

TO:

**ALL HEADS OF DEPARTMENTS, WCG/ SMS MEMBERS/ CHIEF DIRECTORATES / DIRECTORATES / REGIONAL / DISTRICT OFFICES,
SUB-STRUCTURES / ALL FACILITY MANAGERS/ CITY OF CAPE TOWN / HIGHER EDUCATION INSTITUTIONS / NPO PARTNERS/
MUNICIPAL MANAGERS**

Dear Colleagues,

THIRD WAVE RESURGENCE PLAN

The Western Cape Province has seen a resurgence in Covid-19 cases and admissions in recent days like some of our sister provinces and we may well be heading towards a fully-fledged third wave in the coming days to weeks. We have learnt important lessons from the previous waves which has informed our preparation for the third wave.

It is important that we act now to mitigate the intensity of the third wave. The Resurgence plan provides broad parameters along six domains viz.:

- (1) Change community behaviour to prevent infections
- (2) Surveillance and outbreak response
- (3) Support and maintain mass vaccination campaign
- (4) Titrate health platform COVID-19 capacity
- (5) Maintain comprehensive health services, and
- (6) Safeguard the well-being of health care workers

These are guidelines, that must be appropriately adapted to your specific context, for operational planning and implementation at a local level.

Yours sincerely



DR KEITH CLOETE

HEAD OF HEALTH: WESTERN CAPE GOVERNMENT

DATE: 04 JUNE 2021



Western Cape
Government
Health

Third Wave Resurgence Plan

Managing the COVID-19 Epidemic

June 2021

Third Wave Resurgence Plan

Managing the COVID-19 Epidemic

June 2021

Contents

LIST OF ACRONYMS	5
EXECUTIVE SUMMARY	6
BACKGROUND	7
EPIDEMIOLOGICAL PROFILE OF COVID-19 IN THE WESTERN CAPE	7
CURRENT EPIDEMIC STATUS	7
WESTERN CAPE COVID-19 EVOLUTION	8
LESSONS FROM THE FIRST WAVE	15
LESSONS FROM THE SECOND WAVE	16
A FRAMEWORK FOR ACTION: 6 POINT PLAN	17
CHANGE COMMUNITY BEHAVIOUR TO PREVENT INFECTION	18
SURVEILLANCE AND OUTBREAK RESPONSE	21
SUPPORT AND MAINTAIN MASS VACCINE CAMPAIGN	27
TITRATE HEALTH PLATFORM COVID-19 CAPACITY	29
MAINTAIN COMPREHENSIVE SERVICES	34
SAFEGUARD & PROTECT THE WELL-BEING OF HEALTH CARE WORKERS	35
CONCLUSION	38

List of acronyms

CAN	Community Action Networks
CBO	Community Based Organisations
CHW	Community Health Worker
COCT	City of Cape Town
COPD	Chronic Obstructive Pulmonary Disease
COVID-19	Coronavirus disease 2019
DEDAT	Department of Economic Development and Tourism
DOCS	Department of Community Safety
HCW	Health Care Worker
HIV	Human Immunodeficiency Virus
ICT	Information and Communication Technology
ICU	Intensive Care Unit
IPC	Infection Prevention and Control
MEC	Member of the Executive Council
MHS	Metro Health Services
NDOH	National Department of Health
NGO	Non-Governmental Organisations
NHLS	National Health Laboratory Services
NICD	National Institute for Communicable Diseases
NIOH	National Institute of Occupational Health
OHS	Occupational Health and Safety
PCR	Polymerase Chain Reaction
PHC	Primary Health Care
PPE	Personal Protective Equipment
SAPS	South African Police Service
SARS-CoV-2	Severe Acute Respiratory Syndrome Coronavirus 2
SCM	Supply Chain Management
SPV	Single Patient Viewer
STAG	Surveillance and Testing Advisory Group
TB	Tuberculosis
VTU	Virus Testing Units
WCG	Western Cape Government
WHO	World Health Organisation

Executive Summary

The province has been through two previous Covid-19 waves and has learnt many lessons, which have been distilled through deliberate reflective conversations. This has served us well and helped to better prepare for the next wave.

The Department has been closely monitoring the Covid-19 cases, admissions and deaths and has seen a sustained increase in recent days which meets the technical criteria of resurgence. If this pattern continues and we see an increase that is greater than 30% of the previous wave, a third wave will be formally declared. More importantly, we have to act with urgency now to ensure that adherence to social public health measures like wearing of masks, hand washing or sanitization, social distancing, restricting the size of gatherings, ensuring good ventilation. This requires a whole of society approach and each one of us to commit to.

The Department has developed a six - point plan to address the third wave. This includes:

- (1) Change community behaviour to prevent infections
- (2) Surveillance and outbreak response
- (3) Support and maintain mass vaccination campaign
- (4) Titrate health platform COVID-19 capacity
- (5) Maintain comprehensive health services, and
- (6) Safeguard the well-being of health care workers

This third wave resurgence plan is a dynamic and deeply collaborative effort in order to consolidate our preparedness as a province. The health system's response requires agility and adaptiveness and needs to be data led and evidence informed in all aspects from communication through to COVID-19 health platform titration. Triggers have been suggested to titrate the health system response. Local management teams can and should adjust their response, aligned to the strategies outlined above, and in accordance with their local context to ensure relevance, appropriateness and an adequate response to a potential COVID-19 third wave.

Background

The first case of COVID-19 in the Western Cape Province, South Africa was reported on 11 March 2020. This was followed by a gradual increase in cases and a transition from initially imported cases to sustained community transmission. On a national level, the country has been in State of Disaster since the 27th March 2020, having transitioned between various alert levels depending on the course of the pandemic. By May 2021, the province had experienced two established COVID-19 waves and is now in full preparation for a potential third wave. This document will outline the consolidated strategic resurgence plan for the potential third wave of COVID-19.

Epidemiological Profile of COVID-19 in the Western Cape

Current Epidemic Status

Table 1: Summary of Current Epidemic Status in the Western Cape (as at 20 May 2021)

Key COVID-19 Indicator	Total No.
Confirmed COVID-19 infections	290,872
Individuals infected with COVID-19	287,784
Reinfections	3,088
Tests Done (PCR and Antigen)	1,596,986
COVID-19 related deaths	11,734

As of the 20th May 2021, there have been 290,872 confirmed COVID-19 infections in 287,874 individuals diagnosed in the Western Cape. These infections include 3,088 reinfections (defined as ≥ 90 days between positive SARS-CoV-2 tests, with or without a negative test in between). This comes from a total of 1,596,986 tests that have been conducted in the Western Cape across both the public and private sectors. This includes polymerase chain reaction (PCR) and point-of-care antigen testing.

The Western Cape has also sadly reported 11,734 deaths due to COVID-19 as of the 20th May 2021. These deaths are confirmed via numerous sources and predominantly include deaths in public and private sector hospitals. Deaths confirmed via case and contact tracing are also included in this total. Since mid-March 2021, deceased individuals identified via the National Population Register with a confirmed COVID-19 test conducted in the province are also included. Deaths are reported as due to COVID-19 if it occurred within 28 days of diagnosis, or within 14 days of discharge where individuals were admitted, with no documented non-COVID-19 cause of death. The South Africa Medical Research Council (SA-MRC) have been reporting on excess mortality (due to natural causes of death), and for the Western Cape have reported 16,517 excess deaths between 3 May 2020 and 15 May 2021¹. The SA-MRC estimates that 85-95% of excess natural deaths can be attributed to COVID-19, although this does differ per province². A comparison of the reported COVID-19 deaths and excess natural deaths for the Western Cape can be seen in figure 1.

¹ <https://www.samrc.ac.za/reports/report-weekly-deaths-south-africa>

² <https://www.samrc.ac.za/sites/default/files/files/2021-03-03/CorrelationExcessDeaths.pdf>

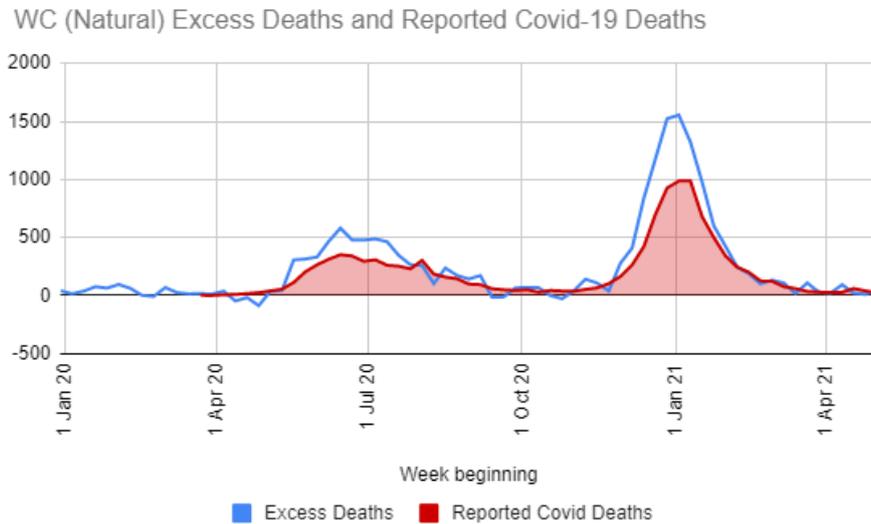


Figure 1 Western Cape excess mortality (SA-MRC) through to 1 May 2021

Western Cape COVID-19 Evolution

Figure 2 details several metrics used to track the COVID-19 epidemic in the province. The graph clearly shows two waves for all metrics to date. The wave periods as experienced in the province are detailed in table 2.

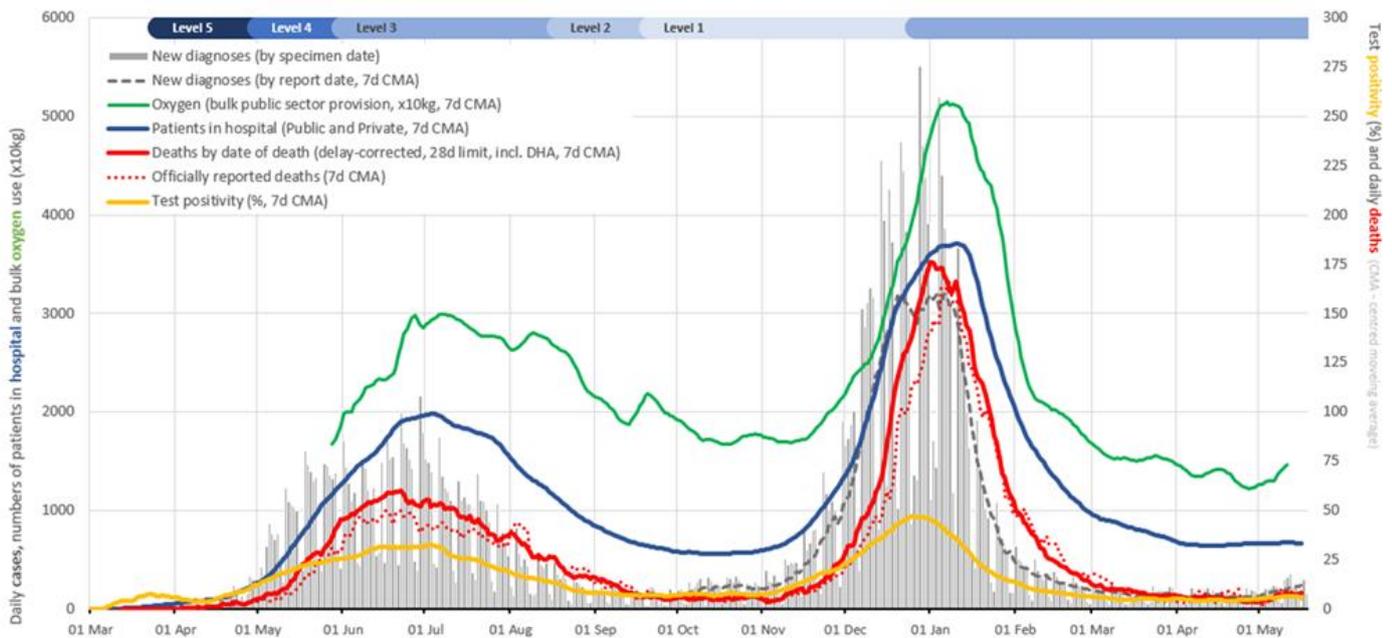


Figure 2 Western Cape COVID-19 Epidemic (to 20 May 2021)

Table 2 Western Cape COVID-19 estimated wave periods

Wave	Time period
Early wave 1	10 March 2020 – 31 May 2020
Late wave 1	1 June 2020 – 31 August 2020
Inter-wave (1)	1 September 2020 – 15 October 2020
Wave 2	16 October 2020 – 28 February 2021
Inter-wave (2)	1 March 2021 – present

In terms of test positivity (i.e. the number of cases diagnosed by the number of tests conducted on any given day) the first wave peak saw proportions as high as ~ 40% (mid-June 2020). In comparison at the peak of the second wave the positive proportion nearly breached 50% (end-December 2020) before the country moved to an adjusted alert level 3.

It is important to note that the severity of the second wave was greater than the first and South Africa subsequently only moved back down to an adjusted alert level 1 in March 2021.

Districts

When reviewing the six districts in the province there is considerable variation in epidemic curves noted (Figures 3 and 4). In terms of rural Western Cape districts, they all experienced a more severe second wave compared to their first wave. The timing of the start of each wave was found to be staggered per district. Garden Route district saw an increase in cases at the beginning of October 2020 whereas the increase in the Cape Winelands district only started in November 2020.

Looking to the Cape Metro district cases started increasing from mid-October for the second wave, with a sustained increase from the start of November 2020. Khayelitsha is the one metro subdistrict that had a more severe first wave compared to their second wave, possibly due to protection conferred by greater seroprevalence in the community by the end of the first wave. In the metro it is also notable that private sector testing is higher in wealthier subdistricts viz. Northern, Southern and Western, particularly for wave 2. However, individuals may test in private yet still receive care in the public sector, including hospital admission.

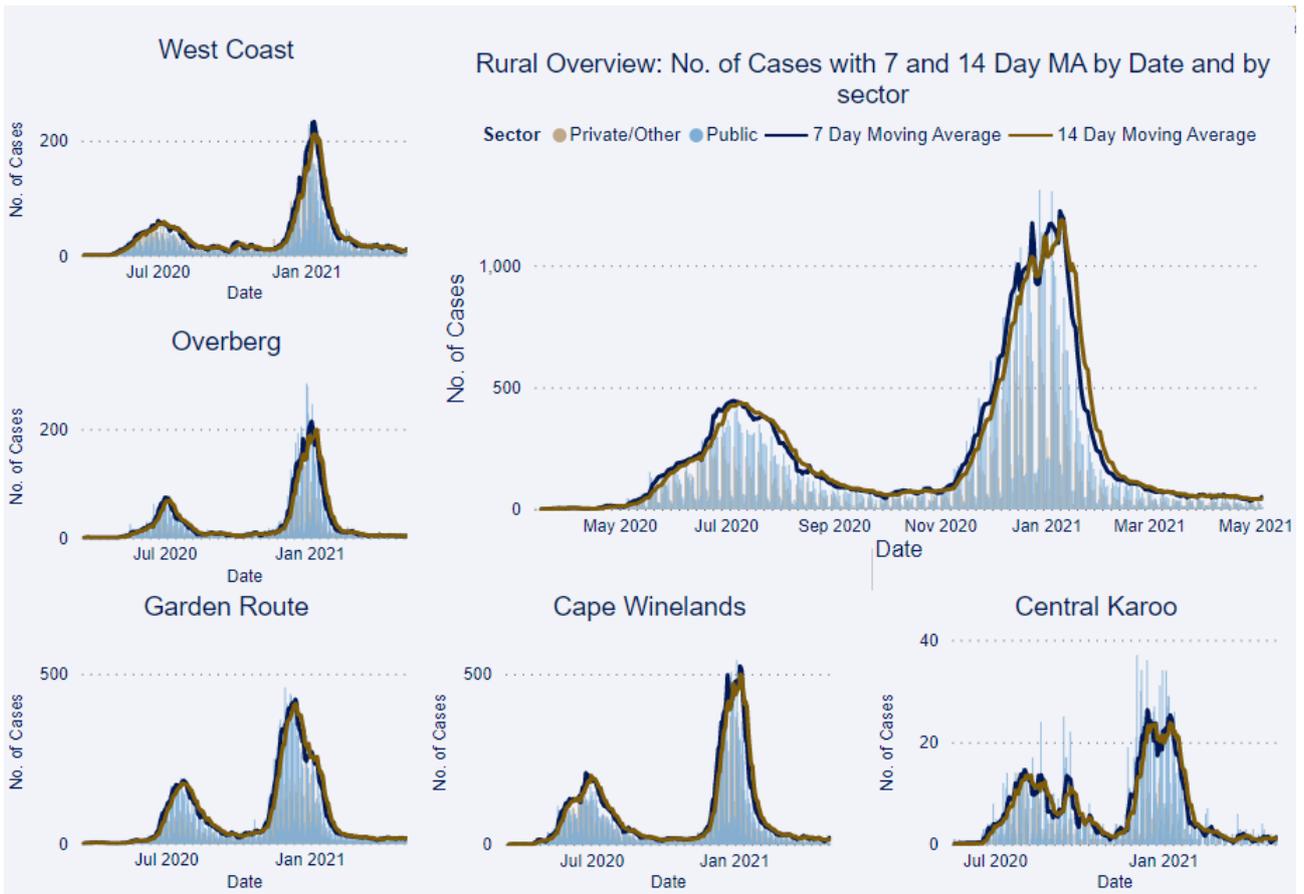


Figure 3 Rural districts COVID-19 cases 7- and 14-day moving averages

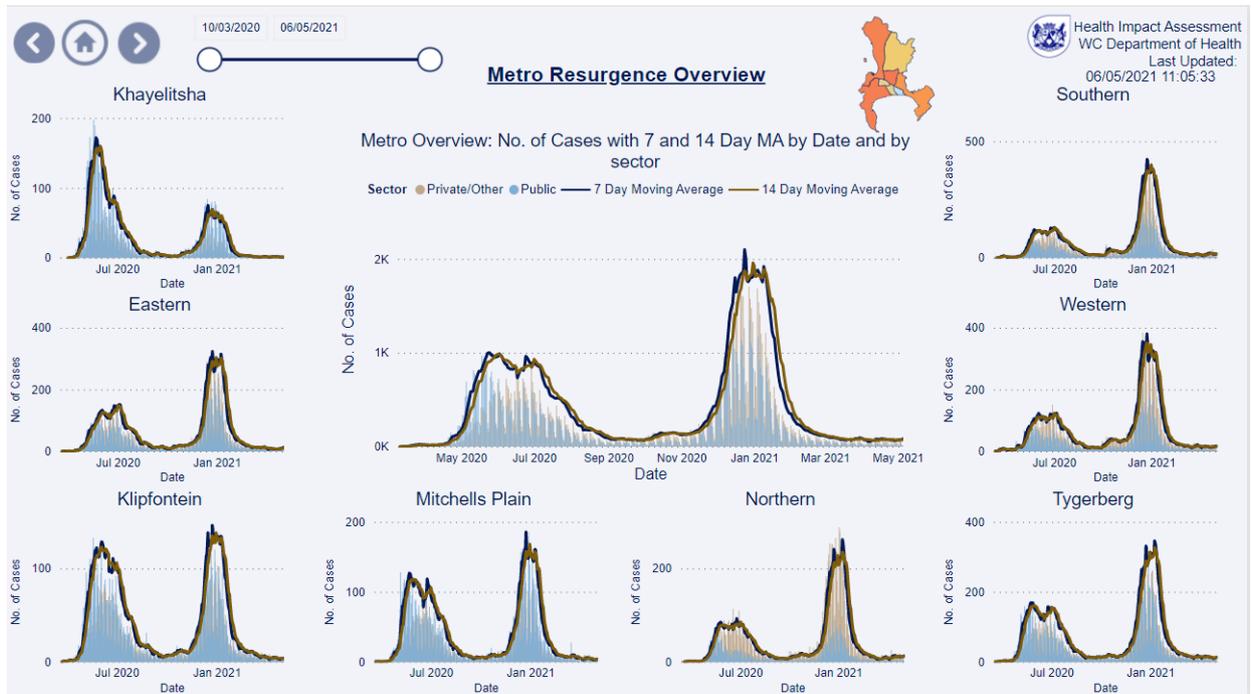


Figure 4 Cape Metro subdistricts COVID-19 cases 7- and 14-day moving averages

Hospitalisations

Hospitalisation and deaths due to COVID-19 are considered lagging indicators for tracking the epidemic. In figure 2 this is clear when comparing cases (grey bars, diagnoses by test date) to hospitalisation (blue line) and deaths (red line(s)). Both the metro and rural experienced notable increases in the hospitalisations with the second wave compared to the first wave. Rural districts, specifically Garden Route, saw an increase in hospitalisation before the Metro with wave 2. The second wave of COVID-19 was largely driven by the variant N501Y.V2 (B.1.351) first identified in the Eastern Cape in October 2020. Garden Route district borders the Eastern Cape with much travel between the two provinces and it is speculated that this is the reason they experienced the start of wave 2 a few weeks before cases started increasing across the rest of the province.

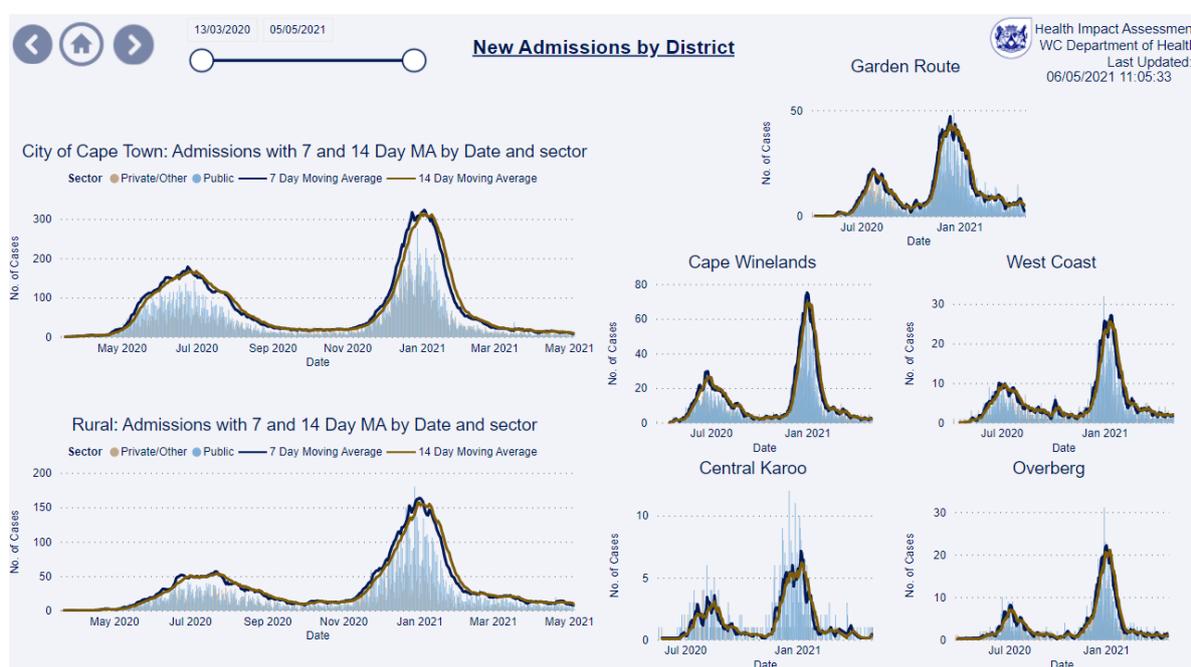


Figure 5 Western Cape hospitalisation due to COVID-19 (7- and 14-day moving averages)

Healthcare workers

Healthcare worker infections follow a similar pattern to the epidemic experienced in the Western Cape. More healthcare workers were infected during the second wave compared to the first. It is important to note that not all healthcare worker infections are acquired in the workplace, and many may be acquired in communities due to widespread community transmission. Identifying the point of exposure is difficult, particularly in the context of community transmission. Where workplaces were identified as the most likely source of infection it was potentially in communal breakrooms as opposed to working environments, like wards, where everyone tends to be more vigilant.

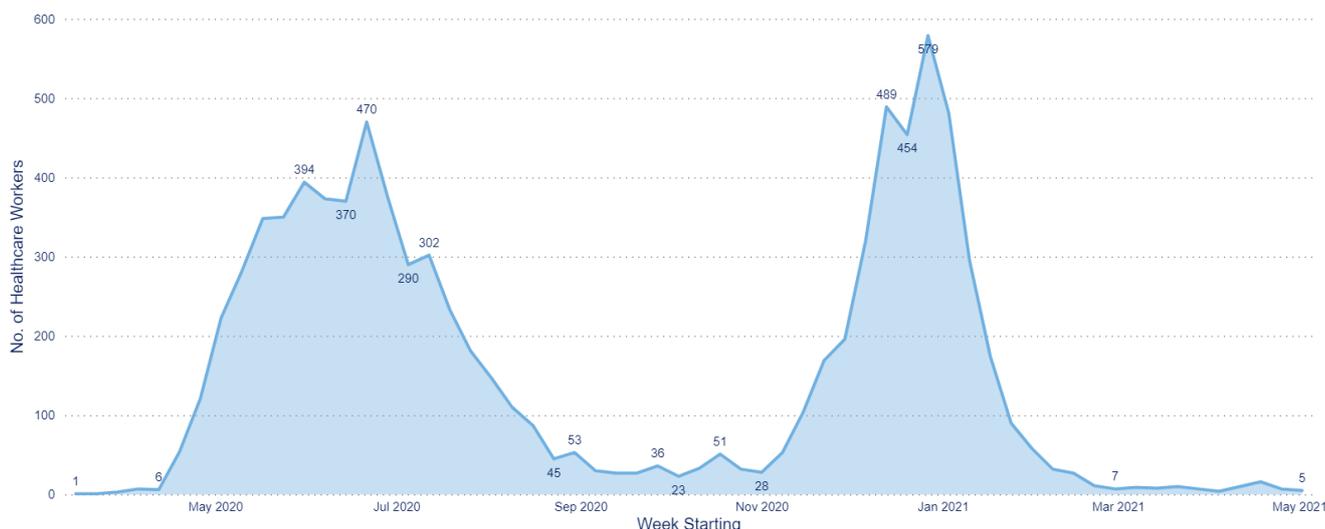


Figure 6 Healthcare worker infections by week in the Western Cape (through to 6 May 2021)

Vaccines against SARS-CoV-2 infection (COVID-19) became available globally, with many countries authorising emergency use via the relevant oversight organisations. In South Africa, the Oxford/AstraZeneca vaccine was planned for rollout, but its efficacy was inadequate against the 501Y.V2 variant.¹ Via emergency use and a Phase 3b open label clinical trial conducted by the South African Medical Research Council (Sisonke), the Johnson & Johnson Janssen vaccine was made available to healthcare workers across the country. Roll out started in February 2021², followed by an interim pause before restarting on the 28 April 2021³. By the 20th May 2021, phase 1 vaccination of health workers is being completed and vaccination of individuals 60 years and older has just commenced using the Pfizer vaccine.

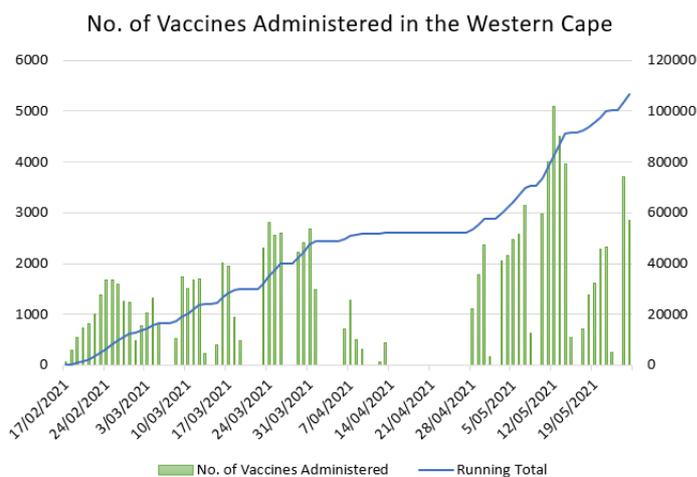


Figure 7 No. of Vaccines Administered in the Western Cape

Seroprevalence

We conducted sentinel surveillance at the end of the first wave using a convenience sample of residual specimens from diabetics undergoing glycosylated haemoglobin tests (HbA1c) assumed to be attending

¹ Madhi SA, Baillie V, Cutland C. et al. Efficacy of the ChAdOx1 nCoV-19 Covid-19 Vaccine against the B.1.351 Variant. N Engl J Med. 2021; 384(20):1885-1898. doi: 10.1056/NEJMoa2102214.

² <https://www.samrc.ac.za/media-release/south-africa-commences-early-access-vaccine-rollout-healthcare-workers-sonke>

³ <https://www.samrc.ac.za/media-release/sonke-phase-3-b-study-resumes-wednesday-28-april-2021>

health services for non-COVID-19 reasons. Across districts, seroprevalence ranged from 4% in Central Karoo to 28% in the Cape Town Metro, although the number of specimens tested from some rural districts was very low. Within the Cape Town Metro, seroprevalence ranged widely across subdistricts from 17% in Southern to 49% in Khayelitsha, with high seroprevalence strongly correlated with lower socio-economic status. Seroprevalence also correlated well with the standardized mortality rate by the end of wave 1 and was inversely correlated with the ratio of wave 2 to wave 1 deaths, suggesting that subdistricts with high seroprevalence due to a severe first wave were relatively protected in wave 2 (Figure 8).

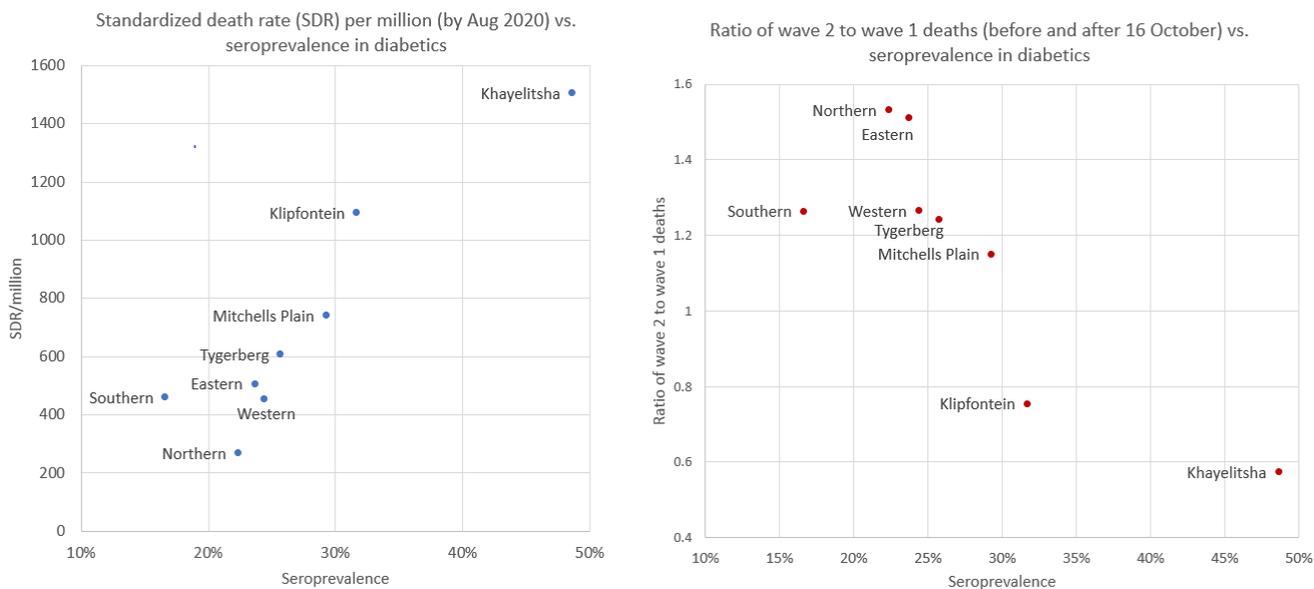


Figure 8 Correlation between subdistrict SARS-CoV-2 seroprevalence at the end of wave 1 and standardized death rate (left panel) and inverse correlation of subdistrict SARS-CoV-2 seroprevalence with the ratio of wave to wave 2 deaths.

The sentinel surveillance was repeated at the end of wave 2 and large increases in seroprevalence were noted across all districts, ranging from 33% in West Coast to 47% in the Cape Town Metro. Within the Cape Town Metro there was also substantial variation across subdistricts, ranging from 37% in Southern to 68% in Khayelitsha, with all subdistricts experiencing an absolute increase in seroprevalence of >20% during the 2nd wave. Private sector seroprevalence was considerably lower at 26%. These data suggest that certain rural districts and the private sector may be especially vulnerable to a 3rd wave. Seroprevalence was consistently lower in older vs. younger adults, supporting the prioritization of those >60 years for early vaccination (Figure 9).

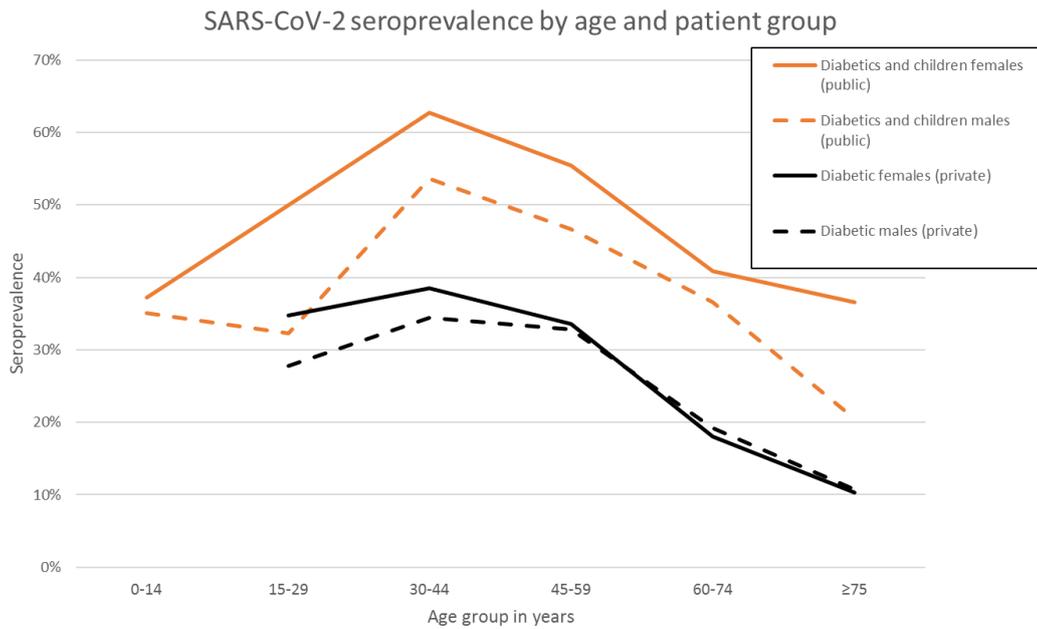


Figure 9 SARS-CoV-2 seroprevalence at the end of wave 2 by age group from testing of convenience samples children, public sector and private sector diabetic patients

Resurgence and expectations for a third wave

The SA COVID-19 modelling consortium has predicted that, in the absence of emergence or introduction of a new COVID-19 variant, the Western Cape can expect that the intensity of the third wave will be less severe than the second wave, but similar to or worse than the 1st wave.⁴ While the expected timing of a 3rd wave remains uncertain, the Western Cape could enter a 3rd wave during June if the current increasing trajectory of cases continues. Importantly, the health service burden of the 3rd wave in terms of admissions and mortality can be substantially reduced by a fast, early and strong NPI response to early resurgence metrics (Figure 9).

⁴ <https://www.nicd.ac.za/wp-content/uploads/2021/05/SACMC-Third-wave-report-290421.pdf>

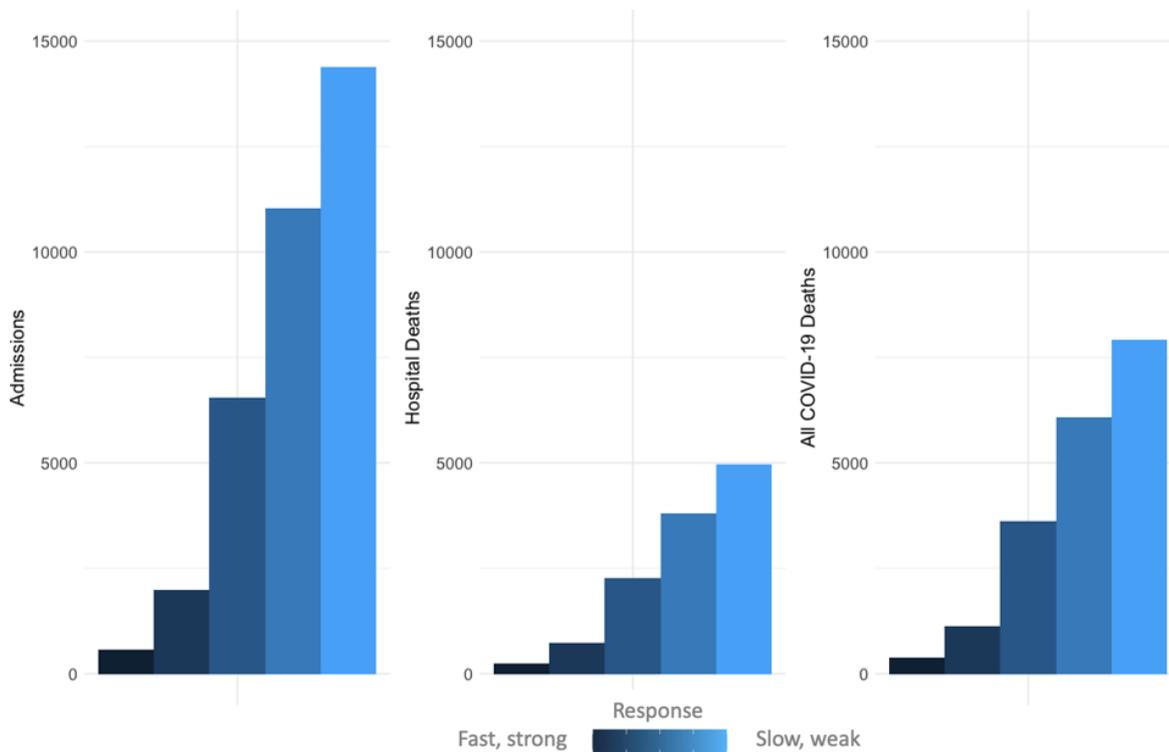


Figure 9 Expected number of COVID-19 admissions, hospital deaths and all deaths in a Western Cape 3rd wave of COVID-19 depending on the magnitude and speed of response to early signs of resurgence as per models developed by the SA COVID-19 Modelling Consortium

Lessons from the first wave

A series of reviews were conducted between August and September 2020 to surface lessons learnt from the first wave of the epidemic. Some of the most notable lessons include:

- A strong theme of stewardship and leadership emerged with clear reflection of a sense of shared and collective purpose. This was critical to help catalyse action across the system.
- Staff were, and still are, the central pillar of the epidemic response often having to take on much more duties than their usual job description within routine health service delivery.
- Data had become the lifeblood of the health system response and the value of a focus on data to lead departmental and provincial level decision-making were key to guiding an informed and appropriately titrated response. This coupled with innovations in ICT, which includes the COVID-19 and PPE dashboards, leveraged data not only for management decisions but even directly for individual behaviour and citizen transparency and accountability.
- Early planning in infrastructure led to various innovations and rapid turnaround times in setting up virus testing units (VTU's), field hospitals and preparing existing facilities for the epidemic.
- A strong working relationship between Supply Chain Management (SCM) and Infrastructure helped to fast-track procurement usually processed through Department of Public Works, in preparation for

the epidemic surge. This was further supported by multiple flexible governance structures allowing for cross departmental collaboration to flourish.

- Local research and global partnerships between clinicians led to rapid learning in how best to manage COVID-19 patients and this was supported within an agile, adaptive and responsive health system.
- The rapid development of policies was identified as an enabling factor to guide staff during unprecedented times, but this needs to be streamlined as not to overwhelm local managers.

Areas for growth included:

- Stakeholder management, particularly the provincial/national interface, private sector collaboration and community engagement.
- Inadequate epidemic preparedness for an infectious disease outbreak was a challenge.
- In addition, Infection and Prevention Control (IPC) and Occupational Health and Safety (OHS) were identified as areas requiring urgent attention and strengthening.

Lessons from the second wave

The speed and severity of the second wave demanded a rapid response and considerable agility in order to adequately sustain the service delivery platform to mitigate against the number of hospitalizations, the need for oxygen and the sheer volume of COVID-19 deaths. As a result, and after having come down the second wave several lessons have emerged as follows:

- An important consideration was to not re-escalate routine health services too rapidly after a wave. The first wave of COVID-19 had a significant impact on the provision of TB and HIV care, immunizations and other routine primary and acute care services. As a result, after coming off the first wave we quickly scaled up these services again. Unfortunately, when the second wave hit, we had to then de-escalate our primary and acute care services rapidly. A titrated pre-emptive approach would have allowed for a more coordinated response.
- Intermediate Care Capacity is a vital means of managing and maintaining a surge capacity to down-refer stable COVID-19 cases from acute care hospitals. Therefore, this resource needs to be protected and sustained in anticipation for the third wave.
- The second wave further highlighted the impact of alcohol-related trauma and injury on service capacity and provision. This was managed with national policy just prior to the peak of the second wave and has been increasing with relaxation of regulation.
- Our healthcare workers experienced significant trauma in terms of colleagues being affected by and dying from COVID-19 as well as the sheer volume of COVID-19 patients that required management

- during the peak of the second wave. We need to ensure that we use the post-wave period to heal our staff and allow adequate leave to be taken by all staff in order to recover from the second wave.
- An important strength was the ability to titrate our response with evidence informed and data led intelligence. This assisted in managing oxygen provision, bed capacity, and testing capacity.
 - The role of Emergency Medical Services (EMS) in ensuring equitable distribution of COVID-19 patients was also highlighted.
 - Last, the adoption of antigen testing and widespread use of steroids also further supported service provision and will likely continue to support our response moving forward.

The epidemic has taught us that rapid change is reliant on being network centric, human centred, tech savvy and agile if we are to get a broad range of stakeholders to act collectively in the face of adversity (figure 10). There is a clear need to continue to build a health system that is agile in its response to emergent needs by being able to ‘innovate and learn’ (dynamic efficiency); ‘mobilise a broad range of stakeholders’ to act in the best interest of the health and wellbeing of the people (govern for health); ‘make the right choices’ about what to do (allocative efficiency) and then ‘doing it well’ (technical efficiency).

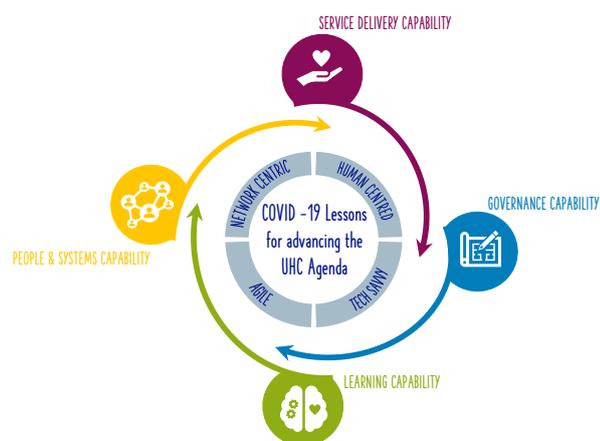


Figure 10: Catalysts for change

A framework for action: 6 Point Plan

A 6-point COVID-19 Third Wave Resurgence Strategy (Figure 11) has been developed to guide service delivery in the province, which includes:

- (1) Change community behaviour to prevent infections
- (2) Surveillance and outbreak response
- (3) Support and maintain mass vaccination campaign
- (4) Titrate health platform COVID-19 capacity
- (5) Maintain comprehensive health services, and
- (6) Safeguard the well-being of health care workers



Figure 11: 6-Point COVID-19 Resurgence Strategy

1 Change community behaviour to prevent infection

The principal mode by which people become infected with COVID-19 is through exposure to respiratory droplets carrying the infectious virus. These droplets are produced during exhalation (e.g., breathing, speaking, singing, coughing, sneezing). Available data indicate that COVID-19 is transmitted much like most other respiratory viruses, through respiratory droplets at short range, usually less than 2 meters. It is more infectious than influenza but less infectious than measles. Airborne transmission of COVID-19 occurs in overcrowded, enclosed spaces, with little or no ventilation, where there is prolonged exposure to respiratory particles, most likely in high density housing, social gatherings and places of employment.

Social Marketing

Minimising the likelihood of transmission means being mindful about who we share our ‘air space’ with, keeping our distance, ventilation, and mask wearing. A strong social marketing strategy that promotes and enables these personal protective behaviours is paramount to containing the epidemic. Messaging needs to be context sensitive and nuanced for local epidemic scenarios to support and enable safer choices. This is achieved by a combination of mass media and more localized mediums, with a focus on public area activations, public transport messages and youth focused social media campaigns.

The three Cs, **crowded** places, **close** contact settings and **confined** enclosed spaces, are indicators of likely super spreader situations and central to the Department’s ‘making safer choices’ campaign, particularly as we enter the winter season (Figure 12). Agility remains a key feature of the communications response to ensure rapid flow of information to close the gap in order to contain local outbreaks. This agility is enabled by maintaining strong links with health teams, local government enforcement agencies and other relevant partners.

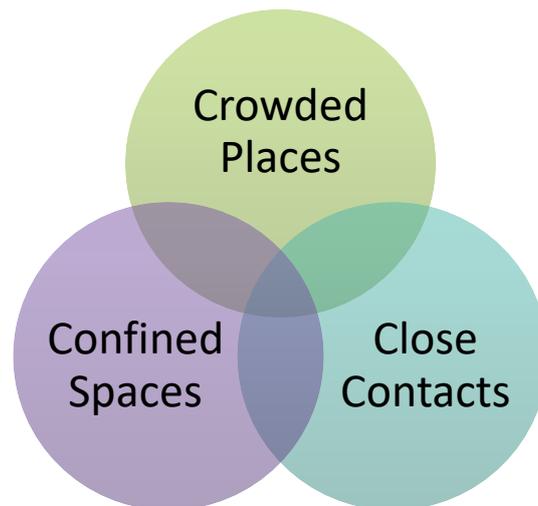


Figure 12 The three C's as indicators for super spreader events

The following specific target audiences have been identified:

- The sector which makes use of public transport (to this end there has been focused messaging around public transport routes of both taxis and bus travel as well as general outdoor media);
- The sector of young adults between 18 and 30 (to this end there has been a particular focus on visual messages for social media to nudge younger adults to consider “safer socializing” choices);
- Emphasis on economic activity sectors posing a specific risk: such as bars, restaurants. (to this end a series of visual messages were developed for use by DEDAT);
- Weekly media reporting, giving direct feedback to local communities, noting positive and negative behaviour and trends in risky behaviour; and
- Direct engagement of key stakeholders (Clinic committees and Facility Boards)

Vaccines remain the cornerstone of controlling the epidemic. Social marketing will, therefore, also play a fundamental role in fighting the narrative that drives vaccine hesitancy and support the process of registration through to vaccination.

Legislation and Policy

The behaviour change strategy will also require a strong element of regulation and enforcement, which will be co-ordinated via the Joint Operation Centres (JOCs), located in the Provincial and District Disaster Management Centres. The JOCs will co-ordinate the deployment of law enforcement agencies and environmental health practitioners, in a targeted manner in geographic areas with increasing transmission rates, to enforce responsible behaviour.

Advisories to policies within the context of the national Disaster Management Act offer some of the most effective means of mitigating against the severity of another COVID-19 wave. The goal of advisories when there are early signs that a new wave might be beginning is containment to reduce transmission and prevent moving to a new wave or reduce the size of the peak of the wave.

An early warning system (with pre-defined triggers and responses) will allow for:

- a) Transparent communication and planning enabling public understanding and trust e.g. the resurgence monitor on the Western Cape COVID-19 dashboard.
- b) Staged, incremental, dynamic interventions to slow down the increase of infections (flatten the curve) that may ultimately overwhelm the healthcare system.
- c) Reinforcement of community interventions to strengthen response.

Restrictive measures have 2 main purposes:

- a) During the **early phase of a COVID-19 wave, restrictions aim to limit transmission, ensure NPI adherence and contain COVID-19** to reduce the speed at which new infections occur (flatten the curve) and prevent the health service being overwhelmed. Examples of such measures are restrictions on gatherings and travel.
- b) Once there is a **threat of health services being overwhelmed, restrictive measures aim to mitigate the impact of the COVID-19 wave on health services, and free up hospital capacity to treat COVID-19 patients by reducing the non-COVID-19 burden.** This is the major purpose of measures such as curfews and alcohol sales restrictions. Trauma (interpersonal violence and road traffic injuries) contributes substantially to the Western Cape healthcare burden, frequently occurs at night and is often alcohol-related. While these restrictions also limit COVID-19 transmission by limiting the time to congregate socially in larger numbers and to consume alcohol in groups with consequent reduced adherence to NPIs, their main purpose is to reduce non-COVID-19 health service burden. Their introduction should therefore be based on concerns about health service capacity and not only on COVID-19 surveillance metrics.

Previous restrictive measures have had severe negative impacts on the economy, education, mental health and social wellbeing, and it is important to balance lives and livelihoods. However, limited early containment measures to reduce COVID-19 transmission and flatten the curve may obviate the need for

subsequent more extreme mitigation measures to reduce health service demand at the peak of a severe COVID-19 wave, such as curfews and alcohol bans, and thus limit consequent damage on the economy.

Increasing vaccine coverage is our best means of decreasing the risk of overwhelming our health system for the current and subsequent COVID-19 waves, and thus reducing the need for future restrictions to prevent COVID-19 transmission. Ensuring that the vaccine rollout is not compromised during a 3rd COVID-19 wave is thus essential for allowing future restrictions to be more flexible and lenient and limiting long term economic and social damage.

2 Surveillance and Outbreak Response

Surveillance

A key underlying principle of the approach to COVID-19 surveillance and outbreak response is to ***use, adapt and strengthen existing surveillance and data systems, and build surveillance capacity in the long-term.***

Surveillance enables a better understanding of infection risk and likelihood of a resurgence by conducting zero-prevalence or zero-epidemiology surveys. The key objectives of surveillance for COVID-19 includes:

- Enabling rapid detection, isolation, testing, and management of cases.
- Guiding implementation and adjustment of targeted control measures, while enabling safe resumption of economic and social activities.
- Detecting and containing outbreaks among vulnerable populations. (Note: this could include settings with people at high risk of severe COVID-19 outcomes or closed/semi-closed setting with high risk of transmission such as long-term care facilities, prisons, health facilities, workplaces and schools.)
- Evaluating the impact of the pandemic on health-care systems and society.
- Monitoring longer term epidemiologic trends and evolution of the COVID-19 pandemic.
- Contributing to the understanding of the co-circulation of SARS-CoV-2 virus, influenza and other respiratory viruses, and other pathogens.

Different surveillance approaches are used for different purposes and their usefulness will vary at different stages in an epidemic. The following approaches are considered:

- Case-based surveillance including surveillance of:
 - Confirmed COVID-19 cases, hospital admissions, COVID-19 deaths

- Likely COVID-19 related episodes e.g. surveillance of all excess natural-cause deaths, data from symptom-screening tools/apps
- Sentinel and population-based seroprevalence surveillance to understand the burden of previous infections in different communities and the extent of possible immunity and hence risk of subsequent COVID-19 waves in different groups.
- Molecular surveillance of viruses causing infection by time and place to track evolution of the virus, identify variants driving transmission and investigate cluster outbreaks and vaccine breakthrough infections.
- Environmental surveillance to identify areas where SARS-CoV-2 infections are present

These approaches can be applied at the level of a population or to particular groups or settings either at high risk of transmission or high risk of poor outcomes, such as long-term care facilities, prisons, health facilities, workplaces and schools.

[An Intelligence System](#)

The Provincial Health Data Centre (PHDC) integrates data from multiple sources and can generate a range of real-time reports down to suburb level, with automated analytics. The Western Cape Public Dashboard, a product of the PHDC, provides comprehensive information to the public, that is updated daily. An internal dashboard has also been created, which provides information on testing, infection rates, hospitalisations, and deaths. This information enables the identification of trends in transmission and the pinpointing of geographical hotspots. This enables a data led ongoing titration of the health system response both provincially and locally in keeping with emerging patterns of transmission.

[Surveillance indicators for response](#)

The Epidemiology and Surveillance team have explored and unpacked various indicators to guide response to the third wave. The following warning indicators (Table 3) will be used in the interest of being able to easily assess and respond to increasing COVID-19 transmission. Meeting any of the resurgence criteria for each warning level is sufficient for that warning to commence. However, many of the first and second warning indicators are based on case numbers only, which can be influenced by testing and laboratory reporting patterns. It is therefore important that these are carefully verified before any restrictions are considered, and that there is early confirmation of an increase from another source (e.g. admission data/oxygen use) as well.

Table 3 Indicators of increasing COVID-19 transmission and expected increase in service demand and recommended actions

Indicator	Resurgence Metric	Recommended action
<p>First warning indicator. Increase in health service demand expected in 14-21 days.</p>	<ul style="list-style-type: none"> • Large week-on-week increase in the incidence of cases (increase in 7day moving average for ≥ 1 week of $\geq 20\%$) and moderate case numbers (200-300 new cases/day) <p>OR</p> <ul style="list-style-type: none"> • Moderate week-on-week increase in the incidence of cases (increase for ≥ 1 week of $\geq 10\%$) when case numbers already high (>300 new cases per day) <p>OR</p> <ul style="list-style-type: none"> • Facility-based test positivity $>15\%$ • Overall 7 day moving average of test positivity $>7\%$ for >1 week • $>15\%$ of hospitals have $>10\%$ of beds occupied by COVID-19 patients • $>50\%$ increase in pre-COVID-19 baseline of oxygen consumption by hospitals (>18.3 tons per day) for ≥ 3 days 	<ul style="list-style-type: none"> • Strong public messaging about increasing cases and the need for stricter NPI adherence, including customised messages for local areas/suburbs on local case numbers. • Publish ceilings of second warning indicators with restriction expectations if breached. • Increase testing capacity, isolation of positive cases, contact tracing. • Notification of mobilization of resources needed to support a substantial surge: <ul style="list-style-type: none"> ○ Expand acute hospital general COVID-19 beds by 30% of maximum wave 2 peak beds (to 545 beds) by decreasing non-urgent OPD visits. ○ Expand acute hospital critical care COVID-19 beds to 30% of maximum wave 2 peak beds (to 37 beds) by decreasing elective surgery to 80% of usual capacity. ○ Expand intermediate beds to 50% capacity (250 beds). ○ Ensure equitable spread of patients across hospitals: temporarily shift referral paths diverting acutely ill patients away from hospitals with $>10\%$ of COVID-19 patients to those with $<10\%$ COVID-19 patients. ○ Utilise private sector EMS transport as required. ○ Further increase each type of COVID-19 beds (acute, critical, intermediate) if bed occupancy of designated COVID-19 beds increases beyond 80% for 3 days in a row. ○ Alert oxygen production company about need to increase supply and transport. ○ Refill oxygen tanks every second day. • Increase rate of vaccination of health workers and the general population, if possible. • Targeted sequencing of virus from areas driving increases in case incidence. • Recommend restrictions: gatherings, curfew, travel (see below).

Table 3 Indicators of increasing COVID-19 transmission and expected increase in service demand and recommended actions

Indicator	Resurgence Metric	Recommended action
<p>Second warning indicator. Increase in health service demand expected in 7-14 days.</p>	<ul style="list-style-type: none"> • Overall test positivity (7 day moving average) >15% • 7 day moving average of new cases is >10% more than the 40-day moving average of new cases for ≥ 14 consecutive days if the 40 day moving average is > 10 new cases/week/100,000 (100 new cases per day) • Testing numbers approach 80% of maximum capacity • Testing Turnaround time (TAT) is >24 hours for urgent cases (those requiring hospitalisation) and >48 hours for non-urgent cases for 2 consecutive days in conjunction with increased new cases and test positivity >5% • >40% of hospitals have >10% of beds occupied by COVID-19 patients • >15% week-on-week increase in 7 day moving average of current admissions • >75% increase in pre-COVID-19 baseline of oxygen consumption by hospitals (>21.4 tons per day) for ≥3 days 	<ul style="list-style-type: none"> • Strong public messaging about increasing cases and the need for stricter NPI adherence. Expand customised local messages to affected suburbs/areas. • Publish ceilings of third warning indicators with restriction expectations if breached. • Limiting testing numbers via stricter testing criteria. • Mobilization of resources needed to support a substantial surge within 7 to 14 days: <ul style="list-style-type: none"> ○ Expand acute hospital general COVID-19 beds to 60% of maximum wave 2 peak beds (to 1090 beds) by further decreasing non-urgent OPD visits. ○ Expand acute hospital critical care COVID-19 beds to 60% of maximum wave 2 peak beds (to 75 beds) by decreasing elective surgery to 70% of usual capacity. ○ Expand intermediate beds to 100% capacity (500 beds). ○ Ensure equitable spread of patients across hospitals: temporarily shift referral paths diverting acutely ill patients away from hospitals with >10% of COVID-19 patients to those with <10% COVID-19 patients. ○ Utilise private sector EMS transport as required. ○ Further increase each type of COVID-19 beds (acute, critical, intermediate) if bed occupancy of designated COVID-19 beds increases beyond 80% for 3 days in a row. ○ Alert oxygen production company about need to maximise supply and transport. ○ Refill oxygen tanks daily. • Continue to increase rate of vaccination and conducted targeted sequencing of virus as above. • Recommend further restrictions: gatherings, curfew, travel (see below).
<p>Third warning indicator. Increase in health service</p>	<ul style="list-style-type: none"> • <i>See “4: Titrate health platform COVID capacity” below for details</i> 	<ul style="list-style-type: none"> • <i>See “4: Titrate health platform COVID-19 capacity” below for details</i>

Table 3 Indicators of increasing COVID-19 transmission and expected increase in service demand and recommended actions

Indicator	Resurgence Metric	Recommended action
demand expected in 2-7 days.		
Health service capacity close to overwhelmed	<ul style="list-style-type: none"> See "4: Titrate health platform COVID-19 capacity" below for details 	<ul style="list-style-type: none"> See "4: Titrate health platform COVID-19 capacity" below for details

Contact Tracing

Contact tracing involves identifying possible contacts of a known positive case and letting people know they have been exposed to the virus and what they should do to protect themselves and minimize the risks of exposing others to the virus. It enables the Department to be in regular contact with those who are in self-isolation and quarantine, providing advice and assistance to access the necessary care. Contact tracing is an essential part of any outbreak response and is particularly effective in the sporadic and cluster case scenarios of an epidemic, see figure 13 which illustrates the Department’s contact tracing process.

Sub-district teams play a central role, providing support on the ground and interventions that enable self-management, which includes connecting people to health and social care resources as needed. The provincial call centre has been identified as a key component of ensuring adequate additional capacity for contract tracing.

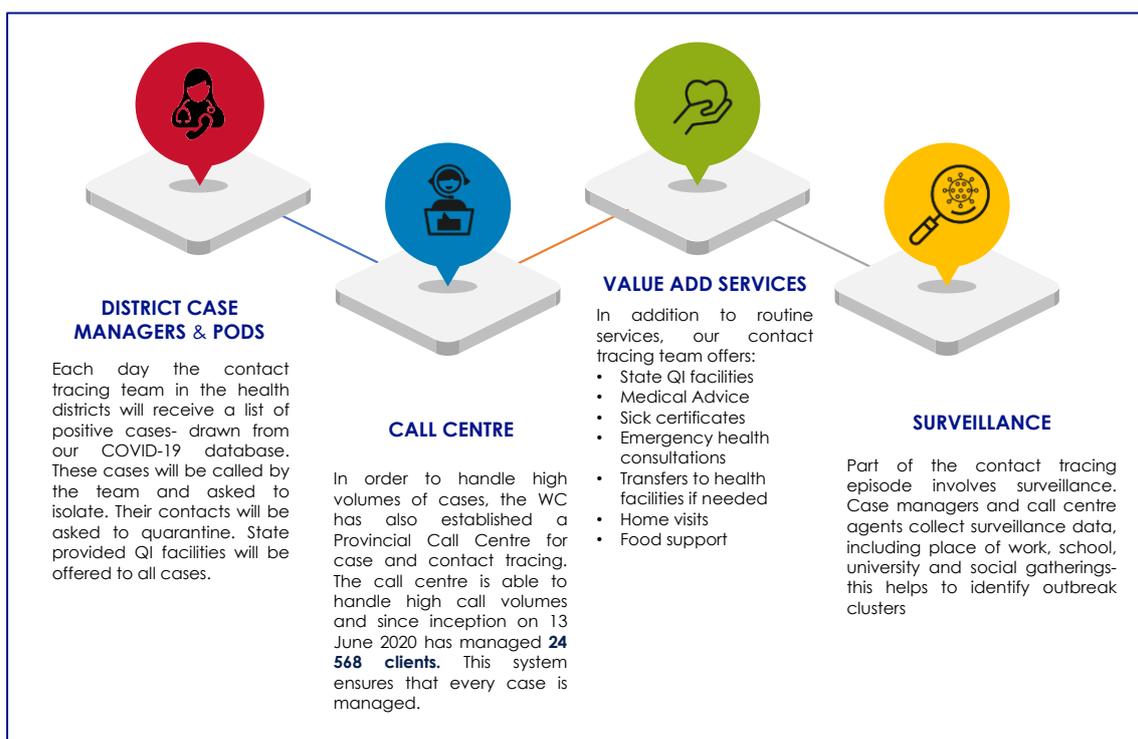


Figure 13: The contact tracing process

Testing

The current available testing capacity for COVID-19 diagnostic purposes continues to be maintained at approximately 30,000 tests per week and the capability exists to increase this capacity as demand dictates. During the current inter-wave period the public sector is performing approximately 8,000-10,000 COVID-19 PCR tests and there is sufficient testing kits and resources available to accommodate rapid expansion. It is important to note that the testing capacity may also fluctuate as laboratory staffing levels fluctuate, particularly due to sick leave. With the approval of both laboratory-based and point of care antigen tests, population level surveillance of cases provides information about the level of SARS-CoV-2 infection across the population.

There is a surveillance and testing advisory group (STAG) comprising of technical experts from, amongst others, public health, virology, and infectious disease clinicians. The group constantly reviews the criteria for testing in keeping with the emerging patterns of transmission and risks as well as the capacity of the whole ecosystem required for testing. This includes swabbing, staff levels, logistics including transport of specimens, laboratory capacity, and supply of reagents. The turnaround time for laboratory results is a key marker that is monitored daily to assess whether demand is outstripping supply.

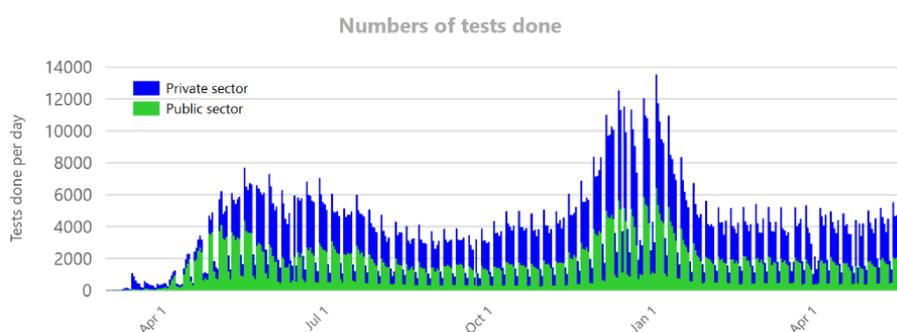


Figure 14: Number of tests done per day, over time.

The prevailing policy at time of writing allows testing of all symptomatic persons and pre-operatively for patients undergoing surgery. Testing of asymptomatic contacts should be considered as part of outbreak investigations particularly in high-risk settings. It is important to emphasize that the value of testing lies in rapid turnaround time of results and delays in this will mitigate against an effective response to positive cases.

Part of the expansion of available testing capacity has been the introduction and scale-up of rapid antigen testing. This has brought about significant value in terms of rapid turnaround of results and is particularly useful during testing in high risk congregate settings in which there is a concern of localized outbreaks

occurring. In addition, it will provide value in terms of rapidly managing the movement of COVID-19 patient cohorts that are under investigation and require admission to segregated wards. It is important to note that antigen tests do have lower sensitivities compared to SARS-CoV-2 PCR testing and the latter still remains as the gold standard test methodology. In addition, since antigen tests are done at point of care with no automatic laboratory electronic record of results, there have been some challenges experienced in terms of reporting of these results for oversight, outbreak management and surveillance. The heterogeneity across sites in terms of reporting patterns may confer potential bias toward positive results as opposed to all results. Nonetheless, we continue to reinforce the importance of this as a testing tool as well as have all results adequately reported on via the appropriate portals.

Quarantine & Isolate

All positive cases must be isolated, and all contacts of a confirmed case must quarantine if we are to limit the spread of the virus and protect vulnerable individuals. The provincial government will continue to provide quarantine and isolation accommodation for those who can't do so at home. Sufficient capacity has been secured in each district, and this will be scaled up in a step-wise fashion in each district as required.

Outbreak Response Teams

Decentralised outbreak response teams within sub districts are the primary agents to respond to local outbreaks, including those in high risk settings such as old age homes and schools as well as those attributed to super spreader events. They work in conjunction with a range of other stakeholders including the Provincial Epidemiology and Surveillance teams as well as the local Joint Operation Committee and hotspot teams. These local teams are also supported from the centre with the provision of data and additional call centre capacity.

3 Support and maintain mass vaccine campaign

Background

Vaccinations are considered one of the most cost-effective public health interventions and are key to the primary prevention of infectious diseases such as COVID19. Individuals who receive any of the COVID-19 vaccines will develop an immune response and be protected from severe disease, hospitalization, and death. A successful and continued COVID-19 vaccination programme would, therefore, be pivotal in ensuring that we reduce the impact of COVID-19 on the citizens of the Western Cape. This programme needs to, as far as possible, continue throughout the pandemic in order to limit the impact on those most at risk of severe disease.

Implementation Plan

The Western Cape's vaccination programme will be aligned to the national approach of a phased implementation with prioritization initially for healthcare workers and thereafter for citizens stratified according to risk (Figure 15).



Figure 15 Implementation Approach for COVID-19 vaccines

Phase 1

The Phase 1 vaccination programme was facilitated as part of a national clinical effectiveness trial lead by the SA-MRC and known as the Sisonke Trial. This trial ran from the 17th February 2021 to the 15th May 2021, with an interim pause in April to review the protocol as evidence emerged regarding rare blood clots as a possible side effect. The Western Cape received a total 95 880 doses of the Johnson and Johnson's Janssen vaccine to vaccinate healthcare workers as part of the Sisonke Programme. Phase 1b to mop up remaining healthcare workers has commenced on the 17th May 2021 in parallel with the launch of Phase 2.

Phase 2

Phase 2 commenced on the 17th May 2021 and will overlap with the vaccination of the remaining healthcare workers who have not been vaccinated as part of the Sisonke Programme.

Social mobilization in partnership with other departments, sectors and civil society is a key part of this phase to increase demand for vaccines and to have the population registered on the EVDS system. Phase II requires a massive scale up of operations and additional sites are coming on stream weekly. Mass sites are being planned together with NDOH and other partners. Provision for public servants other than health workers is also being planned. Transition from one age band to the next will occur once a significant proportion (~70%) of the target population in the current age band has been vaccinated and the sequencing and projected timelines are shown in figure 16 below. Phase 2 is currently utilizing the 2 dose Pfizer vaccine with an expectation for further J&J vaccines to arrive in the province over the coming weeks.

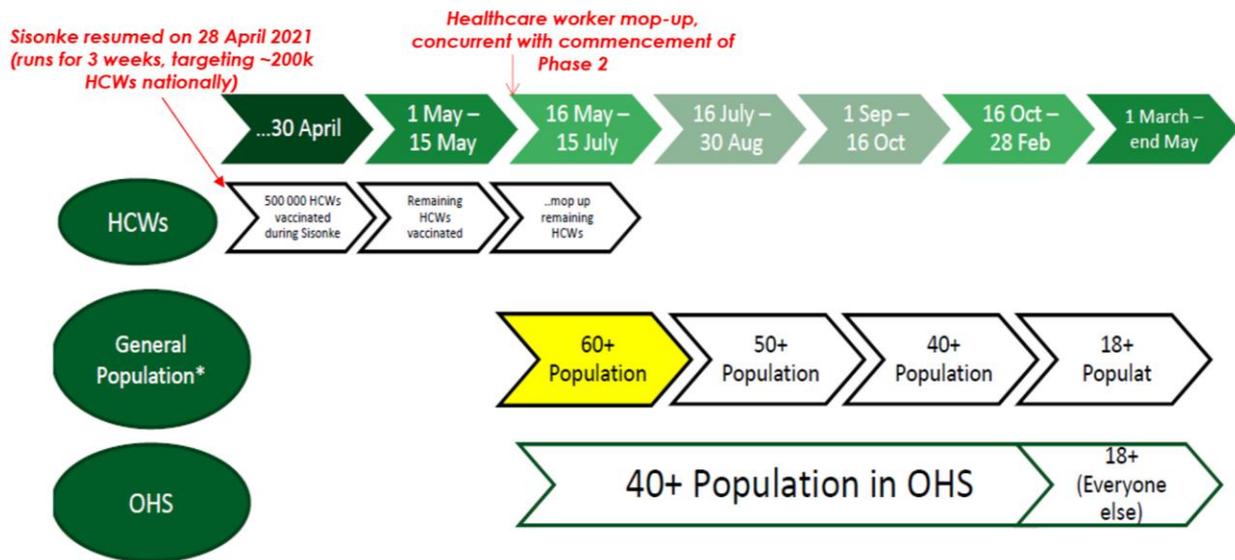


Figure 16 Sequencing and projected timelines of vaccine rollout

The private sector has also been a key stakeholder in the scale-up of the vaccine programme. Engagement has occurred at national and provincial levels and several sites has already come online for Phase 2 with more planned as availability ramps up. All sites have agreed to leverage the EVDS system ensuring adequate oversight and governance of vaccine administration and equity across both the public and private sector. Importantly, citizens will be able to access vaccines regardless of sector and income bracket at all sites and no fees for the vaccine itself will be expected from citizens at point of administration. The collaboration between the public and private sector has been a vital component in order to ensure adequate coverage of the largest vaccine programme in the province.

Impact of third wave on mass vaccine programme

The province has trained internal and additional staff to support the mass vaccination campaign. The outlook will be to maintain the rate and delivery of COVID-19 vaccines as far as possible throughout any resurgence and third wave. Since vaccines are the cornerstone of mitigating the impact of disease severity, the programme needs to be protected and allowed to continue through the third wave.

4 Titrate health platform COVID-19 capacity

Central to point 4 of the resurgence strategy is a health platform that is agile, and able to expand and contract in line with the COVID-19 care demand. This means that at times of high COVID-19 demand other health services will have to be scaled down; this is particularly true in the context of hospital bed availability. This agility is enabled not only by flexible infrastructural arrangements but also evidence informed, data led

decision-making. The Department has embraced a geographic based approach and the COVID-19 care continuum is thus organized accordingly with aligned governance arrangements, see table 4. Senior managers have twice weekly huddles, with daily operational huddles on the Primary Health Care (PHC) and hospital platforms.

Table 4: COVID care continuum governance arrangements

District Teams	
Cape Winelands District	Dr. L. Phillips together with her management team to co-ordinate PHC services for COVID-19
Central Karoo & Garden Route Districts	Mr. Z. Brickles together with his management team to co-ordinate PHC services for COVID-19
Overberg District	Ms. W. Kamfer together with her management team to co-ordinate PHC services for COVID-19
West Coast District	Ms. C. Bester together with her management team to co-ordinate PHC services for COVID-19
Khayelitsha/Eastern Sub-structure	Mr. J.Kruger together with his management team to co-ordinate PHC services for COVID-19
Klipfontein/Mitchell's Plain Sub-structure	Ms. P. Olckers together with her management team to co-ordinate PHC services for COVID-19
Northern/Tygerberg Sub-structure	Dr. M. Phillips together with her management team to co-ordinate PHC services for COVID-19
Southern/Western Sub-structure	Dr. K. Grammer together with her management team to co-ordinate PHC services for COVID-19
Hospital Teams	
City of Cape Town District	Dr. Perez together with the relevant sub-structure and hospital managers to co-ordinate inpatient services for COVID-19 in this area
George hospital geographical area	Dr Crous together with the hospital CEOs and relevant district managers to co-ordinate the inpatient services for COVID-19 in this area
Paarl hospital geographical area	Dr Crous together with the hospital CEOs and relevant district managers to co-ordinate the inpatient services for COVID-19 in this area
Worcester hospital geographical area	Dr Crous together with the hospital CEOs and relevant district managers to co-ordinate the inpatient services for COVID-19 in this area

Data and Surveillance to support titration of health platform COVID-19 capacity

Aligned to the surveillance triggers for the third wave, the health platform requires specific triggers in order to respond and adjust its capacity and escalation/de-escalation plans according to the trajectory, severity and impact of the third wave as well. This is summarized in Table 5 below.

Table 5 Indicators of increasing COVID-19 transmission and expected increase in service demand and recommended actions

Indicator	Resurgence Metric	Recommended action
<p>Third warning indicator. Increase in health service demand expected in 2-7 days.</p>	<ul style="list-style-type: none"> • >20% week-on-week increase in 7 day moving average of current admissions. • >50% bed occupancy of available high care, intensive care and high flow nasal oxygen COVID-19 beds. • COVID-19 patients occupy >20% of beds in >50% of hospitals OR >10% of beds in >80% of hospitals. • >100% increase in pre-COVID-19 baseline of oxygen consumption by hospitals (or >24.4 tons per day) for ≥3 days. 	<ul style="list-style-type: none"> • Strong public messaging about increasing cases and the need for stricter NPI adherence. • Publish potential increase of restriction expectations should systems be overwhelmed. • Active mobilization of resources needed to support a substantial surge within 2 days: <ul style="list-style-type: none"> ○ Expand acute hospital general COVID-19 beds to 100% of maximum wave 2 peak beds (to 1820 beds) by strictly decreasing non-urgent OPD visits. ○ Expand acute hospital critical care COVID-19 beds to 60% of maximum wave 2 peak beds (to 125 beds) by decreasing elective surgery to 60% of usual capacity. ○ Increase intermediate beds to >100% of capacity (>500 beds) if possible. ○ Ensure equitable spread of patients across hospitals: temporarily shift referral paths diverting acutely ill patients away from hospitals with >10% of COVID-19 patients to those with <10% COVID-19 patients. ○ Utilise private sector EMS transport as required. ○ Further increase each type of COVID-19 beds (acute, critical, intermediate) if bed occupancy of designated COVID-19 beds increases beyond 100%. ○ Divert patients to private sector hospitals where possible. ○ Alert oxygen production company about need to truck in supply and transport to hospitals more frequently. ○ Refill oxygen tanks daily or twice daily if tanks drop <50% capacity during same day after being filled. ○ Expand mass fatality centre capacity incrementally when it reaches >50% usage per day. • Continue to increase rate of vaccination and conducted targeted sequencing of virus as above. • Recommend further restrictions: gatherings, curfew, travel, alcohol (see below).

<p>Health service capacity close to overwhelmed</p>	<ul style="list-style-type: none"> • A sustained increase of probable/confirmed cases needing hospital admission (as per first, second and third warning indicator) • Absolute current COVID-19 hospitalization >2800 • BUR % for designated COVID-19 general beds >70% in a district/province • BUR % for designated COVID-19 critical care beds (High care, intensive care and high flow nasal oxygen) >80% • Oxygen consumption/supply >200% baseline pre-COVID-19 reference level (or >36.6 tons/day) 	<ul style="list-style-type: none"> • Additional recommended actions: <ul style="list-style-type: none"> ○ Publish increased expectations for additional restrictions ○ Advocate for urgent restrictions to be put in place in terms of gatherings, curfew, travel, and complete alcohol ban • Continue maximal expansion COVID-19 beds • Continue restricting non-urgent OPD services and non-urgent admissions • Maintain daily governance structures to ensure maintenance and equity of the service platform pressures • Continue leveraging EMS capacity to evenly spread the COVID-19 burden across the service platform • Ensure and maintain adequate oxygen supply from supplier to all COVID-19 facilities
--	---	---

PHC

The focus on the Primary Health Care (PHC) platform remains primary and secondary prevention which includes screening; educating communities about the virus; and enabling protective behaviours. The platform will ensure access to COVID-19 testing for symptomatic patients, including triage and support for self-management or appropriate referral for those with more severe symptoms. As the numbers of confirmed COVID-19 cases increase, the PHC teams will advise younger patients with no co-morbidities to isolate and self-manage their likely mild illness, while avoiding contact with older people and people with co-morbidities.

A care innovation from the first wave of COVID-19 was the targeted data driven management of high-risk COVID-19 patients through what was called the VECTOR (Virtual Emergency Care Tactical Operation) Project. This focused on the elderly and patients with co-morbidities, in particular diabetes. This intervention has seen positive responses from both patients being managed within the programme as well as those providing

it. A dedicated tele-medicine intervention team to manage diabetics according to a risk stratified approach will continue to be in place for the third wave.

Inpatient Care

The surge in hospitalizations during the second wave has necessitated retaining the additional bed capacity created such as the Brackengate Intermediate Care facility, Freesia Ward attached to Mitchell’s Plain Hospital, Sonstraal Hospital, Hermanus Hospital, Vredendal Hospital and Harry Comay in George. In addition, hospitals are required to de-escalate their non-COVID-19 services to manage the additional COVID-19 demand. This is estimated to be between 30-40% of their operational bed capacity in general. The range of COVID-19 capacity provision per geographic area is shown in table 6. These bed numbers are indicative and will be reviewed and nuanced at facility level in line with changes in the patterns of the epidemic and changes in local conditions on a daily basis. The capacity to de-escalate services is constrained by the increased trauma load fuelled by the access to alcohol since the lifting of alcohol restrictions, as well as the urgency to attend to certain non-COVID-19 services for which a backlog was created in the response to the first and second wave.

Table 6: Acute COVID-19 bed capacity

City of Cape Town District Bed Capacity	810 – 1 078
George Drainage Area Bed Capacity	169 - 227
Paarl Drainage Area Bed Capacity	179 - 239
Worcester Drainage Area Bed Capacity	130 - 173

¹ Groote Schuur Hospital and Tygerberg Hospital are included in the City of Cape Town Drainage Area.

² The range of bed numbers are indicative of de-escalation between 30-40%.

The critical bed capacity for the province which includes intensive care beds and high care beds is managed on a day-to-day basis in keeping with the varying demand that flows through our doors, be it for COVID-19, trauma or non-COVID-19 conditions. In addition to the existing capacity of approximately 230 critical beds (excluding maternity, neonatal, psychiatric and paediatric beds), an additional 135 beds were added to bolster critical care capacity during the second wave.

The services team has developed geographic and hospital-specific plans to expand COVID-19 bed capacity in a phased manner, with specific trigger points for each phase. Oxygen supply availability, required PPE, and additional staffing deployment are the key corporate support measures that will be instituted in line with the

escalation plans. The oxygen supply capacity has been significantly increased including HFNO and ventilator points increased from 262 in the first wave to 371 in the second wave and to 414 in preparation for the third wave ; Oxygen generating capacity from 50 Tons/day to 70 Tons/day and Storage for cylinder filling capacity from 26.5 Tons to 62.5 Tons. The use of daily huddles to discuss optimal utilization of available bed capacity, is a key coordinating mechanism in the different geographic areas.

The private hospital sector is also being engaged to ensure that adequate capacity exists to manage a potential 3rd wave and the agility to de-escalate to manage the increase is sufficiently planned for.

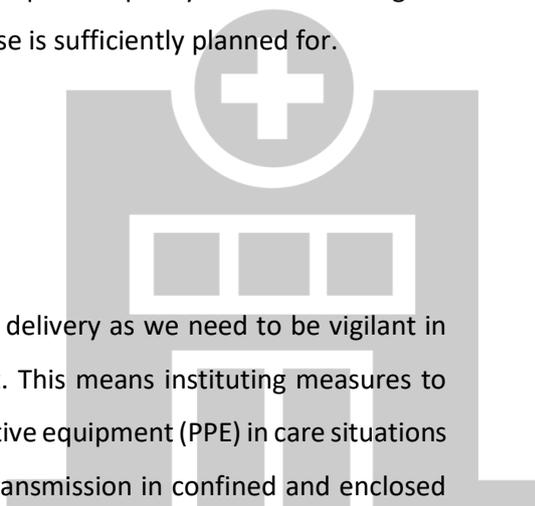
5

Maintain comprehensive services

Maintaining comprehensive services requires the re-design of service delivery as we need to be vigilant in managing the risk of virus transmission within our built environment. This means instituting measures to prevent over-crowding within health facilities; utilizing personal protective equipment (PPE) in care situations where there is close contact; and measures to minimize the risk of transmission in confined and enclosed service delivery spaces that can't be avoided.

How we provide health care will need to accommodate these measures and thus the re-introduction of comprehensive care is premised on the re-design of the modes of health care delivery. While minimizing the risk for health workers means maintaining high standards of infection prevention control within the workplace. The re-introduction of low risk/ high impact services, such as immunizations, TB case detection and treatment, HIV testing and treatment, mental health counselling and treatment and elective surgery within acute hospitals has been prioritized over the past 3-6 months.

However, given our reality of a possible 3rd wave, non-COVID-19 services may need to be downscaled again to minimize the risk of exposure and to create capacity on the delivery platform to meet the demands of the epidemic. This is done in a stepwise fashion: stopping all planned expansion of non-COVID-19 services; actively de-escalating non-COVID-19 services and titrating the response as per the trigger points highlighted above.



The key non-COVID-19 service challenge is the impact of alcohol-related trauma on emergency centres, in-patient ward and critical care capacity. The Department has implemented a Sentinel Trauma Report since April 2020, which has tracked the direct impact of the various levels of the alcohol ban and subsequent restrictions, on trauma cases in 4 emergency centres where the HECTIS application has been implemented. The number of HECTIS sites has now been increased to 13. This will continue to be monitored as a means of rapidly freeing up capacity through upstream policy should the health service platform become completely overwhelmed in a severe 3rd wave.

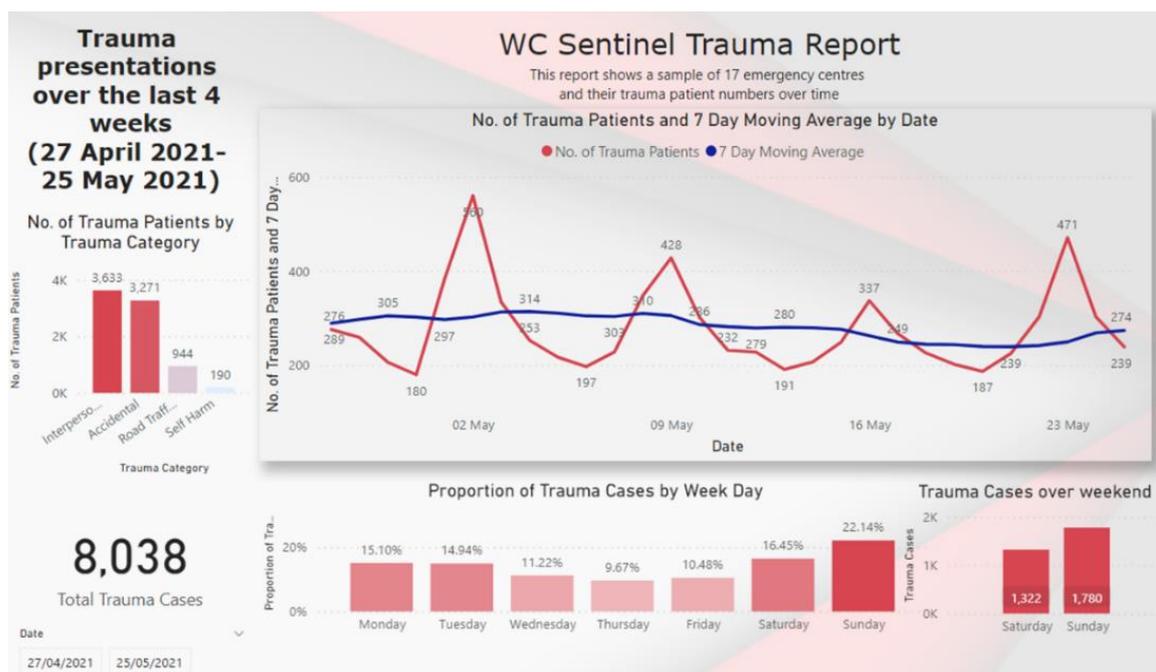


Figure 17: Trauma related presentations to emergency centres (WC Sentinel Trauma Report)

6

Safeguard & protect the well-being of health care workers

As at the 25th May 2021, a total of 8,815 known health care workers have been infected since the start of the epidemic in the Western Cape. Of these, 8,661 have recovered and 36 are currently active. A total of 118 health care worker cases have sadly passed on from COVID-19.



Employee Safety

Employee safety is key to a resilient health system in the face of an epidemic and thus the department has developed a strategic framework for employee safety, see figure 18 below.

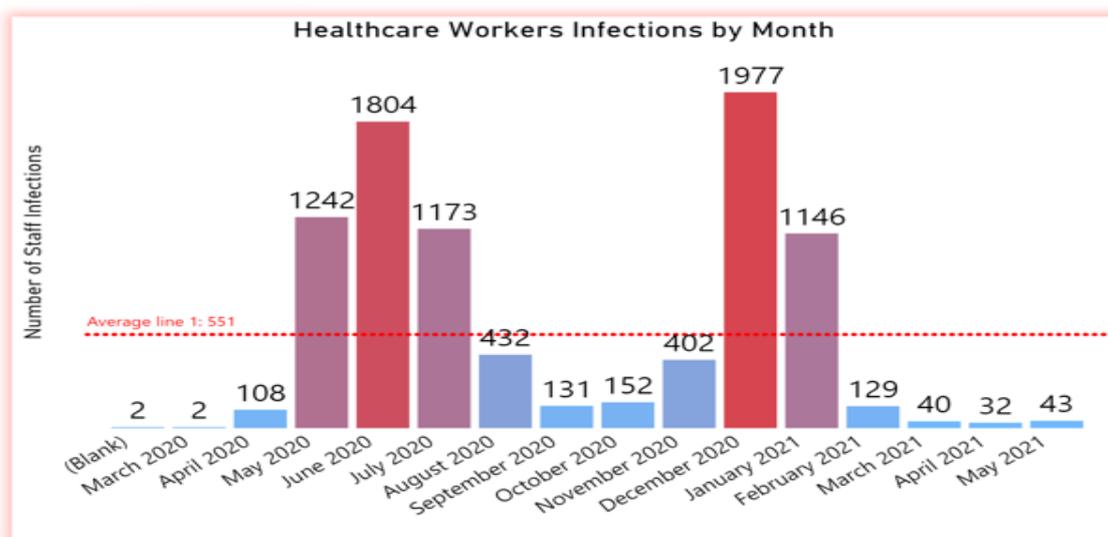


Figure 18: Health Care Worker Infections over time

Interventions include the following:

- The Occupational Health & Safety Policy has been revised.
- Relationships with organized labour especially at the provincial level have been strengthened through a regular engagement where information is shared, and issues frankly discussed.
- The National Institute of Occupational Health (NIOH) has undertaken an occupational health and safety (OHS) verification audit of public and private facilities and this will form an important basis to improve and strengthen OHS.
- The number of COVID-19 infected health care workers (HCWs) across the province is monitored daily
- An Occupational Health information system from NIOH is in the process of being procured and implemented.
- Occupational Health Governance arrangements have been strengthened by the establishment of a technical committee which includes members of organized labour, People Management and occupational health academics and is chaired by the Chief Director: Infrastructure.
- The province is also represented on a national OHS committee.
- The Department has developed an electronic tool that combines data from various inventory management systems like MEDSAS, SYSPRO & LOGIS to track stock availability of PPE across the Province down to facility level. Recent reports indicate that there is adequate PPE stock.

- The Department has created a learning collaborative with the aim of ensuring a healthy and functional workforce that is emotionally strong, with zero virus transmission between health workers and staff absenteeism of less than 10%.



Figure 19: Strategic Framework for Employee Safety

Employee Health and Well-being

COVID-19 has had a profound impact on the mental and physical health of all people, including our employees. Our Employee Health and Wellness Programme (EHWP) includes interventions to address these impacts and is informed by the National Department of Health policy, Psychosocial Support for Health Workers during the COVID-19 Response. There are 3 components to the service available to employees, which includes preventive interventions; supportive interventions like psychological first aid for those employees who are symptomatic; and appropriate treatment and referral as required. The Department is committed to ensuring there is adequate support for employees who are struggling with the impact of the COVID-19 epidemic.

Employee Wellness post the Phase 1 vaccine implementation

A key advantage in terms of preparation for the third wave is that the large majority of healthcare workers in the province have received their single dose J&J COVID-19 vaccine. This will, undoubtedly, stand us in good stead as we enter a potential third wave with better physical and psychological resilience to weather another wave for those that have received their vaccine. It is important to acknowledge, though, that adequate PPE still needs to be maintained and complacency should not prevail as breakthrough infections can and have been occurring and no vaccine is 100% effective.

Conclusion

This third wave resurgence plan is a dynamic and deeply collaborative effort in order to consolidate our preparedness as a province. The health system's response to resurgence requires agility and adaptiveness and needs to be data led and evidence informed in all aspects from communication through to COVID-19 health platform titration. Local management teams can and should adjust their response, aligned to the strategies outlined above, and in accordance with their local context to ensure relevance, appropriateness and an adequate response to a potential COVID-19 third wave.