

## COVID-19 and Cape Town: What went wrong?

### FINDINGS

From 2 May to 5 May, the Western Cape accounted for three quarters of new COVID-19 cases in South Africa, although it makes up only a seventh of the population. On 5 May, the incidence of COVID-19 in the Western Cape was 52.4 per 100 000 population, compared to 7.6 per 100 000 in the rest of the country.

The Western Cape's high share of new cases reflected the rapid growth in infections there, almost exclusively in Cape Town. The fastest rates of increase have been reported in Tygerberg, (which includes Langa) followed by Khayelitsha and Klipfontein (which includes Nyanga and Gugulethu).

The number of known cases in the Western Cape rose at 9.4% a day from 20 April to 5 May; in the rest of the country, it climbed at 3.5% a day. At that rate, the number of cases is doubling every week, compared to a doubling rate of three weeks in the rest of the country.

The spread of COVID-19 in the Western Cape, and specifically in Cape Town, suggests that it is essentially out of control. By extension, significant change is needed in how the contagion is handled there. One possibility is to move Cape Town back to a Level 5 lockdown. Alternatively, stronger measures are needed to identify and

isolate cases and to improve on physical distancing and sanitation within the Level 4 framework.

Whatever approach is adopted, a central problem remains securing community support and making it easier for people to maintain physical distance and quarantine. That in turn requires, among other things,, improved communications around the reasons for and ways to undertake physical distancing, especially in very dense areas and on public transport; greater and more predictable access to food parcels and other income support. In addition, it is important people understand that quarantine will last only a few weeks and that they will have decent conditions and healthcare if they go to a quarantine centre.

New measures will only work if they are rooted in an analysis of the reasons why Cape Town presents such a different picture from the rest of the country.

As discussed in Section 3, the available evidence suggests that the acceleration in reported cases does not result from higher testing rates or larger informal settlements. That said, the increase appears largely centred on informal settlements in Cape Town, which are unusually densely populated. Additional factors may be shortfalls in screening, testing, tracing and isolation/quarantine, especially in the informal settlements.

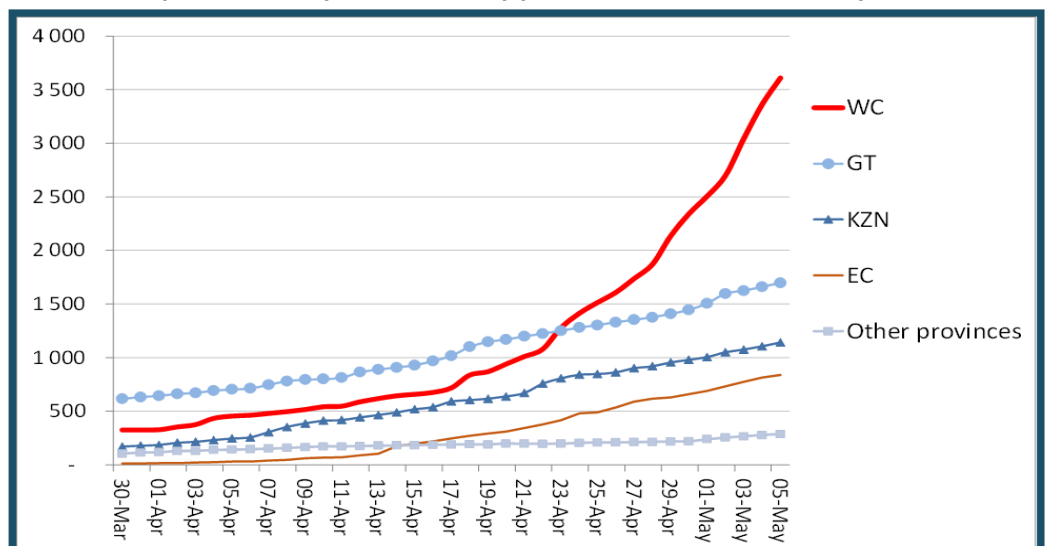
Trade & Industrial Policy Strategies (TIPS) is a research organisation that facilitates policy development and dialogue across three focus areas: trade and industrial policy, inequality and economic inclusion, and sustainable growth

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Thanks to  
Annie Neo Parsons  
for public-health  
advice; errors, as  
always, are our own.

Graph 1. Total reported cases by province, 30 March to 5 May 2020



Source: Calculated from published NICD data.

Questions that might help in understanding the relatively rapid spread of COVID-19 in Cape Town include the following:

1. How do rates of screening, testing and tracing compare to other provinces both per person and related to the number of known cases? How has the province allocated resources for these activities between sub-districts in Cape Town?
2. Is the contagion spreading primarily through hot-spots at retail outlets, institutions such as jails and hospitals, or other workplaces, or is there a high general incidence at community level? In other words, are the new infections centred on particular organisations or do they occur mostly within families, public transport and while shopping?
3. How do different communities understand the public-health measures, and do they trust that they are necessary?
4. How well are physical distancing and sanitation being maintained in retail and public transport?
5. How is quarantining being enforced, and how are families in quarantine being supported, especially in low-income communities? Does the tracing system proactively assist affected people to isolate when they are in difficult circumstances? Do people perceive quarantine as a punishment or as assistance?
6. Are low-income households receiving adequate aid so that they do not engage in risky behaviours out of desperation?

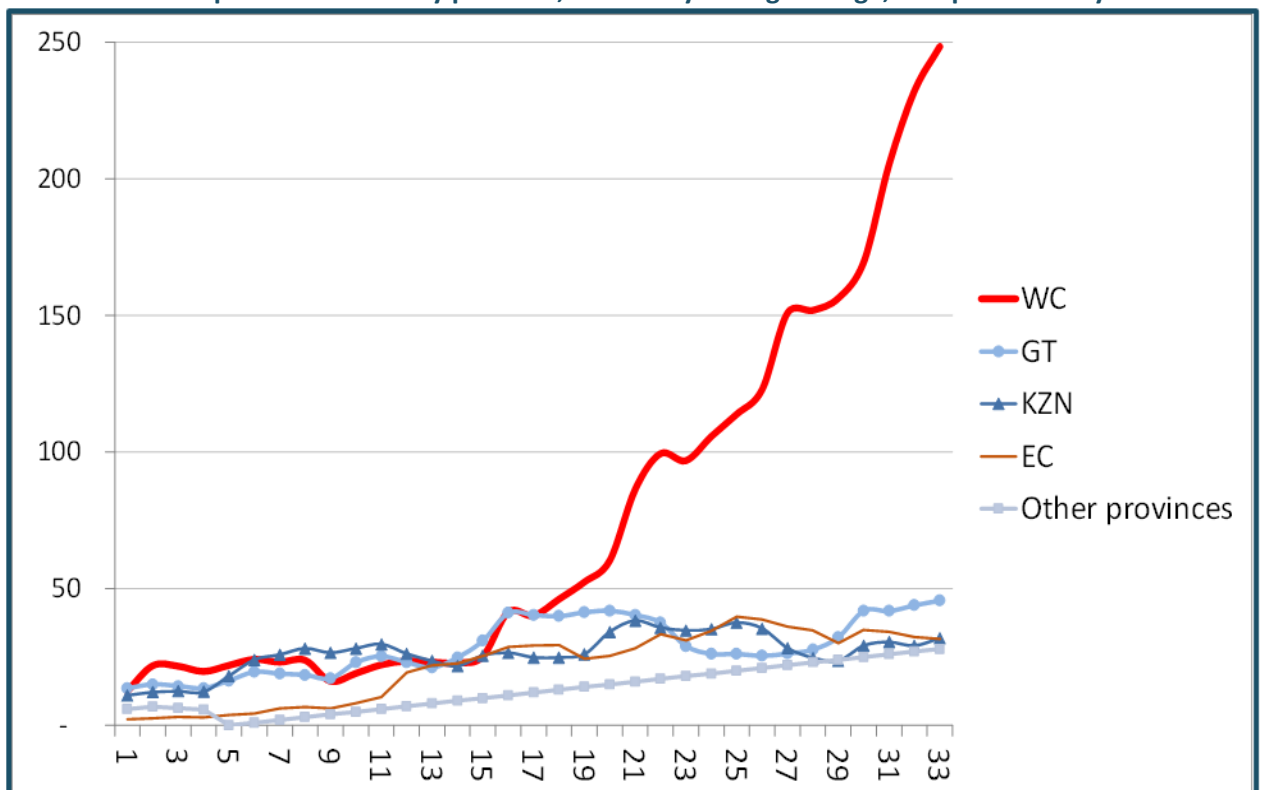
The following section provides more data on the extent of spread in the Western Cape, drawing on published data from the National Institute for Communicable Diseases (NICD) and the Western Cape's COVID-19 dashboard on its website. The final section lays out the available information on the level of testing and on the density of settlements in the Western Cape compared to other regions.

## THE SPREAD OF COVID-19 IN THE WESTERN CAPE COMPARED TO OTHER PROVINCES

Graph 1 shows the number of cases in the Western Cape compared to other provinces from 30 March to 5 May. It indicates that while the Western Cape started off this period with fewer cases than Gauteng, the number began to rise rapidly from around 20 April. By 5 May, the Western Cape accounted for 48% of all reported cases in South Africa.

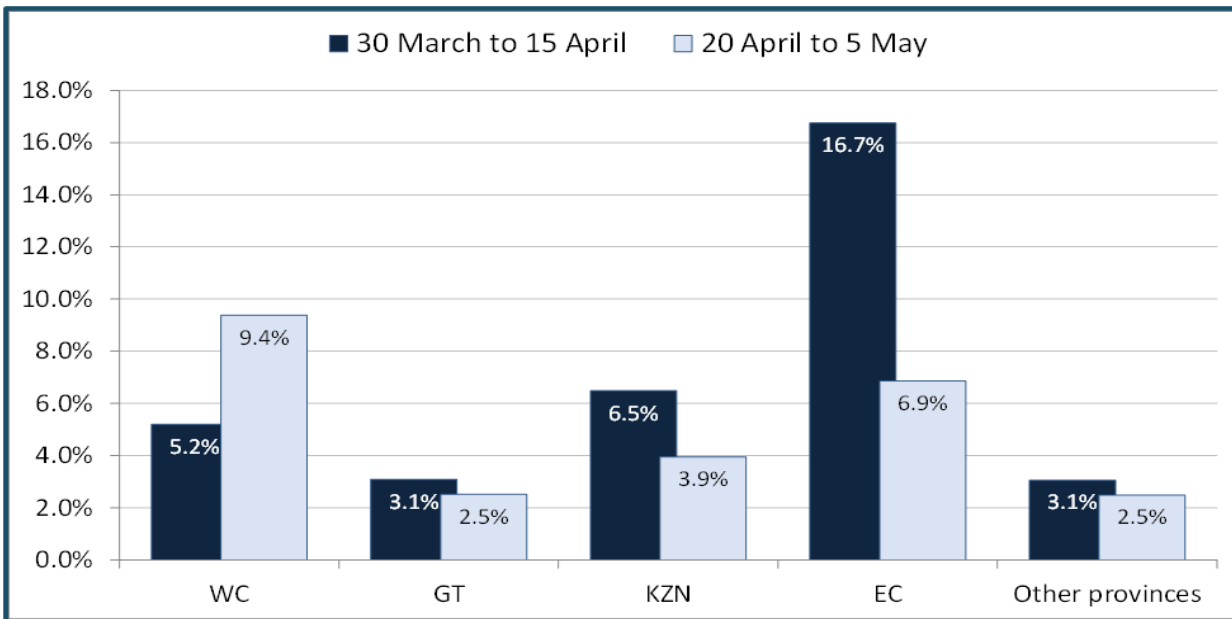
From 20 April to 5 May, the Western Cape accounted for 63% of all new cases reported in South Africa, although it comprises only 15% of the total population. In the three days to 5 May alone, its share came to 74%. In contrast, over the earlier three weeks from 30 March to 20 April, its share in new cases came to 31%. As Graph 2 shows, using a seven-day rolling average to indicate trends, the growth in new cases in the Western Cape far outstrips other provinces. Other provinces have seen surges in new cases, but so far nothing on the order of magnitude or the duration experienced in the Western Cape.

Graph 2. New cases by province, seven-day rolling average, 30 April to 5 May



Source: Calculated from published NICD data.

**Graph 3. Average daily growth rate in cases, by province, 30 March to 15 April and 20 April to 5 May**



Source: Calculated from published NICD data.

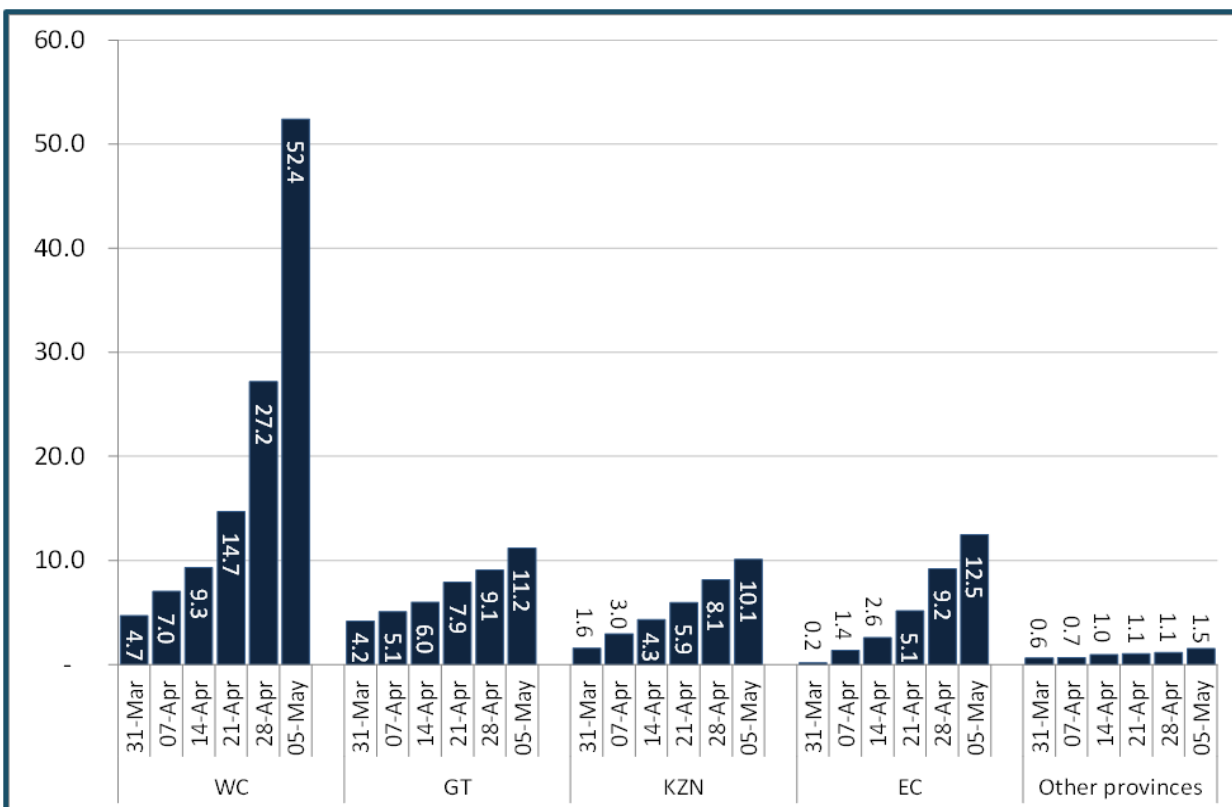
As Graph 3 shows, in every province except the Western Cape the daily rate of contagion declined over the two weeks to 5 May compared to the first three weeks of April.

Rapid contagion in the Western Cape means it now has a far higher incidence of COVID-19 cases than the rest of the country (see Graph 4). On 31 March, it had 4.7 cases per 100 000 residents, compared to 4.2 per 100 000 in Gauteng and 1.1 in the rest of the country. On 5 May, it had 52 cases per 100 000 residents; Gauteng, KwaZulu Natal and the Eastern Cape had

between 10 and 12.5, and the rest of the country had 6.2. Tygerberg alone appears to have had an incidence of around 100 per 100 000.

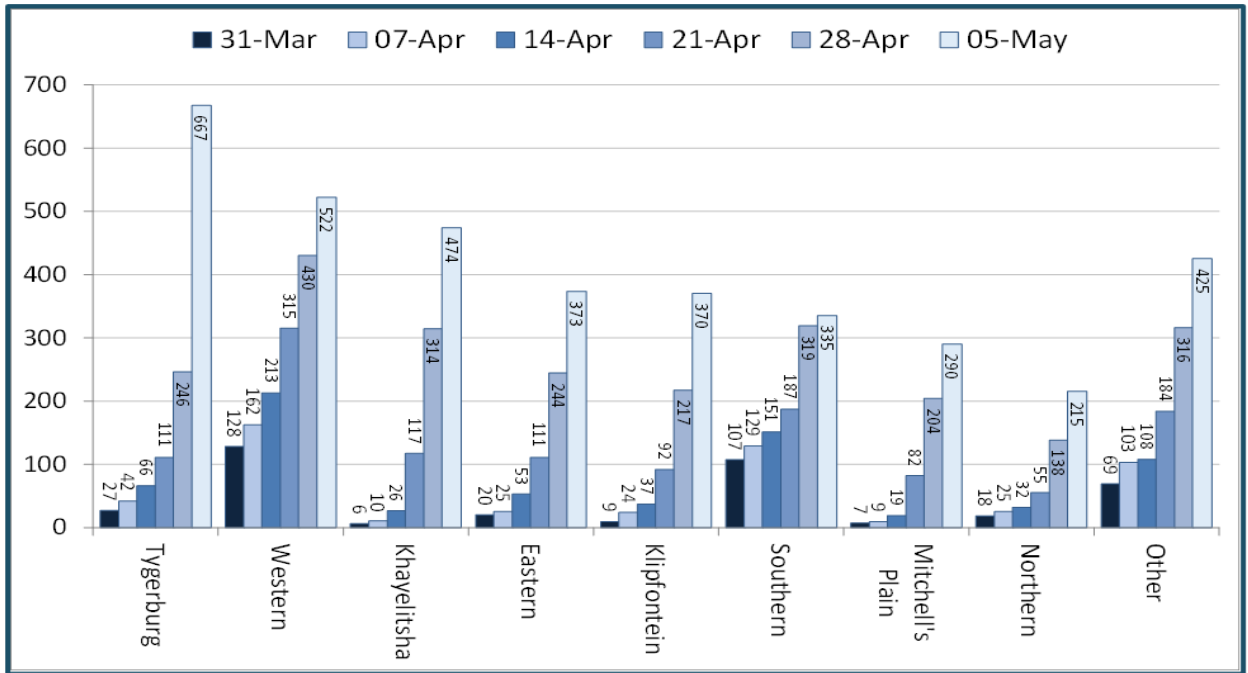
Virtually all of the increase in reported cases was in Cape Town. Its share in total cases in the province climbed from just over 80% at the end of March to almost 90% in early May. As Graph 5 (on page 4) shows, the increase in cases was concentrated in Tygerberg, followed at a distance by Klipfontein (which includes Nyanga and Gugulethu), Khayelitsha and the Eastern sub-district.

**Graph 4. Reported cases per 100 000 by province, weekly from 31 March to 5 May**



Source: Calculated from published NICD data.

**Graph 5. Cases reported by sub-district in Cape Town and elsewhere in the Western Cape, 31 March to 5 May**



Source: WSG. COVID-19 Response. No. of Cases by WC Sub-district. Accessed at [www.coronavirus.westerncape.gov.za](http://www.coronavirus.westerncape.gov.za) on 6 May 2020.

## EVIDENCE ON TESTING AND INFORMAL SETTLEMENTS

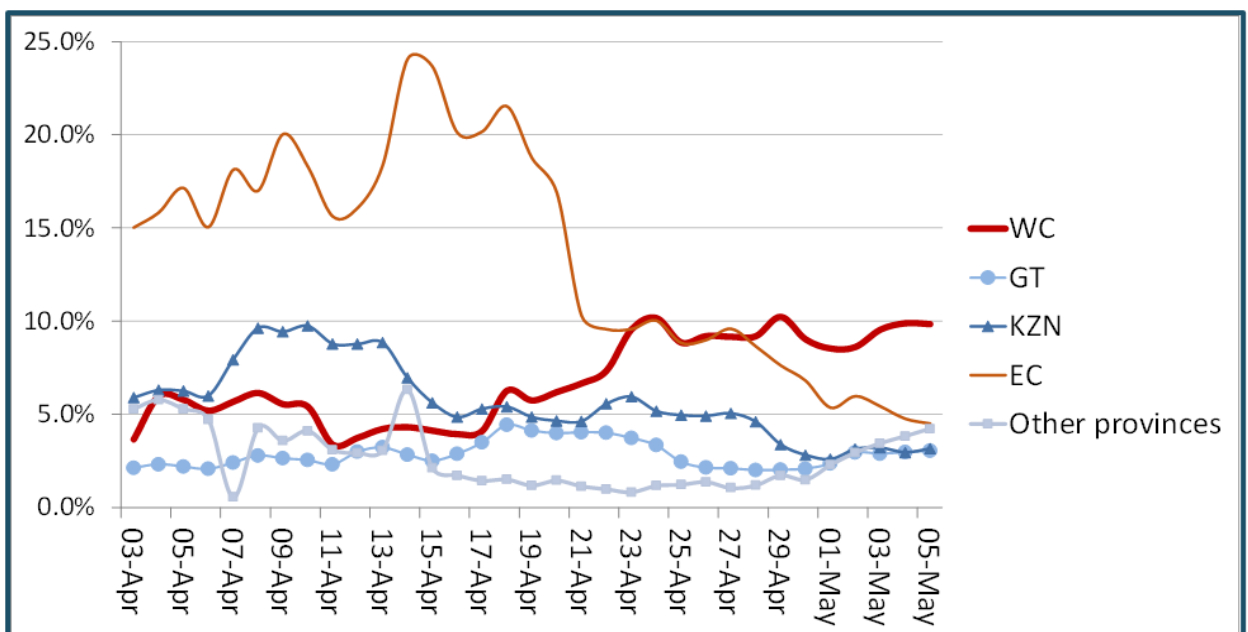
### 1. Testing

The national and provincial websites give somewhat divergent figures on a daily basis. Moreover, the provincial reports on testing appear to be incomplete for the most recent days. Still, the available figures suggest that from 21 April to 1 May, as the number of cases surged in the Western Cape, its share in total testing was only slightly higher than its share in the population. In this period, the Western Cape

conducted almost 25 000 tests, or 17% of the total. In contrast, from 6 April to 21 April it accounted for 22% of all test nationally.

The number of positive tests in the Western Cape was substantially higher than in the rest of the country. Moreover, it rose in the second half of April, while it declined in other provinces. From 21 April to 1 May, 11% of tests in the Western Cape came back positive up from 4% between 6 April and 20 April. In the rest of the country, 1.3% of tests were positive from 21 April to 1 May, down from 2.1% in the two weeks before that.

**Graph 6. Seven-day rolling average of daily growth in new cases by province, 3 April to 5 May**



Source: Calculated from published NICD data.

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*Based on the increased rate of infections in Cape Town, the number of positive COVID-19 cases would double in a week. At the current rates, the rest of the country would take about three weeks to see the number of cases doubling.*

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Public-sector testing expanded rapidly in the second half of April, which in part explains the decline in the share of the Western Cape in total testing in this period. Nationally, in the first week of May, over 10 000 tests were conducted daily, and half were from the public sector. Public tests are more likely to cover historically low-income communities, which may in part explain the escalation in reported cases in these areas of Cape Town.

That said, the growth of almost 10% in reported new cases daily in the Western Cape cannot be explained only by expanded and more targeted testing. After all, the other provinces also expanded screening and testing in this period, but they do not show the same acceleration in cases.

## **2. Population density and informal settlements**

Cape Town has unusually dense working-class and informal settlements. Its share in informal settlements, however, is not particularly large compared to other metros. The figures in this brief use Quantec estimates for density in 2018, which derive from the 2011 Census.<sup>1</sup>

In 2018, Quantec estimated that Cape Town as a whole had 1 750 people per square kilometre. That was around half as dense as Johannesburg, and around the same as eThekweni and Ekurhuleni. But Tyberberg, Khayelitsha, Mitchells's Plain and the Cape Flats were more dense than working-class areas in other metros.

Quantec estimated that, in 2018, more than 7 500 people lived on each square kilometre in Khayelitsha and Mitchell's Plain, and over 5 000 in Tygerburg and the Cape Flats. Only Soweto reportedly had a higher population density than Khayelitsha and Mitchell's Plain, at 7 800 per square kilometre. In contrast, in Orange Grove and Alexandra in Johannesburg, Quantec estimated the population density at between 2 500 to 3 500, and at around 4 000 in Durban Central and Alberton.

While Cape Town was relatively densely populated, it did not have an unusually high share of informal settlements. Around 11% of the Western Cape's population lives in informal settlements, compared to 13% in the North West, 9% in the Free State and Northern Cape, and 8% in Gauteng (although the population has grown substantially faster in Gauteng than in the Western Cape). At the metro level, around 11% of households in Cape Town, eThekweni and Ekurhuleni, and 19% in Buffalo City, live in informal settlements. In the other metros, the figure is considerably lower.<sup>2</sup>

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<sup>1</sup> *The Quantec data do not align fully with other estimates, mostly notably for density in Alexandra. Still, they seem sufficiently reliable for a comparison of density in Cape Town and other regions. Figures from Quantec. Regional Service. RSA Standardised Regional. Interactive dataset. Accessed on 7 May 2020.*

<sup>2</sup> *Measured as self-standing informal housing, excluding backyard housing. Calculated from Statistics South Africa, General Household Survey 2018 Q2, they are still expected to be weak at 30%-40% lower than normal.*

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