COVID-19 TESTING SUMMARY

NATIONAL INSTITUTE FOR COMMUNICABLE DISEASES
Division of the National Health Laboratory Service

SOUTH AFRICA | WEEK 27 2020

OVERVIEW

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 collected up to 4 July 2020 (week 27 of 2020).

Highlights

- In the period 1 March 2020 through 4 July 2020, 1 690 804 laboratory tests for SARS-CoV-2 have been conducted nationally
- Four provinces including Western Cape, Eastern Cape, KwaZulu-Natal and Gauteng accounted for 82% of tests performed in week 27
- Overall percentage testing positive was 11.8%, however, there continued to be an increase in the weekly percentage testing positive since week 18 to 27% in week 27 (28 June-4 July)
- Percentage testing positive in week 27 was 27% in both the public and private sector
- Eastern Cape (34.3%), Gauteng (30.2%), Western Cape (29.1%) and North West (28.3%) provinces had the highest percentage testing positive in the past week
- The mean turnaround time in week 27 was 5 days in the public sector and 2 days in the private sector

TESTS

1 690 804

LABORATORY TESTS HAVE BEEN CONDUCTED NATIONALLY FROM 1 MARCH TO 4 JULY 2020

PERSONS

11.8%

OVERALL PROPORTION TESTING POSITIVE

PROVINCES WITH HIGHEST PERCENTAGE TESTING POSITIVE

Eastern Cape (34.3%), Gauteng (30.2%), Western Cape (29.1%) and North West (28.3%) provinces had the highest percentage testing positive in the past week

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) hospitalized 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. Test results were automatically fed into a data warehouse after result authorisation. We excluded specimens collected outside South Africa and duplicate test results for an individual. 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. 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 level results included only public sector data, and were mapped based on the testing facility. For these results, estimates of overall prevalence were derived using regression techniques. These estimates were then refined using the margins command in Stata to adjust the district-specific positive test prevalences for the average age profile, the average sex composition, and the average balance between clinical and CST tests across the entire public testing data for the week for a more accurate comparison of the prevalences across districts.

The report includes tests conducted between 1 March 2020 (week 10), the week when the first case of COVID-19 was confirmed, and 4 July 2020 (week 27).

TESTING VOLUMES AND PROPORTION TESTING POSITIVE

From 1 March through 4 July 2020, 1 690 804 laboratory tests for SARS-CoV-2 were performed. The number of tests performed increased week on week, from week 10 to week 21, however decreased in weeks 22 and 23 due to a limited supply of extraction and testing kits. Increased volumes of tests have been observed since week 24, with the highest number of tests (n=203 715) performed in week 26. In week 27, 168 165 tests were performed. 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).

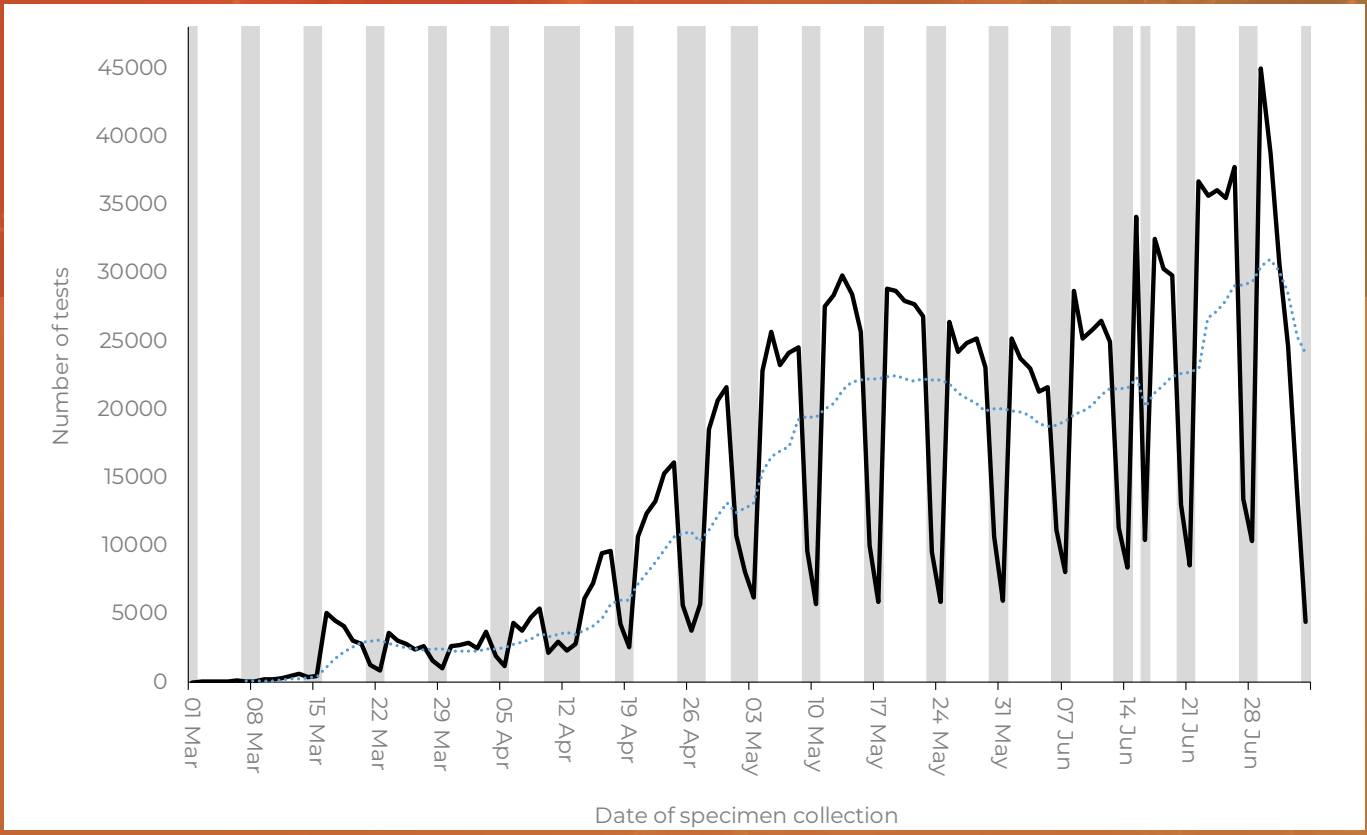


Figure 1. Number of laboratory tests conducted by date of specimen collection, South Africa, 1 March –4 July 2020. Blue dotted line shows the 7-day moving average of the number of tests conducted. Grey bars highlight weekend days and public holidays

The overall percentage testing positive from week 10 through 27 was 11.8% (Table 1). The percentage testing positive continued to increase week on week, and has increased from 18.6% in week 25, to 23.2% in week 26 and to 26.7% in week 27 (P<0.001) (Figure 2).

COVID-19 TESTING SUMMARY

WEEK 27 2020

Table 1. Weekly number of tests conducted and positive tests, South Africa, 1 March –4 July 2020

Week number	Week beginning	No. of tests n(%)	No. of positive tests	Proportion testing positive (%)
10	01-Mar	387 (0.0)	7	1.8
11	08-Mar	2 309 (0.1)	87	3.8
12	15-Mar	21 282 (1.3)	824	3.9
13	22-Mar	17 021 (1.0)	462	2.7
14	29-Mar	17 377 (1.0)	393	2.3
15	05-Apr	24 656 (1.5)	566	2.3
16	12-Apr	41 913 (2.5)	1 042	2.5
17	19-Apr	75 885 (4.5)	1 938	2.6
18	26-Apr	89 184 (5.3)	2 908	3.3
19	03-May	136 272 (8.1)	5 552	4.1
20	10-May	155 656 (9.2)	7 397	4.8
21	17-May	155 312 (9.2)	10 552	6.8
22	24-May	140 391 (8.3)	11 708	8.3
23	31-May	131 978 (7.8)	13 398	10.2
24	07-Jun	150 581 (8.9)	20 224	13.4
25	14-Jun	158 720 (9.4)	29 496	18.6
26	21-Jun	203 715 (12.0)	47 319	23.2
27	28-Jun	168 165 (9.9)	44 858	26.7
Total		1 690 804 (100.0)	198 731	11.8

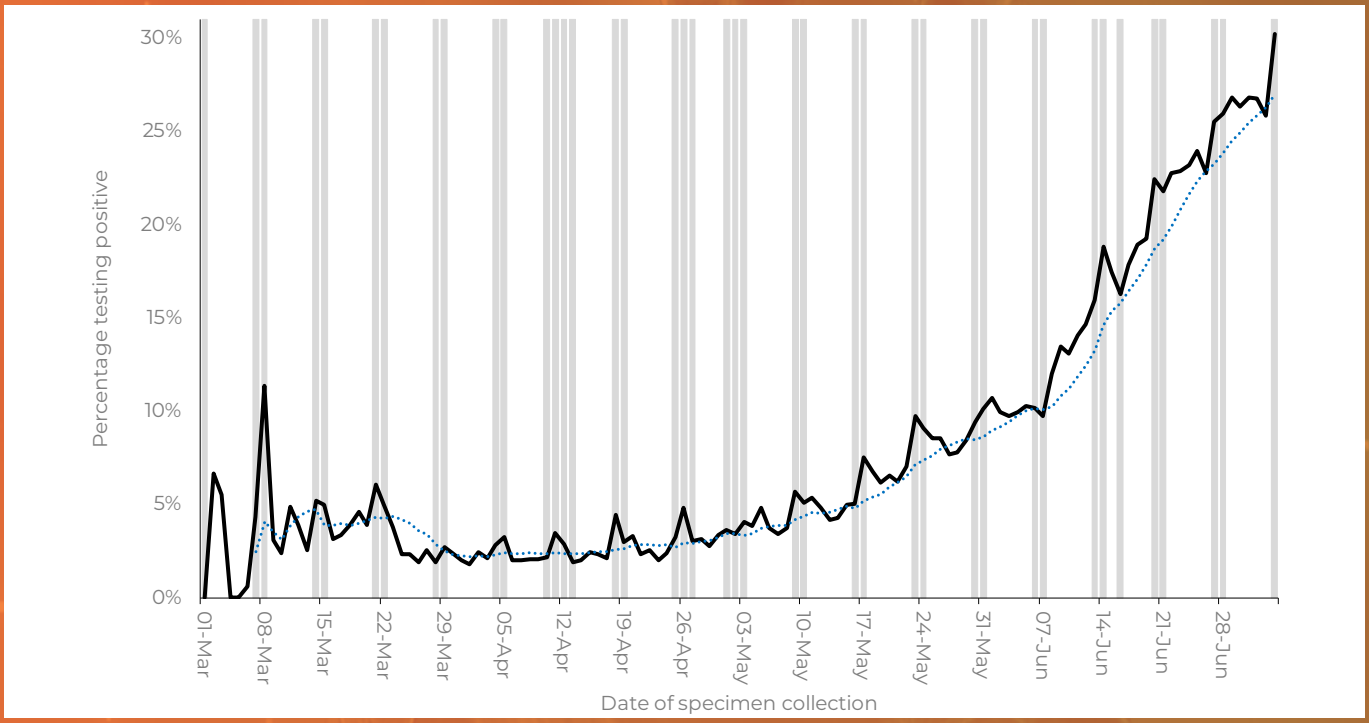


Figure 2. Percentage of laboratory tests positive for SARS-CoV-2 by date of specimen collection, South Africa, 1 March – 4 July 2020. Blue dotted line shows the 7-day moving average of the percentage testing positive. Grey bars highlight weekend days and public holidays

TESTING IN PRIVATE AND PUBLIC SECTORS

From 1 March through 4 July, 821 602 laboratory tests were conducted in public sector laboratories, with 9.7% testing positive. Over this same period, private sector laboratories conducted 869 202 tests, with 13.7% testing positive (Table 2). Overall, the public sector has conducted 48.6% of tests and accounted for 40.2% of cases. The percentage testing positive continued to increase in both the public and private sectors in week 27, and was 27.1% in the public sector and 26.5% in the private sector in week 27 (P=0.026).

The mean turnaround time in week 27 was 3.3 days overall; 5.1 days in the public sector and 2.2 days in the private sector (Figure 3). Among tests conducted in the public sector in the five provinces conducting the largest volumes of tests, the turnaround time in week 27 was highest in Gauteng (7.0 days) and lowest in the Western Cape (2.4 days). Decreases in the turnaround time were noted in Gauteng in the past week (Figure 4). Six of the 11 NHLS laboratories with turnaround times greater than 2 days in week 26 had lower turnaround times in week 27 (Figure 5).

COVID-19 TESTING SUMMARY

WEEK 27 2020

Table 2. Weekly number of tests conducted and positive tests, by healthcare sector, South Africa, 1 March – 04 July 2020

		Public sector		Private sector		Public sector proportion of		Ratio of PTP[a]
Week number	Week beginning	Tests	Cases	Tests	Cases	Tests (%)	Cases (%)	
10	01-Mar	249	5 (2.0)	138	2 (1.4)	64.3	71.4	1.386
11	08-Mar	348	12 (3.4)	1961	75 (3.8)	15.1	13.8	0.902
12	15-Mar	1 345	50 (3.7)	19 937	774 (3.9)	6.3	6.1	0.958
13	22-Mar	3 355	121 (3.6)	13 666	341 (2.5)	19.7	26.2	1.445
14	29-Mar	5 614	158 (2.8)	11 763	235 (2.0)	32.3	40.2	1.409
15	05-Apr	11 366	320 (2.8)	13 290	246 (1.9)	46.1	56.5	1.521
16	12-Apr	23 813	608 (2.6)	18 100	434 (2.4)	56.8	58.3	1.065
17	19-Apr	54 282	1 481 (2.7)	21 603	457 (2.1)	71.5	76.4	1.290
18	26-Apr	65 976	2 299 (3.5)	23 208	609 (2.6)	74.0	79.1	1.328
19	03-May	91 814	4 263 (4.6)	44 458	1 289 (2.9)	67.4	76.8	1.601
20	10-May	103 677	5 126 (4.9)	51 979	2 271 (4.4)	66.6	69.3	1.132
21	17-May	95 358	6 645 (7.0)	59 954	3 907 (6.5)	61.4	63.0	1.069
22	24-May	74 268	5 985 (8.1)	66 123	5 723 (8.7)	52.9	51.1	0.931
23	31-May	59 834	6 102 (10.2)	72 144	7 296 (10.1)	45.3	45.5	1.008
24	07-Jun	58 662	7 217 (12.3)	91 919	13 007 (14.2)	39.0	35.7	0.869
25	14-Jun	54 076	10 799 (20.0)	104 644	18 697 (17.9)	34.1	36.6	1.118
26	21-Jun	72 093	16 398 (22.7)	131 622	30 921 (23.5)	35.4	34.7	0.968
27	28-Jun	45 472	12 309 (27.1)	122 693	32 549 (26.5)	27.0	27.4	1.020
Total		821 602	79 898 (9.7)	869 202	118 833 (13.7)	48.6	40.2	0.711

[a] Ratio of proportion 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)

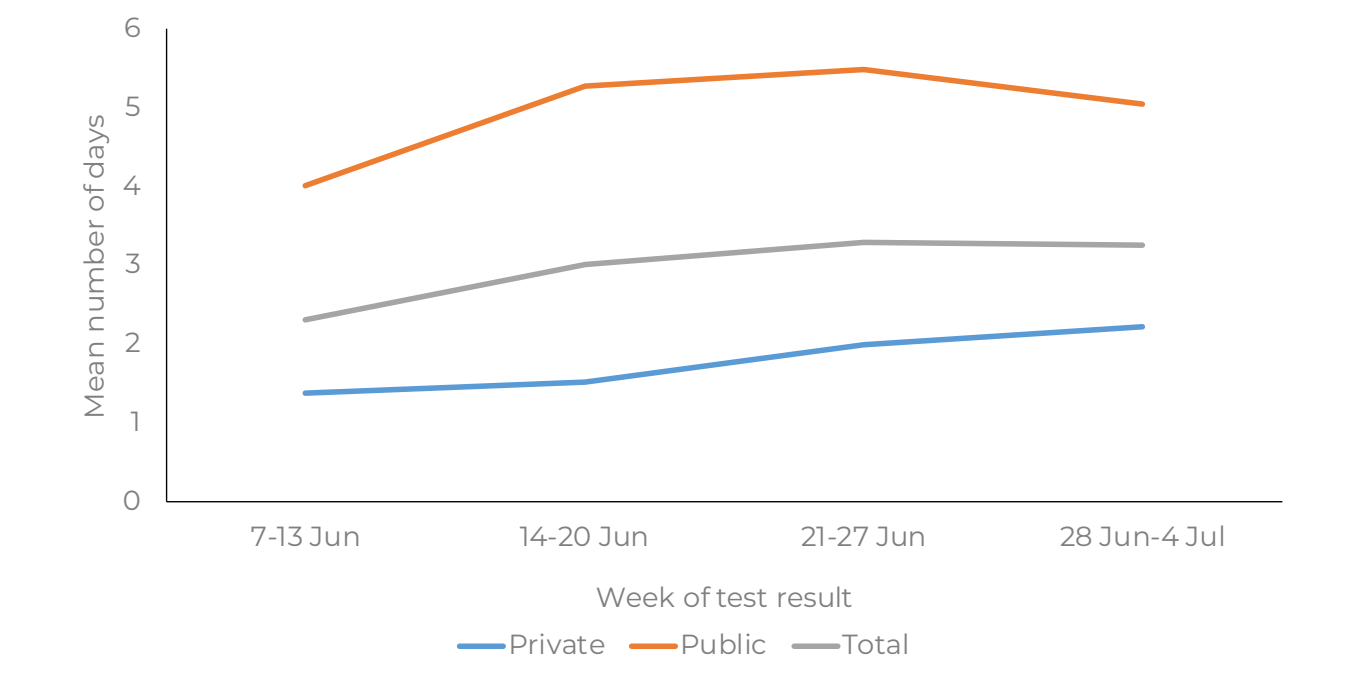


Figure 3. Mean number of days between date of specimen collection and date of test result, by week of test result, South Africa, 7 June – 4 July 2020

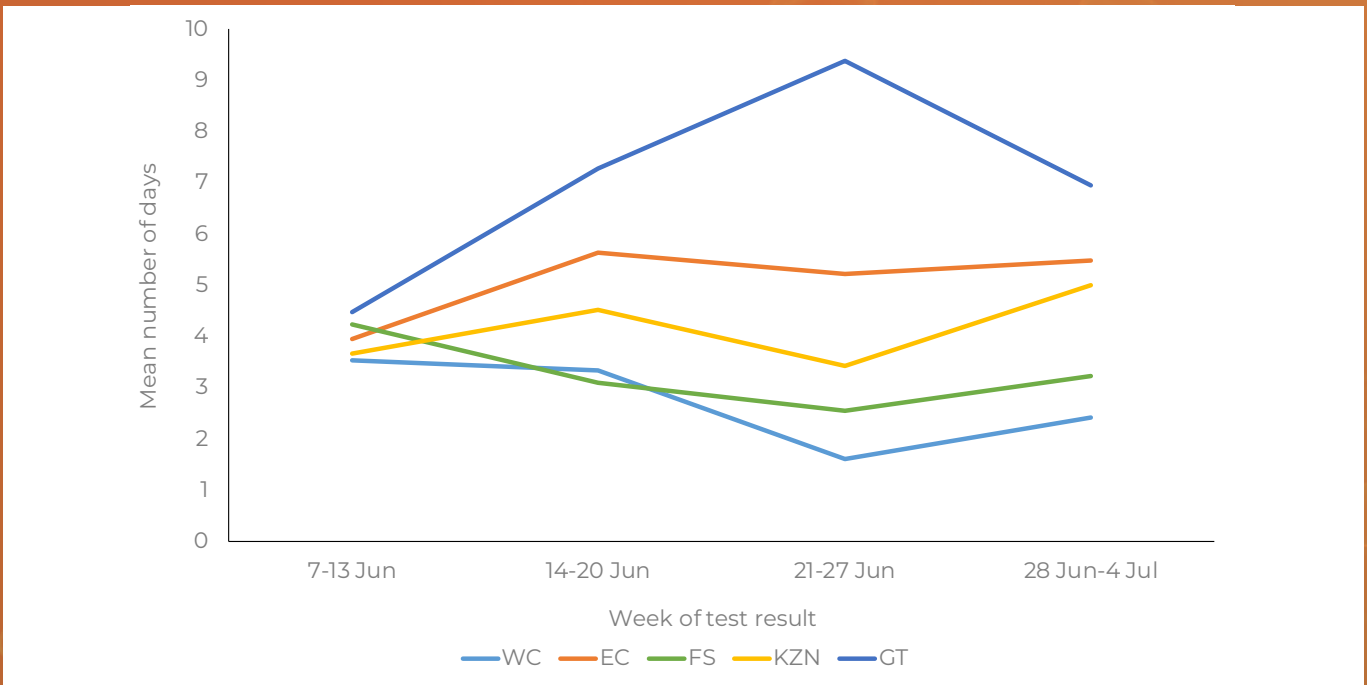


Figure 4. Mean number of days between date of specimen collection and date of test result, by week of test result and province, South Africa, 7 June – 4 July 2020. WC, Western Cape; EC, Eastern Cape; FS, Free State; KZN, KwaZulu-Natal, GT, Gauteng

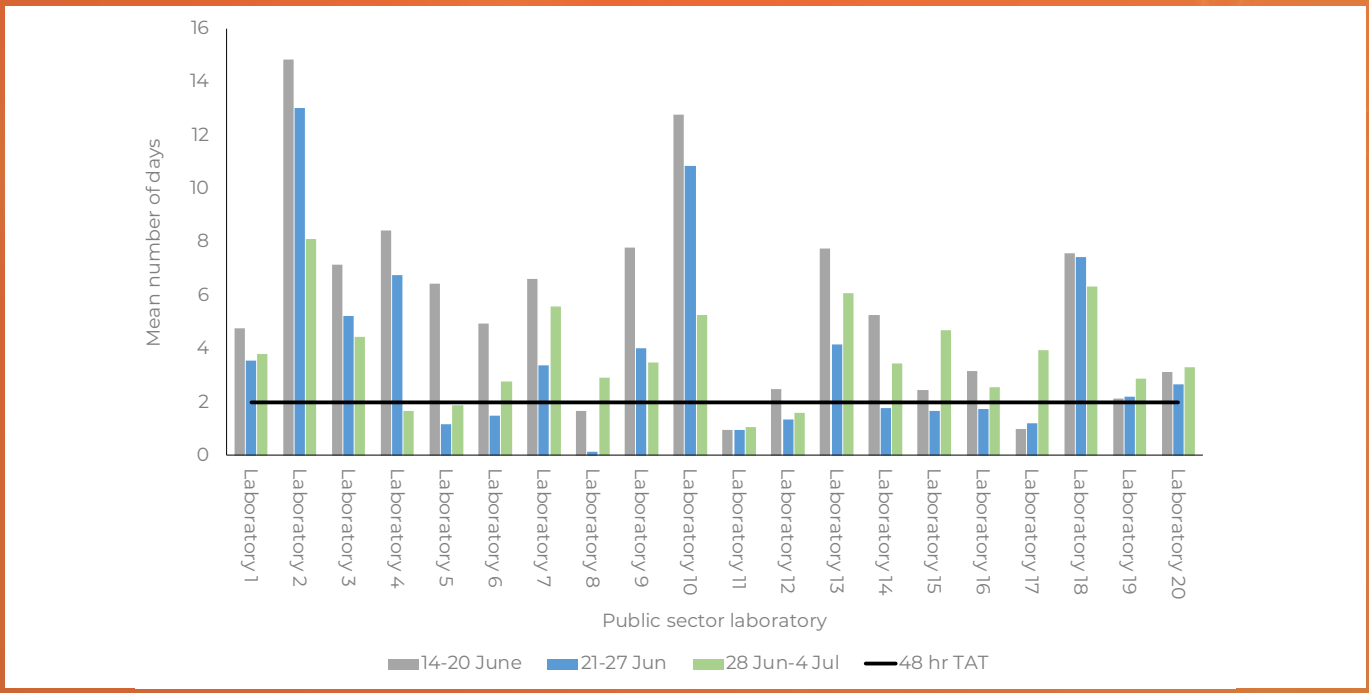


Figure 5. Mean number of days between date of specimen collection and date of test result, by public sector laboratory, 14 June – 4 July 2020. The horizontal black line indicates 48-hour turnaround time (TAT)

TESTING BY PROVINCE

In the past week Gauteng province performed the largest numbers of tests, accounting for 39% of tests nationally (Table 3). Four provinces including Western Cape, Eastern Cape, KwaZulu-Natal and Gauteng performed 81.8% of tests in week 27. Except for a decrease in weekly testing due to supply shortages between week 20 and 23, there has been increasing trend in weekly numbers of tests performed in Gauteng, whereas volumes of tests have remained relatively consistent in other provinces since May 2020 (Figure 6).

Eastern Cape (34.3%), Gauteng (30.2%), Western Cape (29.1%) and North West (28.3%) provinces had the highest proportion testing positive in week 27 (Figure 7). In addition, KwaZulu-Natal and Mpumalanga provinces each had percentage testing positive of >15% in the past week. Based on the last three weeks, the percentage testing positive is still increasing significantly in all 9 provinces (Western Cape (P=0.022), Eastern Cape (P<0.001), Northern Cape (P<0.001), Free State (P<0.001), KwaZulu-Natal (P<0.001), North West (P<0.001), Gauteng (P<0.001), Mpumalanga (P<0.001) and Limpopo (P<0.001)). The percentage testing positive was higher than the national average, not weighted for population size, in the Western Cape, Eastern Cape, North West and Gauteng provinces (Figure 7).

COVID-19 TESTING SUMMARY

WEEK 27 2020

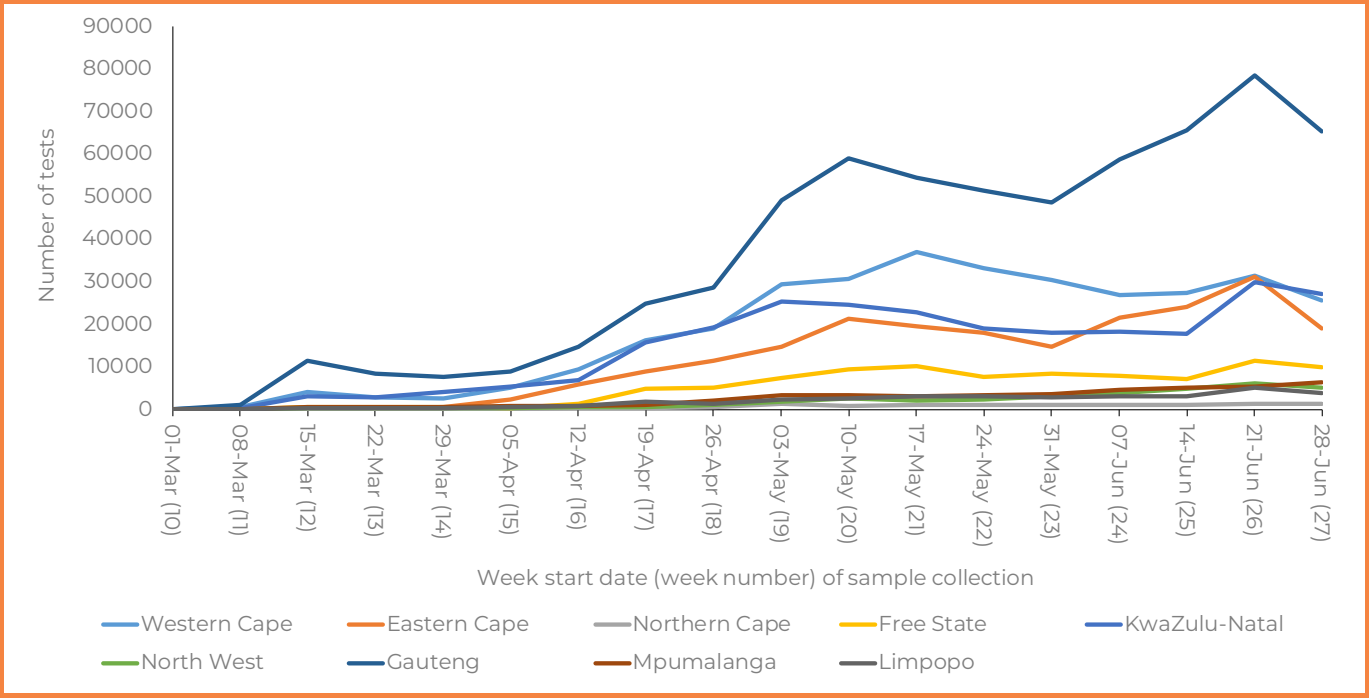


Figure 6. Weekly number of laboratory tests conducted per province by date of specimen collection, South Africa, 1 March – 04 July 2020

Table 3. Weekly number of tests performed and positive tests, by province, South Africa, 14 June – 4 July 2020

	14-20 June		21-27 June		28 June-4 July	
Province	**No. of tests**	**No. positive tests (%)**	**No. of tests**	**No. positive tests (%)**	**No. of tests**	**No. positive tests (%)**
Western Cape	27 452	7 737 (28.2)	31 497	9 172 (29.1)	25 756	7 490 (29.1)
Eastern Cape	24 044	6 485 (27.0)	31 148	10 160 (32.6)	19 112	6 556 (34.3)
Northern Cape	1 064	50 (4.7)	1 395	114 (8.2)	1 406	162 (11.5)
Free State	7 173	352 (4.9)	11 406	920 (8.1)	10 055	1 381 (13.7)
KwaZulu-Natal	17 888	1 647 (9.2)	29 973	4 429 (14.8)	27 211	5 881 (21.6)
North West	4 973	773 (15.5)	6 238	1 162 (18.6)	5 171	1 461 (28.3)
Gauteng	65 585	11 571 (17.6)	78 536	19 679 (25.1)	65 409	19 780 (30.2)
Mpumalanga	5 200	441 (8.5)	5 401	671 (12.4)	6 552	1 138 (17.4)
Limpopo	3 245	180 (5.5)	5 075	571 (11.3)	3 832	541 (14.1)
Unknown	2 096	260 (12.4)	3 046	441 (14.5)	3 661	468 (12.8)
Total	**158 720**	**29 496 (18.6)**	**203 715**	**47 319 (23.2)**	**168 165**	**44 858 (26.7)**

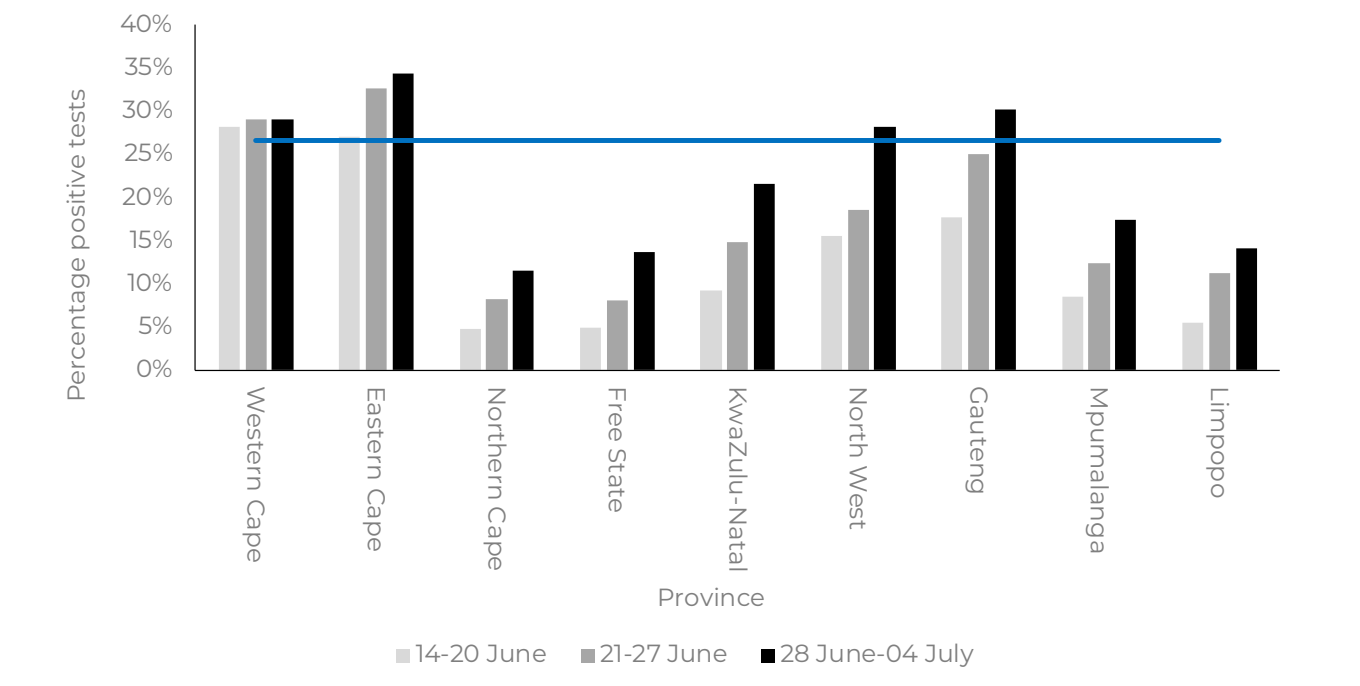


Figure 7. Weekly percentage testing positive, by province, South Africa, 14 June – 4 July 2020. The horizontal blue line shows the national mean for week 27, beginning 28 June 2020

TESTING IN THE PUBLIC SECTOR

In the public sector, the percentage testing positive increased to 27.1% in week 27 (Table 4). The percentage testing positive was >30% in Western Cape (32.3%), Eastern Cape (32.7%), North West (32.2%) and Gauteng (33.5%) provinces. The percentage testing positive in the public sector remains higher than the national average, not weighted for population size, in the Western Cape, Eastern Cape, North West and Gauteng provinces (Figure 8).

Table 4. Weekly number of tests conducted and positive tests in the public sector, by province, South Africa, 14 June – 4 July 2020

	14-20 June		21-27 June		28 June-4 July	
Province	**No. of tests**	**No. positive tests (%)**	**No. of tests**	**No. positive tests (%)**	**No. of tests**	**No. positive tests (%)**
Western Cape	9 397	3 397 (36.1)	12 570	4 289 (34.1)	11 445	3 697 (32.3)
Eastern Cape	11 538	3 082 (26.7)	13 568	4 299 (31.7)	7 432	2 431 (32.7)
Northern Cape	9	0 (0.0)	2	1 (50.0)	6	0 (0.0)

COVID-19 TESTING SUMMARY

WEEK 27 2020

Free State	4 901	183 (3.7)	8276	574 (6.9)	5 884	646 (11.0)
KwaZulu-Natal	8 144	757 (9.3)	12 781	1 632 (12.8)	6 219	1 195 (19.2)
North West	1 173	134 (11.4)	1 654	251 (15.2)	646	208 (32.2)
Gauteng	17 030	3 162 (18.6)	19 762	4 943 (25.0)	11 192	3 750 (33.5)
Mpumalanga	324	22 (6.8)	434	42 (9.7)	930	128 (13.8)
Limpopo	1 560	62 (4.0)	3 045	367 (12.1)	1 718	254 (14.8)
Unknown	0	0 (0.0)	1	0 (0.0)	0	0 (0.0)
Total	**54 076**	**10 799 (20.0)**	**72 093**	**16 398 (22.7)**	**45 472**	**12 309 (27.1)**

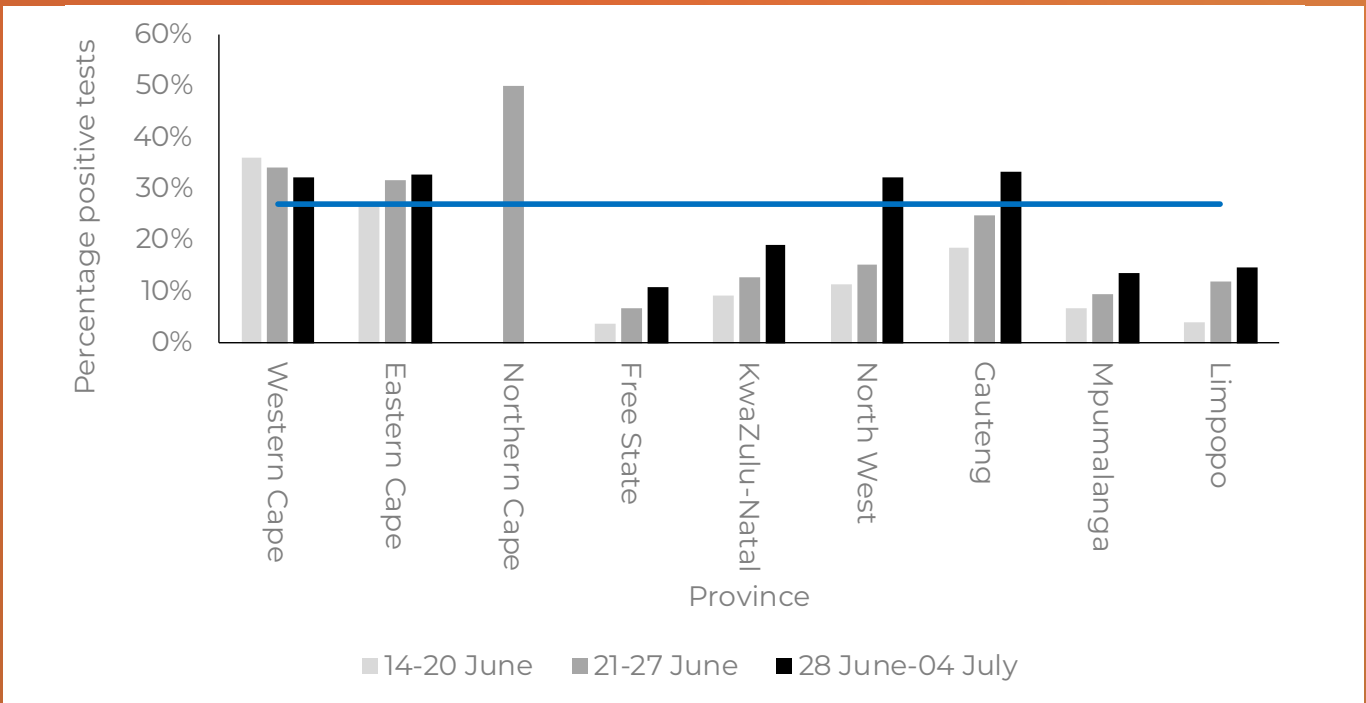


Figure 8. Weekly percentage testing positive in the public sector, by province, South Africa, 14 June – 4 July 2020. The horizontal blue line shows the national mean for week 27, beginning 28 June 2020

PUBLIC FACILITIES WITH HIGH PROPORTIONS TESTING POSITIVE

Table 5 shows the 25 public healthcare facilities with the highest proportion testing positive nationally in the week of 28 June – 4 July. All 25 facilities show a proportion testing positive greater than 50%, and with the exception of one facility in Limpopo, are in the Western Cape (10), Eastern Cape (7), and Gauteng (7).

Table 5. Public healthcare facilities with a high proportion testing positive, 28 June-4 July 2020

Facility Name	Province	Tests	PTP (95% CI)
Facility 1	Western Cape	39	0.692 (0.547;0.837)
Facility 2	Western Cape	26	0.692 (0.515;0.870)
Facility 3	Gauteng	1 752	0.682 (0.660;0.704)
Facility 4	Eastern Cape	65	0.631 (0.513;0.748)
Facility 5	Limpopo	30	0.600 (0.425;0.775)
Facility 6	Eastern Cape	270	0.600 (0.542;0.658)
Facility 7	Western Cape	78	0.590 (0.481;0.699)
Facility 8	Gauteng	177	0.588 (0.515;0.660)
Facility 9	Western Cape	144	0.583 (0.503;0.664)
Facility 10	Western Cape	47	0.574 (0.433;0.716)
Facility 11	Eastern Cape	42	0.571 (0.422;0.721)
Facility 12	Western Cape	49	0.571 (0.433;0.710)
Facility 13	Western Cape	30	0.567 (0.389;0.744)
Facility 14	Western Cape	69	0.565 (0.448;0.682)
Facility 15	Eastern Cape	39	0.564 (0.408;0.720)
Facility 16	Western Cape	32	0.563 (0.391;0.734)
Facility 17	Eastern Cape	25	0.560 (0.365;0.755)
Facility 18	Gauteng	126	0.556 (0.469;0.642)
Facility 19	Gauteng	27	0.556 (0.368;0.743)

Facility 20	Western Cape	29	0.552 (0.371;0.733)
Facility 21	Gauteng	40	0.550 (0.396;0.704)
Facility 22	Eastern Cape	36	0.528 (0.365;0.691)
Facility 23	Gauteng	59	0.525 (0.398;0.653)
Facility 24	Gauteng	251	0.518 (0.456;0.580)
Facility 25	Eastern Cape	31	0.516 (0.340;0.692)

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

PUBLIC SECTOR TESTING: HEALTH DISTRICT-LEVEL RESULTS

The 25 municipalities and metropolitan health sub-districts with the highest adjusted proportion testing positive nationally in the week of 28 June-4 July 2020 are shown in Table 6. All sub-districts in this table have a proportion testing positive of >30%. Eight sub-districts are in the Eastern Cape, 7 in Western Cape, 7 in Gauteng and one each in Limpopo, Mpumalanga and North West provinces.
The data for every district with a non-zero proportion testing positive or where the range of the confidence interval is not more than 30% (15% either side of the point estimate) for the past week is presented in Figure 9.

Table 6. Health sub-districts with a proportion testing positive >30% based on public sector data for the week of 28 June – 4 July 2020

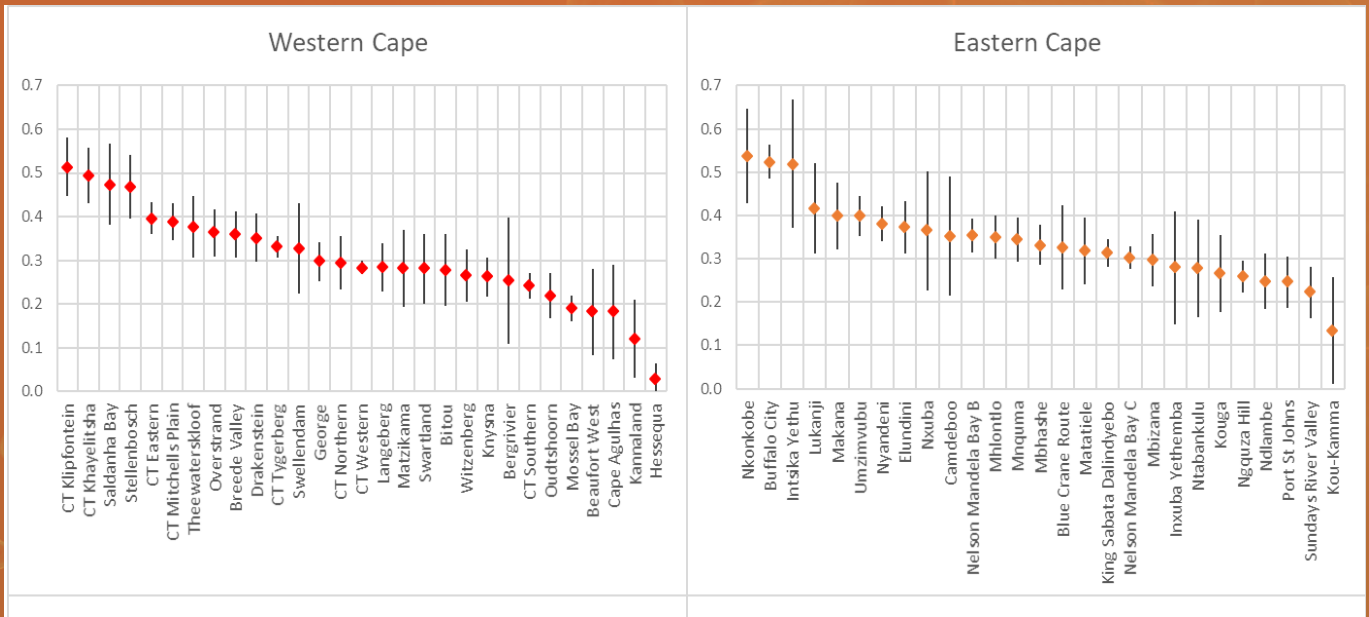
Health district or sub-district	Province	PTP (95% CI)	Previous week
Nkonkobe	Eastern Cape	0.537 (0.428-0.646)	0.334 (0.283-0.385)
Buffalo City	Eastern Cape	0.524 (0.485-0.564)	0.441 (0.418-0.464)
Intsika Yethu	Eastern Cape	0.519 (0.371-0.667)	0.338 (0.264-0.413)
CT Klipfontein	Western Cape	0.514 (0.447-0.580)	0.441 (0.385-0.497)
CT Khayelitsha	Western Cape	0.494 (0.431-0.557)	0.488 (0.445-0.531)
Makhuduthamaga	Limpopo	0.476 (0.351-0.601)	0.078 (0.044-0.111)
Saldanha Bay	Western Cape	0.474 (0.382-0.567)	0.425 (0.347-0.504)
Stellenbosch	Western Cape	0.468 (0.396-0.541)	0.379 (0.315-0.442)

COVID-19 TESTING SUMMARY

WEEK 27 2020

Ekurhuleni South 2	Gauteng	0.453 (0.400-0.506)	0.302 (0.263-0.340)
Merafong City	Gauteng	0.448 (0.337-0.560)	0.231 (0.170-0.293)
Ekurhuleni East 2	Gauteng	0.446 (0.392-0.500)	0.305 (0.262-0.349)
Johannesburg D	Gauteng	0.434 (0.398-0.470)	0.334 (0.311-0.356)
Ekurhuleni South 1	Gauteng	0.429 (0.384-0.474)	0.305 (0.263-0.348)
Lukanji	Eastern Cape	0.416 (0.312-0.521)	0.379 (0.330-0.427)
Dr JS Moroka	Mpumalanga	0.414 (0.281-0.548)	0.133 (0.034-0.232)
Makana	Eastern Cape	0.399 (0.322-0.477)	0.460 (0.386-0.534)
City of Matlosana	North West	0.399 (0.324-0.473)	0.273 (0.234-0.312)
Umzimvubu	Eastern Cape	0.399 (0.353-0.444)	0.309 (0.255-0.362)
CT Eastern	Western Cape	0.396 (0.359-0.433)	0.430 (0.390-0.471)
Mogale City	Gauteng	0.390 (0.351-0.429)	0.227 (0.200-0.254)
CT Mitchells Plain	Western Cape	0.388 (0.345-0.431)	0.397 (0.364-0.430)
Nyandeni	Eastern Cape	0.381 (0.341-0.422)	0.298 (0.268-0.329)
Theewaterskloof	Western Cape	0.377 (0.306-0.447)	0.404 (0.327-0.480)
Elundini	Eastern Cape	0.372 (0.312-0.432)	0.316 (0.253-0.379)
Ekurhuleni North 1	Gauteng	0.372 (0.326-0.418)	0.238 (0.207-0.270)

95% CI: 95% confidence interval; PTP: adjusted positive test proportion; CT: Cape Town; PTP marked in red have current week proportions testing positive that are significantly higher than the previous week



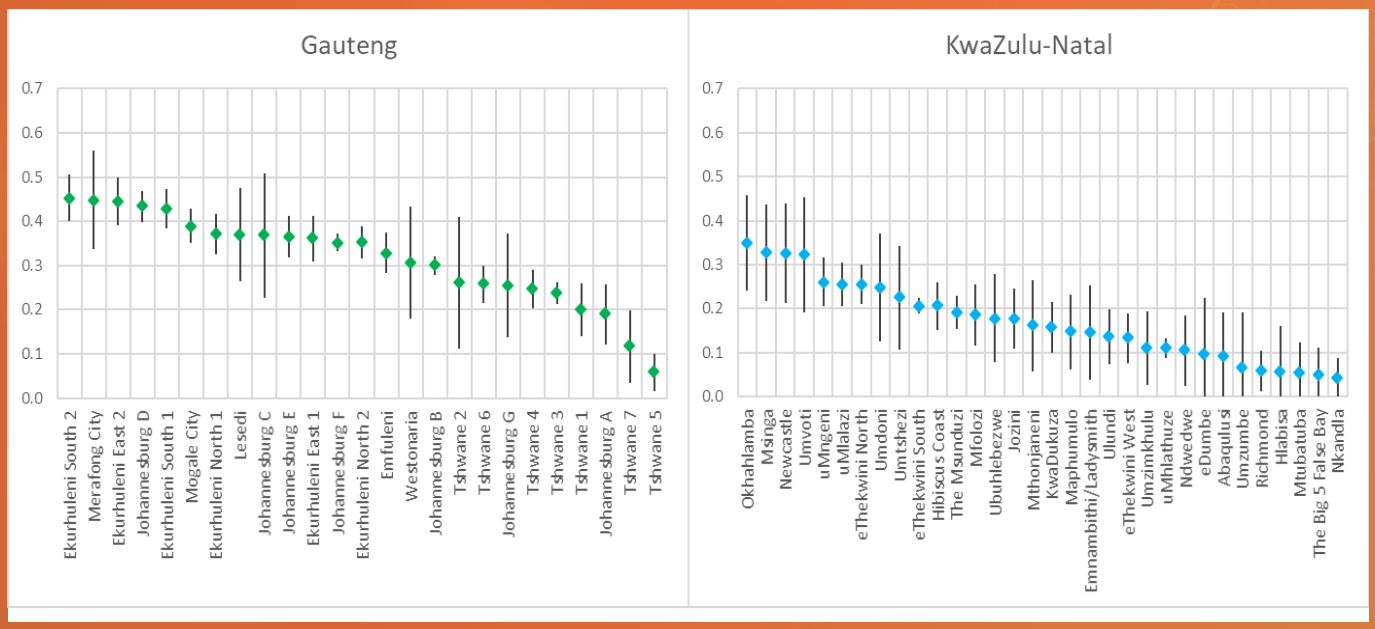


Figure 9. Proportions testing positive in health sub-districts in Western Cape, Eastern Cape, Gauteng and KwaZulu-Natal provinces based on public sector data for the week of 28 June-4 July 2020

The spatial pattern of adjusted proportions testing positive in public facilities by health district and sub-district are shown for South Africa (Figure 10), and the three most affected provinces: Western Cape (Figure 11), Eastern Cape (Figure 12), and Gauteng (Figure 13).

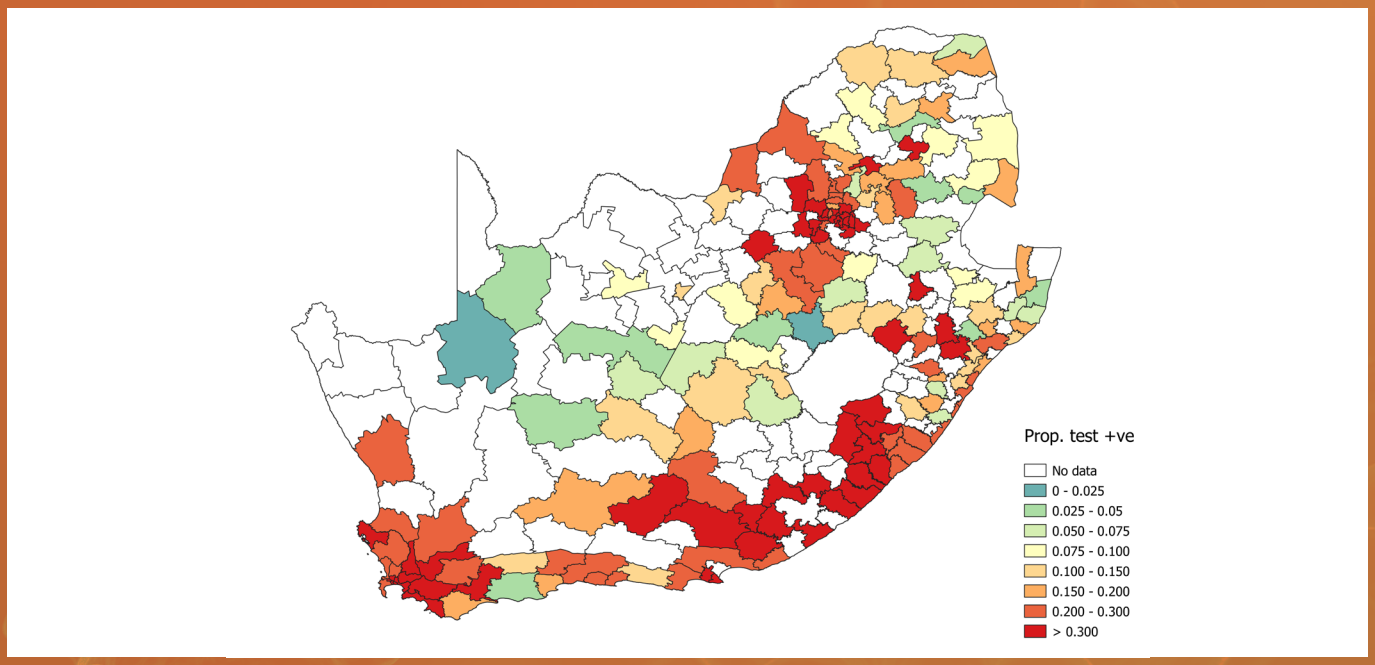


Figure 10. Proportion testing positive by health sub-district based on public sector data for the week of 28 June-4 July 2020, South Africa. Areas shaded white represent districts in which either (i) no tests were conducted, (ii) all tests were negative, or (iii) the confidence interval exceeded 30%

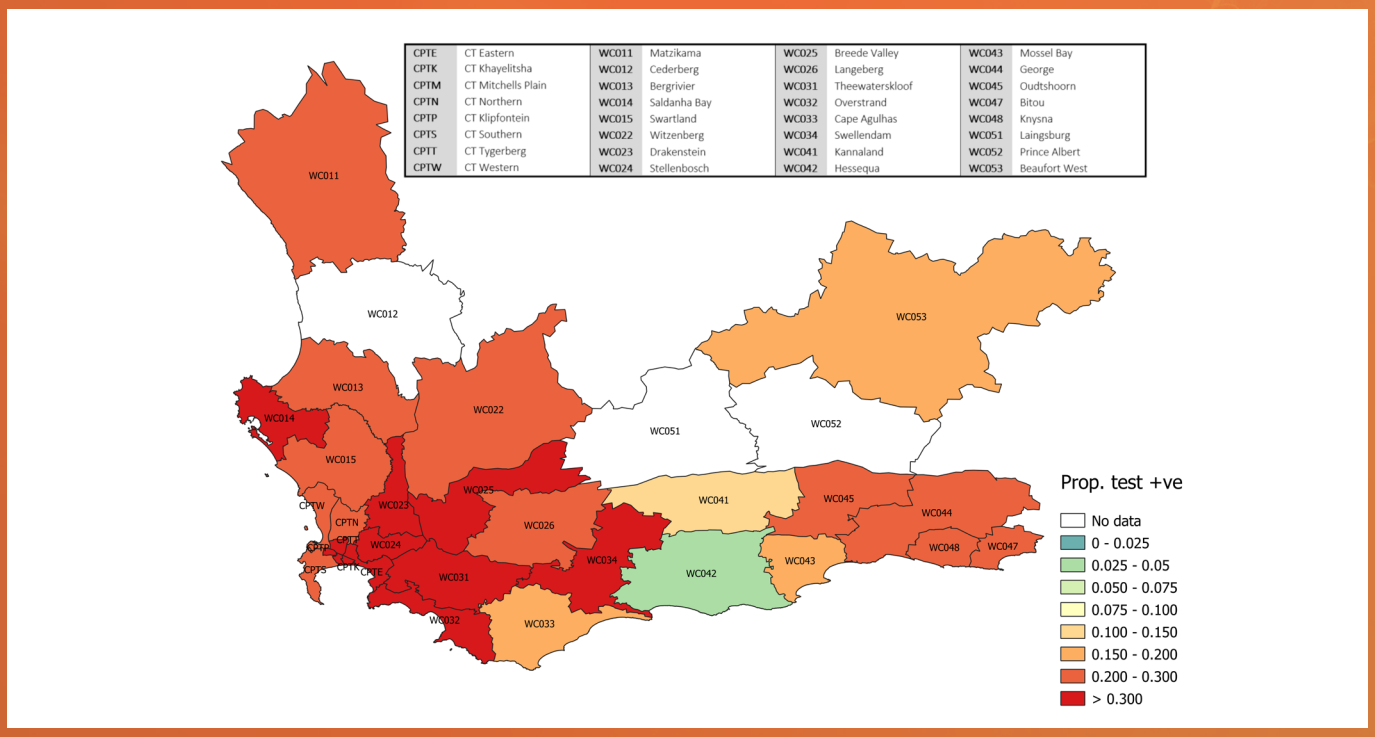


Figure 11. Health sub-districts in the Western Cape province with a high proportion testing positive based on public sector data for the week of 28 June-4 July 2020. Areas shaded white represent districts in which either (i) no tests were conducted, (ii) all tests were negative, or (iii) the confidence interval exceeded 30%

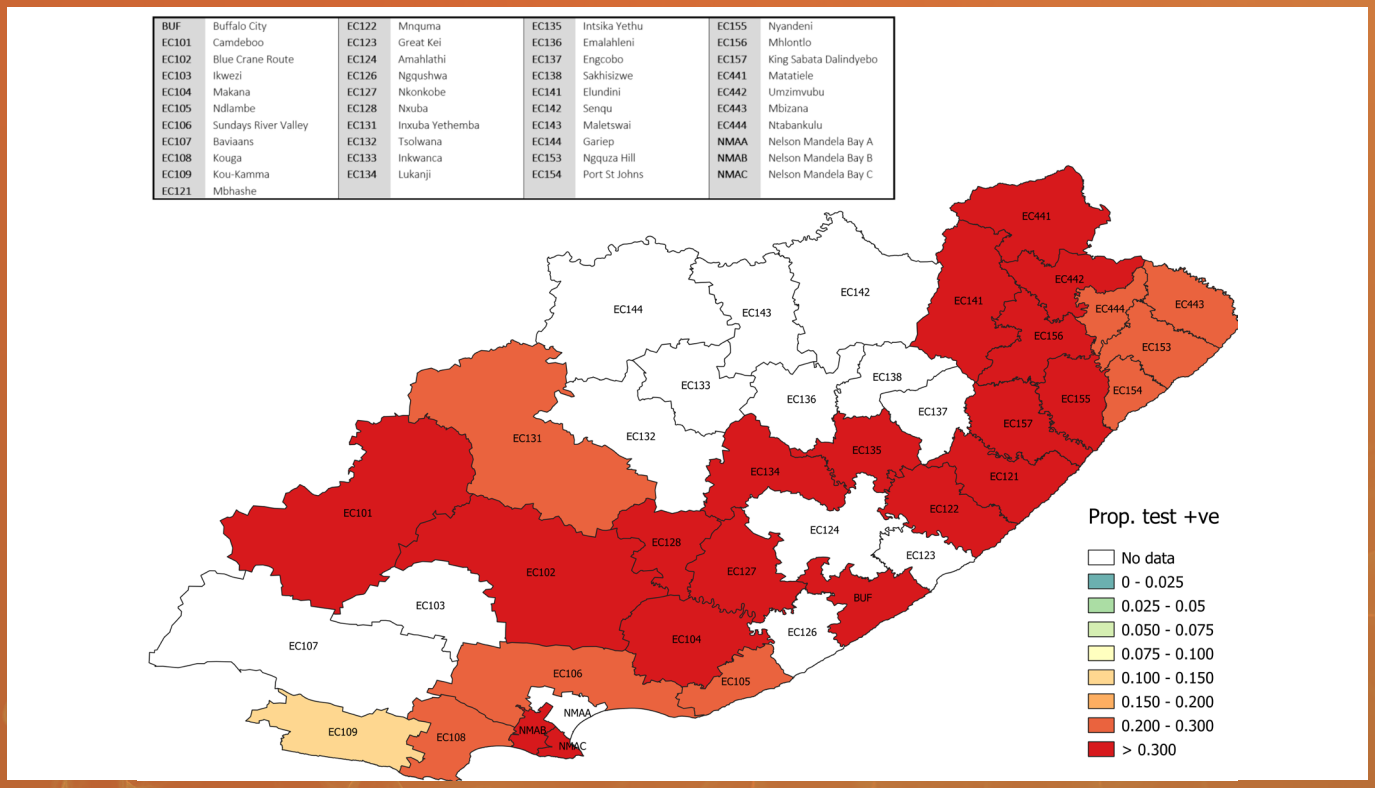


Figure 12. Health sub-districts in the Eastern Cape province with a high proportion testing positive based on public sector data for the week of 21-27 June 2020

EKUE1	Ekurhuleni East 1	GT421	Emfuleni	JHBA	Johannesburg A	TSH1	Tshwane 1
EKUE2	Ekurhuleni East 2	GT422	Midvaal	JHBB	Johannesburg B	TSH2	Tshwane 2
EKUN1	Ekurhuleni North 1	GT423	Lesedi	JHBC	Johannesburg C	TSH3	Tshwane 3
EKUN2	Ekurhuleni North 2	GT481	Mogale City	JHBD	Johannesburg D	TSH4	Tshwane 4
EKUS1	Ekurhuleni South 1	GT482	Randfontein	JHBE	Johannesburg E	TSH5	Tshwane 5
EKUS2	Ekurhuleni South 2	GT483	Westonaria	JHBF	Johannesburg F	TSH6	Tshwane 6
		GT484	Merafong City	JHBG	Johannesburg G	TSH7	Tshwane 7

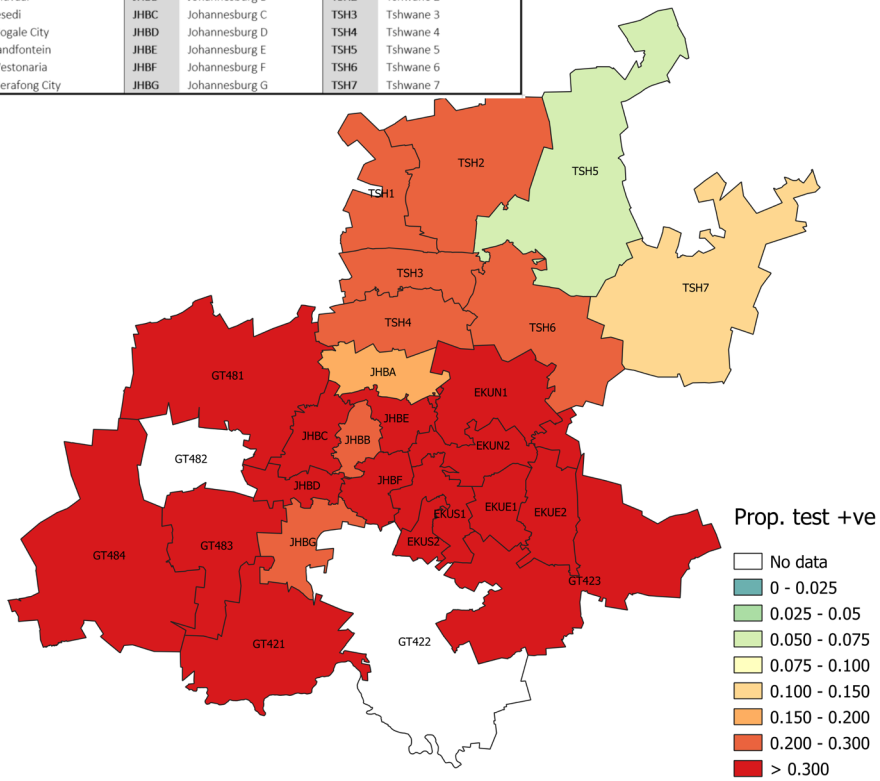


Figure 13. Health sub-districts in Gauteng Province with a high proportion testing positive based on public sector data for the week of 28 June-4 July 2020. Areas shaded white represent districts in which either (i) no tests were conducted, (ii) all tests were negative, or (iii) the confidence interval exceeded 30%

TESTING BY AGE AND SEX

In week 27, the majority of tests done (79%) remain in individuals aged 20-59 years, as for the previous two weeks (Figure 14). The mean age of individuals tested in week 27 was 38.9 years and has remained relatively stable over the past 4 weeks in males and females. The mean age of cases in week 27 was 40.5 years and was similar in both sexes (P=0.984) (Table 7). The sex ratio (the number of males per 100 females) of cases was 75.1 in week 27. An increased proportion testing positive was observed for both males and females across all age groups in week 27 compared to the previous week (Figure 15).

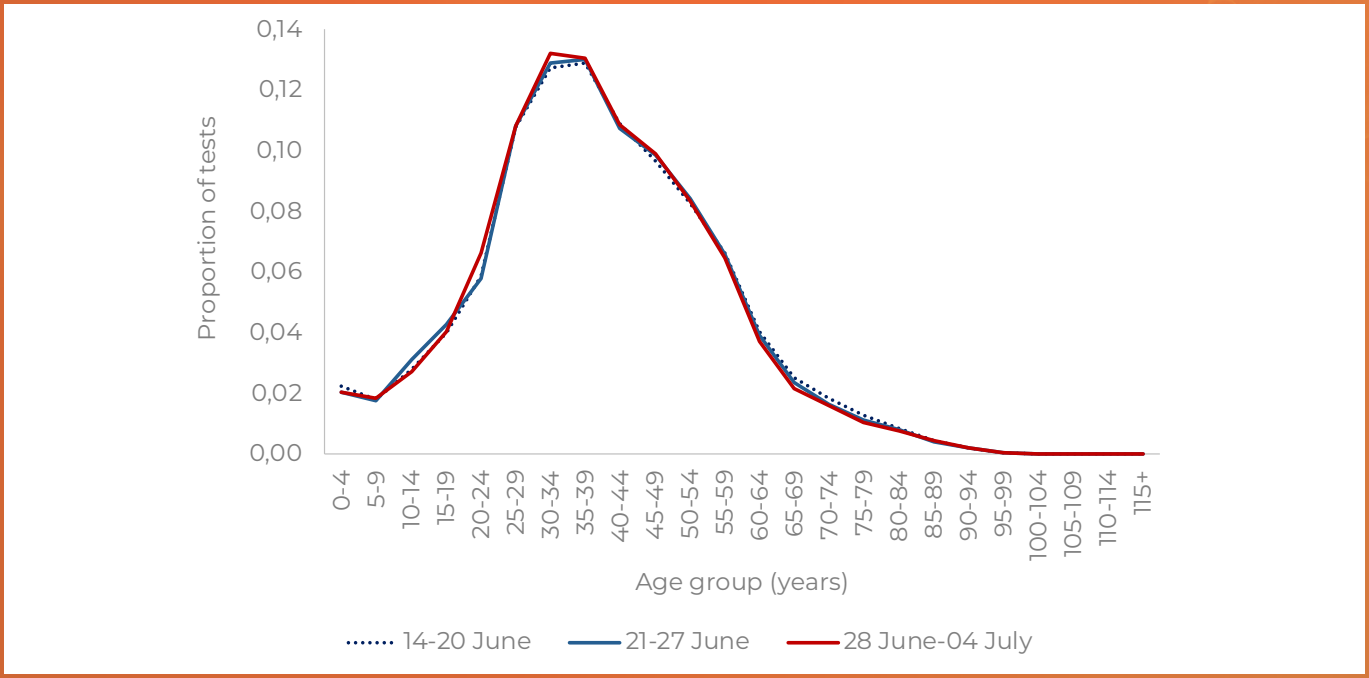


Figure 14. Proportion of tests performed by age group, 14 June -4 July 2020

Table 7. Mean age and sex ratio of individuals tested, South Africa, 7 June-4 July 2020

		Mean age of tested (years)		Mean age of cases (years)		Sex ratios (males / 100 females)	
Week number	Week beginning	Males	Females	Males	Females	Tested	Cases
24	07 June	39.5	39.9	40.4	40.5	81.9	79.6
25	14 June	39.2	39.5	40.9	40.6	80.6	75.9
26	21 June	38.8	39.3	40.5	40.4	77.0	75.5
27	28 June	38.6	39.2	40.5	40.5	77.7	75.1

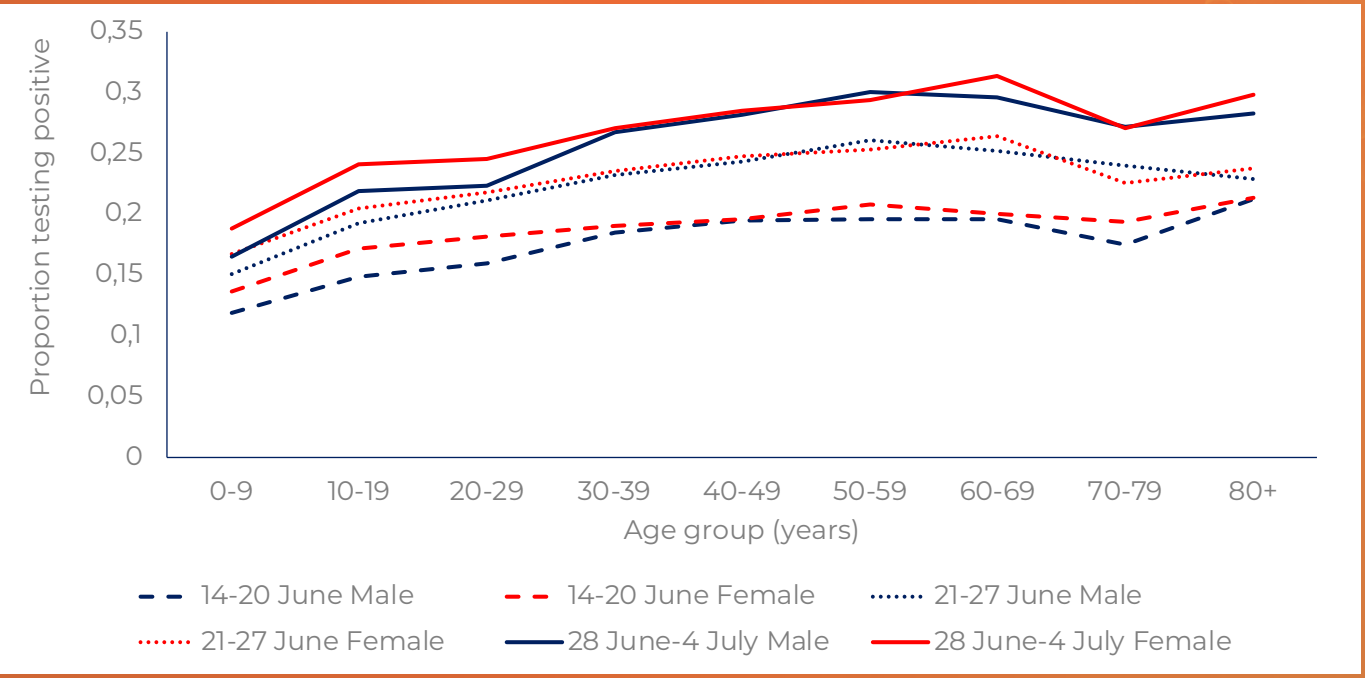


Figure 15. Weekly proportion testing positive by age group and sex, South Africa, 14 June-4 July 2020

From week 24 to week 27, the percentage testing positive increased significantly from 13.6% to 27.0% in females (P<0.001) and from 13.2% to 26.1% in males (P<0.001) (Table 8). In week 27 the proportion testing positive was higher in females than males in the <20-year (P<0.001) and 20-39 year age groups, but did not differ in other age groups.

Table 8. Percentage testing positive by sex and week, South Africa, 7 June-4 July 2020

Age (years)	07-13 June		14-20 June		21-27 June		28 June-04 July	
	Male	Female	Male	Female	Male	Female	Male	Female
0-19	10.3%	11.6%	13.6%	15.9%	17.7%	19.3%	19.7%	22.3%
20-39	13.2%	13.5%	17.4%	18.7%	22.3%	22.8%	25.0%	26.0%
40-59	14.2%	14.4%	19.5%	20.0%	25.1%	25.0%	28.9%	28.8%
60-69	12.8%	13.6%	19.5%	20.0%	25.2%	26.3%	29.6%	31.3%
70+	12.0%	11.8%	18.6%	20.1%	23.7%	23.0%	27.4%	28.2%
Total	**13.2%**	**13.6%**	**17.9%**	**19.0%**	**23.0%**	**23.4%**	**26.1%**	**27.0%**

LIMITATIONS

- The backlog in testing of samples by public laboratories affects the reported numbers of tests performed. 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.
- The delay in testing affects the analysis of the testing data and identification of outbreak hotspots.
- Different and changing testing strategies (targeted vs. mass testing) used by different provinces makes percentage testing positive difficult to interpret and compare.
- Health district and sub-district level results included public-sector data only and were mapped based on the testing facility and not place of residence.

CONCLUSIONS

Subsequent to the reduction in volume of tests performed due to limited availability of extraction and testing kits, there has been an improvement in testing volumes in recent weeks. The overall percentage testing positive continued to increase, to 27% in week 27, with increases observed in both the public and private sectors. The Eastern Cape (34.3%), Gauteng (30.2%), Western Cape (29.1%) and North West (28.3%) provinces had the highest percentage testing positive, and the percentage testing positive continued to increase in all nine provinces. The percentage testing positive increased in both males and females across all age groups. Increased percentage testing positive may reflect true increases in the prevalence of disease but is likely also reflecting the implementation of more targeted testing of symptomatic individuals. Laboratory turnaround times remained relatively unchanged compared to the previous week (2 days in the private sector and 5 days in the public sector), although an improvement in turnaround time was observed in Gauteng public laboratories in the past week.