (18.3)	41.6	42.5	1.040
34	16-Aug-20	56141	9621 (17.1)	78878	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)	67342	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	50436	5690 (11.3)	80610	6089 (7.6)	38.5	48.3	1.494
42	11-Oct-20	53452	5702 (10.7)	84529	6376 (7.5)	38.7	47.2	1.414
43	18-Oct-20	56123	6045 (10.8)	86051	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)	85845	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	81271	15730 (19.4)	121882	15039 (12.3)	40.0	51.1	1.569
50	06-Dec-20	107911	24716 (22.9)	160018	28598 (17.9)	40.3	46.4	1.282
51	13-Dec-20	117249	29815 (25.4)	177262	38763 (21.9)	39.8	43.5	1.163
52	20-Dec-20	109914	34128 (31.0)	174701	47835 (27.4)	38.6	41.6	1.134
53	27-Dec-20	151637	52934 (34.9)	182765	62805 (34.4)	45.3	45.7	1.016
1	03-Jan-21	237014	71064 (30.0)	264126	79967 (30.3)	47.3	47.1	0.990
2	10-Jan-21	204023	52958 (26.0)	213907	51830 (24.2)	48.8	50.5	1.071
3	17-Jan-21	165676	34462 (20.8)	161692	28794 (17.8)	50.6	54.5	1.168
4	24-Jan-21	123262	18999 (15.4)	126209	15637 (12.4)	49.4	54.9	1.244
5	31-Jan-21	99787	12066 (12.1)	103835	10292 (9.9)	49.0	54.0	1.220
6	07-Feb-21	91328	8510 (9.3)	101917	7956 (7.8)	47.3	51.7	1.194
7	14-Feb-21	86267	6680 (7.7)	104164	5501 (5.3)	45.3	54.8	1.466
8	21-Feb-21	82509	5795 (7.0)	101929	4584 (4.5)	44.7	55.8	1.562
9	28-Feb-21	87896	4678 (5.3)	101451	4007 (3.9)	46.4	53.9	1.347
10	07-Mar-21	92751	4581 (4.9)	100484	3743 (3.7)	48.0	55.0	1.326
11	14-Mar-21	89914	4448 (4.9)	95543	3703 (3.9)	48.5	54.6	1.276
12	21-Mar-21	77125	3459 (4.5)	95607	3884 (4.1)	44.7	47.1	1.104
13	28-Mar-21	71169	3455 (4.9)	92659	3604 (3.9)	43.4	48.9	1.248



# COVID-19 TESTING SUMMARY

SOUTH AFRICA | WEEK 33 2021

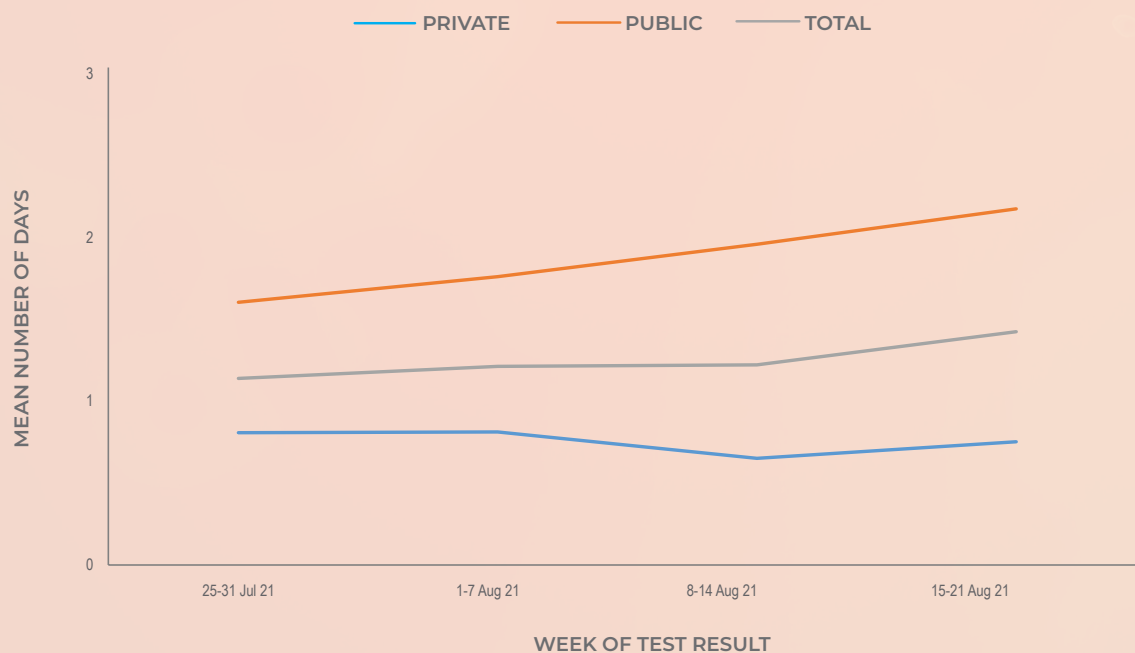
14	04-Apr-21	79377	3356 (4.2)	101218	3926 (3.9)	44.0	46.1	1.090
15	11-Apr-21	85836	4363 (5.1)	98697	4479 (4.5)	46.5	49.3	1.120
16	18-Apr-21	80528	4710 (5.8)	104248	4749 (4.6)	43.6	49.8	1.284
17	25-Apr-21	70469	4124 (5.9)	89398	5053 (5.7)	44.1	44.9	1.035
18	02-May-21	81068	5468 (6.7)	112641	7970 (7.1)	41.9	40.7	0.953
19	09-May-21	91607	7330 (8.0)	147733	12547 (8.5)	38.3	36.9	0.942
20	16-May-21	100352	9114 (9.1)	146983	15023 (10.2)	40.6	37.8	0.889
21	23-May-21	120620	11712 (9.7)	139868	17872 (12.8)	46.3	39.6	0.760
22	30-May-21	111100	11760 (10.6)	156904	24091 (15.4)	41.5	32.8	0.689
23	06-Jun-21	146335	19609 (13.4)	187000	39069 (20.9)	43.9	33.4	0.641
24	13-Jun-21	151652	29083 (19.2)	212257	57310 (27.0)	41.7	33.7	0.710
25	20-Jun-21	176076	41919 (23.8)	249635	74463 (29.8)	41.4	36.0	0.798
26	27-Jun-21	230702	62206 (27.0)	250208	81246 (32.5)	48.0	43.4	0.830
27	04-Jul-21	208145	62947 (30.2)	226191	75958 (33.6)	47.9	45.3	0.901
28	11-Jul-21	153533	46598 (30.4)	160303	52294 (32.6)	48.9	47.1	0.930
29	18-Jul-21	153044	43896 (28.7)	151568	42410 (28.0)	50.2	50.9	1.025
30	25-Jul-21	183357	47038 (25.7)	154928	39249 (25.3)	54.2	54.5	1.013
31	01-Aug-21	188333	46547 (24.7)	166228	39024 (23.5)	53.1	54.4	1.053
32	08-Aug-21	182357	46168 (25.3)	157062	34597 (22.0)	53.7	57.2	1.149
33	15-Aug-21	190835	47447 (24.9)	171148	35027 (20.5)	52.7	57.5	1.215
<b>Total</b>		<b>7,156,722</b>	<b>1,299,744 (18.2)</b>	<b>8,773,582</b>	<b>1,561,532 (17.8)</b>	<b>44.9</b>	<b>45.4</b>	<b>1.020</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)

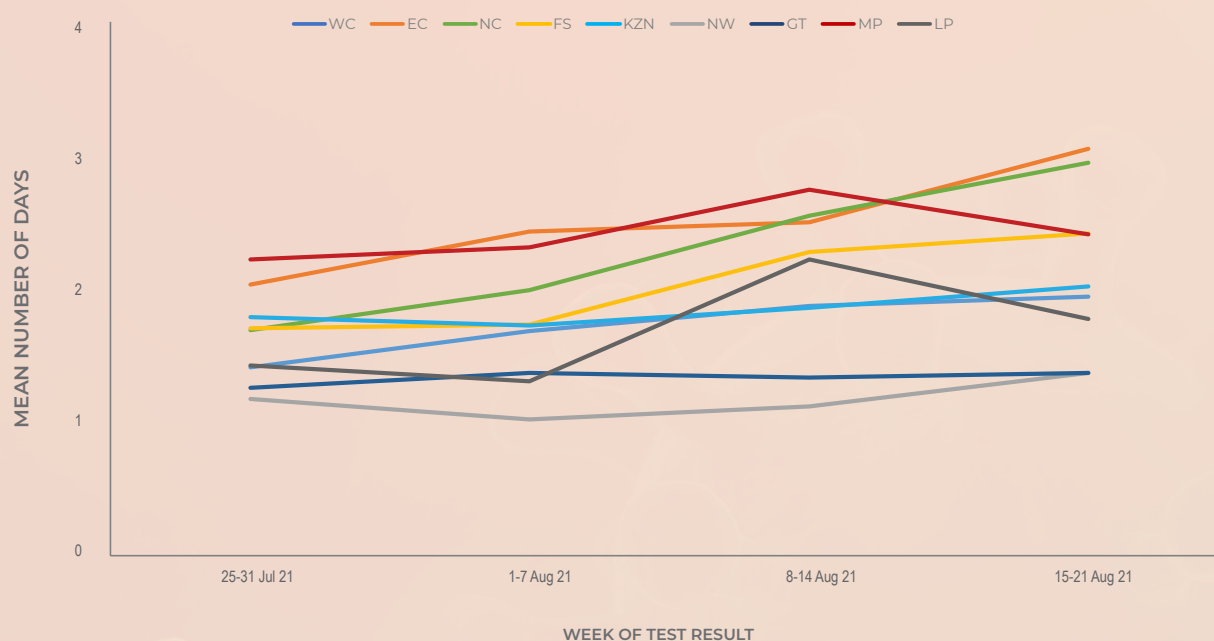


# COVID-19 TESTING SUMMARY

SOUTH AFRICA WEEK 33 2021



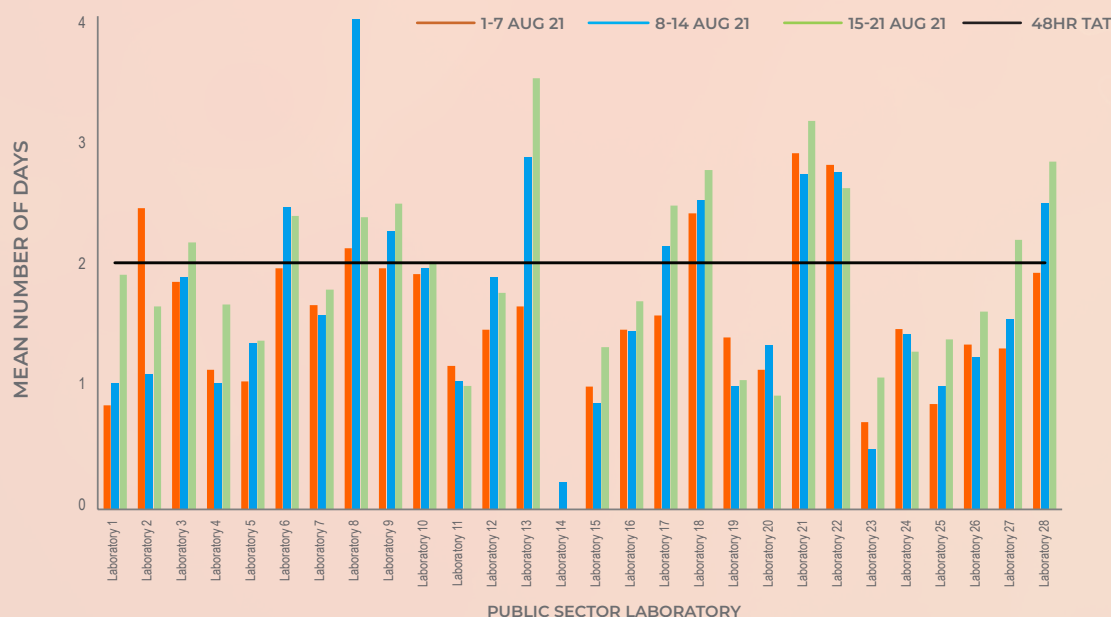
**Figure 3.** Mean number of days between date of specimen collection and date of test result for PCR tests by week of test result, South Africa, 25 July – 21 August 2021



**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 25 July – 21 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

# COVID-19 TESTING SUMMARY

SOUTH AFRICA WEEK 33 2021



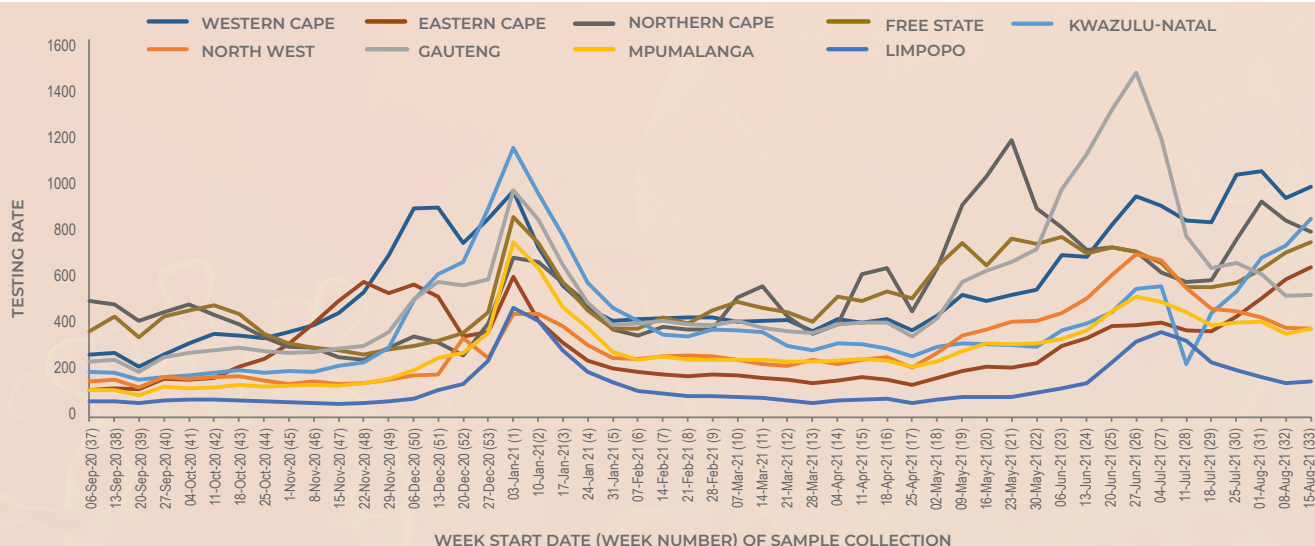
**Figure 5.** Mean number of days between date of specimen collection and date of test result for PCR tests by public sector laboratory 1-21 August 2021. The horizontal black line indicates 48-hour turnaround time (TAT).

## Testing by province

KwaZulu-Natal reported the largest proportion of tests (26.8%) followed by Gauteng (22.2%) and Western Cape (18.9%) in week 33 of 2021 (Table 3). The overall testing rate increased slightly from 569 per 100,000 persons in week 32 to 607 per 100,000 in week 33. The testing rate ranged from 976 per 100,000 persons in the Western Cape to 149 per 100,000 persons in Limpopo (Figure 6). In week 33 testing rates increased in KwaZulu-Natal province (729 per 100,000 persons in week 32 to 840 per 100,000 persons in week 33), as well as in the Eastern Cape, Western Cape and Free State provinces.

The percentage testing positive in week 33 was highest in the Northern Cape (32.5%) province. The percentage

testing positive was between 20% and 30% in the Western Cape, Eastern Cape, Free State, KwaZulu-Natal, North West, Mpumalanga 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 33 increased in the Eastern Cape ( $P \leq 0.012$ ), Free State ( $P = 0.020$ ) and KwaZulu-Natal ( $P = 0.001$ ) provinces. The percentage testing positive decreased ( $P \leq 0.001$ ) in the Western Cape, Gauteng, Mpumalanga and Limpopo ( $P = 0.016$ ) provinces, and remained unchanged in the North West ( $P = 0.172$ ). The percentage testing positive was higher than the national average not weighted for population size in the Western Cape, Eastern Cape, Northern Cape, Free State, KwaZulu-Natal and North West provinces (Figure 7).



**Figure 6.** Testing rate per 100,000 persons by province and week of specimen collection, South Africa, 6 September 2020 – 21 August 2021

# COVID-19 TESTING SUMMARY

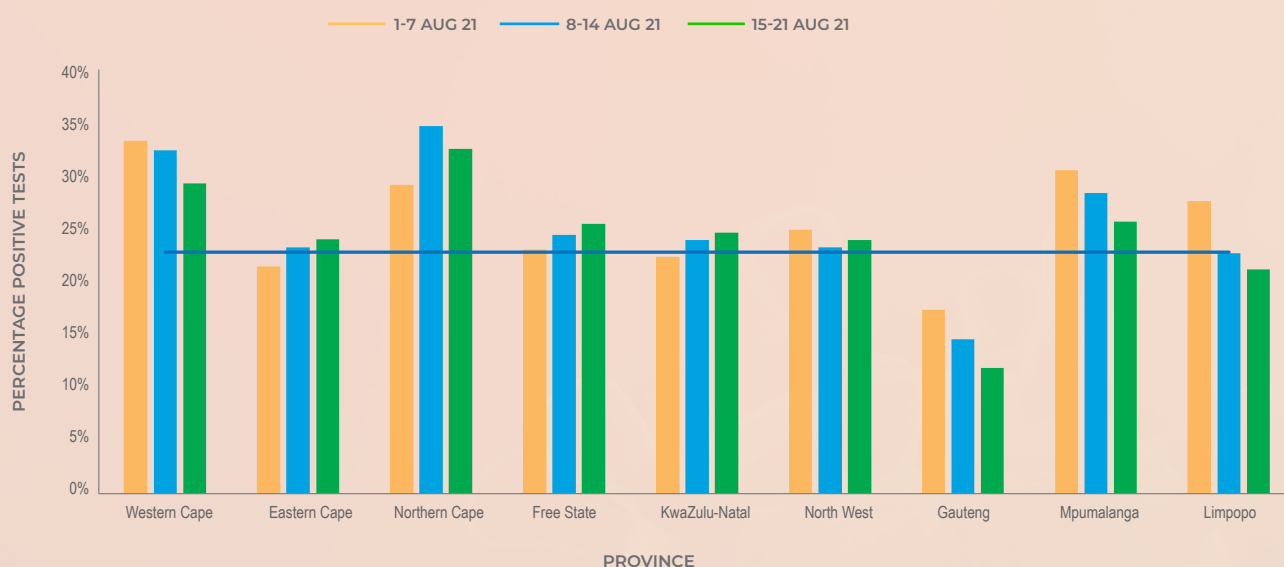
SOUTH AFRICA WEEK 33 2021

**Table 3.** Weekly number of tests and positive tests reported by province South Africa 1 - 21 August 2021

Province	Population <sup>a</sup>	1-7 Aug 2021		8-14 Aug 2021		15-21 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	72912	24244 (33.3)	65124	21091 (32.4)	68357	19995 (29.3)	976	-3.1%
Eastern Cape	6734001	33733	7220 (21.4)	39222	9113 (23.2)	42769	10255 (24.0)	635	0.7%
Northern Cape	1292786	11827	3439 (29.1)	10757	3729 (34.7)	10148	3300 (32.5)	785	-2.1%
Free State	2928903	18357	4225 (23.0)	20429	4989 (24.4)	21753	5526 (25.4)	743	1.0%
KwaZulu-Natal	11531628	77717	17360 (22.3)	83743	20040 (23.9)	96905	23836 (24.6)	840	0.7%
North West	4108816	17383	4323 (24.9)	15530	3610 (23.2)	15424	3687 (23.9)	375	0.7%
Gauteng	15488137	93833	16283 (17.4)	79808	11640 (14.6)	80254	9512 (11.9)	518	-2.7%
Mpumalanga	4679786	18814	5730 (30.5)	16420	4653 (28.3)	17595	4507 (25.6)	376	-2.7%
Limpopo	5852553	9955	2742 (27.5)	8375	1900 (22.7)	8740	1850 (21.2)	149	-1.5%
Unknown		30	5 (16.7)	11	0 (0.0)	38	6 (15.8)		
<b>Total</b>	<b>59622350</b>	<b>354561</b>	<b>85571 (24.1)</b>	<b>339419</b>	<b>80765 (23.8)</b>	<b>361983</b>	<b>82474 (22.8)</b>	<b>607</b>	<b>-1.0%</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, 1-21 August 2021. The horizontal blue line shows the national mean for week 33, beginning 15 August 2021

## Testing in the public sector

In the public sector the percentage testing positive decreased by 0.4% in the past week (25.3% in week 32 to 24.9% in week 33) (Table 4). The percentage testing positive in week 33 was highest in the Western Cape

(33.6%) and Northern Cape (33.1%) 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, Free State, North West, Mpumalanga and Limpopo provinces (Figure 8).

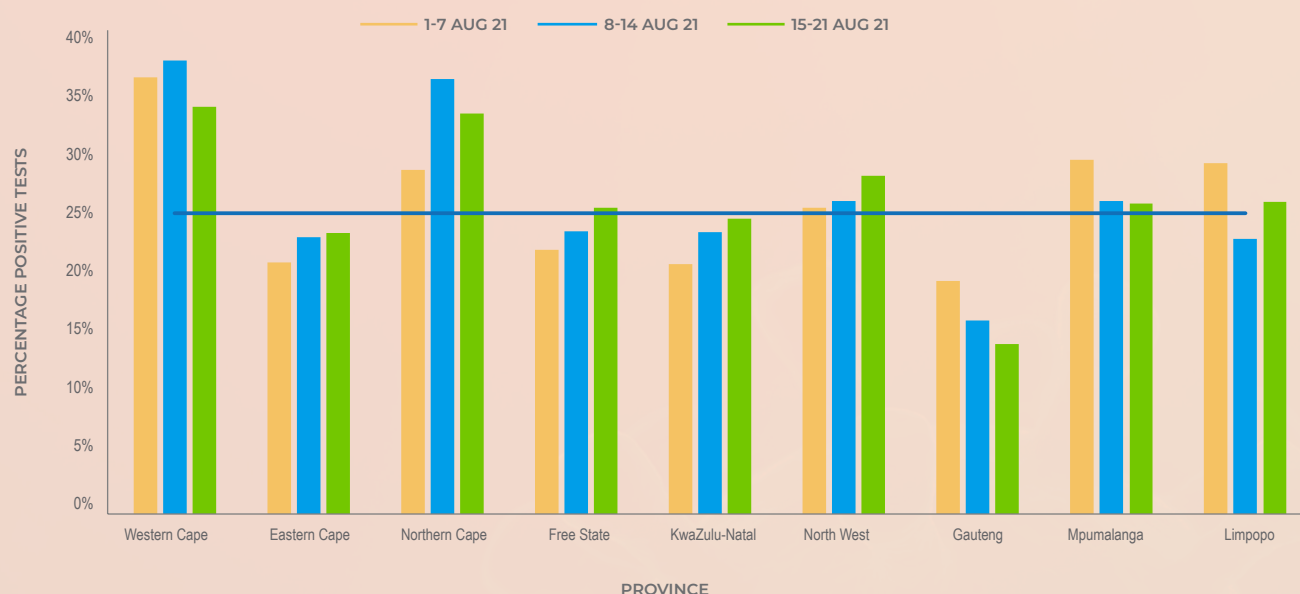


# COVID-19 TESTING SUMMARY

SOUTH AFRICA WEEK 33 2021

**Table 4.** Weekly number of tests and positive tests reported in the public sector by province South Africa 1 - 21 August 2021

Province	1-7 Aug 2021		8-14 Aug 2021		15-21 Aug 2021	
	No. of tests	No. positive tests (%)	No. of tests	No. positive tests (%)	No. of tests	No. positive tests (%)
Western Cape	37402	13510 (36.1)	31365	11758 (37.5)	31058	10444 (33.6)
Eastern Cape	24917	5175 (20.8)	29847	6823 (22.9)	30161	6998 (23.2)
Northern Cape	8209	2336 (28.5)	7249	2605 (35.9)	6315	2092 (33.1)
Free State	11103	2423 (21.8)	12757	2977 (23.3)	13059	3302 (25.3)
KwaZulu-Natal	49008	10128 (20.7)	54267	12642 (23.3)	64062	15631 (24.4)
North West	9672	2445 (25.3)	8633	2233 (25.9)	8471	2365 (27.9)
Gauteng	35160	6772 (19.3)	26902	4303 (16.0)	26356	3699 (14.0)
Mpumalanga	9141	2679 (29.3)	8052	2080 (25.8)	8350	2144 (25.7)
Limpopo	3707	1076 (29.0)	3284	747 (22.7)	2978	769 (25.8)
Unknown	14	3 (0.0)	1	0 (0.0)	25	3 (12.0)
<b>Total</b>	<b>188333</b>	<b>46547 (24.7)</b>	<b>182357</b>	<b>46168 (25.3)</b>	<b>190835</b>	<b>47447 (24.9)</b>



**Figure 8.** Weekly percentage testing positive in the public sector by province, South Africa, 1-21 August 2021. The horizontal blue line shows the national mean for week 33 of 2021, beginning 15 August 2021.

## Facilities with high proportions testing positive

The data on testing at facility level for the public sector for week 33 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 15-21 August 2021. Nine of the 25 public facilities showing the highest PTP are in the Western Cape, with five in each of KwaZulu-Natal and North West, three in the Northern Cape, and two in the Free State.



# COVID-19 TESTING SUMMARY

SOUTH AFRICA | WEEK 33 2021

**Table 5.1** Public sector healthcare facilities with a high proportion testing positive 15-21 August 2021

Facility Name	Province	Tests	PTP (95% CI)
Facility 1	Western Cape	67	0.791 (0.694;0.888)
Facility 2	Northern Cape	29	0.759 (0.603;0.914)
Facility 3	KwaZulu-Natal	28	0.750 (0.590;0.910)
Facility 4	Western Cape	25	0.720 (0.544;0.896)
Facility 5	North West	303	0.706 (0.655;0.758)
Facility 6	Western Cape	55	0.691 (0.569;0.813)
Facility 7	Free State	43	0.674 (0.534;0.814)
Facility 8	KwaZulu-Natal	165	0.673 (0.601;0.744)
Facility 9	Western Cape	131	0.649 (0.567;0.731)
Facility 10	Mpumalanga	48	0.646 (0.511;0.781)
Facility 11	KwaZulu-Natal	94	0.638 (0.541;0.735)
Facility 12	North West	33	0.636 (0.472;0.800)
Facility 13	North West	27	0.630 (0.447;0.812)
Facility 14	Northern Cape	45	0.622 (0.481;0.764)
Facility 15	KwaZulu-Natal	34	0.618 (0.454;0.781)
Facility 16	Western Cape	87	0.609 (0.507;0.712)
Facility 17	Western Cape	66	0.606 (0.488;0.724)
Facility 18	North West	25	0.600 (0.408;0.792)
Facility 19	Northern Cape	40	0.600 (0.448;0.752)
Facility 20	Free State	55	0.600 (0.471;0.729)
Facility 21	North West	47	0.596 (0.455;0.736)
Facility 22	KwaZulu-Natal	42	0.595 (0.447;0.744)
Facility 23	Western Cape	91	0.593 (0.492;0.694)
Facility 24	Western Cape	27	0.593 (0.407;0.778)
Facility 25	Western Cape	39	0.590 (0.435;0.744)

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 15-21 August 2021 with the highest proportion testing positive nationally. The private-sector facilities with the 25 highest proportions testing positive are concentrated in the Western Cape (with 11 facilities), five in KwaZulu-Natal, and four in the Northern Cape.

# COVID-19 TESTING SUMMARY

SOUTH AFRICA | WEEK 33 2021

**Table 5.2** Private sector healthcare facilities with a high proportion testing positive 15-21 August 2021

Facility Name	Province	Tests	PTP (95% CI)
Facility 1	Northern Cape	26	0.615 (0.428;0.802)
Facility 2	Western Cape	27	0.481 (0.293;0.670)
Facility 3	Western Cape	269	0.480 (0.420;0.539)
Facility 4	Western Cape	48	0.479 (0.338;0.620)
Facility 5	KwaZulu-Natal	30	0.467 (0.288;0.645)
Facility 6	Western Cape	55	0.455 (0.323;0.586)
Facility 7	North West	60	0.450 (0.324;0.576)
Facility 8	Northern Cape	38	0.447 (0.289;0.605)
Facility 9	Mpumalanga	90	0.433 (0.331;0.536)
Facility 10	Northern Cape	266	0.432 (0.373;0.492)
Facility 11	Western Cape	1516	0.418 (0.393;0.443)
Facility 12	Western Cape	620	0.406 (0.368;0.445)
Facility 13	Eastern Cape	121	0.405 (0.317;0.492)
Facility 14	Western Cape	175	0.400 (0.327;0.473)
Facility 15	Gauteng	59	0.390 (0.265;0.514)
Facility 16	KwaZulu-Natal	26	0.385 (0.198;0.572)
Facility 17	Western Cape	784	0.384 (0.350;0.418)
Facility 18	Western Cape	162	0.383 (0.308;0.458)
Facility 19	KwaZulu-Natal	84	0.381 (0.277;0.485)
Facility 20	Northern Cape	951	0.381 (0.350;0.412)
Facility 21	Western Cape	240	0.379 (0.318;0.441)
Facility 22	Western Cape	265	0.377 (0.319;0.436)
Facility 23	KwaZulu-Natal	64	0.375 (0.256;0.494)
Facility 24	KwaZulu-Natal	32	0.375 (0.207;0.543)
Facility 25	Free State	116	0.371 (0.283;0.459)

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 84% of private testing facilities) in the week from 15-21 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: ten of the 25 districts are in the Western Cape, five in the North West, four in the Northern Cape, and two each in KwaZulu-Natal and Mpumalanga.

For the eighth consecutive week, all 25 districts with the highest PTP showed a PTP in the current week in excess of 30%, and all 25 districts exceeded 40% (24 last week). Six exceeded 50% (last week, six). PTP exceeded 30% in a further 52 districts (53 last week). Significant increases were observed in four of the 25 districts with the highest PTP (Richtersveld in the Northern Cape; Mtubatuba in KwaZulu-Natal; Naledi in the Free State; and Ratlou in the North West).

# COVID-19 TESTING SUMMARY

SOUTH AFRICA | WEEK 33 2021

**Table 6.** Health sub-districts with the highest proportion testing positive based on public and private sector data for the week of 15-21 August 2021

Health district or sub-district	Province	PTP (95% CI)	Previous week
Laingsburg	Western Cape	0.589 (0.500-0.678)	0.439 (0.320-0.558)
Richtersveld	Northern Cape	0.573 (0.423-0.723)	0.305 (0.206-0.404)
Cederberg	Western Cape	0.565 (0.515-0.615)	0.553 (0.500-0.606)
Bergrivier	Western Cape	0.542 (0.495-0.589)	0.479 (0.438-0.520)
Lekwa-Teemane	North West	0.516 (0.418-0.615)	0.532 (0.395-0.668)
Ditsobotla	North West	0.509 (0.434-0.583)	0.405 (0.313-0.496)
Langeberg	Western Cape	0.499 (0.451-0.548)	0.534 (0.489-0.580)
Mtubatuba	KwaZulu-Natal	0.486 (0.449-0.523)	0.314 (0.283-0.346)
Ubuntu	Northern Cape	0.472 (0.386-0.558)	0.475 (0.388-0.561)
Tswaing	North West	0.458 (0.362-0.554)	0.512 (0.417-0.607)
Naledi	Free State	0.456 (0.360-0.552)	0.210 (0.129-0.291)
Kareeberg	Northern Cape	0.449 (0.375-0.522)	0.481 (0.350-0.612)
The Big 5 False Bay	KwaZulu-Natal	0.446 (0.302-0.590)	...
Hessequa	Western Cape	0.445 (0.405-0.485)	0.518 (0.477-0.560)
Ratlou	North West	0.438 (0.354-0.522)	0.257 (0.170-0.343)
Maquassi Hills	North West	0.431 (0.401-0.462)	0.467 (0.429-0.504)
Nama Khoi	Northern Cape	0.429 (0.396-0.462)	0.426 (0.397-0.455)
Mkhondo	Mpumalanga	0.426 (0.371-0.481)	0.383 (0.324-0.443)
Blouberg	Limpopo	0.426 (0.311-0.540)	0.216 (0.116-0.317)
Kannaland	Western Cape	0.424 (0.343-0.504)	0.477 (0.388-0.567)
Swartland	Western Cape	0.415 (0.375-0.455)	0.415 (0.372-0.457)
Oudtshoorn	Western Cape	0.412 (0.383-0.442)	0.418 (0.389-0.447)
Dipaleseng	Mpumalanga	0.408 (0.296-0.520)	0.289 (0.165-0.413)
Beaufort West	Western Cape	0.407 (0.362-0.453)	0.434 (0.385-0.483)
Matzikama	Western Cape	0.407 (0.378-0.436)	0.443 (0.408-0.478)

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.



SOUTH AFRICA WEEK **33** 2021

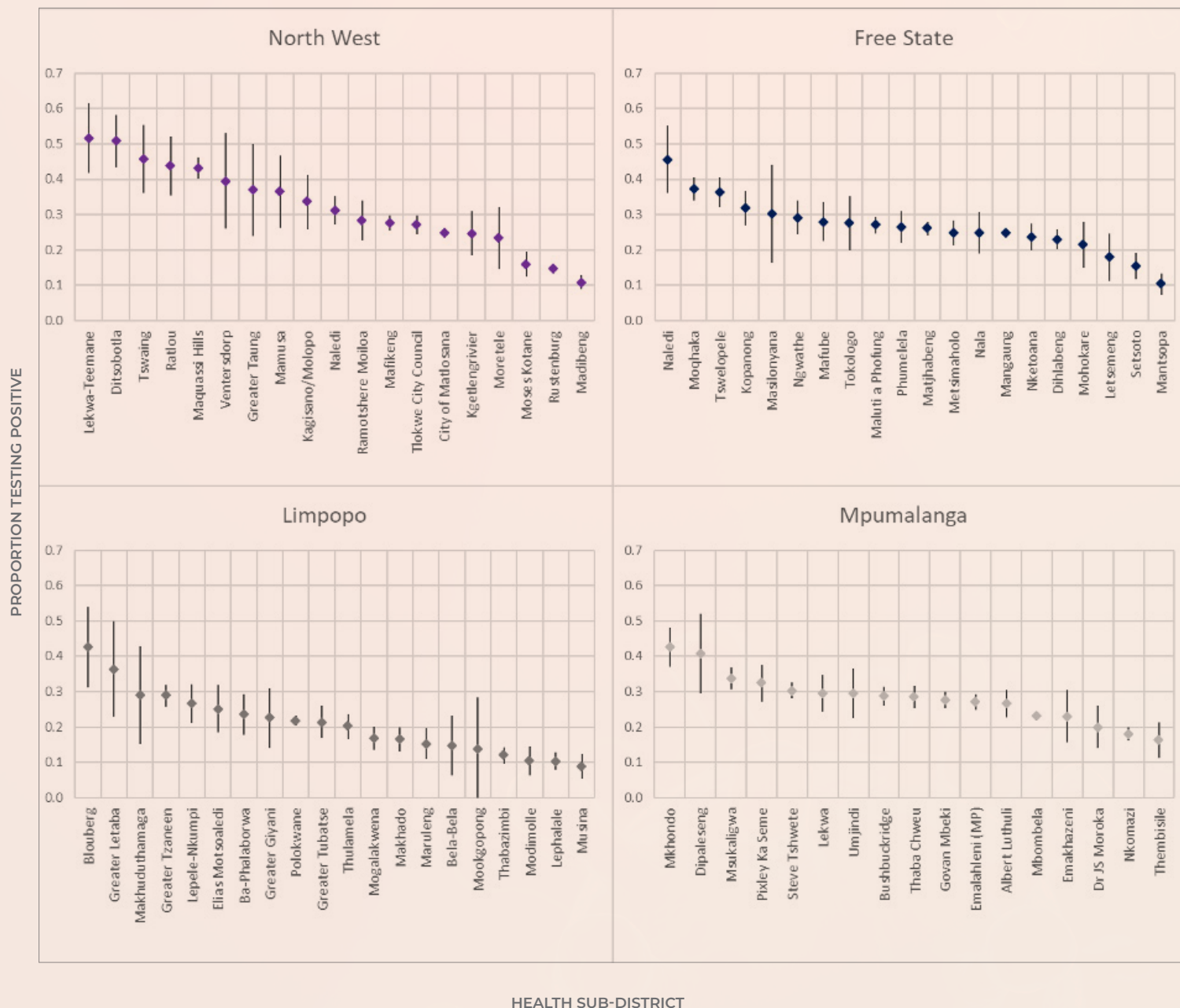


**Figure 9.1** Proportions testing positive by health sub-district in the Western, Cape, Eastern Cape, Gauteng and KwaZulu-Natal provinces based on public and private sector data for the week of 15-21 August 2021.



# COVID-19 TESTING SUMMARY

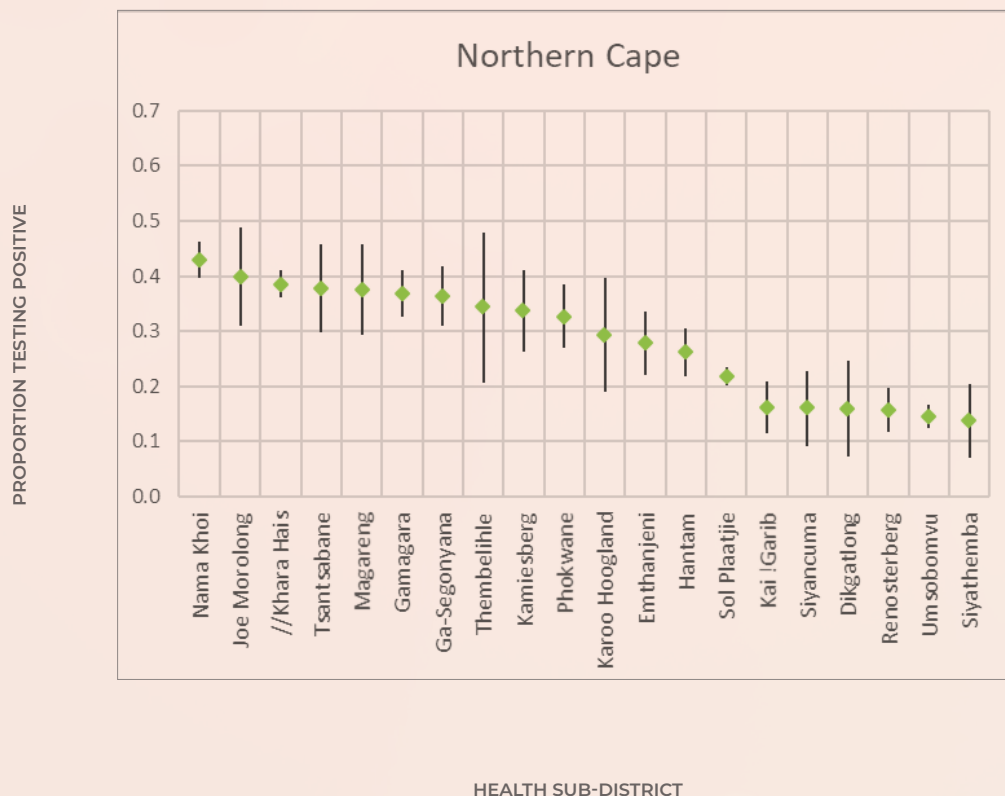
SOUTH AFRICA WEEK 33 2021



**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 15-21 August 2021.

# COVID-19 TESTING SUMMARY

SOUTH AFRICA WEEK 33 2021

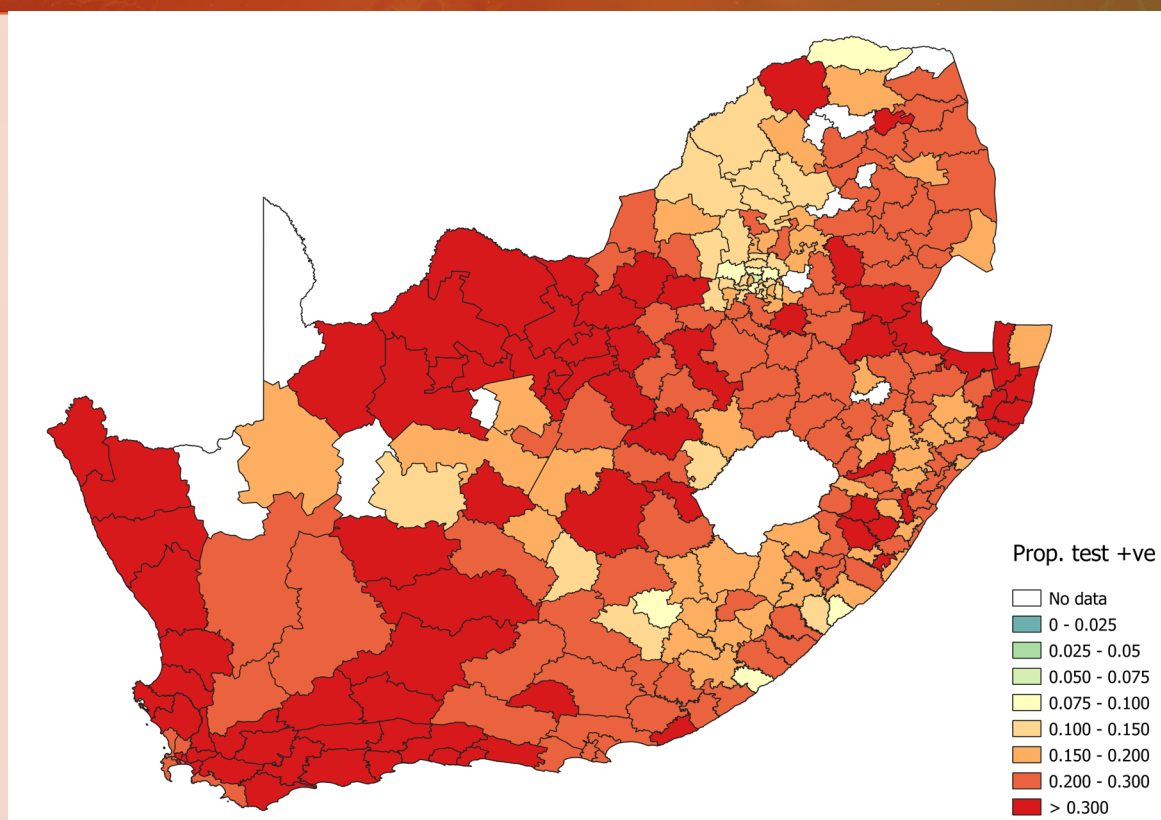


**Figure 9.3** Proportions testing positive by health sub-districts in the Northern Cape Province based on public and private sector data for the week of 15-21 August 2021.

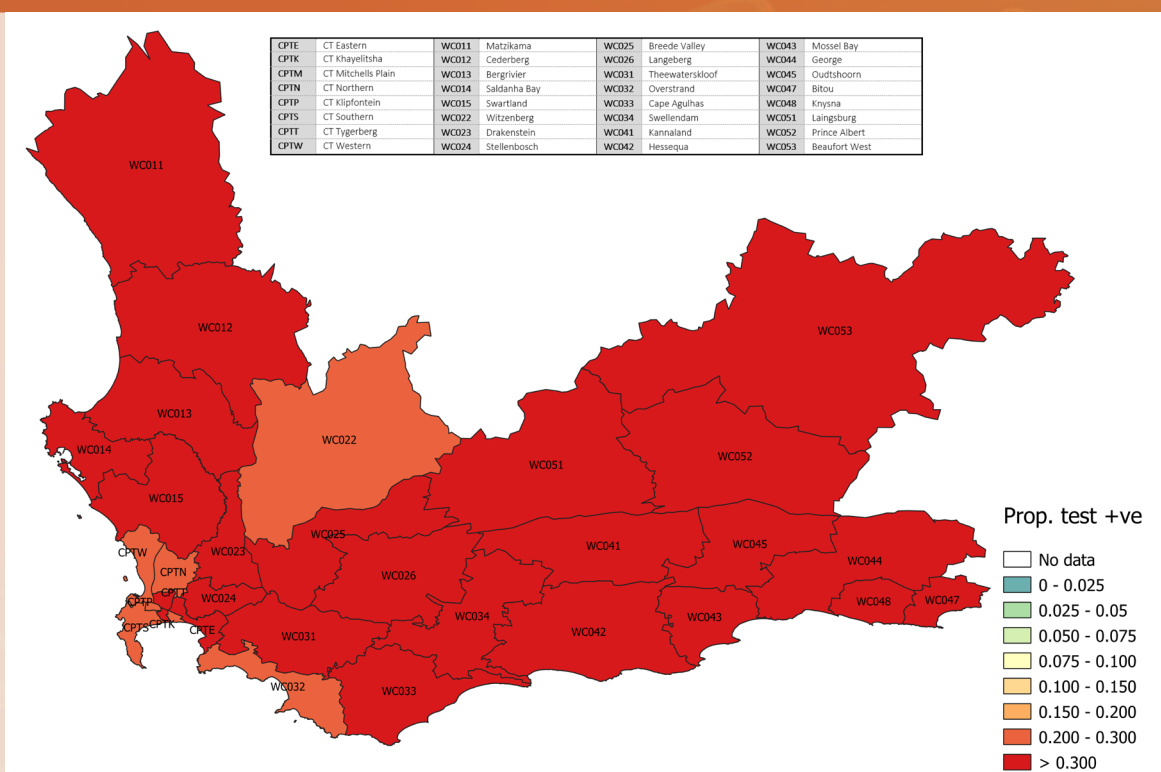
The spatial pattern of adjusted proportions testing positive including both public and private sector data by health district and sub-district are shown for South Africa (Figure 10) Western Cape (Figure 11) Eastern Cape (Figure 12) Northern Cape (Figure 13) Free State (Figure 14) KwaZulu-Natal (Figure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

# COVID-19 TESTING SUMMARY

SOUTH AFRICA | WEEK 33 2021



**Figure 10.** Proportion testing positive by health sub-district in South Africa for the week of 15-21 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 15-21 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%.

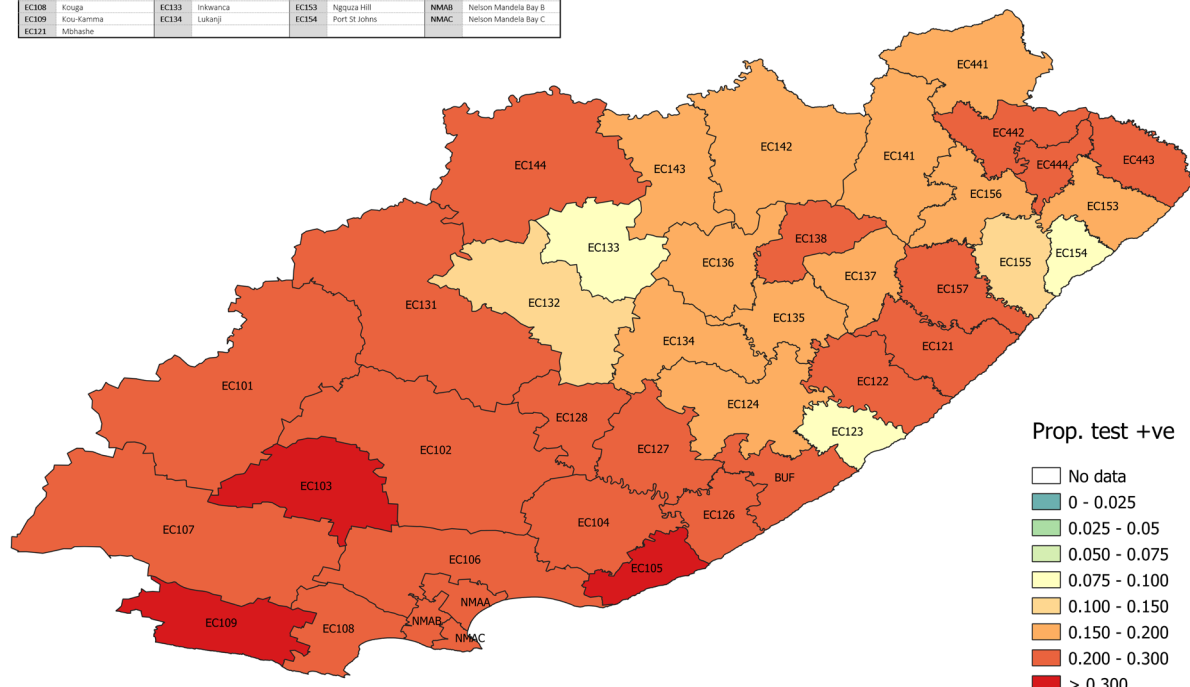


# COVID-19 TESTING SUMMARY

SOUTH AFRICA

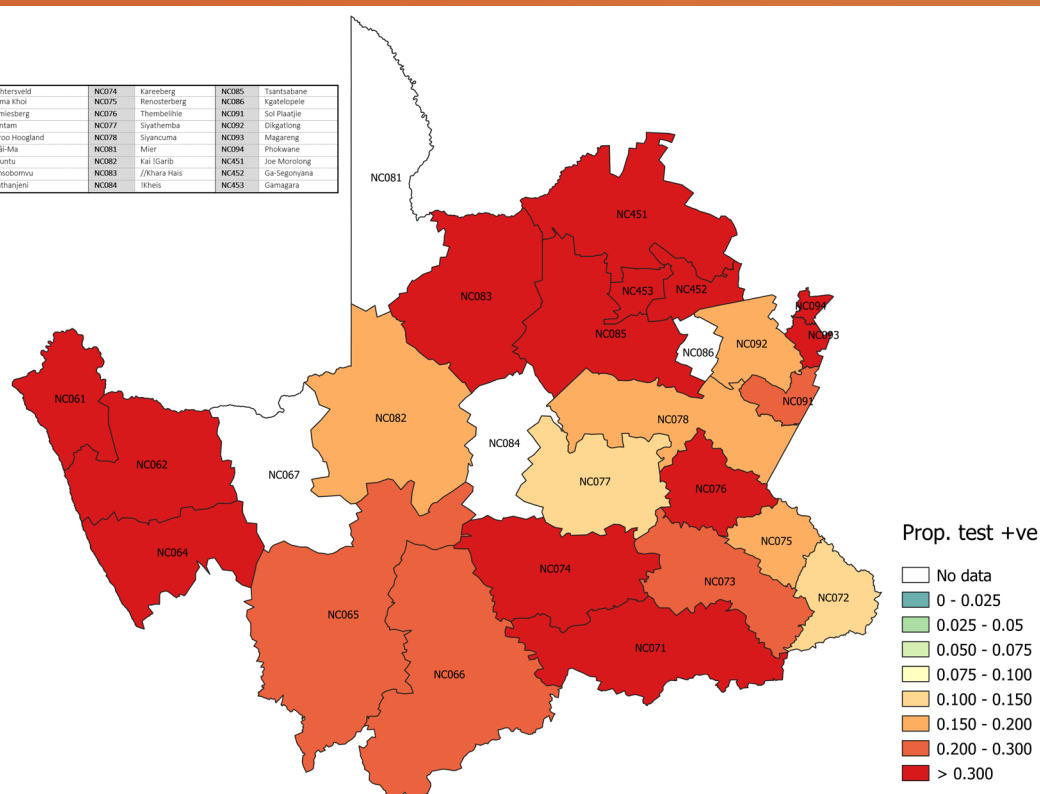
WEEK 33 2021

BUF	Buffalo City	EC122	Mquma	EC135	Intsika Yethu	EC155	Nyandeni
EC101	Camdeboo	EC123	Great Kei	EC136	Emalahleni	EC156	Mhlontlo
EC102	Blue Crane Route	EC124	Amahlathi	EC137	Engobo	EC157	King Sabata Dalindyebo
EC103	Ilwaco	EC125	Nquthu	EC138	Sakhisizwe	EC441	Mlatatle
EC104	Makana	EC127	Nkomo	EC141	Elundini	EC442	Umtombu
EC105	Ndlambe	EC128	Nxuba	EC142	Sengq	EC443	Mbiza
EC106	Sundays River Valley	EC131	Inxuba Yethemba	EC143	Maitsoe	EC444	Ntabankulu
EC107	Baviaans	EC132	Tsolwana	EC144	Carap	NMAA	Nelson Mandela Bay A
EC108	Kouga	EC133	Inkwanca	EC153	Nguza Hill	NMAB	Nelson Mandela Bay B
EC109	Kou-Kamma	EC134	Lukani	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 15-21 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	Tsantsabane
NC062	Nama Khoi	NC075	Rensosterberg	NC086	Kgatelopele
NC064	Kamiesberg	NC076	Thembellille	NC091	Sol Plaatje
NC065	Hamdam	NC077	Siyathemba	NC092	Dikgatlong
NC066	Karoo-Koogland	NC078	Sylenzuma	NC093	Magareng
NC067	Khali-Ma	NC081	Mier	NC094	Phokwane
NC071	Ubunt	NC082	Kai Karib	NC451	Joe Morolong
NC072	Umsobomvu	NC083	//Khara Halls	NC452	Ga-Segonyana
NC073	Emthanjeni	NC084	Wheis	NC453	Gamagara



**Figure 13.** Proportion testing positive by health sub-district in Northern Cape Province for the week of 15-21 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%.

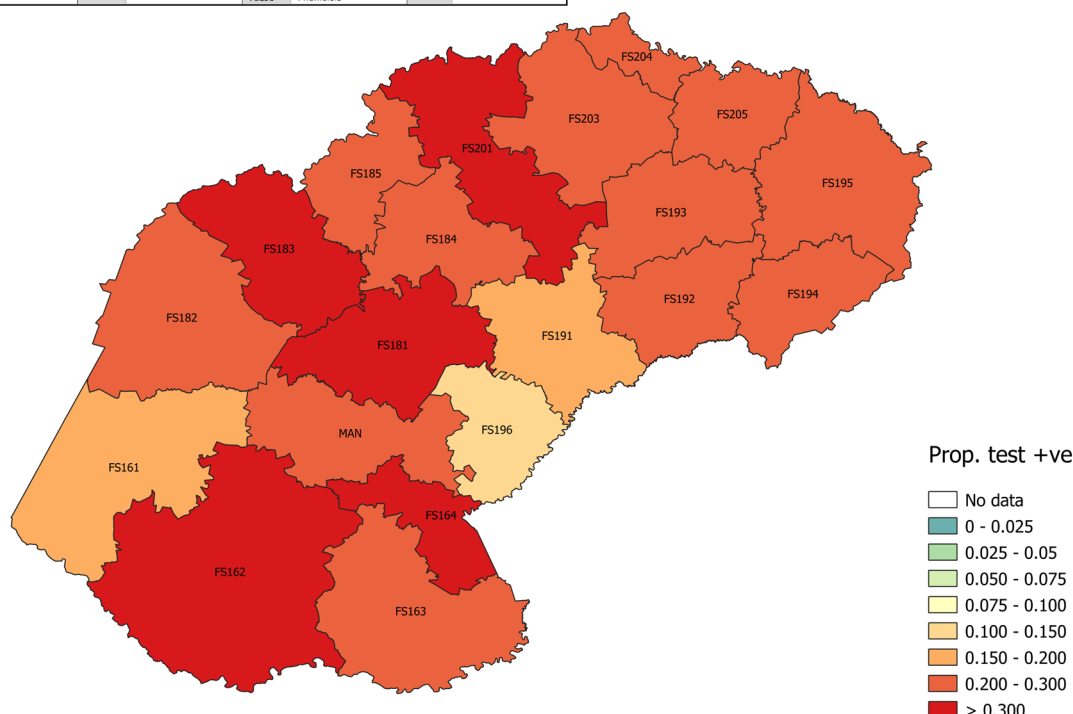


# COVID-19 TESTING SUMMARY

SOUTH AFRICA

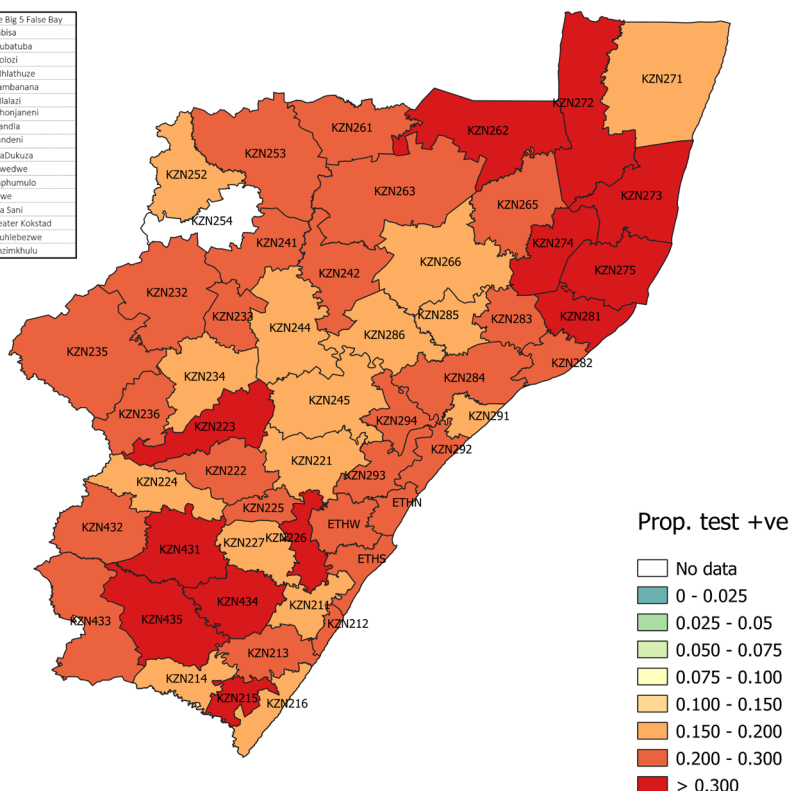
WEEK 33 2021

MAN	Mangung	FS181	Masibiyana	FS191	Setso	FS196	Mantsopa
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	Matube



**Figure 14.** Proportion testing positive by health sub-district in Free State Province for the week of 15-21 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%.

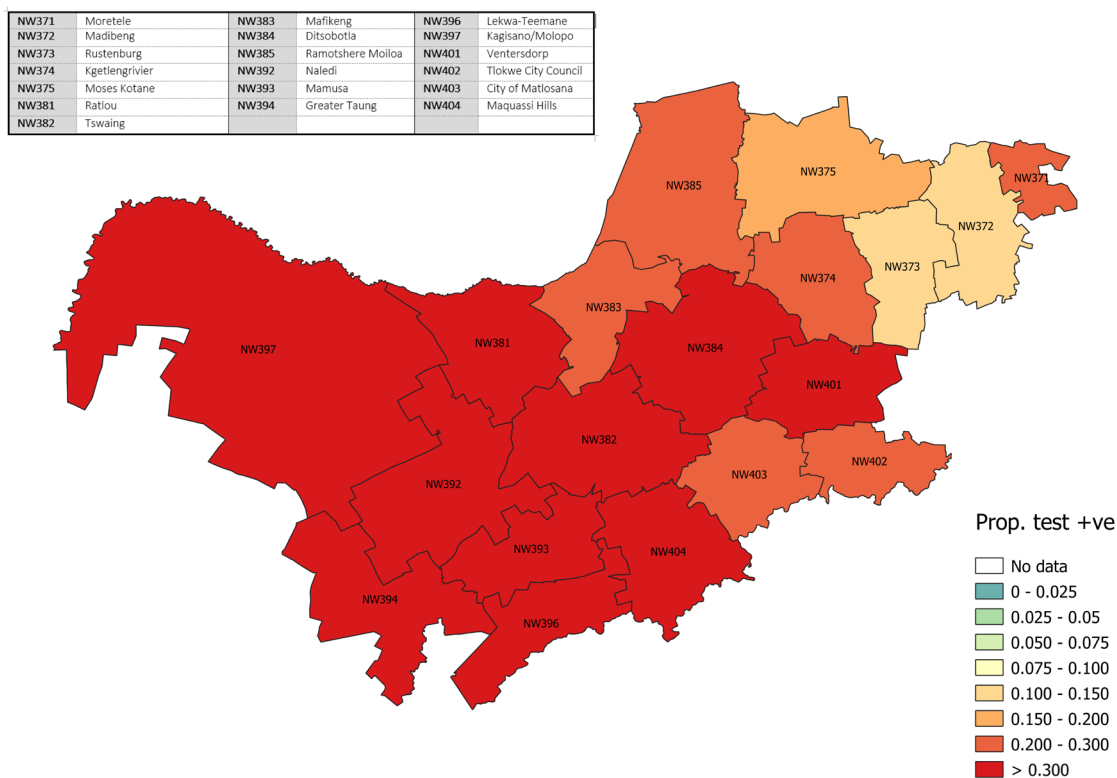
ETHN	eThekweni North	KZN233	Indaka	KZN273	The Big 5 False Bay
ETHS	eThekweni South	KZN234	Umtshezi	KZN274	Hlabisa
ETHS	eThekweni South	KZN235	Okhahlamba	KZN275	Mtubatuba
ETHW	eThekweni West	KZN236	Imbabazane	KZN281	Mfolozi
KZN211	Vulamehlo	KZN241	Endumeni	KZN282	uMhlathuze
KZN212	Umdoni	KZN242	Nqutu	KZN283	Ntambanana
KZN213	Umsombe	KZN244	Mzinga	KZN284	uMhlatzi
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	uMgeni	KZN261	eDumbe	KZN293	Ndwedwe
KZN223	Mqofana	KZN262	uPhongolo	KZN294	Maghnumulo
KZN224	Impendle	KZN263	Abaqulusi	KZN411	Ingwe
KZN225	The Msunduzi	KZN265	Nongoma	KZN432	Kwa Sani
KZN226	Mkhambathini	KZN266	Ulundi	KZN433	Greater Kokstad
KZN227	Richmond	KZN271	Umhlabyalingana	KZN434	Ubuhlebezwe
KZN232	Emnambithi/Ladysmith	KZN272	Jozini	KZN435	Umtsimkhulu



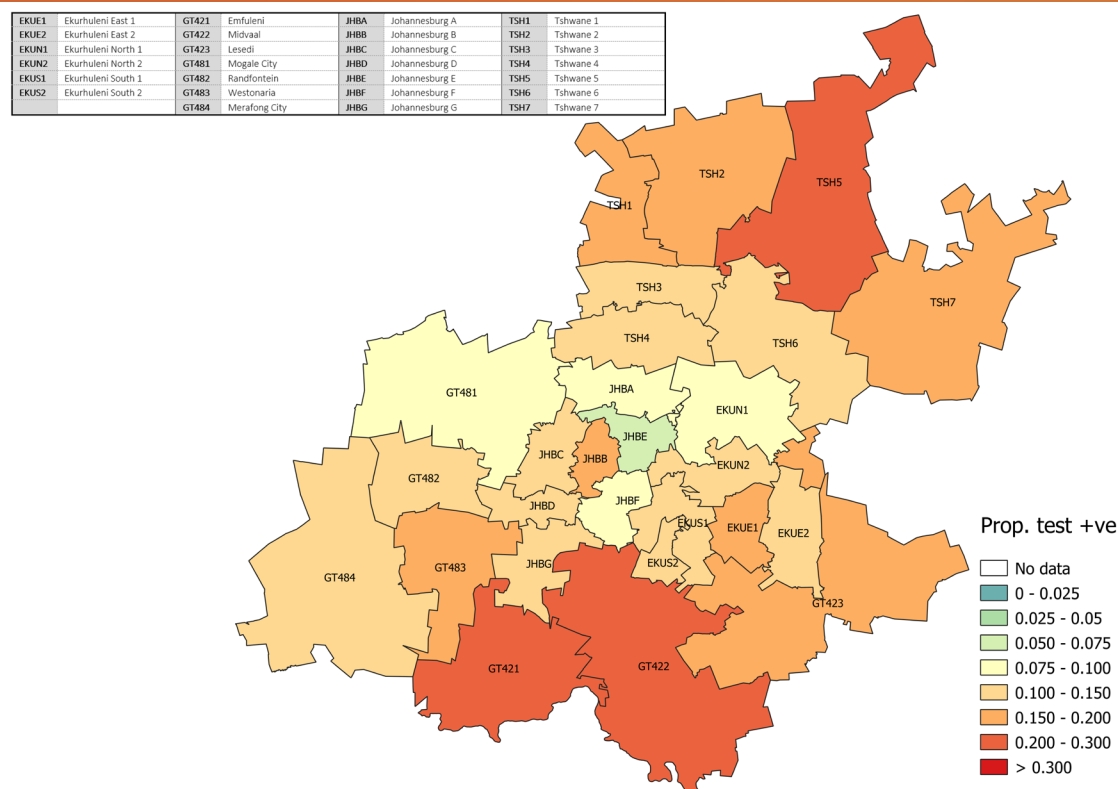
**Figure 15.** Proportion testing positive by health sub-district in KwaZulu-Natal Province for the week of 15-21 August 2021. Areas shaded white represent districts in which either (i) no tests were reported (ii) all tests were negative or (iii) the confidence interval exceeded 30%.

# COVID-19 TESTING SUMMARY

SOUTH AFRICA | WEEK 33 2021



**Figure 16.** Proportion testing positive by health sub-district in North West Province for the week of 15-21 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%.



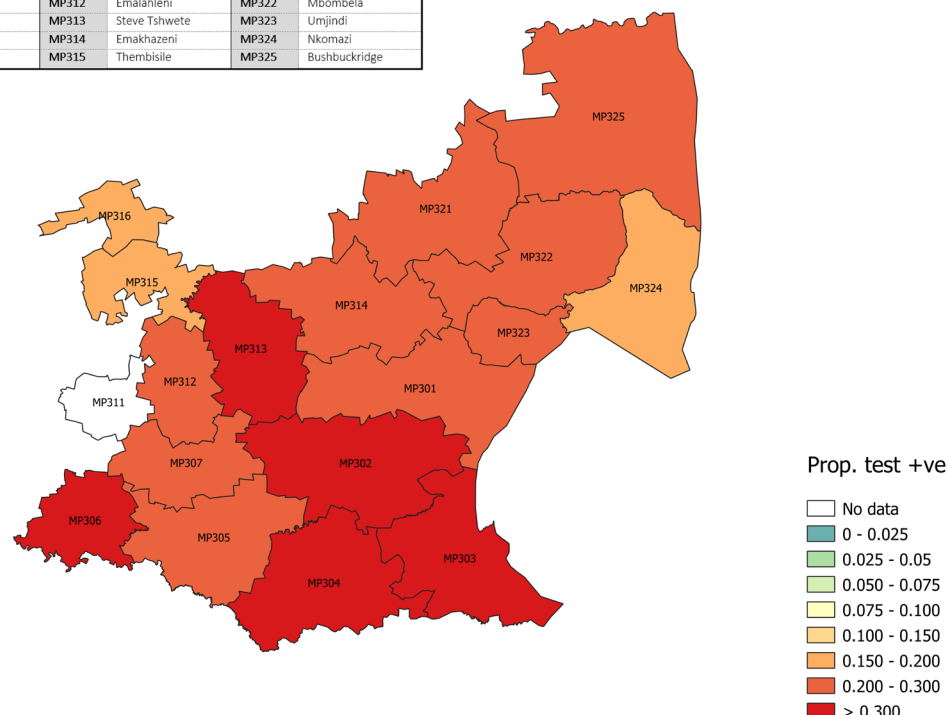
**Figure 17.** Proportion testing positive by health sub-district in Gauteng Province for the week of 15-21 August 2021. Areas shaded white represent districts in which either (i) no tests were reported (ii) all tests were negative or (iii) the confidence interval exceeded 30%.

# COVID-19 TESTING SUMMARY

SOUTH AFRICA

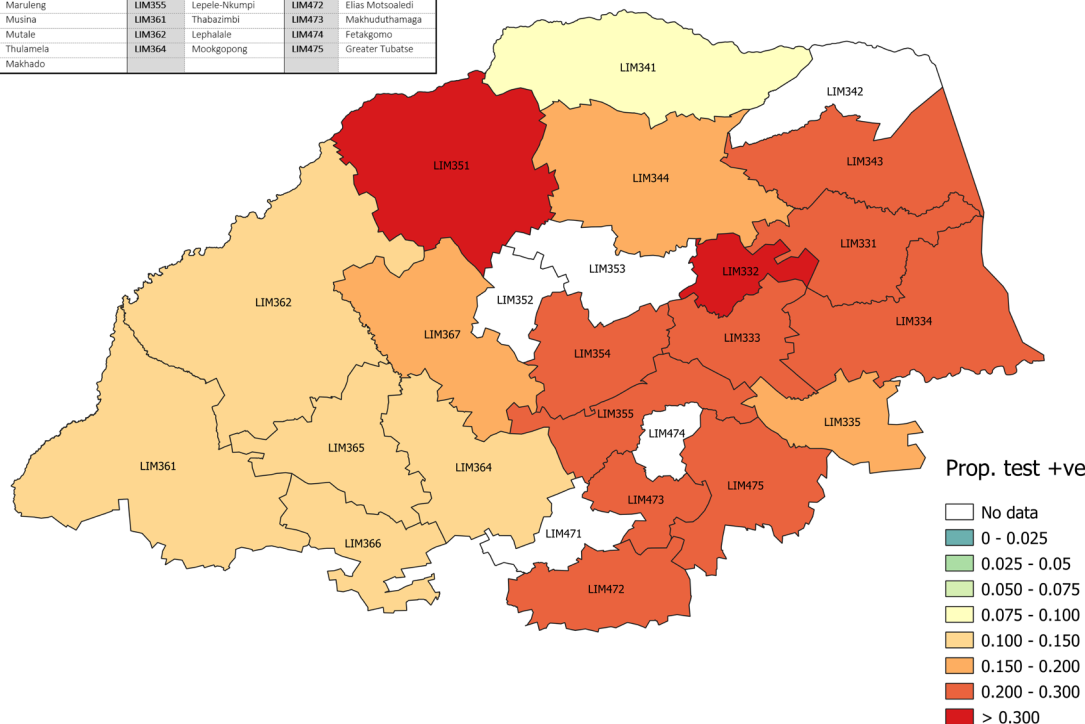
WEEK 33 2021

MP301	Albert Luthuli	MP307	Govan Mbeki	MP316	Dr JS Moroka
MP302	Msukaligwa	MP311	Victor Khanye	MP321	Thaba Chweu
MP303	Mkhondo	MP312	Emalaheni	MP322	Mbombela
MP304	Pixley Ka Seme	MP313	Steve Tshwete	MP323	Umgindi
MP305	Lekwa	MP314	Emakhazeni	MP324	Nkomazi
MP306	Dipaleseng	MP315	Thembisile	MP325	Bushbuckridge



**Figure 18.** Proportion testing positive by health sub-district in Mpumalanga Province for the week of 15-21 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%.

LIM331	Greater Giyani	LIM351	Blouberg	LIM365	Modimolle
LIM332	Greater Letaba	LIM352	Aganang	LIM366	Bela-Bela
LIM333	Greater Tzaneen	LIM353	Molemole	LIM367	Mogalakwena
LIM334	Ba-Phealaborwa	LIM354	Polokwane	LIM471	Ephraim Mogale
LIM335	Maruleng	LIM355	Lepelle-Nkumpi	LIM472	Elias Mokoaledi
LIM341	Musina	LIM361	Thabazimbi	LIM473	Makhuduthamaga
LIM342	Mutale	LIM362	Lephalale	LIM474	Fetakgomo
LIM343	Thulamela	LIM364	Mookgopong	LIM475	Greater Tubatse
LIM344	Makhado				



**Figure 19.** Proportion testing positive by health sub-district in Limpopo Province for the week of 15-21 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%.



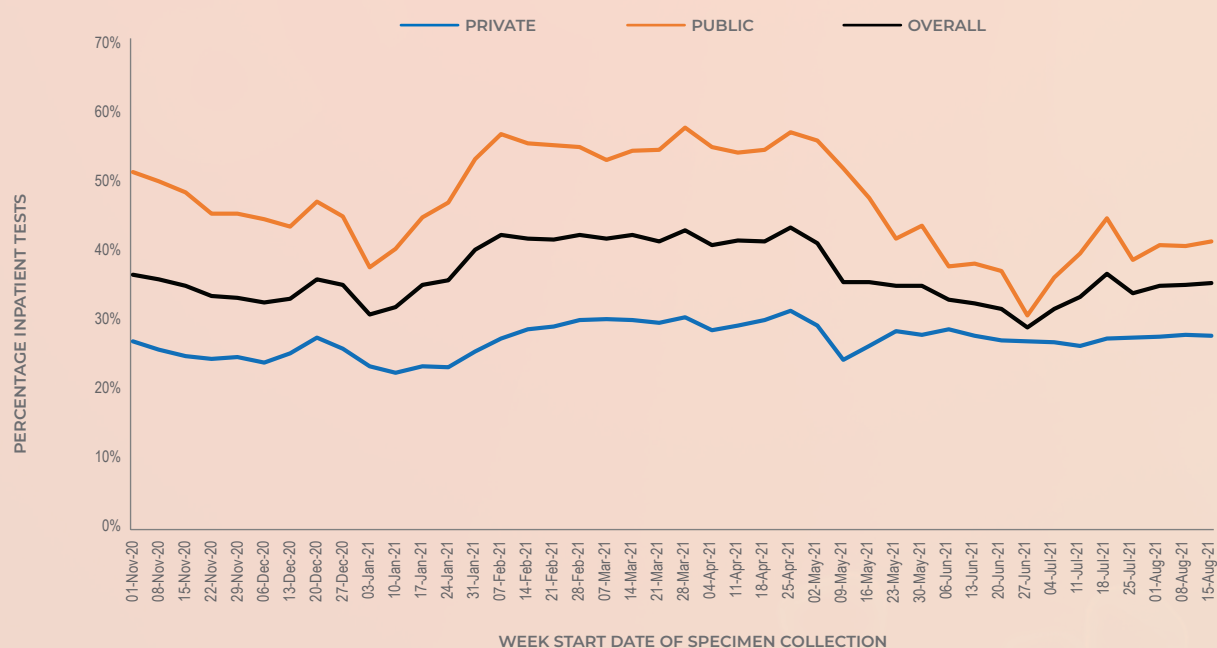
# COVID-19 TESTING SUMMARY

SOUTH AFRICA WEEK 33 2021

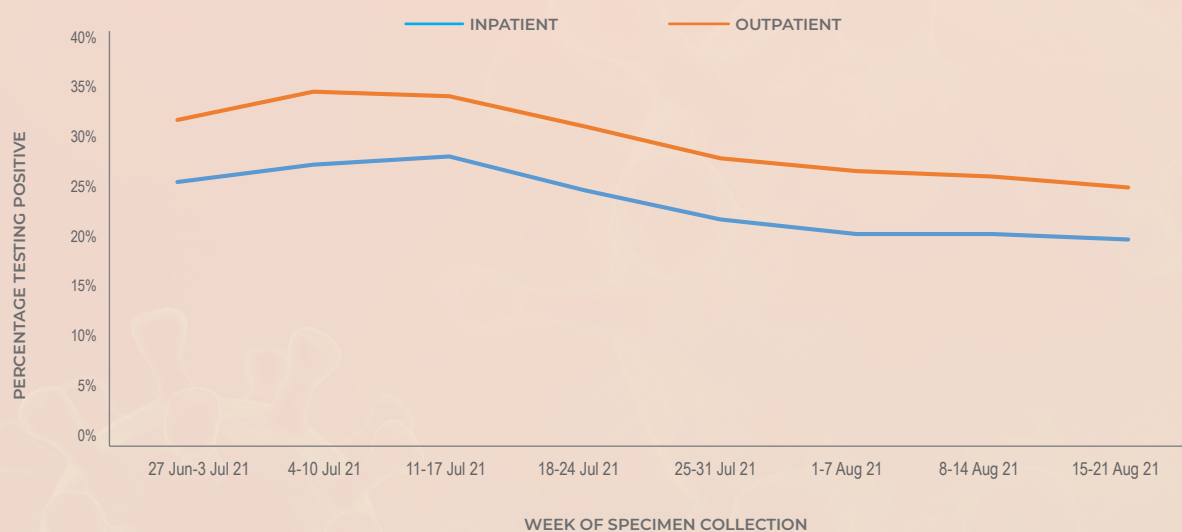
## Testing by patient admission status

In week 33 of 2021 35.1% of reported tests were for hospitalised patients; 41.0% in the public sector and 27.6% in the private sector (Figure 20). The percentage testing positive in week 33 was higher among outpatients (24.9%) compared to inpatients (19.9%),

and decreased slightly from the previous week in both groups (Figure 21). In week 33 the mean laboratory turnaround time for PCR tests in the public sector was higher among outpatients (2.5 days) compared to inpatients (1.6 days) (Figure 22).



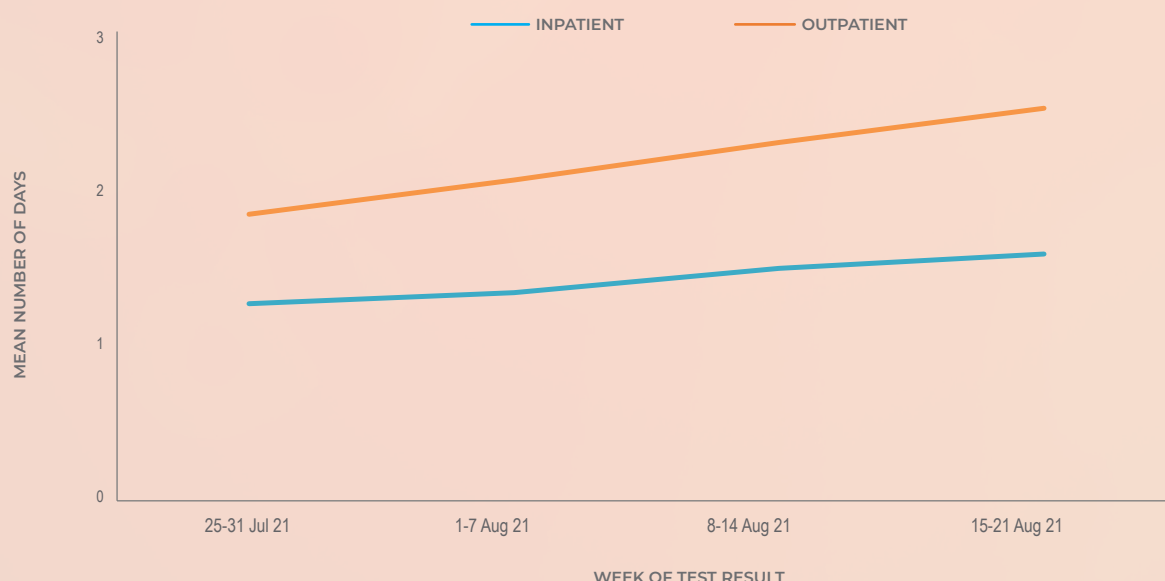
**Figure 20.** Percentage of inpatient tests reported by health sector, 1 November 2020 – 21 August 2021



**Figure 21.** Percentage testing positive by patient admission status, 27 June – 21 August 2021

# COVID-19 TESTING SUMMARY

SOUTH AFRICA WEEK 33 2021

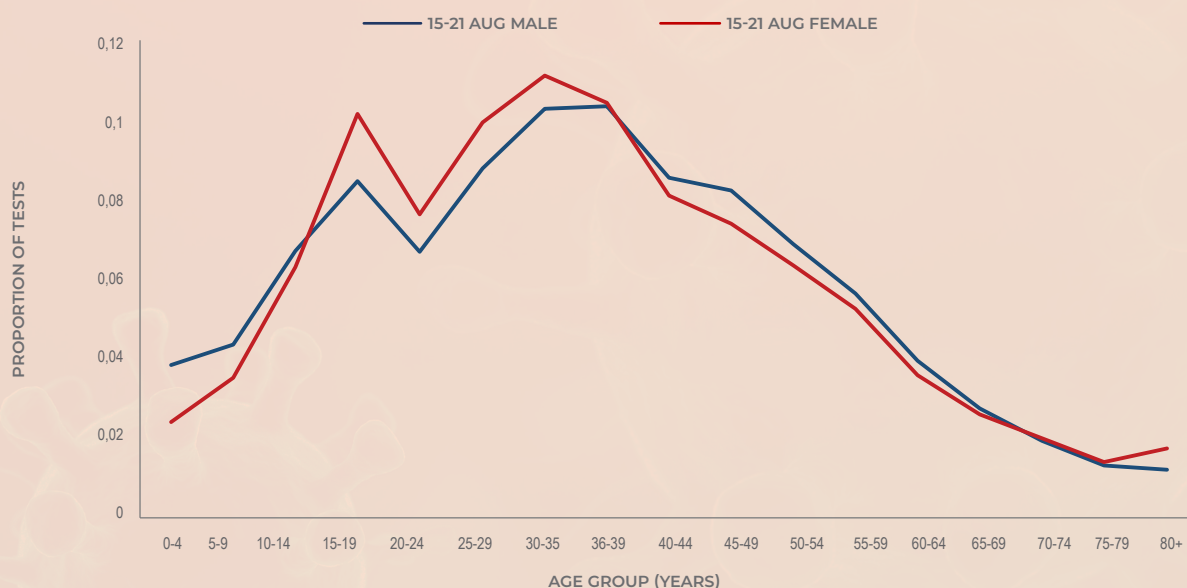


**Figure 22.** Mean number of days between date of specimen collection and date of test result for PCR tests in the public sector by patient admission status, 25 July – 21 August 2021

## Testing by age and sex

The median age of individuals tested in week 33 of 2021 was 34 years (interquartile range (IQR) 21-48) and was similar among males (36 years; IQR 21-49) and females (34 years; IQR 21-48). The majority of reported tests (53.8%) were in individuals in the 20-49 years' age group, with an additional peak in individuals aged 15-19 years (Figure 23). In week 33 the testing rate was higher among females (636 per 100,000 persons) than males

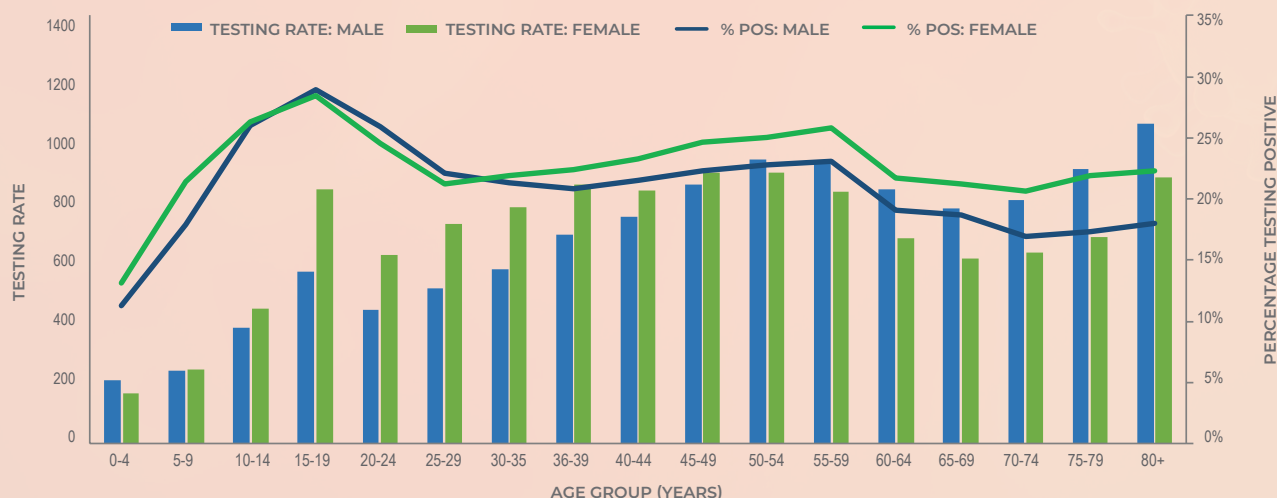
(546 per 100,000 persons) (Figure 24). Testing rates in week 33 were highest in the ≥80 years age group (928 per 100,000 persons). Overall, the percentage testing positive was highest in individuals aged 15-19 years (28.6%), and in this same age group in males (28.9%) and females (28.5%).



**Figure 23.** Proportion of tests by age group and sex South Africa, week 33, 15-21 August 2021

# COVID-19 TESTING SUMMARY

SOUTH AFRICA WEEK 33 2021

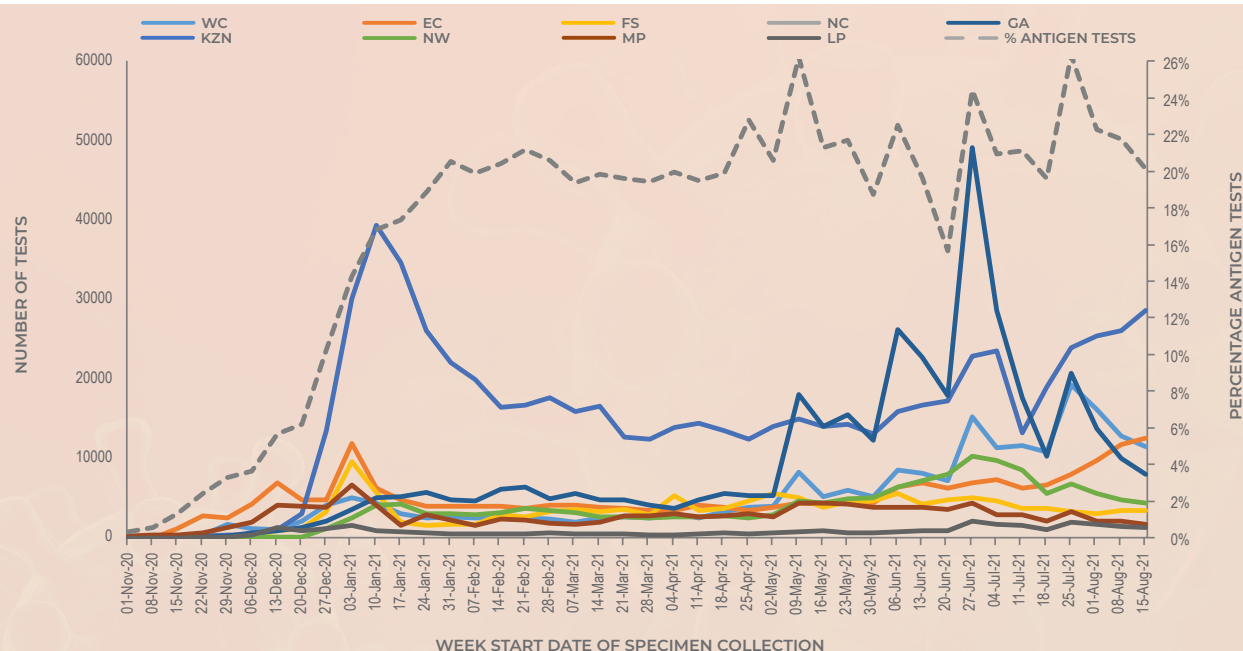


**Figure 24.** Testing rates per 100,000 persons and percentage testing positive by age group and sex, South Africa, week 33, 15-21 August 2021

## Testing by test type

Up to the end of week 33 of 2021 12.2% (1,944,923/ 15,930,304) of all reported tests were antigen tests. In week 33, 19.6% (72,954/ 361,983) of reported tests were antigen tests (Figure 25). Overall 82.2% of antigen tests have been performed in the public sector, and in week 33 the public sector accounted for 83.4% of antigen tests. Since antigen testing began in November 2020 the majority of antigen tests have been reported from KwaZulu-Natal (33.7%) and Gauteng (19.6%) 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 the

Western Cape and Gauteng have decreased in the past two weeks, and an increase observed in the Eastern Cape and KwaZulu-Natal provinces. The percentage testing positive in week 33 was higher for PCR (24.2%) tests compared to antigen (17.0%) tests (Figure 26). The mean turnaround time for antigen tests reported in week 33 was 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.

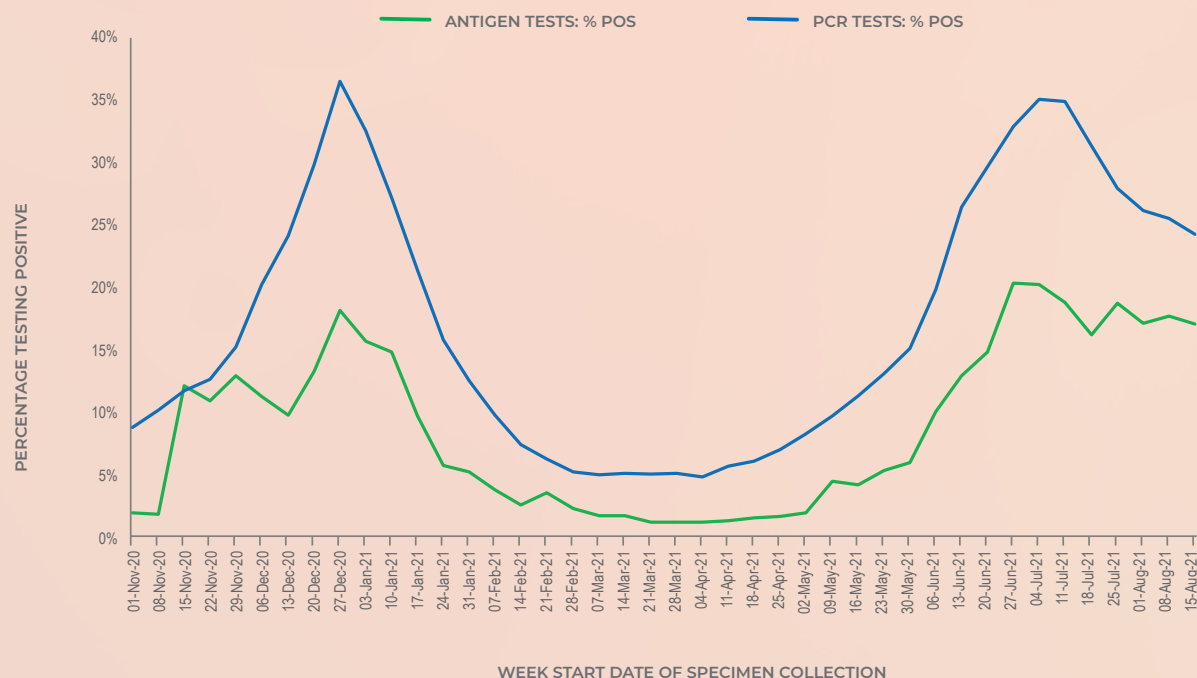


**Figure 25.** Number of antigen tests by province and overall percentage antigen tests South Africa 1 November 2020 – 21 August 2021. WC Western Cape; EC Eastern Cape; FS Free State; KZN KwaZulu-Natal; GA Gauteng; NC Northern Cape; NW North West; MP Mpumalanga; LP Limpopo

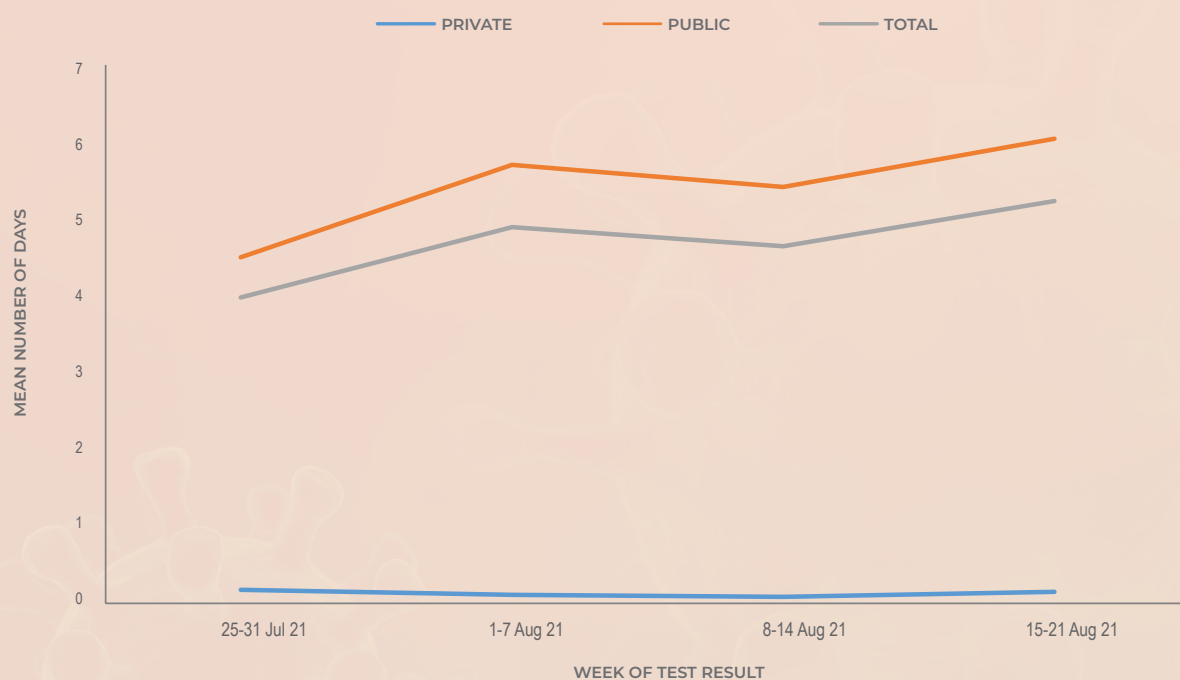


# COVID-19 TESTING SUMMARY

SOUTH AFRICA WEEK 33 2021



**Figure 26.** Percentage of laboratory tests positive for SARS-CoV-2 by test type and date of specimen collection, South Africa, 1 November 2020 – 21 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, 25 July – 21 August 2021

# COVID-19 TESTING SUMMARY

SOUTH AFRICA | WEEK 33 2021

## 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 or prioritisation of severe or at-risk cases during epidemic waves) used by different provinces makes percentage testing positive and number of reported tests difficult to interpret and compare.
- 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 33 (n=361,983) was similar to the number of tests reported in the previous three weeks. KwaZulu-Natal (26.8%), Gauteng (22.2%) and Western Cape (18.9%) provinces reported the largest number of tests in week 33. The overall testing rate in week 33 was 607 per 100,000 persons; highest in the Western Cape (976 per 100,000 persons) and lowest in Limpopo (149 per 100,000 persons). Testing rates increased in KwaZulu-Natal, Western Cape, Eastern Cape and Free State provinces in the past week. Antigen tests accounted for 20.2% (72,954/ 361,983) of all tests reported in week 33 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 1.4 days in week 33; 2.1 days in the public sector and 0.7 days in the private sector.

The percentage testing positive in week 33 was 22.8%, which was 1.0% lower than the previous week. The percentage testing positive in week 33 was highest in the Northern Cape (32.5%). The percentage testing positive was between 20% and 30% in the Western Cape, Eastern Cape, Free State, KwaZulu-Natal, North West, Mpumalanga and Limpopo provinces, and was less than 20% in Gauteng. Compared to the previous week the percentage testing positive in week 33 increased in the Eastern Cape, Free State and KwaZulu-Natal provinces. The percentage testing positive decreased in the Western Cape, Gauteng, Mpumalanga and Limpopo provinces and remained unchanged in the North West.